

Fiscal Outlook

Introduction

Table 2.1 – Fiscal forecasts

Year ending 30 June \$billion	2011 Actual	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast
Core Crown revenue	57.6	61.2	65.7	70.4	74.8	79.2
Core Crown expenses	(70.5)	(74.5)	(71.6)	(72.9)	(75.6)	(78.0)
Net surpluses/(deficits) of SOEs and CEs	(5.5)	2.5	1.4	1.5	2.2	2.0
Total Crown OBEGAL	(18.4)	(10.8)	(4.4)	(0.9)	1.5	3.1
Net retained surpluses of SOEs, CEs and NZS Fund	5.1	(3.0)	(1.5)	(1.6)	(2.3)	(2.0)
Non-cash items and working capital movements	4.0	4.5	0.3	1.3	0.6	1.2
Net core Crown cash flow from operations	(9.3)	(9.3)	(5.7)	(1.3)	(0.2)	2.3
Net purchase of physical assets	(1.5)	(2.1)	(1.6)	(1.4)	(1.4)	(1.6)
Advances and capital injections	(2.5)	(1.9)	(2.2)	(2.2)	(2.5)	(2.2)
Forecast for future new capital spending	-	(0.2)	(0.5)	(0.7)	(0.8)	(0.9)
Balance sheet funding of new capital spending	-	-	0.1	0.6	0.8	0.8
Core Crown residual cash deficit	(13.3)	(13.6)	(9.9)	(5.0)	(4.1)	(1.6)
Opening net debt	26.7	40.1	53.8	63.2	67.8	71.3
Core Crown residual cash deficit	13.3	13.6	9.9	5.0	4.1	1.6
Other valuation changes in financial assets and financial liabilities	0.1	0.1	(0.5)	(0.4)	(0.5)	(0.4)
Closing net debt	40.1	53.8	63.2	67.8	71.3	72.5
As a percentage of GDP	20.0%	25.4%	28.5%	28.9%	29.0%	28.2%

A glossary and longer time series for these variables is provided on pages 113 and 117 respectively.

Source: The Treasury

While core Crown expenses¹ are expected to exceed core Crown revenue for the majority of the forecast period, the gap between them reduces, due in part to the expenditure constraints announced at the last *Budget Update*. As a result, core Crown revenue begins to exceed expenses by the year ending 30 June 2016.

¹ Core Crown expenses represent the operating expenses of government entities listed on page 77 but exclude expenses of State-owned enterprises and Crown entities. Losses are also excluded.

When forecast surpluses from State-owned enterprises (SOEs) and Crown entities are added, total Crown operating deficits are forecast to persist for the first three years of the forecasts with the total Crown operating balance before gains and losses (OBEGAL) moving into surplus in the year ending June 2015.

Core Crown operating cash flows represent the cash impact of the operating deficit (or surplus). These cash flows exclude the surpluses retained by SOEs, Crown entities and the New Zealand Superannuation (NZS) Fund and non-cash items such as depreciation. Core Crown operating cash flows remain in deficit but decline for most of the period, reaching an operating cash surplus in the year ending June 2016 (a year later than the operating surplus).

When the forecast capital investments are included (eg, purchasing assets, making advances to students), cash deficits decline over the forecast from \$13.6 billion in the year ending June 2012 to \$1.6 billion by the year ending June 2016.

These cash deficits are funded by an increase in net debt which is forecast to rise from 20.0% of GDP at June 2011 and stand at 28.2% at June 2016 (after peaking at 29.0% in 2015).

Short-term Outlook

Core Crown revenue increases while expenses decline as a percentage of GDP over the forecast period

Core Crown revenue is forecast to increase over the forecast period, reaching 30.8% by the end of the forecast period compared to 28.7% in the 2011 financial year just past.

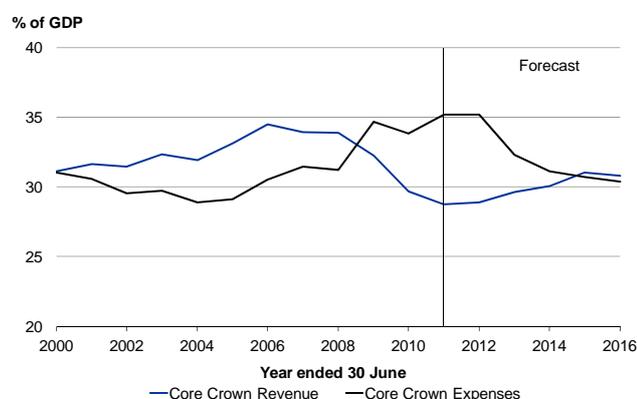
Tax revenue makes up roughly 90% of total core Crown revenue. Other sources of income include interest income, revenue from the Emissions Trading Scheme and levies such as Child Support revenue.

The expected increase in core Crown revenue as a percentage of GDP is therefore predominantly in relation to core Crown tax revenue which is forecast to increase from 26.2% of GDP in the year ending June 2012 to 27.8% by the end of the forecast period.

Tax revenue is expected to grow at an average of 6.5% per year between the years ending June 2012 and June 2016. This increase is underpinned by growth in the nominal economy of around 5.0% per year. The main drivers of tax revenue growth are:

- higher levels of employment and rising wages result in tax from source deductions growing at around 7% per year
- the higher GST rate is applied to the full year to June 2012, boosting GST by 10% in that year. Growth in GST remains above 7% in the years ending June 2013 and 2014, as growth in the economy exceeds its long-run average, and

Figure 2.1 – Core Crown revenue and expenses



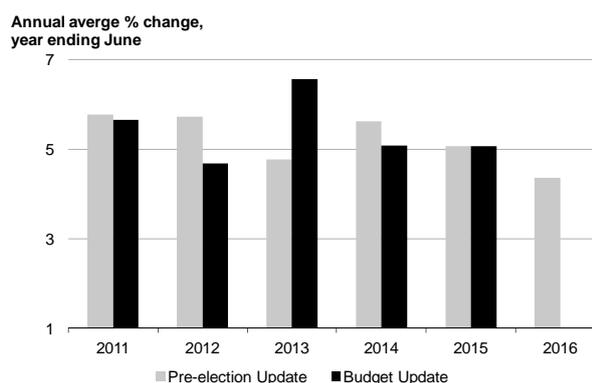
Source: The Treasury

- after several years of declining revenue, corporate tax revenue bounces back in the year ending June 2012. Growth in the year ending June 2013 slows, reflecting the impact of the first full year of a lower corporate tax rate and the impact of large tax losses built up through the 2008/09 recession being unwound. Revenue growth slows, however, over the June 2015 and 2016 years as the pace of economic growth slows.

Compared to the *Budget Update*, the Treasury’s macroeconomic forecasts for the *Pre-election Update* have softer growth in nominal GDP in the year ending June 2013 with growth returning, albeit from a lower base, in subsequent years (Figure 2.2).

The weaker nominal economic growth rate in 2013 reflects slower growth in employee compensation and in consumption and flows through to lower estimates of growth in PAYE and GST tax revenue. Although growth in these tax drivers increases in subsequent years, the growth rates are not significantly higher than in the *Budget Update* and the lower tax revenue in the year ending June 2013 is not recovered within the forecast period.

Figure 2.2 – GDP in current prices (expenditure measure)



Sources: Statistics New Zealand, The Treasury

The profit measures of operating surplus (for corporate) and entrepreneurial income (for other businesses) have also been revised down for the year ending June 2013, with peaks in activity now occurring a year later in the year ending June 2014. However, both measures have been strengthened in the current year ending June 2012.

Overall, compared to the *Budget Update*, core Crown tax forecasts have increased for the year ending June 2012 by \$0.3 billion, but forecasts have been revised downwards in all subsequent years (Table 2.2).

Table 2.2 – Core Crown tax revenue

Year ending 30 June	2012	2013	2014	2015	2016
\$billion	Forecast	Forecast	Forecast	Forecast	Forecast
Pre-election Update	55.5	59.2	63.6	67.6	71.5
Budget Update	55.2	59.9	64.4	68.5	
Increase/(decrease)	0.3	(0.7)	(0.8)	(0.9)	

Source: The Treasury

In line with established practice, Inland Revenue has also prepared a tax revenue forecast, which, like the Treasury’s tax forecast, is based on the Treasury’s macroeconomic forecasts. The two sets of forecasts differ from each other because of the different modelling approaches used by the agencies, and the various judgements and assumptions made by the forecasting teams in producing their forecasts. The Inland Revenue forecasts are in the Treasury and Inland Revenue Tax Forecasts section of the Additional Information chapter of *Pre-election Update 2011* published online only at <http://www.treasury.govt.nz/budget/forecasts/prefu2011>.

Core Crown expenses are forecast to decline as a percentage of GDP compared to the previous *Budget Update*, even including costs associated with the Canterbury earthquakes.

Earthquake costs to the Crown were \$1.2 billion below forecast in the June 2011 financial year. However, these costs are now expected to be recognised in the current forecast period. Total earthquake costs (excluding EQC insurance costs) are estimated to remain largely within the forecast amounts included in the *Budget Update* (refer page 15).

