
Budget Economic and Fiscal Update 2018 Additional Information

The following information forms part of the *Budget Economic and Fiscal Update 2018 (Budget Update)* released by the Treasury on 17 May 2018. This information provides further details on the *Budget Update* and should be read in conjunction with the published document. The additional information includes:

- **Detailed economic forecast information** – breakdowns of the economic forecasts.
- **Treasury and Inland Revenue tax forecasts** – detailed tax revenue and receipts tables comparing Treasury’s forecasts with Inland Revenue’s forecasts.
- **Tax Policy changes** – details of material changes to tax revenue since the *Budget Update* as a result of policy initiatives.
- **Additional fiscal indicators** – estimates of the cyclically-adjusted balance and fiscal impulse.
- **Government Finance Statistics (GFS) for central government** – fiscal tables presented under a GFS presentation framework to help with cross-country comparisons.
- **Accounting policies** – outline of the specific Crown accounting policies.

Detailed Economic Forecast Information

This section includes tables with additional detail on the economic forecasts in the *Budget Economic Fiscal Update*.

The economic numbers and forecasts in this section were finalised on 10 April 2018.

Table 1	Real Gross Domestic Product
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Table 1 – Real Gross Domestic Product

Production based chain volume series expressed in 2009/10 prices

Seasonally adjusted

	\$ million	Quarterly % change	Annual % change	Annual average % change
2015Q1	55,581	0.3	3.7	3.7
2015Q2	55,972	0.7	3.8	3.9
2015Q3	56,552	1.0	3.6	3.9
2015Q4	57,143	1.0	3.1	3.5
2016Q1	57,789	1.1	4.0	3.6
2016Q2	58,451	1.1	4.4	3.8
2016Q3	58,875	0.7	4.1	3.9
2016Q4	59,117	0.4	3.5	4.0
2017Q1	59,545	0.7	3.0	3.8
2017Q2	60,095	0.9	2.8	3.3
2017Q3	60,454	0.6	2.7	3.0
2017Q4	60,843	0.6	2.9	2.9
2018Q1	61,239	0.7	2.8	2.8
2018Q2	61,638	0.7	2.6	2.8
2018Q3	62,147	0.8	2.8	2.8
2018Q4	62,759	1.0	3.1	2.8
2019Q1	63,397	1.0	3.5	3.0
2019Q2	63,957	0.9	3.8	3.3
2019Q3	64,482	0.8	3.8	3.5
2019Q4	64,961	0.7	3.5	3.6
2020Q1	65,420	0.7	3.2	3.6
2020Q2	65,859	0.7	3.0	3.4
2020Q3	66,304	0.7	2.8	3.1
2020Q4	66,751	0.7	2.8	2.9
2021Q1	67,196	0.7	2.7	2.8
2021Q2	67,639	0.7	2.7	2.7
2021Q3	68,059	0.6	2.6	2.7
2021Q4	68,457	0.6	2.6	2.7
2022Q1	68,838	0.6	2.4	2.6
2022Q2	69,216	0.5	2.3	2.5

Source: Statistics New Zealand, the Treasury

Table 2 – Consumers Price Index and Exchange Rates

	Consumers Price Index			Exchange rates	
	Index	Quarterly % change	Annual % change	TWI	USD
2015Q1	975	-0.2	0.3	77.9	0.75
2015Q2	979	0.4	0.4	76.2	0.73
2015Q3	982	0.3	0.4	69.8	0.65
2015Q4	977	-0.5	0.1	72.1	0.67
2016Q1	979	0.2	0.4	72.2	0.66
2016Q2	983	0.4	0.4	73.6	0.69
2016Q3	986	0.3	0.4	77.0	0.72
2016Q4	990	0.4	1.3	77.6	0.71
2017Q1	1000	1.0	2.2	78.0	0.71
2017Q2	1000	0.0	1.7	76.5	0.70
2017Q3	1005	0.5	1.9	77.1	0.73
2017Q4	1006	0.1	1.6	73.8	0.70
2018Q1	1009	0.3	0.9	74.9	0.73
2018Q2	1014	0.5	1.4	74.9	0.72
2018Q3	1018	0.4	1.3	75.2	0.72
2018Q4	1019	0.0	1.3	75.5	0.72
2019Q1	1023	0.5	1.4	75.6	0.71
2019Q2	1029	0.5	1.5	75.8	0.72
2019Q3	1035	0.6	1.6	75.9	0.72
2019Q4	1036	0.1	1.7	75.8	0.72
2020Q1	1041	0.5	1.8	75.7	0.72
2020Q2	1047	0.6	1.8	75.5	0.71
2020Q3	1054	0.6	1.8	75.5	0.71
2020Q4	1055	0.2	1.9	75.4	0.71
2021Q1	1061	0.6	1.9	75.4	0.71
2021Q2	1068	0.6	1.9	75.4	0.71
2021Q3	1074	0.6	2.0	75.4	0.71
2021Q4	1076	0.2	2.0	75.3	0.71
2022Q1	1082	0.6	2.0	75.2	0.71
2022Q2	1089	0.6	2.0	75.0	0.71

Source: RBNZ, Statistics New Zealand, the Treasury

Table 3 – Expenditure on Gross Domestic Product and Gross Domestic Product (income) in current prices

Year ended June	2017 Actual			2018 Forecast			2019 Forecast			2020 Forecast			2022 Forecast			
	\$million	%volume	%price	\$million	%volume	%price	\$million	%volume	%price	\$million	%volume	%price	\$million	%volume	%price	
Consumption:																
- Private	157,768	4.0	1.3	166,106	3.2	1.6	174,218	2.5	1.7	181,557	2.3	1.8	189,042	2.3	1.9	197,107
- Public	49,734	4.4	1.9	52,909	1.7	3.0	55,415	1.7	2.7	57,857	1.8	2.2	60,199	1.7	2.2	62,602
Gross Fixed Capital Formation:																
- Residential	20,579	2.3	4.9	22,080	1.4	3.5	23,178	5.0	2.7	24,994	5.5	2.9	27,145	3.9	3.5	29,193
- Business *	43,789	4.5	1.3	46,337	5.3	0.4	48,981	6.8	-0.5	52,049	4.1	0.5	54,469	3.2	1.0	56,739
- Total all sectors	64,368	3.9	2.3	68,417	4.3	1.1	72,159	6.3	0.4	77,043	4.4	1.4	81,613	3.3	1.9	85,932
Change in Stocks	940			940			1,330			1,292			1,267			1,272
Gross National Expenditure	272,808	3.5	1.9	288,140	3.6	1.6	303,122	3.3	1.5	317,749	2.7	1.7	332,122	2.5	1.9	346,913
Exports	71,863	4.2	5.3	78,857	2.0	1.6	81,799	3.8	2.6	87,044	2.8	2.1	91,378	2.5	1.6	95,202
Imports	70,568	6.4	1.4	76,121	3.2	2.2	80,331	3.8	1.7	84,822	2.9	1.7	88,779	2.5	1.4	92,323
Expenditure on GDP	274,220	3.2	2.8	291,020	3.1	1.5	304,591	3.2	1.8	319,971	2.7	1.9	334,721	2.5	2.0	349,792
Statistical Discrepancy	419			-33			34			2			0			0
Gross Domestic Product	274,639			290,987			304,625			319,973			334,721			349,792
Compensation of employees	115,696			122,093			128,209			134,691			141,232			147,906
Operating Surplus, net:																
- Agriculture	6,235			6,786			7,476			8,178			8,435			8,578
- Other	77,697			83,039			85,929			90,068			93,824			97,684
- Total all sectors	83,933			89,825			93,405			98,247			102,259			106,263
Consumption of fixed capital	38,616			40,547			42,574			44,703			46,938			49,285
Indirect Taxes	37,291			39,419			41,335			43,231			45,189			47,236
Less subsidies	897			897			897			897			897			897
Gross Domestic Product	274,639			290,987			304,625			319,973			334,721			349,792