Excluding these one-off earthquake costs, core Crown expenses are forecast to decline as a percentage of GDP across the forecast period from 34.2% in the year ending June 2011 to 30.3% by June 2016. This decrease reflects the reduction in new spending over this period that was announced in the *Budget Update*.

By June 2016, core Crown revenue is expected to exceed core Crown expenses by \$1.2 billion.

Core Crown expenses² increase in nominal terms

While core Crown expenses are forecast to decline as a percentage of GDP, they are expected to increase in nominal terms (Table 2.3).

Table 2.3 – Growth in core Crown expenses since 2010 (pre-earthquake)

Year ending 30 June \$billion	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast
Movements in expenditure					
<i>New spending</i>					
Budget 2010 decisions	1.1	1.1	1.1	1.1	1.1
Budget 2011 decisions	0.4	(0.2)	(0.3)	(0.3)	(0.3)
Budget 2012 allowance	-	0.8	0.8	0.8	0.8
Budget 2013 allowance	-	-	0.8	0.8	0.8
Budget 2014 allowance	-	-	-	1.2	1.2
Budget 2015 allowance	-	-	-	-	1.2
<i>Existing policies</i>					
Increases in New Zealand Superannuation costs	1.3	1.9	2.5	3.3	4.2
Increase in other social assistance	0.3	0.4	0.3	0.3	0.4
Emissions Trading Scheme	1.1	0.3	0.3	0.6	0.9
Debt impairments	0.5	0.5	0.7	0.7	0.7
Finance costs	1.4	1.5	1.6	2.0	2.0
<i>Short-term expenses</i>					
Canterbury earthquakes	2.8	0.4	0.3	0.3	0.2
Other movements	1.6	0.9	0.8	0.8	0.8
Increase in core Crown expenses	10.5	7.6	8.9	11.6	14.0
Baseline expenses (June 2010)	64.0	64.0	64.0	64.0	64.0
Core Crown expenses	74.5	71.6	72.9	75.6	78.0

Source: The Treasury

² Core Crown expenses represent the operating expenses of government entities listed on page 77 but exclude expenses of State-owned enterprises and Crown entities. Also excluded are gains and losses.

When costs associated with the Canterbury earthquakes are excluded, the main components of the increase in expenses are social assistance expenses (predominantly NZS), future allowances for new operating spending, costs associated with the Emissions Trading Scheme, and finance costs relating to the increase in gross debt.

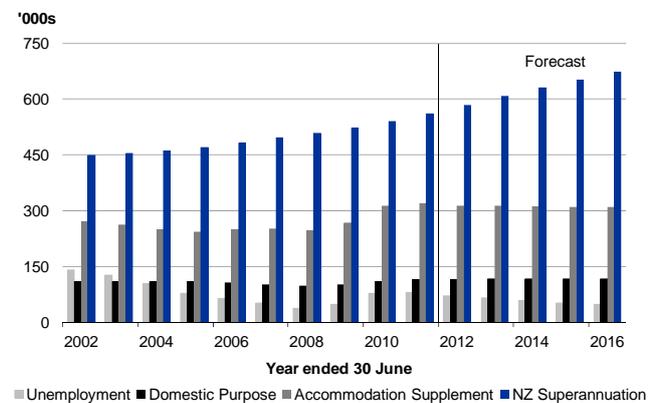
At each Budget the Government announces expenditure initiatives. In the last *Budget Update* saving initiatives were of a greater value than the estimated cost of new initiatives. As a result, net savings were forecast over the forecast period. The forecasts in this *Pre-election Update* include an allowance for future spending initiatives based on the Government's net new operating allowances for new spending over the forecast period.

New Zealand Units issued under the Emissions Trading Scheme are expected to increase as new sectors enter the scheme. These expenses are partially offset by revenue associated with the surrender of New Zealand Units by emitters. Note 20 of the Forecast Financial Statements provide further details of the scheme.

Social assistance expenses are forecast to increase by \$3.7 billion over the five years of the forecast period compared to the year ending June 2011. The majority of this increase is in relation to NZS which is expected to increase by \$3.6 billion over that period.

This expected increase in social assistance expenses is due to growth in both the number of recipients (Figure 2.3) and the effect of wage and CPI indexation.

Figure 2.3 – Beneficiary numbers

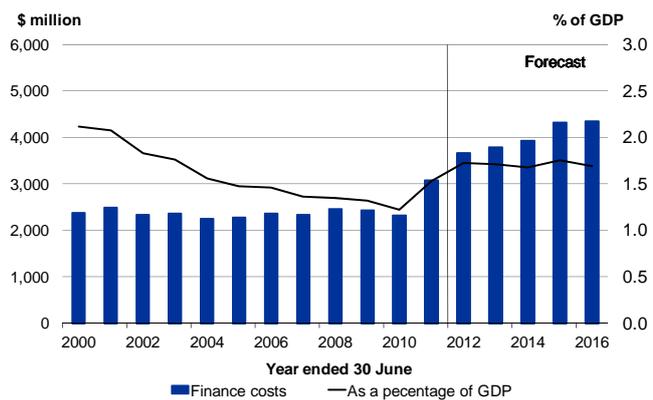


Source: The Treasury

Finance costs are estimated to increase over the next few years (Figure 2.4) resulting from an increase in gross debt (discussed later in the chapter). Finance costs are forecast to increase from \$3.7 billion in the June 2012 financial year to \$4.3 billion in the year ending June 2016.

While debt financing costs increase over time, they are forecast to be much lower than expected at the last *Budget Update*. For example, the *Budget Update* forecast finance costs of \$5.3 billion in the year ending June 2015. Our estimate for that year has fallen to \$4.3 billion in the current forecasts, primarily driven by a reduction in the forecast interest rates.

Figure 2.4 – Finance costs



Source: The Treasury

The credit rating downgrades, which occurred after the interest rate forecasts were completed, are not expected to have a material impact on debt financing costs (long-term yields are expected to increase by around 15 basis points).

Cash raised from debt issuance that is not immediately required to meet cash demands is invested in financial assets. Therefore, while finance costs increase over the forecast period, this is partially offset by an increase in interest revenue from the invested assets (Table 2.4).

Table 2.4 – Core Crown net interest income

Year ending 30 June \$billion	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast
Core Crown interest revenue	1.1	1.3	1.3	1.6	1.7
Core Crown finance costs	(3.7)	(3.8)	(3.9)	(4.3)	(4.3)
Core Crown net finance costs	(2.6)	(2.5)	(2.6)	(2.7)	(2.6)

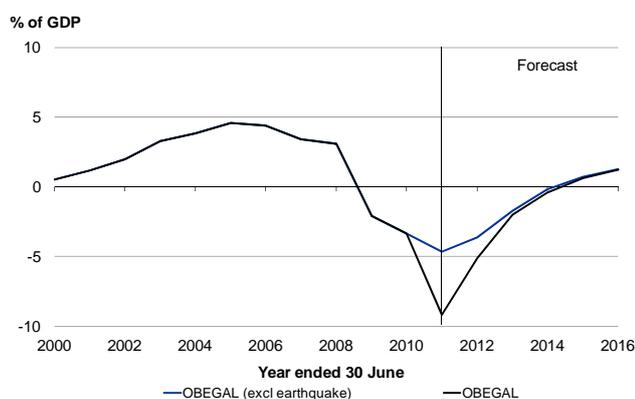
Source: The Treasury

The Crown is still forecast to return to surplus by June 2015

When core Crown forecasts are combined with the forecasts for SOEs and Crown entities, the total Crown is expected to return to surplus in the year ending June 2015 as also forecast in the *Budget Update* (Figure 2.5).

The operating deficit³ is expected to fall from 9.2% of GDP in the June 2011 year to 5.1% of GDP in the June 2012 year. Excluding the cost of the earthquakes to the Crown, the deficit is estimated to be 3.7% of GDP in the year ending June 2012 compared with 4.6% in the previous financial year.

Figure 2.5 – Total Crown operating balance before gains and losses



Source: The Treasury

The June 2015 surplus has increased slightly from \$1.3 billion in the *Budget Update* to \$1.5 billion in these forecasts. Forecast reductions in tax revenue, the recently announced reduction in ACC levies, and the forecast impact of the introduction of the agriculture sector in 2015 to the Emissions Trading Scheme are expected to be offset by a faster-than-expected decline in unemployment benefits, an increase in the EQC levy and a reduction in forecast interest rates.

When forecast net gains are included, the total Crown operating balance (including gains and losses) is forecast to reach a surplus of \$1.6 billion (0.7% of GDP) in the year ending June 2014. These net gains arise predominantly from forecasts of investment returns by the Crown's financial institutions (eg, the NZS Fund).

Operating balance forecasts for the year ending June 2012 include actuarial losses of \$2.3 billion on the ACC claims liability and the Government Superannuation Fund pension liability, reflecting a decrease in the discount rates since 30 June 2011 that is used to calculate these long-term liabilities.

³ Operating balance before gains and losses.

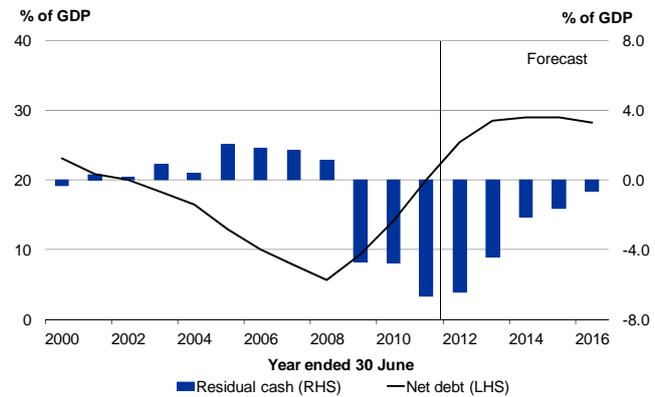
Cash deficits persist, resulting in increasing net debt

While the Crown returns to surplus⁴ in the year ending June 2015, residual cash deficits, although reducing, remain across the forecast period.

Operating cash does reach surplus by June 2016, but when capital spending is included, residual cash remains in deficit by \$1.6 billion (or 0.6% of GDP) in that year.

Capital spending includes providing funding to the Earthquake Commission to cover the estimated cash shortfall of \$490 million in the year ending June 2015.

Figure 2.6 – Net Core Crown debt



Source: The Treasury

The resulting residual cash deficits represent the amount the Crown has to fund, either by raising debt or reducing financial assets and they result in an increase in net debt.

The reducing cash deficits result in net debt rising in nominal terms but decreasing as a percentage of GDP from a peak of 29.0% at June 2015 to 28.2% by June 2016. This decline continues into the medium-term projections (page 38).

The profile for net debt is forecast to remain similar to the picture outlined in the *Budget Update*. As a result, the borrowing programme run by the New Zealand Debt Management Office (NZDMO) remains largely unchanged (Table 2.5).

The forecasts include the redemption of non-market domestic bonds held in the Earthquake Commission’s Natural Disaster Fund (NDF). In addition, repayments of market domestic bonds are expected in the first two years of the forecasts and in the year ending June 2015.

Table 2.5 – Net increase in domestic bonds

Year ending 30 June	2012	2013	2014	2015	2016	5 year
\$billion	Forecast	Forecast	Forecast	Forecast	Forecast	Total
Cash proceeds from issue of domestic bonds (market)	15.4	12.8	10.0	7.8	4.8	50.8
Repayment of domestic bonds (market)	(7.6)	(11.0)	-	(10.0)	-	(28.6)
Net increase in domestic bonds (market)	7.8	1.8	10.0	(2.2)	4.8	22.2
Cash proceeds from issue of domestic bonds (non-market)	0.4	0.1	-	-	-	0.5
Repayment of domestic bonds (non-market)	(1.7)	(0.6)	(0.9)	(0.1)	-	(3.3)
Net increase in domestic bonds (non-market)	(1.3)	(0.5)	(0.9)	(0.1)	-	(2.8)
Net cash proceeds from bond issuance	6.5	1.3	9.1	(2.3)	4.8	19.4

Source: The Treasury

⁴ Operating balance before gains and losses.

Crown's Balance Sheet Outlook

Net worth is forecast to remain below current levels over the forecast period

Continuing the trend from the past year, the Crown's net worth is expected to fall to a low of \$65.9 billion in 2013, before recovering slightly over the remainder of the forecast period. By 2016, net worth is forecast to be \$77.2 billion, \$3.7 billion below 2011 levels (Figure 2.7 and Table 2.6).

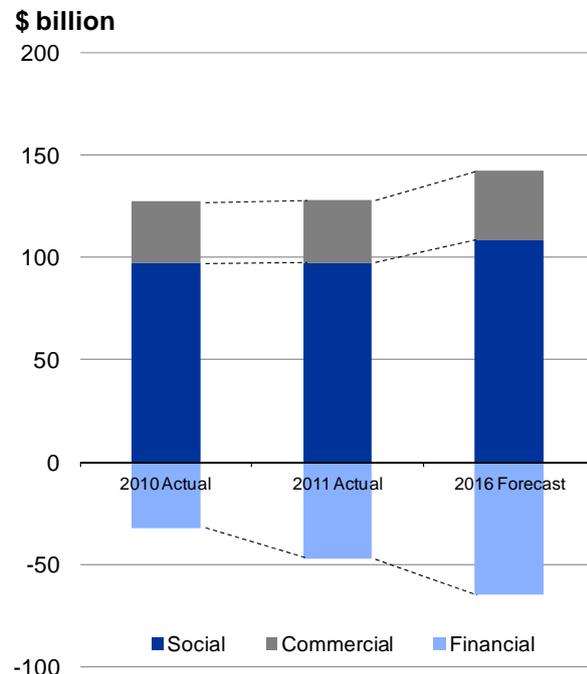
The forecast continuation of fiscal deficits in each of the next three years is the main factor behind this decline in net worth. Core Crown borrowings are forecast to grow from \$76.8 billion to \$94.9 billion over the period. This is expected to drive a fall in the value of the financial portfolio, the only portfolio to experience a decline in net value, from -\$47.2 billion to -\$64.9 billion.⁵ The fall is sharper than previously forecast in the *Budget Update* owing to the run down of the NDF as a result of the upwards revision of EQC costs arising from the Canterbury earthquakes. The use of NZDMO assets built up to meet Government bond maturities in the 2012 and 2013 fiscal years further contributes to the decline in the value of the financial portfolio.

Meanwhile, the social and commercial portfolios are both forecast to experience small net growth over the next five years.

The social portfolio is forecast to grow consistently, from \$97.3 billion to \$108.5 billion, representing portfolio growth of 11.5%. This is largely unchanged from the previous forecasts. This net growth is driven by a \$9.7 billion increase in assets from continued investment in physical assets in priority social areas, particularly health, education and state highways. Expected net growth in the student loan book also contributes.

The commercial portfolio is also forecast to experience consistent growth, driven by the reinvestment of positive operating returns offsetting growth in liabilities. Of the \$11.2 billion increase in commercial liabilities, \$7.7 billion is attributable to forecast growth in Kiwibank deposits. The Crown's net commercial interests are expected to increase from \$30.8 billion to \$33.7 billion by 2016, or by 9.4%. This growth takes no account of a

Figure 2.7 – Portfolio net values 2010, 2011 and 2016



Source: The Treasury

⁵ The 'social portfolio' consists of the assets and liabilities held primarily to provide public services or to protect assets for future generations; the 'financial portfolio' reflects assets and liabilities held by the Crown to finance or pre-fund government expenditure; while the Crown's 'commercial portfolio' consists of the portfolio of companies held with purely commercial objectives. For more details, see the *Investment Statement of the Government of New Zealand 2010* /www.treasury.govt.nz/budget/2010/is.

possible reduction in the Crown’s commercial ownership from the proposed extension of the Mixed Ownership Model.⁶

Commercial assets and liabilities across the forecasts are slightly higher than those in the *Budget Update*, reflecting the inclusion of AMI Insurance in the Crown’s accounts and small upwards revisions across the portfolio.

Table 2.6 – Forecast portfolio assets and liabilities, 2011 to 2016

\$billion	2011 Actual	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	Change between 2011 and 2016
Assets by Portfolio							
Social	113.6	115.1	116.9	119.2	121.0	123.3	9.7
Commercial	58.1	60.7	63.1	66.3	69.4	72.1	14.1
Financial	73.5	69.8	62.0	67.5	66.0	72.0	-1.5
Total Assets	245.2	245.6	242.0	253.0	256.4	267.4	22.2
Liabilities by Portfolio							
Social	16.4	17.7	15.9	15.6	14.9	14.8	-1.5
Commercial	27.2	29.6	31.8	34.1	36.5	38.4	11.2
Financial	120.7	130.0	128.4	135.8	133.5	136.9	16.2
Total Liabilities	164.3	177.3	176.0	185.5	184.9	190.2	25.9
Total Net Worth	80.9	68.3	65.9	67.5	71.5	77.2	-3.7

Note that numbers may not add exactly due to rounding

Source: The Treasury

However, there will still be significant asset growth across the balance sheet

While overall net worth is expected to remain below current levels by 2016, the Crown’s assets are forecast to grow by gross \$76.1 billion over the period to \$267.4 billion after asset reductions (Table 2.7).

Table 2.7 shows that:

- Of the \$76.1 billion of gross asset growth, roughly half will occur in physical assets, known as “property, plant and equipment” (PPE). Including the companies currently being considered as candidates for the Mixed Ownership Model, SOEs are the largest source of this PPE investment, contributing 40.0%. Crown entities are forecast to be the next largest investors in PPE, driven largely by investments in the road network by the New Zealand Transport Agency (NZTA). Departments are expected to undertake 22.0% of gross PPE investment over the period.
- Within non-PPE-related assets, growth in the asset portfolios held by the Crown Financial Institutions (CFIs) is the largest driver.⁷ This arises from the projected value growth of existing assets and the reinvestment of returns, and contributes over a quarter of all gross asset growth. Growth in student loan advances is expected to remain largely steady across the forecasts, representing \$8.2 billion by 2016.

⁶ The Government has announced its intention to offer partial ownership of certain State-owned enterprises to private investors if it is re-elected. This is often referred to as the “Mixed Ownership Model”. As there is insufficient information to forecast individual transactions, there are no estimates of sale proceeds, selling costs, foregone dividends or ownership changes in these forecasts.