* Central government investment data is currently suppressed in the national accounts. Therefore the usual distinction between market and non-market investment cannot be made.
 Note: GDP Income measure has been converted from March years to June years by Treasury.
 Source: Statistics New Zealand, the Treasury

Table 4 – Labour Market Indicators

Annual Average Percentage Change						
Year ended June	2017	2018	2019	2020	2021	2022
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Real GDP (production basis)	3.3	2.8	3.3	3.4	2.7	2.5
Working Age Population	2.6	2.3	2.1	1.7	1.5	1.3
Labour Force	4.9	3.3	1.9	1.7	1.5	1.3
Employment	5.2	3.8	2.1	1.9	1.5	1.3
Labour Productivity*	-1.6	-0.9	1.2	1.4	1.4	1.3
CPI (annual percentage change)	1.7	1.4	1.5	1.8	1.9	2.0
Average Ordinary Time Hourly Wages	1.5	3.0	2.8	2.9	3.3	3.4
Average Weekly Earnings	1.9	3.1	2.9	3.0	3.2	3.3
Real Wages	0.1	1.5	1.5	1.2	1.3	1.3
Compensation of Employees	4.7	5.5	5.0	5.1	4.9	4.7
Unit Labour Costs (Hours worked basis)	3.1	3.9	1.6	1.5	1.9	2.0
Real Unit Labour Costs	1.7	2.4	0.2	-0.2	0.0	0.0

* Hours worked basis

Number (000's)						
As at June Quarter	2017	2018	2019	2020	2021	2022
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Total Population	4,794	4,892	4,981	5,055	5,121	5,180
Natural Increase	28	32	37	36	36	34
Net Migration	72	66	52	38	30	25
Annual Change	101	98	89	74	66	59
Working Age Population	3,802	3,888	3,964	4,028	4,085	4,139
Annual Change	88	86	76	64	57	54
Not in the labour force (s.a.)	1,136	1,127	1,156	1,175	1,191	1,207
Annual Change	14	-9	28	19	16	16
Labour Force (s.a.)	2,665	2,760	2,808	2,853	2,894	2,931
Annual Change	73	95	48	44	41	37
Total Employment (s.a.)	2,537	2,635	2,691	2,735	2,776	2,808
Annual Change	76	98	56	44	40	32
Unemployment (s.a.)	128	125	117	117	118	124
Annual Change	-3	-3	-8	0	1	5
Participation Rate (% , s.a.)	70.1	71.0	70.8	70.8	70.8	70.8
Unemployment Rate (% , s.a.)	4.8	4.5	4.2	4.1	4.1	4.2

Source: Statistics New Zealand, the Treasury
s.a. - seasonally adjusted

Table 5 – Exports – SNA basis

Breakdown of Exports

Year ended June	Dairy Products			Meat and Meat Products			Other Goods*		
	% volume	% price	\$million	% volume	% price	\$million	% volume	% price	\$million
2014	-2.9	37.5	16,761	1.7	3.7	6,029	0.6	2.4	28,745
2015	4.3	-23.2	13,382	1.2	10.9	6,771	3.5	-4.2	28,502
2016	4.5	-11.8	12,344	6.9	0.0	7,241	1.5	2.6	29,685
2017	0.5	8.6	13,449	-9.0	-1.9	6,463	1.7	-0.6	30,031
2018	-3.0	14.3	14,941	6.9	10.1	7,613	7.4	1.6	32,779
2019	5.6	-3.9	15,172	-8.4	-2.2	6,812	1.6	4.7	34,872
2020	7.4	0.9	16,440	5.3	0.3	7,199	2.6	3.3	36,949
2021	3.9	1.8	17,388	1.4	1.2	7,390	2.3	1.8	38,478
2022	3.6	2.2	18,420	0.4	1.0	7,497	2.1	0.9	39,619

Year ended June	Total Goods			Services			Total Exports		
	% volume	% price	\$million	% volume	% price	\$million	% volume	% price	\$million
2014	-0.2	12.0	51,535	0.5	1.5	16,640	0.1	9.1	68,175
2015	3.4	-8.6	48,655	13.6	1.2	19,123	5.8	-6.0	67,778
2016	2.9	-1.6	49,270	9.8	2.4	21,496	5.0	-0.6	70,765
2017	0.0	1.3	49,943	0.5	1.4	21,920	0.1	1.4	71,863
2018	4.5	6.0	55,333	3.9	3.3	23,524	4.2	5.3	78,857
2019	1.2	1.5	56,856	3.6	2.4	24,944	2.0	1.6	81,799
2020	4.1	2.4	60,587	3.0	3.0	26,457	3.8	2.6	87,044
2021	2.6	1.8	63,255	3.2	3.0	28,123	2.8	2.1	91,378
2022	2.3	1.3	65,536	3.0	2.4	29,666	2.5	1.6	95,202

* Treasury now produces a slightly different disaggregation of exports, with previous "Forestry", "Other Goods" and "Non-commodity exports" combined in a single category

Source: Statistics New Zealand, the Treasury

Table 6 – Imports – SNA basis

Breakdown of Imports

Year ended June	Total Goods (VFD)			Services			Total Imports		
	% volume	% price	\$million	% volume	% price	\$million	% volume	% price	\$million
2014	9.6	-3.8	48,433	7.1	-4.1	15,685	9.0	-3.8	64,119
2015	7.9	-4.2	50,083	2.5	1.5	16,332	6.6	-2.8	66,414
2016	1.8	1.0	51,518	-1.5	6.3	17,090	1.0	2.3	68,608
2017	6.3	-3.3	52,974	5.1	-2.1	17,593	6.0	-3.0	70,568
2018	7.5	0.9	57,433	2.9	3.3	18,689	6.4	1.4	76,121
2019	3.3	2.0	60,468	2.9	3.3	19,863	3.2	2.2	80,331
2020	4.1	1.5	63,884	3.0	2.4	20,938	3.8	1.7	84,822
2021	3.1	1.6	66,895	2.2	2.3	21,884	2.9	1.7	88,779
2022	2.7	1.3	69,591	2.0	1.9	22,732	2.5	1.4	92,323