⁷ The ‘Crown Financial Institutions’ consist of the NZS Fund, Accident Compensation Corporation (ACC), EQC, National Provident Fund and the Government Superannuation Fund.

- \$3.0 billion of new capital spending is expected over the forecast period. This reflects the assumption of a capital allowance of \$900 million per Budget spread over five years. This expenditure has been included as a non-PPE addition as the exact nature of the investment is yet to be determined.
- Gross asset growth will be offset by asset reductions and other changes of \$53.9 billion. This is due mainly to depreciation, an unwinding of financial assets held by the NZDMO and the RBNZ, and a reduction in the EQC's assets as claims from the Canterbury earthquakes continue to be paid out. Repayments and revaluations of existing loans are expected to offset previously mentioned additions to the student loan book by \$6.0 billion, resulting in a net increase in the student loan book of \$2.2 billion.
- The net increase in Crown assets over the next five years is forecast to be \$22.2 billion.

Table 2.7 – Summary of forecast asset movements, 2011 to 2016

\$billion	2011 Actual	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	5-Year Total
Forecast Growth in Assets							
PPE additions:							
Departments	1.5	2.3	1.7	1.3	1.2	1.5	8.0
Crown entities	2.5	3.0	2.7	2.6	2.6	2.8	13.8
SOEs	2.7	3.4	2.9	3.0	2.7	2.6	14.5
Total PPE additions	6.6	8.7	7.3	6.8	6.6	6.9	36.3
Non-PPE additions:							
Student loans additions	1.6	1.6	1.6	1.7	1.7	1.7	8.2
CFI asset investment growth	7.7	3.2	3.7	4.4	4.6	5.1	21.0
Kiwibank mortgages	1.1	1.5	1.5	1.6	1.6	1.6	7.7
Forecast new capital spending	0.0	0.2	0.5	0.7	0.8	0.9	3.0
Total non-PPE additions	10.4	6.4	7.3	8.3	8.6	9.2	39.8
Gross additions to assets	17.0	15.1	14.6	15.1	15.2	16.1	76.1
Forecast Reductions in Assets							
PPE reductions:							
Depreciation on PPE	(3.7)	(4.0)	(4.2)	(4.3)	(4.3)	(4.4)	(21.2)
Balance sheet funding for new capital	0.0	0.1	(0.1)	(0.6)	(0.8)	(0.8)	(2.3)
Non-PPE reductions:							
RBNZ and NZDMO activity	5.6	(7.8)	(9.9)	3.4	(5.5)	1.7	(18.0)
Student loans other changes	(0.9)	(1.1)	(1.1)	(1.2)	(1.2)	(1.3)	(6.0)
Reduction in EQC assets	3.3	(2.8)	(2.7)	(2.8)	(1.0)	0.1	(9.1)
Other changes in assets	0.6	0.9	(0.3)	1.3	1.1	(0.3)	2.7
Net change in assets	21.9	0.4	(3.6)	11.0	3.4	11.1	22.2
Closing total Crown assets	245.2	245.6	242.0	253.0	256.4	267.4	

Note that numbers may not add exactly due to rounding

Source: The Treasury

This will be funded from a range of sources

The Crown funds its asset growth from various sources, both from activity carried out within the core Crown and from dedicated sources outside it. Core Crown activity effectively reflects revenue raised from a mixture of taxation, additional borrowing, SOE dividends, and other sovereign revenue. Of the \$76.1 billion of gross asset growth forecast for the next five years, \$20.3 billion is expected to be funded directly from this activity (Table 2.8). The remaining \$55.9 billion is forecast to be funded from sources outside the core Crown, including the reinvestment of CFI asset returns, road-user levies collected by the NZTA, and the retained operating surpluses of SOEs.

Table 2.8 – Summary of forecast funding sources, 2012 to 2016

\$billion	2012	2013	2014	2015	2016	5-Year
	Forecast	Forecast	Forecast	Forecast	Forecast	Total
Funding sourced from core Crown activity:						
Used to purchase PPE	3.2	2.7	2.1	2.1	2.4	12.5
Used for budget capital allowances	1.0	0.3	0.2	0.1	0.1	1.7
Funding for new capital spending from existing resources ¹	0.2	0.5	0.7	0.8	0.9	3.0
Used for issuing student loans	0.7	0.7	0.6	0.6	0.5	3.1
Total funding from core Crown activity	5.2	4.1	3.6	3.5	3.8	20.3
Other funding sources:						
Student loan repayments	0.9	0.9	1.0	1.1	1.2	5.1
Proceeds from asset disposals	0.3	0.2	0.3	0.3	0.3	1.4
Hypothecated revenue for roading	1.2	1.2	1.3	1.5	1.7	6.9
Financial and operating returns from CFIs	3.8	2.6	2.7	2.7	3.1	14.9
Valuation gains/(losses) on CFI investments	-0.6	1.1	1.7	1.8	2.0	6.1
Borrowing by SOEs	1.2	1.2	0.9	0.6	0.3	4.0
Operating surpluses generated by SOEs	1.8	1.7	2.0	1.9	2.2	9.8
Kiwibank deposits	1.5	1.5	1.6	1.6	1.6	7.7
Total funding from other sources	9.9	10.5	11.5	11.6	12.3	55.9
Total funding	15.1	14.6	15.1	15.2	16.1	76.1

Note that numbers may not add exactly due to rounding

¹ Funded from existing assets and increased returns on commercial assets

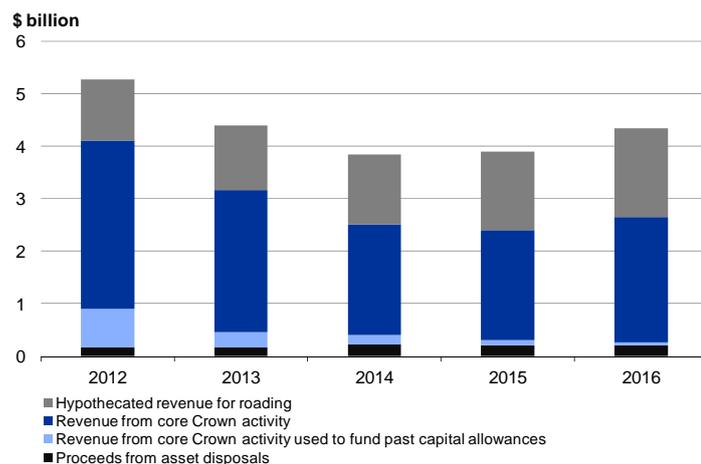
Source: The Treasury

Separating the sources of funding into those for PPE growth and those for all other non-PPE-related growth presents a clearer picture of which areas of the balance sheet are expected to rely largely on core Crown funding and which are predominantly self-funded.

Figures 2.8 and 2.9 present the funding sources for forecast PPE investment, as carried out by departments, Crown entities, and SOEs:

- Of the \$21.7 billion of PPE investment forecast for departments and Crown entities over the next five years, 63.7% is expected to come from the core Crown (Figure 2.8). Of this, \$12.5 billion will fund new PPE spending, while \$1.4 billion will be used to fund PPE expenditure committed to in previous years' Budgets. Hypothecated revenue, principally road-user levies collected by the NZTA, contributes \$6.9 billion over the five years, or 31.8%. The remaining 4.5% is from the disposal of assets within departments and Crown entities.

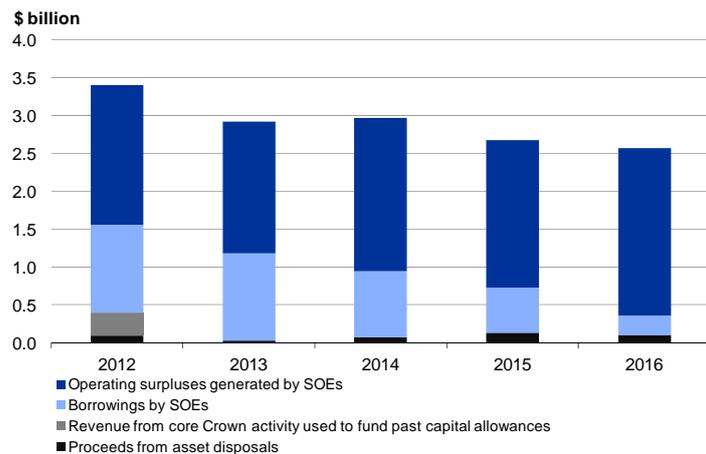
Figure 2.8 – Forecast PPE funding sources, 2012 to 2016: Departments and Crown entities



Source: The Treasury

- SOE PPE investment is expected to be largely funded independently of the core Crown (Figure 2.9). Capital allocations from the Crown provide only 2.1% of funding for PPE investment, used to fund commitments made in previous Budgets. The main recipient for this funding is KiwiRail’s ‘Turnaround Plan’. The remainder of SOE PPE expenditure is forecast to be funded from SOE operating surpluses (67.2%), SOE borrowing (27.8%), and asset disposals within SOEs (2.9%).