Note: Treasury no longer produces disaggregated import forecasts

Source: Statistics New Zealand, the Treasury

Table 7 – Balance of Payments – Current Account

\$ millions						
Year ended June	2017	2018	2019	2020	2021	2022
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Exports Goods	49,943	55,333	56,856	60,587	63,255	65,536
<i>annual % change</i>	1.4	10.8	2.8	6.6	4.4	3.6
Imports Goods	52,974	57,433	60,468	63,884	66,895	69,591
<i>annual % change</i>	2.8	8.4	5.3	5.6	4.7	4.0
Balance on Goods	-3,032	-2,101	-3,612	-3,297	-3,640	-4,055
<i>% of nominal GDP</i>	-1.1	-0.7	-1.2	-1.0	-1.1	-1.2
Exports Services	21,920	23,524	24,944	26,457	28,123	29,666
<i>annual % change</i>	2.0	7.3	6.0	6.1	6.3	5.5
Imports Services	17,593	18,689	19,863	20,938	21,884	22,732
<i>annual % change</i>	2.9	6.2	6.3	5.4	4.5	3.9
Balance on services	4,324	4,850	5,081	5,519	6,239	6,934
<i>% of nominal GDP</i>	1.6	1.7	1.7	1.7	1.9	2.0
Balance on goods & services	1,292	2,750	1,469	2,223	2,599	2,879
<i>% of nominal GDP</i>	0.5	0.9	0.5	0.7	0.8	0.8
Primary and secondary income balance	-8,683	-10,337	-10,881	-11,769	-12,714	-13,855
<i>% of nominal GDP</i>	-3.2	-3.6	-3.6	-3.7	-3.8	-4.0
Current account balance	-7,392	-7,588	-9,412	-9,546	-10,115	-10,977
<i>% of nominal GDP</i>	-2.7	-2.6	-3.1	-3.0	-3.0	-3.1

Source: Statistics New Zealand, the Treasury

Treasury and Inland Revenue Tax Forecasts

In line with established practice, Inland Revenue has also prepared a set of tax forecasts, which, like the Treasury's tax forecasts, were 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 two agencies and the various assumptions and judgements made by the forecasting teams in producing their forecasts.

In total, the two forecasts are close to each other through 2017/18 and 2018/19. In 2019/20 a gap of just over \$300 million opens up, increasing to around \$450 million through 2020/21 and 2021/22, with Treasury's forecast being the higher of the two. However, the differences are relatively small, with Treasury's total tax revenue forecast never more than 0.4% higher than Inland Revenue's forecast in any forecast year and just 0.2% higher on average over the whole forecast period.

Although the two sets of forecasts are quite close to each other in total, there are differences of opinion on how the various types of tax will play out over the current and next four fiscal years, as shown in the following two tables.

Table 8 Treasury and Inland Revenue forecasts of tax revenue (accrual)

Table 9 Treasury and Inland Revenue forecasts of tax receipts (cash)

Table 8 – Treasury and Inland Revenue forecasts of tax revenue (accrual)

	2016/17 Actual		2017/18 Estimated Actual		2018/19 Forecast		2019/20 Forecast		2020/21 Forecast		2021/22 Forecast	
	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference
Direct tax												
Individuals												
Source deductions	29,123	(83)	30,878	32,609	32,748	32,609	34,736	34,563	36,804	36,589	38,964	38,731
Other persons tax	6,382	(26)	6,661	6,968	6,968	6,945	7,334	7,236	7,634	7,515	7,979	7,849
Refunds	(1,638)	(132)	(1,777)	(1,764)	(1,764)	(1,671)	(1,749)	(1,687)	(1,645)	(1,682)	(1,572)	(1,632)
Fringe benefit tax	525	10	555	572	572	560	599	575	629	585	659	600
Subtotal: Individuals	34,392	(231)	36,317	38,443	38,524	38,443	40,920	40,687	43,422	43,007	46,030	45,548
Company tax (net)	13,743	27	13,654	14,687	14,453	14,687	15,354	15,510	16,083	16,163	16,955	16,868
Withholding taxes on:												
Resident interest income	1,472	5	1,545	1,620	1,737	1,620	2,316	2,220	2,722	2,710	3,150	3,280
Non-resident income	599	18	638	657	669	657	768	719	837	760	882	787
Foreign-source dividends	(10)	2	3	1	..	1	..	1	..	1
Resident dividend income	743	12	762	757	769	757	809	772	843	787	881	802
Subtotal: Withholding tax	2,804	37	2,948	3,035	3,175	3,035	3,893	3,712	4,402	4,258	4,913	4,870
Total direct tax	50,939	(167)	52,946	56,165	56,152	56,165	60,167	59,909	63,907	63,428	67,898	67,286
Indirect tax												
GST (net)	26,391	85	28,113	29,547	29,662	29,547	31,157	30,981	32,648	32,486	34,047	33,937
Excise duties on:												
Alcoholic drinks	684	(1)	699	720	737	720	758	750	779	770	801	790
Tobacco products	352	11	396	355	356	355	369	370	381	388	381	388
Petroleum fuels	1,136	(77)	1,190	1,259	1,259	1,253	1,276	1,265	1,289	1,280	1,294	1,300
Subtotal: excise duties	2,172	(67)	2,208	2,352	2,352	2,352	2,403	2,385	2,449	2,433	2,476	2,478
Other indirect tax												
Customs duty	2,550	116	2,656	2,555	2,583	2,555	2,651	2,610	2,718	2,693	2,728	2,724
Road user charges	1,469	(57)	1,505	1,635	1,500	1,635	1,520	1,718	1,559	1,802	1,609	1,883
Gaming duties	298	(1)	317	310	312	310	317	310	323	312	328	313
Motor vehicle fees	223	7	237	238	225	238	228	246	231	253	234	259
Exhaustible resource levy	24	6	30	24	30	24	30	24	30	24	30	24
Approved issuer levy, cheque duty & other	87	10	106	92	105	92	114	97	115	100	115	108
Subtotal: Other indirect tax	4,651	81	4,770	4,854	4,755	4,854	4,860	5,005	4,976	5,184	5,044	5,311
Total indirect tax	33,214	99	35,172	36,729	36,789	36,729	38,420	38,371	40,073	40,103	41,567	41,726
Total tax	84,153	(65)	88,186	92,894	92,941	92,894	98,587	98,280	103,950	103,531	109,465	109,012
Total tax (% of GDP)	30.7%	0.0%	30.3%	30.5%	30.5%	30.5%	30.8%	30.7%	31.1%	30.9%	31.3%	31.2%
less Core Crown tax eliminations												
Core Crown income tax	1,138	642	642	807	807	807	887	887	983	983	1,101	1,101
GST on Crown expenses and departmental outputs	6,883	7,422	7,422	7,713	7,713	7,713	8,144	8,144	8,545	8,545	8,822	8,822
Crown ESCT	445	462	462	465	465	465	468	468	468	468	469	469
Crown All	43	55	55	55	55	55	55	55	55	55	55	55
Core Crown taxation	75,644	(68)	79,605	83,554	83,901	83,554	89,033	88,726	93,929	93,480	99,018	98,565
Core Crown tax (% of GDP)	27.6%	-0.1%	27.3%	27.5%	27.5%	27.5%	27.8%	27.7%	28.1%	27.9%	28.3%	28.2%
less Total Crown tax eliminations												
Income tax from SOEs and CEs	565	604	604	552	552	552	735	735	795	795	854	854
Other Crown GST	37	36	36	35	35	35	36	36	37	37	36	36
ESCT from SOEs and CEs	69	72	72	73	73	73	75	75	77	77	81	81
Lottery duty	74,973	78,825	78,893	83,194	83,241	83,194	88,187	87,880	93,020	92,571	98,047	97,594
Total Crown taxation	27,33%	27.1%	27.1%	27.3%	27.3%	27.3%	27.6%	27.5%	27.8%	27.7%	28.0%	27.9%
Total Crown tax (% of GDP)	27.3%	0.0%	27.1%	27.3%	27.3%	27.3%	27.6%	27.5%	27.8%	27.7%	28.0%	27.9%
Nominal expenditure GDP	274,220	291,020	291,020	304,591	304,591	304,591	319,971	319,971	334,721	334,721	349,792	349,792