Figure 2.9 – Forecast PPE funding sources, 2012 to 2016: SOEs



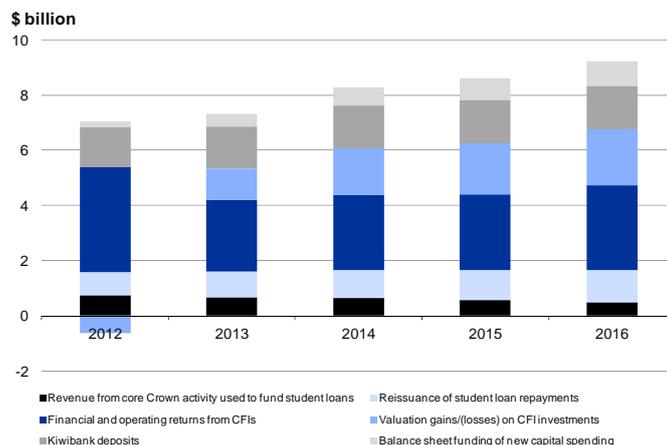
Source: The Treasury

Figure 2.10 presents the forecast funding sources for non-PPE growth. Despite the deterioration in the financial portfolio mentioned earlier, the gains and returns earned from CFI financial assets are expected to be relatively strong beyond 2012, as financial market conditions recover. These financial returns are forecast to fund all asset growth in the CFIs over the next five years, excluding the EQC. It is now expected that Crown operating surpluses will be sufficient to resume contributions to the NZS Fund in the year ending June 2018, a year later than forecast in the *Budget Update*. As this lies beyond the forecast period, no injections of core Crown funding into the NZS Fund occur in the forecasts.

As discussed elsewhere, it is expected that \$3.0 billion of funding will be required for new capital spending in future Budgets. The current Government policy is to fund new capital spending initiatives for the next five budgets from its existing balance sheet rather than borrowing to fund these investments. The Government will source funding from alternative sources such as increased returns from existing investments, reprioritisation of planned capital spending, as well as the partial divestment of assets such as SOEs. New spending is not forecast to increase total assets but, rather, to replace existing assets. In total, \$4.5 billion of capital spending is expected to be funded (\$900 million per Budget for the next five Budgets), once out-years are included.

Of the remaining growth in non-PPE-related assets, growth in the student loan book is expected to be funded from \$5.1 billion of student loan repayments, and the remaining \$3.1 billion from core Crown revenue. Meanwhile, growth in Kiwibank loans is assumed to be entirely funded through an associated growth in Kiwibank deposits.

Figure 2.10 – Forecast Non-PPE funding sources, 2012 to 2016



Source: The Treasury

Fiscal Forecast Assumptions

The fiscal forecasts are based on assumptions and judgements developed from the best information available on 11 October 2011, when the forecasts were finalised. Actual events are likely to differ from some of these assumptions and judgements. Furthermore, uncertainty around the forecast assumptions and judgements increases over the forecast period. The Canterbury earthquakes add further uncertainty to the economic and fiscal forecasts.

The fiscal forecasts are prepared on the basis of underlying economic forecasts. Such forecasts are critical for determining revenue and expense estimates. For example:

- A nominal GDP forecast is needed in order to forecast tax revenue.
- A forecast of CPI inflation is needed because social assistance benefits are generally indexed to inflation.
- Forecasts of interest rates are needed to forecast finance costs, interest income and discount rates.

A summary of the key economic forecasts that are particularly relevant to the fiscal forecasts is provided in the table below (on a June-year-end basis to align with the Government's balance date).

Table 2.9 – Summary of key economic forecasts used in fiscal forecasts

June years	2011/12		2012/13	2013/14	2014/15	2015/16
	Budget forecasts	PREFU forecasts				
Real GDP (P) (ann avg % chg)	2.5	2.8	3.4	3.2	2.8	2.3
Nominal GDP (E) (\$m)	209,178	211,773	221,864	234,325	246,189	256,939
CPI (annual avg % change)	3.4	3.2	2.2	2.4	2.5	2.7
Govt 10-year bonds (ann avg %)	5.7	4.5	4.5	5.0	5.2	5.4
5-year bonds (ann avg %)	5.0	3.6	3.9	4.7	5.0	5.3
90-day bill rate (ann avg %)	2.9	2.9	3.6	4.2	4.9	5.3
Unemployment rate (ann avg %)	5.9	6.0	5.3	5.0	4.8	4.7
Employment (ann avg % change)	1.3	1.7	1.4	1.5	1.4	1.2
Current account (% of GDP)	-4.5	-2.2	-4.0	-5.8	-6.5	-6.9

In addition, there are a number of other key assumptions that are critical in the preparation of the fiscal forecasts.

Government decisions	Incorporate government decisions up to 11 October 2011.																																																								
Tax revenue	<p>Tax policy changes announced and enacted by the Government will take place as planned and will affect tax revenue and receipts as calculated and agreed by Inland Revenue and the Treasury.</p> <p>The surge in other persons tax refunds and company tax refunds over the last few years was largely a result of the recession. The forecasts assume that refunds will return to pre-recession trends as the economic recovery gets underway.</p> <p>Utilisation of corporate tax losses to offset future taxable profits will retard the growth of corporate tax up to and including the June 2013 year.</p> <p>Earthquake-related GST refunds will provide a boost to GST refunds throughout the forecast period. GST receipts from earthquake-related spending will provide a temporary boost to gross GST, mostly from 2012 onwards. The total net effect of these two elements will be offset, ignoring any additional spending over and above the insurance claims that may occur.</p> <p>The current unusually large margin between 90-day interest rates and 6-month term deposit rates will be maintained throughout the forecast period, which has a positive influence on resident withholding tax on interest income.</p>																																																								
Earthquake costs	Expenditure (accrual measure) is forecast based on estimates on when key decisions will be taken. The timing of cash payments is based on estimates of when actual spending will take place. Refer page 15 for further discussion.																																																								
Operating allowance	<p>Net \$800 million in Budget 2012 and 2013.</p> <p>Net \$1.19 billion from Budget 2014 growing at a rate of 2% per annum for subsequent Budgets.</p>																																																								
Capital allowance	<p>\$900 million in Budget 2012 onwards as follows:</p> <table border="1"> <thead> <tr> <th>Year ended 30 June</th> <th>2011/12</th> <th>2012/13</th> <th>2013/14</th> <th>2014/15</th> <th>2015/16</th> <th>Outside the forecast period</th> <th>Total</th> </tr> <tr> <th>\$billion</th> <th>Forecast</th> <th>Forecast</th> <th>Forecast</th> <th>Forecast</th> <th>Forecast</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Budget 2012</td> <td>0.1</td> <td>0.4</td> <td>0.2</td> <td>0.1</td> <td>0.1</td> <td>-</td> <td>0.9</td> </tr> <tr> <td>Budget 2013</td> <td>-</td> <td>0.1</td> <td>0.4</td> <td>0.2</td> <td>0.1</td> <td>0.1</td> <td>0.9</td> </tr> <tr> <td>Budget 2014</td> <td>-</td> <td>-</td> <td>0.1</td> <td>0.4</td> <td>0.2</td> <td>0.2</td> <td>0.9</td> </tr> <tr> <td>Budget 2015</td> <td>-</td> <td>-</td> <td>-</td> <td>0.1</td> <td>0.4</td> <td>0.4</td> <td>0.9</td> </tr> <tr> <td>Budget 2016</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>0.1</td> <td>0.8</td> <td>0.9</td> </tr> </tbody> </table> <p>Funding for new capital spending will be sourced from the existing balance sheet rather than borrowing.</p>	Year ended 30 June	2011/12	2012/13	2013/14	2014/15	2015/16	Outside the forecast period	Total	\$billion	Forecast	Forecast	Forecast	Forecast	Forecast			Budget 2012	0.1	0.4	0.2	0.1	0.1	-	0.9	Budget 2013	-	0.1	0.4	0.2	0.1	0.1	0.9	Budget 2014	-	-	0.1	0.4	0.2	0.2	0.9	Budget 2015	-	-	-	0.1	0.4	0.4	0.9	Budget 2016	-	-	-	-	0.1	0.8	0.9
Year ended 30 June	2011/12	2012/13	2013/14	2014/15	2015/16	Outside the forecast period	Total																																																		
\$billion	Forecast	Forecast	Forecast	Forecast	Forecast																																																				
Budget 2012	0.1	0.4	0.2	0.1	0.1	-	0.9																																																		
Budget 2013	-	0.1	0.4	0.2	0.1	0.1	0.9																																																		
Budget 2014	-	-	0.1	0.4	0.2	0.2	0.9																																																		
Budget 2015	-	-	-	0.1	0.4	0.4	0.9																																																		
Budget 2016	-	-	-	-	0.1	0.8	0.9																																																		
Investment rate of returns	Incorporate the actual results to 31 August 2011. Beyond this time, gains on financial instruments are based on long-term benchmark rates of return for each portfolio.																																																								