Table 9 – Treasury and Inland Revenue forecasts of tax receipts (cash)

	2016/17 Actual		2017/18 Estimated Actual		2018/19 Forecast		2019/20 Forecast		2020/21 Forecast		2021/22 Forecast	
	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference	Treasury	IRD Difference
Direct tax												
Individuals												
Source deductions	28,910	(150)	30,702	30,852	32,561	32,508	34,537	34,463	36,593	36,489	38,741	38,633
Other persons tax	6,683	95	7,050	6,955	7,257	7,313	7,655	7,621	7,948	7,925	8,309	8,254
Refunds	(2,540)	(53)	(2,577)	(2,490)	(2,577)	(2,535)	(2,557)	(2,542)	(2,511)	(2,477)	(2,477)	(2,477)
Fringe benefit tax	526	10	555	545	572	560	599	575	629	585	659	600
Subtotal: Individuals	33,579	(98)	35,764	35,862	37,813	37,846	40,234	40,117	42,659	42,457	45,282	45,010
Company tax (net)	13,038	57	13,667	13,611	14,336	14,590	15,109	15,295	15,830	15,944	16,646	16,645
Withholding taxes on:												
Resident interest income	1,446	5	1,545	1,540	1,737	1,620	2,316	2,220	2,722	2,710	3,150	3,280
Non-resident income	583	18	614	596	669	657	768	719	837	760	882	787
Foreign-source dividends	3	(1)	..	1	..	1	..	1	..	1	..	1
Resident dividend income	729	10	742	732	769	757	809	772	843	787	881	802
Subtotal: Withholding tax	2,761	32	2,901	2,869	3,175	3,035	3,893	3,712	4,402	4,258	4,913	4,870
Total direct tax	49,378	(10)	52,332	52,342	55,324	55,471	59,236	59,124	62,891	62,659	66,841	66,525
Indirect tax												
GST (net)	25,974	205	27,912	27,707	29,358	29,214	30,842	30,655	32,340	32,097	33,740	33,555
Excise duties on:												
Alcoholic drinks	678	(1)	699	700	737	720	758	750	779	770	801	790
Tobacco products	330	11	396	385	356	355	369	370	381	383	381	388
Petroleum fuels	1,135	(77)	1,113	1,190	1,259	1,253	1,276	1,265	1,289	1,280	1,294	1,300
Subtotal: Excise duties	2,143	(67)	2,208	2,275	2,352	2,328	2,403	2,385	2,449	2,433	2,476	2,478
Other indirect tax												
Customs duty	2,525	147	2,687	2,540	2,556	2,555	2,646	2,610	2,713	2,693	2,727	2,724
Road user charges	1,469	(57)	1,505	1,562	1,500	1,635	1,520	1,718	1,559	1,802	1,609	1,883
Gaming duties	297	(0)	307	307	312	309	317	310	323	312	328	313
Motor vehicle fees	217	7	237	230	225	238	228	246	231	253	234	259
Exhaustible resource levy	24	6	30	24	30	24	30	24	30	24	30	24
Approved issuer levy, cheque duty & other	82	9	97	88	105	92	114	97	115	100	115	108
Subtotal: Other indirect tax	4,614	112	4,863	4,751	4,728	4,853	4,855	5,005	4,971	5,184	5,043	5,311
Total indirect tax	32,731	250	34,948	34,733	36,438	36,395	38,100	38,045	39,774	39,714	41,259	41,344
Total tax	82,109	240	87,315	87,075	91,762	91,865	97,336	97,168	102,651	102,372	108,100	107,869
Total tax (% of GDP)	29.9%	0.1%	30.0%	29.9%	30.1%	30.2%	30.4%	30.4%	30.7%	30.6%	30.9%	30.8%
less Core Crown tax eliminations												
Core Crown income tax	944		798	798	909	909	871	871	963	963	1,077	1,077
GST on Crown expenses and departmental outputs	6,900		7,356	7,356	7,721	7,721	8,139	8,139	8,539	8,539	8,817	8,817
Crown ESCT	439		459	459	461	461	465	465	466	466	466	466
Crown AIL	42		54	54	56	56	55	55	55	55	54	54
Core Crown taxation	73,784	240	78,648	78,408	82,615	82,718	87,806	87,638	92,628	92,349	97,666	97,455
Core Crown tax (% of GDP)	26.9%	0.1%	27.0%	26.9%	27.1%	27.2%	27.4%	27.4%	27.7%	27.6%	27.9%	27.9%
less Total Crown tax eliminations												
Income tax from SOEs and CEs	542		591	591	555	555	731	731	791	791	845	845
Other Crown GST	47		20	20	3	3	(4)	(4)	20	20
ESCT from SOEs and CEs	27		20	20	21	21	21	21	20	20	20	20
Lottery duty	69		72	72	73	73	75	75	77	77	81	81
Total Crown taxation	73,909	240	77,945	77,705	81,963	82,066	86,983	86,815	91,720	91,441	96,740	96,509
Total Crown tax (% of GDP)	26.7%	0.1%	26.8%	26.7%	26.9%	26.9%	27.2%	27.1%	27.4%	27.3%	27.7%	27.6%

Tax Policy Changes

This section details the material changes to forecast tax revenue since the *Half Year Economic and Fiscal Update* as a result of revenue and spending initiatives. Table 10 shows a breakdown of the changes and the supplementary text describes each initiative.

Table 10 – Estimated tax effects of initiatives announced since the *Half Year Update*

Year ending 30 June \$ millions	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	Total 5 years
Ring-fencing of rental property losses	10	125	190	325
Tax Compliance Activity – Additional Revenue ¹	..	44	65	65	65	239
GST on low-value imported goods	53	78	87	218
Other	..	(2)	(6)	(8)	(9)	(25)
Net change	..	42	122	260	333	757

Source: The Treasury

Recent Initiatives

Ring-fencing of rental property losses

With effect from the 2019/20 income year, investors in residential property will no longer be able to offset their losses from that activity against their other income, for example, salary, wage or business income, to reduce their income tax liability. The revenue estimates may change as the policy details are finalised.

Tax Compliance Activity – Additional Revenue

Inland Revenue will be provided with additional funding to collect additional revenue from increasing the targeting of non-compliant customers in the area of outstanding tax returns, and identifying legislative opportunities to increase compliance.

GST on low-value imported goods

The Government has released a discussion document on collecting GST on low-value goods imports. Under the proposals in this document, with effect from 1 October 2019, the Government will be implementing an offshore supplier registration system for collecting GST on imported goods valued at or below \$400. The revenue estimates may change as the policy details are finalised.

Other

A number of measures, each of which has an expected revenue effect of less than \$10 million per annum.

Additional Fiscal Indicators

The Treasury calculates two summary fiscal indicators: the cyclically-adjusted balance (CAB) and the fiscal impulse.

- The CAB adjusts the operating balance before gains and losses (OBEGAL) for the cyclical position of the economy. The CAB is subject to uncertainty because it uses estimated variables and is sensitive to new information, particularly regarding the output gap.
- The fiscal impulse indicator uses the change in a cash-based version of the fiscal balance to estimate the marginal contribution of discretionary fiscal policy to aggregate demand.