Finance cost on new bond issuances	Based on 5-year rate from the main economic forecasts and adjusted for differing maturity.																		
Top-down adjustment	<p>A top down adjustment is made to compensate for departments who tend to forecast upper spending limits (appropriations) rather than best estimates.</p> <p>Top-down adjustment to operating and capital as follows:</p> <table border="1" data-bbox="576 456 1358 589"> <thead> <tr> <th>Year ending 30 June \$billion</th> <th>2012 Forecast</th> <th>2013 Forecast</th> <th>2014 Forecast</th> <th>2015 Forecast</th> <th>2016 Forecast</th> </tr> </thead> <tbody> <tr> <td>Operating</td> <td>1.1</td> <td>0.3</td> <td>0.1</td> <td>0.1</td> <td>0.1</td> </tr> <tr> <td>Capital</td> <td>0.4</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Year ending 30 June \$billion	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	Operating	1.1	0.3	0.1	0.1	0.1	Capital	0.4	-	-	-	-
Year ending 30 June \$billion	2012 Forecast	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast														
Operating	1.1	0.3	0.1	0.1	0.1														
Capital	0.4	-	-	-	-														
Borrowing requirements	The forecast cash deficits will be met by reducing financial assets and issuing debt.																		
Property, plant and equipment	For the purposes of the forecast financial statements, no revaluations of property, plant and equipment are projected beyond the current year. Valuations as recorded for the 2011 annual financial statements and any additional valuations that have occurred up to 31 August 2011 are included in these forecasts.																		
Student loans	The carrying value of student loans is based on a valuation model adapted to reflect current student loans policy. As such, the carrying value over the forecast period is sensitive to changes in a number of underlying assumptions, including future income levels, repayment behaviour and macroeconomic factors such as inflation and discount rates used to determine the effective interest rate for new borrowers. Any change in these assumptions would affect the present fiscal forecast.																		
Government Superannuation Fund and ACC liabilities	<p>The Government Superannuation Fund and ACC liabilities included in these forecasts have been valued as at 30 June 2011 adjusted for the 31 August 2011 discount rate. Both liabilities are valued by projecting future cash payments, and discounting them to present value. These valuations rely on historical data to predict future trends and use economic assumptions such as inflation and discount rates. Any change in actual payments or economic assumptions would affect the present fiscal forecast. For example, if the discount rate decreases, the value of the liabilities would increase.</p> <p>The Government Superannuation Fund's assets are offset against the gross liability and have been updated to reflect market values. The value of assets over the forecast period reflects long-run rate of return assumptions appropriate to the forecast portfolio mix.</p>																		

Emissions Trading Scheme (ETS)	<p>The forecasts have been prepared in accordance with current government ETS policies. Details of current climate change policies are listed at: www.mfe.govt.nz/issues/climate/policies-initiatives.</p> <p>The carbon price assumption for the ETS is based on estimates of the current certified emission reduction (CER) carbon price from Point Carbon, and is €10.40 with an exchange rate of 0.5907 (a carbon price of NZ\$17.61) over the forecast period.</p> <p>The economic models used to project agriculture and energy activity assume an international carbon price of NZ\$25 per tonne to 2012 and NZ\$50 to 2020.</p> <p>The forecast assumes a 63% uptake of post-1989 foresters into the ETS over Commitment Period One (CP1).</p> <p>Revenues and the associated expenses arising from the agriculture sector entering the ETS are included from the June 2015 financial year.</p> <p>It is assumed the ETS has no fiscal impact on debt or cash flows, as the net cash impact from the ETS and international obligations is highly uncertain.</p>
Kyoto position	<p>The Kyoto position included in the fiscal forecasts reflects the Government's obligation for CP1, from 2008 to 2012. It does not include any future potential reduction of the position through the transfer of units offshore through the forestry sector, or any future changes to the position through transactions under the ETS.</p> <p>The carbon price assumption for the Kyoto position is based on estimates of the current assigned amount unit (AAU) carbon price from Point Carbon, and is €7.63 with an exchange rate of 0.5907 (a carbon price of NZ\$12.92) over the forecast period.</p>
NZS Fund contributions	No contribution is assumed in the forecast period.

Medium-term Projections

The preceding parts of this chapter have focused on the fiscal forecasts to the year ending June 2016. This section concentrates on the medium-term fiscal projections, covering the subsequent decade up to and including the year ending June 2026.

At each *Economic and Fiscal Update*, the Treasury produces post-forecast projections of key economic and fiscal variables, such as nominal GDP and net debt. The projections arise from the forecasts, but there are fundamental differences between them. Forecasts are based on comprehensive modelling of economic and fiscal conditions, including the relationships between the two and the impacts of existing or proposed policies.

Projections, in contrast, are potential paths of economic and fiscal variables beyond their end-of-forecast values, largely based on historical averages while reflecting existing policy settings. In particular, projections move towards, and then maintain, an assumption of an economy that is growing on trend and free from cycles. Projections also contain no policy responses, beyond those already in existence or to which there is a future commitment, to mitigate unfavourable outcomes or to strengthen positive trends.

Updated medium-term projections

In order to produce post-forecast fiscal variables it is necessary to project forward the economic variables which inform them. For example, tax revenue grows in line with nominal GDP, once a stable economy is attained. The two economic variables that play the biggest roles in fiscal projections are nominal GDP and the rate of inflation, as measured by changes in the CPI.

CPI inflation gradually returns to 2% per year from its end-of-forecast value. This reflects the mid-point of the Reserve Bank's Policy Targets Agreement, which is to keep the CPI-measured annual inflation rate inside a 1% to 3% band.

The CPI inflation projection is added to the projection of real GDP growth to produce the nominal GDP growth projection. This means that there is an implicit assumption that other drivers of nominal GDP, such as the terms of trade, remain at the levels attained at the end of the forecasts.

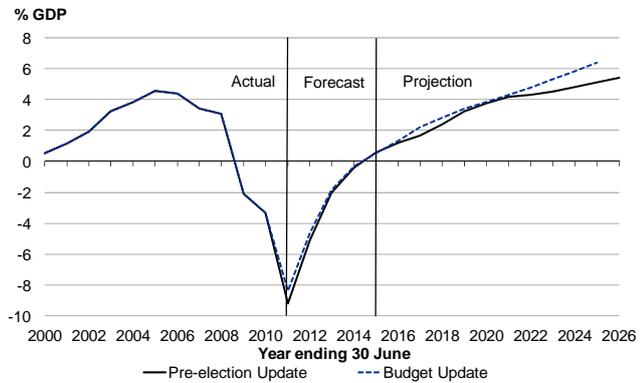
Over the projections, nominal GDP trends down from 5% annual growth in the year ending June 2017 to around 4% per year from the year ending June 2020 onwards. There are a number of factors contributing to this slowing: CPI inflation trending down to 2% per year; economic activity and the labour market returning to more normal levels as the earthquake rebuild winds down; and the aging population slowing growth in the labour force.

The medium-term fiscal projections for the *Pre-election Update* are similar to those produced for the 2011 *Fiscal Strategy Report*. The full recovery of the economy from the impacts of the Global Financial Crisis, as well as those of the Canterbury earthquakes, is still expected to be attained around the end of this decade. The total Crown operating balance before gains/(losses) returns to surplus at the same time, the year ending June 2015, and strengthens beyond that at a relatively similar rate. Core Crown net debt peaks in the forecasts and declines along a path similar to that depicted in the 2011 *Fiscal Strategy Report* projection.

The improvements in the fiscal position over the forecast period, which sees a surplus first achieved in the year ending June 2015, continue into projected years (Figure 2.11). Two factors are primarily responsible for the surplus improving over the projection period.

Firstly, the growth of all core Crown expenses, except for welfare transfers and debt-financing costs, is restricted to the size of the projected allowances for new operating spending. The annual increment to the operating allowance used in the first projected year, the year ending June 2017, is \$1.239 billion. In later projected years this amount is increased by 2% per year. As this level of controlled expenditure growth is lower than both historical averages and nominal GDP growth, it plays a major role in maintaining expenses below revenue levels in the projections.

Figure 2.11 – Total Crown operating balance before gains/(losses) or OBEGAL

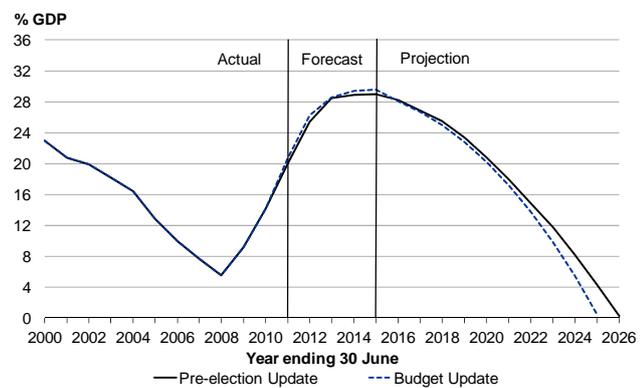


Source: The Treasury

The second factor is strengthening tax revenues, produced by an economy returning to trend and incorporating fiscal drag for the first five projected years. Even after tax recovers to an assumed stable ratio to nominal GDP, based on history, it then grows in line with GDP. As already indicated, this is faster than the driver of most expenses.

While the operating balance before gains/(losses) is the main indicator of fiscal flows, net core Crown debt (excluding the financial assets of the NZS Fund and advances) is the key indicator of the public sector's fiscal stocks. Figure 2.12 depicts net debt to nominal GDP, showing that it peaks at 29% in the year ending June 2015 before steadily declining over the projection period. The attainment of surpluses from the year ending June 2015 onwards enables some of the debt stock to be retired, which in turn helps surpluses to increase by reducing debt-financing costs.

Figure 2.12 – Net core Crown debt (excluding NZ Superannuation Fund and advances)

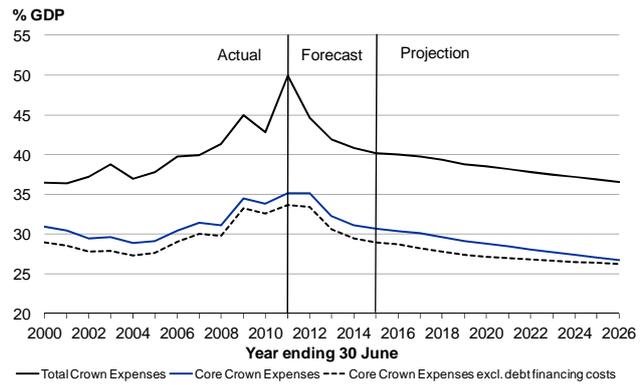


Source: The Treasury

Figure 2.13 shows that core Crown expenses, which spike in the fiscal year just completed mainly owing to one-off costs associated with the earthquakes, are forecast to decline. By the last year of the *Pre-election Update* forecasts they have returned to levels of GDP more like those seen before the Global Financial Crisis. Much of this reduction, which extends into the decade of projections, is owing to reduced operating allowances, relative to their pre-crisis levels, and restricting their growth to 2% per year. Falling debt-financing costs also play a part, as seen by the reduction in the gap between the expenditure measures with and without these costs. By the year ending June 2026 the two lines are only half a percentage point of GDP apart.

While overall expenses are declining, this is not true of all individual spending classes. In particular, gross (of tax) expenditure on NZS increases from 4.4% of nominal GDP in the year ending June 2011 to 6.1% by the end of the projection period, the year ending June 2026. The chief driver of this expense is recipient numbers, with the “65 and over” population expected to grow nearly four times more quickly than the total population over this period.

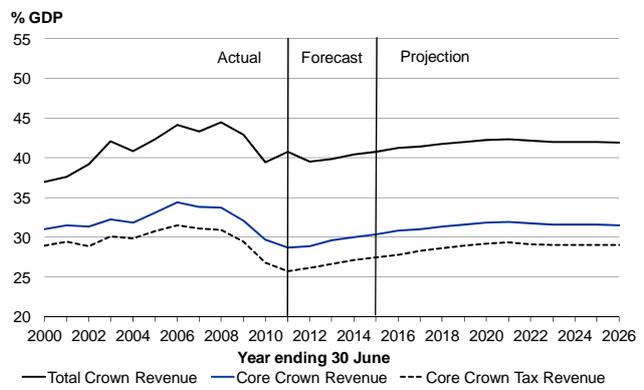
Figure 2.13 – Expenses



Source: The Treasury

As the economy recovers, so do tax revenues and other income sources, such as returns on financial assets. This is shown in Figure 2.14. As well as the boosts to tax from more people in employment, companies returning to profit and higher spending, fiscal drag also plays a role. This refers to the case where tax grows faster than the income that generates it, particularly when a taxpayer’s income moves into a higher tax bracket. Fiscal drag is only modelled for the first five years of projections, in order to keep the tax-to-GDP ratio around average historical levels. This can be seen where the total Crown revenue line levels out from the year ending June 2021 onwards.

Figure 2.14 – Revenue



Source: The Treasury

Long-term Projections

At least every four years the Treasury is required, by legislation, to produce a Statement of the Long-term Fiscal Position. The last Statement was published in October 2009 and can be sourced from the Treasury website at <http://www.treasury.govt.nz/government/longterm/fiscalposition>.

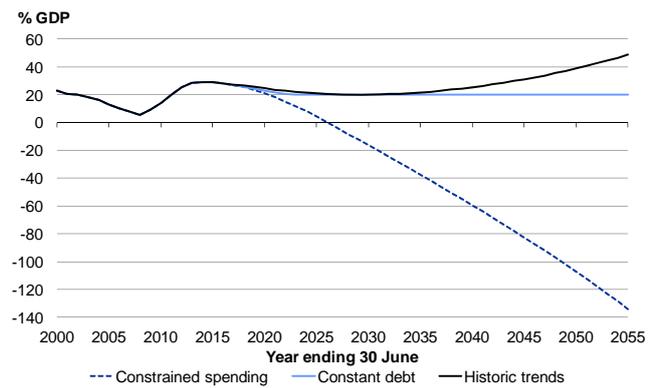
While a full update of the entire Statement will not be published before late 2012, the fiscal projections have been updated for a *Pre-election Update* base. Three alternative sets of policy assumptions have been modelled in Figures 2.15 and 2.16. These are:

- *Constrained spending* scenario – This assumes core Crown expenses, excluding welfare transfers (which include NZS) and debt-financing costs, derive their growth from projected operating allowances out to the year ending June 2026. In other words, this projection mimics the medium-term projections out to this point. From the year ending June 2027 onwards, the spending classes that derive their growth from the operating allowances, such as health, education and justice, are allowed to revert to historic growth patterns. This means that underlying drivers of their growth, such as labour costs and non-demographic demand factors, return to values that more closely resemble the averages of the past 20 years. Demographic demand reflects the size of their recipient groups over the projected years. In some areas, such as education, this may not be as strong as in the past. In other areas, especially health, the impacts of an aging population drive the growth of projected spending even faster than in recent history.
- *Historic trends* scenario – In this scenario, historic growth drivers for expense classes that derive their growth from the operating allowances in the forecasts are assumed from the beginning of the projections, the year ending June 2017. This is sometimes referred to as a “bottom-up” approach to modelling expenditure growth, in contrast to the “top-down” approach of imposing operating allowance caps. *Historic trends* represents the standard approach followed by most governments in producing long-term fiscal projections.
- *Constant debt* scenario – Both the *Constrained spending* and *Historic trends* scenarios use debt as the residual of their modelling. By this it is meant that revenue, expenses, assets and non-debt liabilities are all modelled, and borrowings are the outcome of combining these under the normal accounting rules. Those two scenarios differ only in the way in which expense growth is projected. By contrast, the *Constant debt* scenario constrains debt to a targeted level of nominal GDP, and expenses are the residual in the modelling. Net core Crown debt is gradually reduced from its end-of-forecast position to 20% of nominal GDP, and then the expense classes that are subject to the operating allowances are constrained to keep net debt at this ratio.

The *Historic trends* scenario follows a similar path to that depicted in the *Fiscal Strategy Report* published with the 2011 *Budget Update*. As was the case in that projection, the net debt track gradually declines to around 20% of nominal GDP before starting to lift again from around the year ending June 2030. This rising net debt track is a fundamental “warning signal” in long-term fiscal projections. Unless ongoing deficits are addressed by

changes to fiscal policy settings, the relationship between deficits, borrowings and debt-financing costs will cause the debt track to rise quite rapidly. In other words, the extra borrowings needed to fund an operating deficit increase the stock of debt. This, in turn, increases the level of debt-financing costs generated, which add to the operating deficit. In the absence of any response to this situation, the debt stock and the financing costs it generates continue to supplement each other and the net debt track accelerates upward.

Figure 2.15 – Core Crown net debt under three long-term scenarios



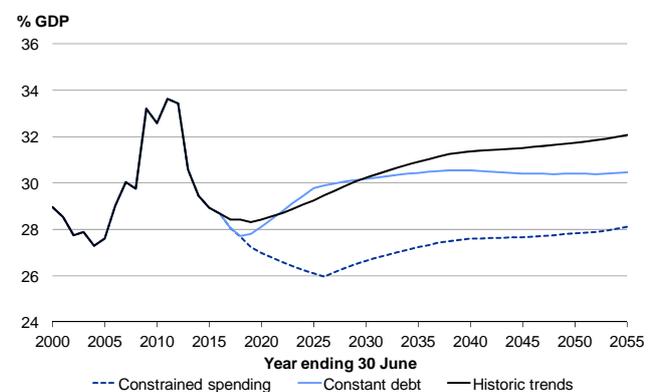
Source: The Treasury

The *Constrained spending* scenario does more than flatten debt, with net debt quickly going negative. This equates to a situation where publicly-held financial assets are in excess of gross debt levels. It is important to note that this scenario is based on the assumption that the Government maintains the tight fiscal strategy outlined in the 2011 *Fiscal Strategy Report*.

Figure 2.16 shows the three tracks of core Crown expenses, excluding debt-financing costs, which correspond to the three net debt scenarios in Figure 2.15.

The *Constant debt* expense path is in line with recent history. However, the composition of future public spending would need to be different under this scenario. NZS nearly doubles as a share of nominal GDP over the projections, rising to just under 8% of nominal GDP by the year ending June 2055. This would mean that at least some other spending areas would have to be reduced from their current ratios to GDP, if a total ratio of just over 30% were to be maintained.