Further information on the methodology, interpretation and limitations behind the indicators can be found in Treasury Working Papers 02/30 and 10/08.¹

This section discusses the Treasury’s central estimates of the CAB and fiscal impulse. The next section discusses sensitivity analysis. Detailed tables of data can be found at the end of the Additional Fiscal Indicators section.

The Treasury is currently reviewing these indicators to ensure they remain useful to users and fit for purpose. Any changes will be signalled prior to their publication.

Central Estimates

Cyclically-adjusted balance

The CAB is essentially an estimate of what OBEGAL would be without the effect of cyclical fluctuations in revenues and expenses. When the economy is operating above its potential level (a positive output gap) tax receipts are higher and unemployment expenses are lower than they would be relative to an economy operating at potential. When the economy is operating below its potential level, the opposite is true. Adjusting OBEGAL for the economic cycle therefore shows the underlying, structural fiscal position.

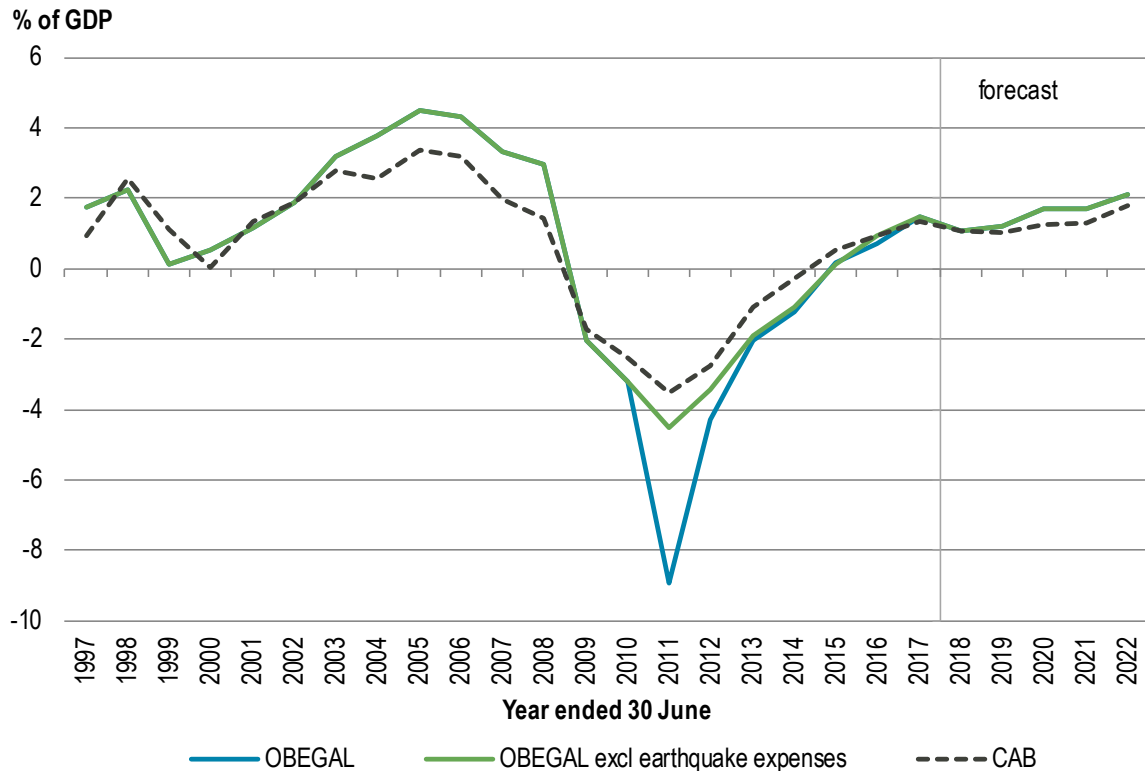
Significant “one-off” impacts on expenses from the Canterbury and Kaikōura earthquakes are removed from the central estimates of the CAB to give a better indication of underlying fiscal performance.

Figure 1 shows OBEGAL and the CAB. The CAB is in surplus across the entire forecast period, indicating surpluses are structural – that is, they are not due to cyclical economic conditions. In 2017/18 the economy is estimated to be operating roughly at its potential level (a near zero output gap). From 2018/19 the economy is forecast to be operating above its potential level (a positive output gap). As a result, the CAB approximately equals OBEGAL in 2017/18 and is lower than OBEGAL from 2018/19 onwards.

¹ Renee Philip and John Janssen (2002) "Indicators of Fiscal Impulse for New Zealand" New Zealand Treasury Working Paper 02/30, December 2002 <https://treasury.govt.nz/publications/wp/wp-02-30>
 Oscar Parkyn (2010) "Estimating New Zealand’s Structural Budget Balance" New Zealand Treasury Working Paper 10/08, December 2010 <https://treasury.govt.nz/publications/wp/wp-10-08>

Cyclically-adjusted surpluses are, on average, similar to those forecast at the *Half Year Update*. Higher forecast revenues at the *Budget Update* are offset by higher operating allowances. The CAB is forecast to increase from 1.0% of GDP in 2018/19 to 1.8% of GDP in 2021/22. At the *Half Year Update* the CAB was forecast to increase from 0.6% of GDP in 2018/19 to 2.3% of GDP in 2021/22.

Figure 1 – Cyclically-adjusted balance



Source: The Treasury

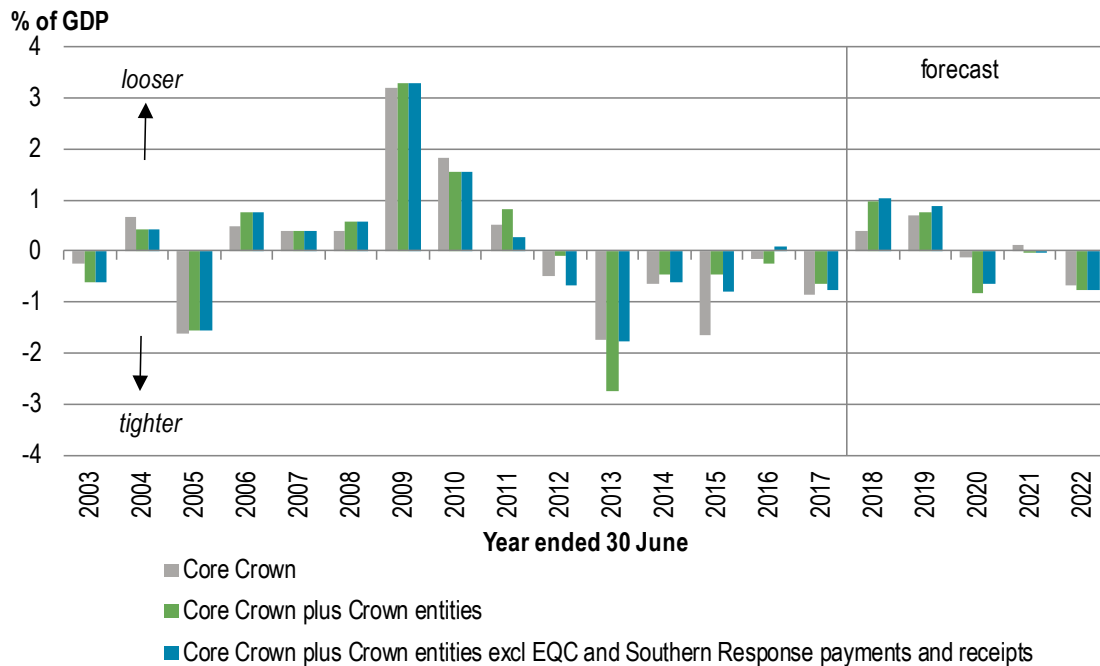
Fiscal impulse

The fiscal impulse is an estimate of discretionary changes (ie, excluding cyclical factors) in the fiscal position that have an impact on aggregate demand pressures in the economy. It is calculated as the change in a cash-based version of the fiscal balance (a cyclically-adjusted primary balance supplemented by capital expenditure). Capital expenditure on defence, KiwiSaver subsidies and Deposit Guarantee Scheme payments are excluded from the measure since these are expected to have a limited direct impact on aggregate demand pressures. Purchases and sales of investments are also excluded as they represent a transfer of resources.