Figure 2.16 – Core Crown expenses excluding debt-financing costs under three long-term scenarios



Source: The Treasury

Historic trends expenses rise to ratios nearing those of the current earthquake-induced position. However, the rising debt track that corresponds to this implies that this expenditure track would, all other things being equal, produce an unsustainable fiscal position.

The expense track aligned to *Constrained spending* sees expenses fall to levels not seen in recent history. Achieving this track will require ongoing fiscal constraint, especially when it is taken into account that NZS will be close to twice the ratio of GDP that it was when such overall ratios of expenditure to GDP were last achieved.

Annex: Assumptions for Medium-term Projections

The assumptions for the medium-term economic and fiscal projections are outlined in this section. The full assumptions can be found in the 2011 *Fiscal Strategy Report*, at <http://www.treasury.govt.nz/budget/2011/fsr>.

Table 2.10 – Summary of economic and demographic assumptions*

June Year ⁸	2012	2013	2014	2015	2016	2017	2018	2019	2020	2026
	Forecasts					Projections					
Labour force	1.0	0.7	1.2	1.2	1.2	1.0	0.8	0.8	0.5		0.4
Unemployment rate**	6.0	5.3	4.9	4.7	4.7	4.6	4.5	4.5	4.5		4.5
Employment	1.6	1.4	1.5	1.4	1.2	1.1	0.9	0.8	0.5		0.4
Labour productivity growth***	1.4	2.1	1.7	1.4	1.1	1.2	1.4	1.5	1.5		1.5
Real GDP	2.8	3.4	3.2	2.8	2.3	2.4	2.3	2.3	2.0		2.0
Average hours worked per week****	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2		33.2
Consumers Price Index (annual % change)	2.2	2.5	2.3	2.6	2.8	2.6	2.4	2.2	2.0		2.0
Government 5-year bonds (average % rate)	3.6	3.9	4.7	5.0	5.3	5.4	5.5	5.5	5.5		5.5
Nominal average hourly wage	3.6	3.5	4.1	4.2	4.1	3.8	3.8	3.7	3.5		3.5

* Annual average % change unless otherwise stated.

** Level of unemployment (average for year ending June).

*** Hours worked measure.

**** Total hours worked ÷ total number employed.

Sources: The Treasury, Statistics New Zealand

Two economic variables have had their medium-term, stable assumptions changed since the 2011 *Fiscal Strategy Report*. These are the Government 5-year bond rate and the average hours worked per week.

The medium-term, stable assumption for the Government 5-year bond rate has been lowered from the 6% annual value used at the *Fiscal Strategy Report* to 5.5%. Forward interest rates, five and ten years ahead, are now more than 50 basis points lower than they were prior to the Global Financial Crisis. The *Pre-election Update* forecasts reflect this, with lower 5-year bond rates than the *Budget Update* forecasts in every year. The change in the bond rate comes through a lower nominal risk-free rate, owing to lower real growth and inflation rate expectations in safe-haven economies. Since the crisis, and more

⁸ Note that the economic forecasts in the *Pre-election Update* are based on a March year.

recently with continued global financial turmoil, forecasters have been revising down long-run forecasts for growth and inflation in advanced economies.

In the long-term projections the Government 5-year bond rate is gradually returned to 6%, reaching this rate by the year ending June 2031 and then remaining at this rate in later years. This reflects the assumption that many of the conditions impacting on the Government bond yield curves may not persist beyond the next decade.

The average hours worked per week has had its medium-term, stable assumption lowered from the 33.6 hours per week used at the 2011 *Fiscal Strategy Report* to 33.2 hours per week. The value in the final year of the *Pre-election Update* forecasts, the year ending June 2016, is 33.2 hours per week, meaning that the new assumption is in place from the first projected year. The change reflects a declining average in recent years, as well as the assumption that an aging population is likely to lead to a lower future value. The next decade, and beyond, will see a greater percentage of the workforce reach the age of eligibility (currently 65) for NZS. Many of these workers will not retire completely, but are likely to switch from full-time to part-time employment or at least reduce their hours of work.

Transition of economic variables from the end of forecast

The stable values assumed for a number of key economic variables, in medium-term projections, reflect their expected levels or growth in a New Zealand economy that is growing on trend and is free from cycles. While such conditions rarely occur, and are temporary when they do, they are appropriate to apply in projections. This is because they occur far enough into the future that it would be difficult, and subject to significant error margins, to predict the onset and duration of any economic perturbations.

Up until mid-2008 the five-year forecast period was generally sufficient for the effects of current cycles and shocks to have worked their way through the economy. This meant that key economic variables could be assumed to be at trend growth rates or levels by the final year of the forecasts. The impact of the Global Financial Crisis meant that it was no longer valid to assume the economy would fully recover within the five-year horizon of the forecasts. Consequently, for a number of variables, transitions back to trend values over the early years of projections became necessary, and this is still the case at the *Pre-election Update*.

Six economic variables are adjusted from their end-of-forecast values. All except the Government 5-year bond rate contribute to the projection of nominal GDP, which is both a driver of a number of important fiscal variables, such as tax revenue, and the underlying deflator of key fiscal indicators.⁹ The other five variables are:

- aggregate labour force growth
- CPI inflation
- unemployment rate
- average hours worked, and
- labour force productivity growth.

⁹ Most graphs of fiscal indicators, such as core Crown net debt, show the variable as a percentage of nominal GDP. This makes points at various times easier to compare.

For all but aggregate labour force growth, the transition involves selecting a medium-term stable assumption and a rate at which it is approached from the end-of-forecast value. The stable assumption is based on historical data, making allowance for any factors that could alter future values, such as the Policy Targets Agreement with CPI inflation. The rate of adjustment is determined by estimating a plausible path of recovery.

The aggregate labour force growth is not brought to a constant, stable rate. The transition used in this case is to make adjustments in the early projected years to reflect a period of economic rebuilding. When these adjustments dissipate, all growth in later years is aligned to Statistics New Zealand's labour force projections. Historical values of the aggregate labour force participation rate are used to gauge the appropriate adjustments.

Table 2.11 – Summary of fiscal assumptions

Tax revenue	Linked to growth in nominal GDP. Source deductions (mainly PAYE tax on salary and wages) is projected using employment growth and nominal average hourly wage growth. The latter is multiplied by a fiscal drag elasticity of 1.35 for the first five years of projections. The two other major tax categories, corporate tax and other taxes (dominated by GST), are gradually returned from their end-of-forecast values to long-term constant ratios to GDP. Source deductions is also returned to a long-term GDP ratio after fiscal drag modelling ceases. The use of long-term stable tax-to-GDP ratios is to ensure that tax revenue projections are neither higher nor lower than would be expected when the economy is performing at its potential. All tax categories change at a rate of 0.2% of GDP per year, with final ratios-to-GDP of 11.2% for source deductions, 4.5% for corporate tax and 13.0% for other taxes. The long-term ratios are based on historical data, taking into account tax rate and policy changes that could affect them. Once the long-term ratios are reached the tax types remain at them in later projected years.
New Zealand Superannuation (NZS)	Demographically adjusted and linked to net wage growth, via the "66% wage floor". The latter refers to the net (after-tax) weekly NZS rate for a couple being constrained to lie between 66% and 72.5% of net average weekly earnings. As tax on average weekly earnings, being a part of overall PAYE, increases due to fiscal drag, the net average weekly earnings do not grow as quickly as the gross earnings.
Other benefits	Demographically adjusted and linked to inflation.
Health, education, justice and other core Crown expense classes	All growth assumed to come from a share of projected allowances for new operating spending.
Debt-financing costs	A function of debt levels and interest rates.
Operating allowance	\$1.239 billion in the first projected year, the year ending June 2017. This is based on a \$1.19 billion allowance for new operating spending, set for the year ending June 2015, grown at 2% per year from that year.
Capital allowance	\$0.918 billion in the first projected year, the year ending June 2017. Budgets 2012 through to 2016 inclusive assume a \$900 million allowance for new capital spending. From Budget 2017 onwards, which coincides with the first projected year, the allowance is assumed to grow at 2% per year.
Surplus DMO financial assets	\$0 billion.

NZS Fund	Contributions to the Fund are suspended until they restart in the year ending June 2018. When contributions begin again they are calculated by a methodology consistent with the NZS and Retirement Income Act 2001. ¹⁰
Emissions Trading Scheme (ETS)	The fiscal impact of the ETS depends on several highly uncertain factors, most notably future carbon prices and New Zealand's emissions targets from future international climate change agreements. The ETS has no impact on debt in the projected years, including and beyond the year ending June 2017. This is because a policy of full recycling of revenue is assumed. Net revenue (the value of credits received after free allocation of credits to participating industries and after meeting future emissions liabilities) is assumed to be recycled back to the public through fiscally equivalent, unspecified tax reductions or spending increases.
Future emissions liabilities	The Kyoto liability included in fiscal forecasts reflects the government's obligation for Commitment Period One, which is for the period 2008-2012. Projections do not incorporate a quantitative estimate of any net emissions liability that may eventuate from New Zealand's obligations under future international climate change agreements.

Source: The Treasury

¹⁰ The 2011 *Fiscal Strategy Report* provides details on contributions over the forecast and projection periods and more information is available at <http://www.treasury.govt.nz/government/assets/nzsf/contributionratemodel>