The fiscal impulse is shown for both the core Crown and combined core Crown and Crown entities segments (ie, total Crown excluding State-owned enterprises). The core Crown indicator mostly reflects changes in receipts and expenditure impacted by Budget decisions, whereas the core Crown plus Crown entities indicator provides a better indication of the total impact of central government activities on aggregate demand pressures. A measure of the fiscal impulse that excludes earthquake-related (Canterbury and Kaikōura) financial transactions is also shown, which adjusts for Earthquake Commission (EQC) and Southern Response payments and receipts. The core Crown plus Crown entities (excluding EQC and Southern Response payments) indicator is used by the Treasury as the headline estimate of the fiscal impulse.

It is worth noting that summary indicators such as the fiscal impulse do not take account of the composition of fiscal policy changes or how a change in fiscal policy will be transmitted through the economy. Research by the Treasury using time series statistical analysis indicates that spending and taxes have different effects on New Zealand GDP.² Therefore the fiscal impulse indicator is only an imprecise guide to the impact of fiscal policy on the economy.

Figure 2 – Estimates of the fiscal impulse



Source: The Treasury

Figure 2 shows that fiscal policy is expected to have an expansionary impact on aggregate demand in 2017/18 and 2018/19. For the remainder of the forecast period fiscal policy is estimated to have, on average, a contractionary impact on aggregate demand. The forecast positive impulses in 2017/18 and 2018/19 (1.0 and 0.9 per cent of GDP respectively) are driven by increases in capital and operating spending as per cent of GDP. The forecast negative impulses in 2019/20 and 2021/22 are driven by declining capital spending and rising tax receipts as per cent of GDP.

Compared with the *Half Year Update*, the most significant change is in 2020/21 where the fiscal impulse is estimated to be neutral compared with an estimated -1.1% of GDP at the *Half Year Update*. The change in 2020/21 is driven by movements in the timing of capital spending (largely KiwiBuild), larger capital and operating allowances over the forecast and increased Health and Education related expenditure announced at Budget 2018.

The direction of the headline fiscal impulse in each other year of the forecast period is unchanged, however there have been some changes in magnitude. The positive impulse in 2017/18 has decreased from 1.8% of GDP at the *Half Year Update* to 1.0% of GDP at the *Budget Update*. This is largely driven by an increase in tax receipts as a share of GDP. The fiscal impulse is higher (more positive) in 2018/19, broadly unchanged in 2019/20 and lower (more negative) in 2021/22.

² Parkyn and Vehbi (2013) "The Effects of Fiscal Policy in New Zealand: Evidence from a VAR Model with Debt Constraints" New Zealand Treasury Working Paper 13/02, January 2013 <https://treasury.govt.nz/publications/wp/wp-13-02>

Sensitivity Analysis

There is uncertainty around the estimates of the summary indicators. The two broad sources of uncertainty are:

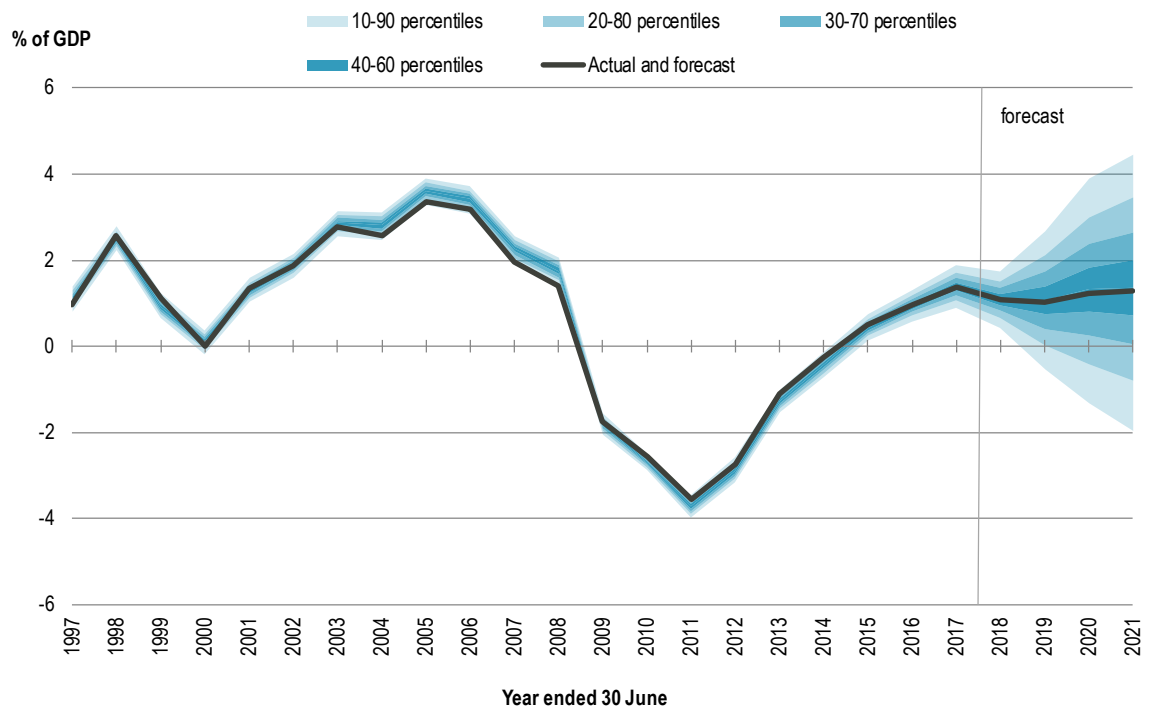
- estimation uncertainty of the key model parameters (ie, the output gap and the elasticity of different tax revenues with respect to the output gap); and
- forecast uncertainty relating to future fiscal and economic developments.

To illustrate this uncertainty, sensitivity analysis is performed on estimates of the CAB and core Crown fiscal impulse by using alternative output gap estimates from the RBNZ, IMF and OECD. Alternative values for the elasticity of different tax revenues with respect to the output gap that are half and twice the magnitude of the baseline estimates are also used. The range of alternative estimates is plotted in Figures 4-6, with data reported in Tables 14-16. These estimates of the fiscal impulse and the CAB show a similar picture to the Treasury's central estimate across the forecast period.

An alternative means of illustrating uncertainty is to show a probability distribution around the central forecast. A probability distribution requires making some assumptions about future forecast errors based on historical forecast errors of observable economic and fiscal variables and historical revisions to the Treasury's output gap estimates. Figure 3 presents a fan chart of the CAB indicator. The probability intervals calculated are conditional on current policy and reflect historical revisions to the Treasury's official output gap estimate, rather than the full uncertainty implied by different estimation techniques. Details of the methodology and parameter values for the confidence intervals are reported in Treasury Working Paper 10/08.³ This analysis shows that, although the central estimate of the CAB indicates that the Government is running a structural surplus in each year of the forecast period, there is uncertainty around these estimates.

³ Oscar Parkyn (2010) "Estimating New Zealand's Structural Budget Balance". New Zealand Treasury Working Paper 10/08 <https://treasury.govt.nz/publications/wp/wp-10-08>

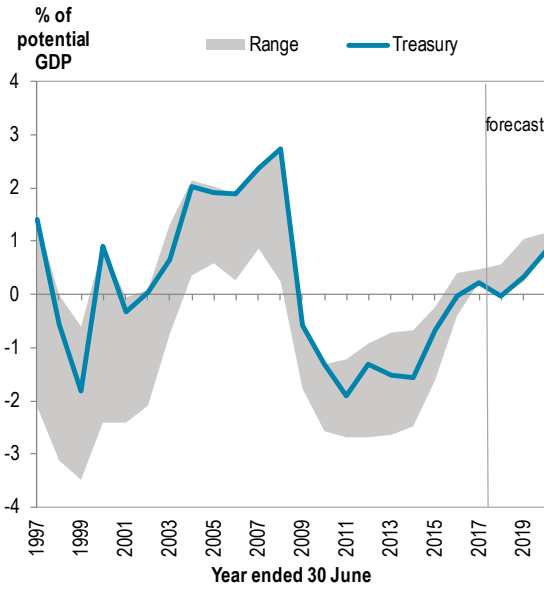
Figure 3 – Fan chart for the cyclically-adjusted balance



Source: The Treasury

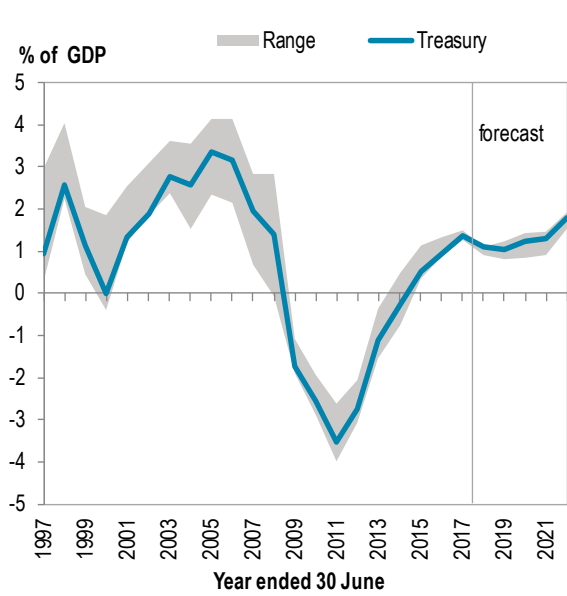
Note: the bands represent sequential deciles such that the difference between the 10th and 90th percentiles represents an 80% confidence interval.

Figure 4 – Output gap range



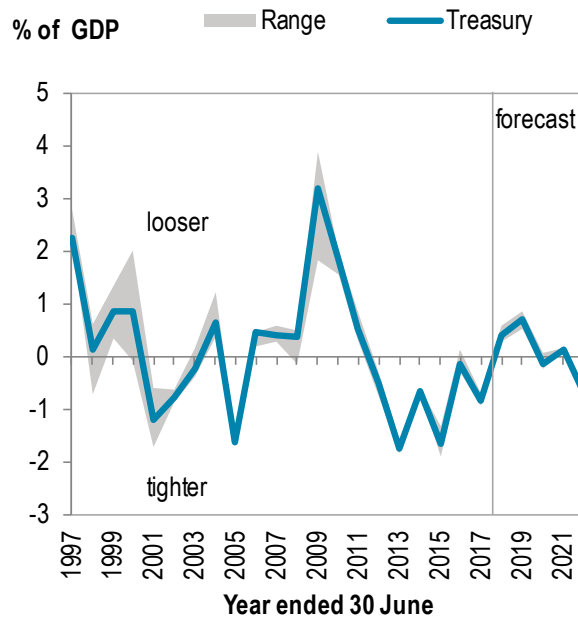
Source: The Treasury

Figure 5 – Cyclically-adjusted balance range



Source: The Treasury

Figure 6 – Core Crown fiscal impulse range



Source: The Treasury

Terms of Trade Adjustment

The Treasury produces regular estimates of the terms of trade effect on the budget balance following the methodology outlined in Treasury Working Paper 10/08.⁴

Estimating the terms of trade effect requires calculating the approximate amount of tax revenue that is attributable to deviations in the terms of trade from its specified structural, or long-run, level.

The terms of trade are estimated to remain at a relatively high level compared to historical averages. The terms of trade for the March 2018 quarter is estimated to be approximately 23% higher than the 30-year average and is forecast to be 25% higher by the end of the forecast period. Adjusting the CAB to use historical averages of the terms of trade shows how the underlying fiscal position may vary under different assumptions (ie, scenarios) than the central forecast estimates. The terms of trade sensitivity analysis is used to help make judgements about the fiscal position from a medium-term perspective, without compromising the forecasts' role of presenting the most likely near-term outcome.

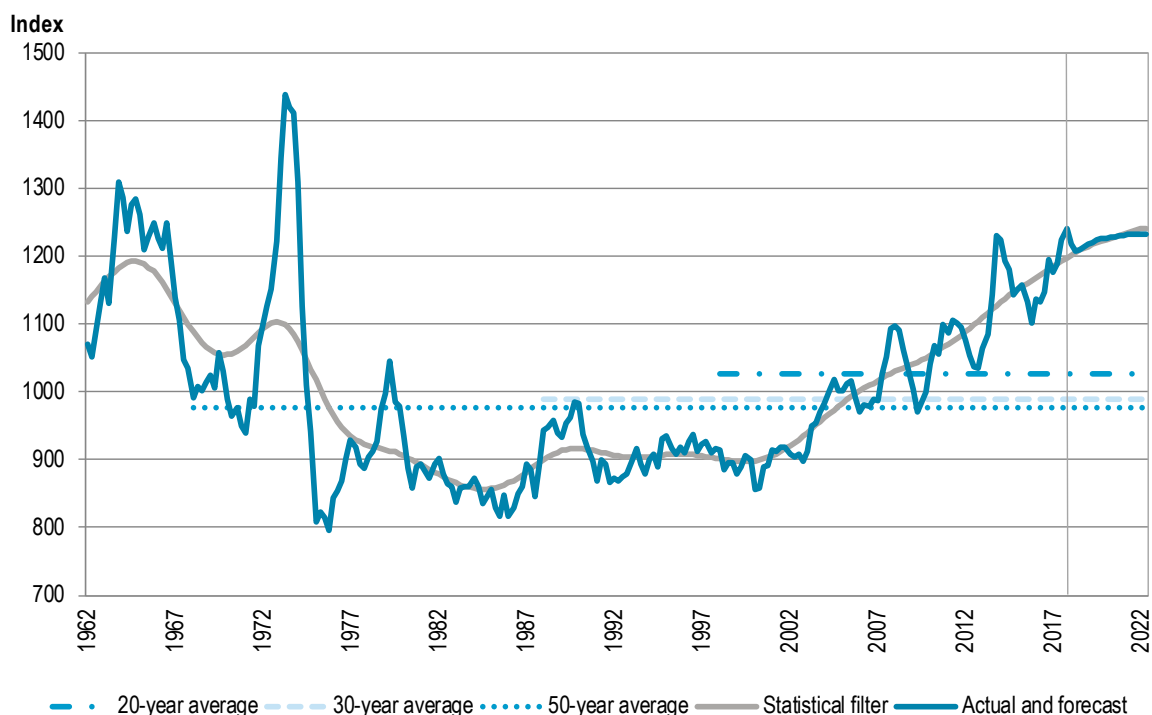
Figure 7 shows New Zealand's terms of trade with historical average levels (50-, 30- and 20-year averages) and a time-varying trend using a statistical filter.⁵ The historical average and trend estimates are used as estimates of the structural level of the terms of trade. Using the statistical filter runs the risk of interpreting long cycles as structural shifts in real time, whereas using an historical average suffers from the opposite risk.

A terms of trade adjustment for each alternative assumption is reported in Table 17. The CAB with a terms of trade adjustment using the 30-year average is plotted in Figure 8. Using the 30-year average suggests a structural budget deficit of 2.0% of GDP for the 2017/18 fiscal year, relative to the 1.1% of GDP structural surplus estimated using the central terms of trade estimates. Alternatively, a terms of trade adjustment using a statistical filter, which smooths out fluctuations around a time-varying trend, suggests a structural surplus of 0.8% of GDP in 2017/18.

⁴ Oscar Parkyn (2010) "Estimating New Zealand's Structural Budget Balance." New Zealand Treasury Working Paper 10/08 <http://www.treasury.govt.nz/publications/research-policy/wp/2010/10-08/>

⁵ A Hodrick-Prescott filter is used on quarterly data with a smoothing parameter of 1600.

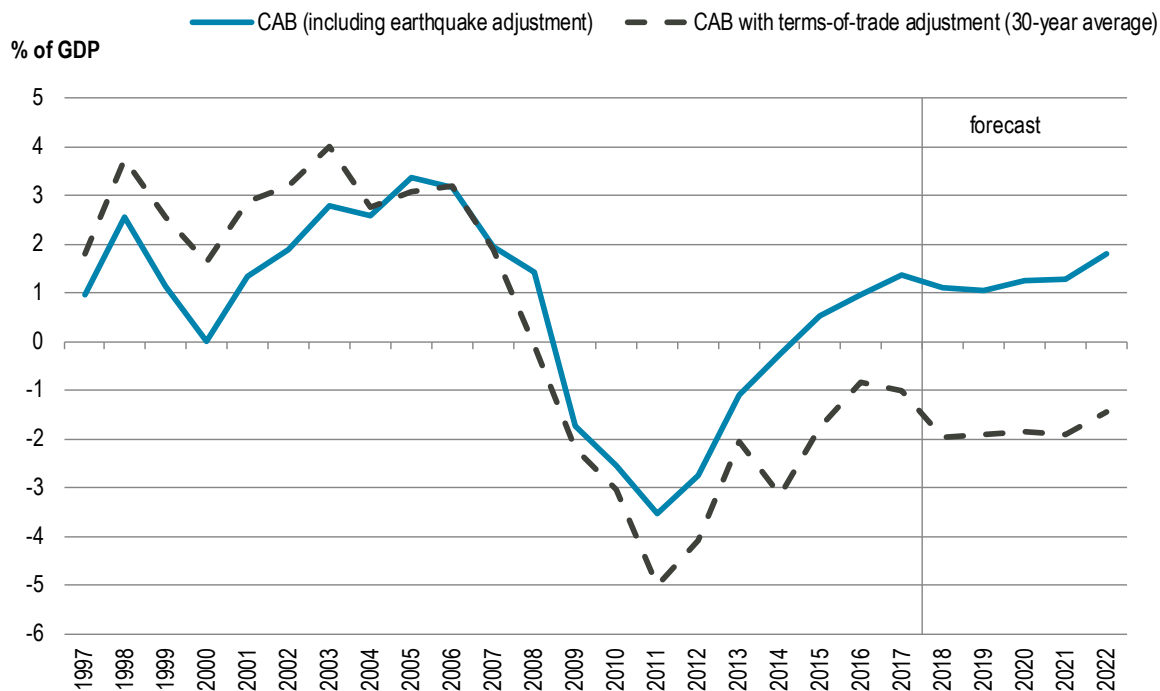
Figure 7 – Terms of trade with historical average and time-varying trend



Sources: Stats NZ, the Treasury

Note: Due to data availability, this uses the goods and services terms of trade spliced with the goods terms of trade for the period prior to 1987.

Figure 8 – Cyclically-adjusted balance with terms of trade adjustment



Source: The Treasury

Data Tables for Summary Fiscal Indicators

Table 11 – Central estimates of output gap, cyclically-adjusted balance and fiscal impulse (% of GDP)

June year	Output gap	OBEHAL	OBEHAL excl earthquake expenses	CAB	Fiscal impulse (core Crown)	Fiscal impulse (core Crown plus Crown entity)	Fiscal impulse (core Crown plus CE) excluding EQC & Southern Response net payouts
1997	1.4	1.8	1.8	1.0	2.3	-	-
1998	-0.6	2.2	2.2	2.6	0.1	-	-
1999	-1.8	0.1	0.1	1.1	0.9	-	-
2000	0.9	0.5	0.5	0.0	0.9	-	-
2001	-0.3	1.2	1.2	1.3	-1.2	-	-
2002	0.0	1.9	1.9	1.9	-0.8	-	-
2003	0.6	3.2	3.2	2.8	-0.2	-0.6	-0.6
2004	2.0	3.8	3.8	2.6	0.7	0.4	0.4
2005	1.9	4.5	4.5	3.4	-1.6	-1.6	-1.6
2006	1.9	4.3	4.3	3.2	0.5	0.8	0.8
2007	2.4	3.3	3.3	2.0	0.4	0.4	0.4
2008	2.7	3.0	3.0	1.4	0.4	0.6	0.6
2009	-0.6	-2.1	-2.1	-1.7	3.2	3.3	3.3
2010	-1.3	-3.2	-3.2	-2.5	1.8	1.5	1.5
2011	-1.9	-8.9	-4.5	-3.5	0.5	0.8	0.3
2012	-1.3	-4.3	-3.4	-2.7	-0.5	-0.1	-0.7
2013	-1.5	-2.0	-1.9	-1.1	-1.7	-2.7	-1.8
2014	-1.6	-1.2	-1.1	-0.3	-0.7	-0.5	-0.6
2015	-0.7	0.2	0.1	0.5	-1.6	-0.5	-0.8
2016	0.0	0.7	0.9	1.0	-0.1	-0.2	0.1
2017	0.2	1.5	1.5	1.4	-0.8	-0.6	-0.8
2018	0.0	1.1	1.1	1.1	0.4	1.0	1.0
2019	0.3	1.2	1.2	1.0	0.7	0.8	0.9
2020	0.8	1.7	1.7	1.2	-0.1	-0.8	-0.7
2021	0.8	1.7	1.7	1.3	0.1	0.0	0.0
2022	0.5	2.1	2.1	1.8	-0.7	-0.8	-0.8

Source: The Treasury

Table 12 – Sources for alternative output gaps

Institution	Source	Publication date
The Treasury	Budget Economic and Fiscal Update	May 2018
RBNZ	Monetary Policy Statement	February 2018
IMF	World Economic Outlook	April 2018
OECD	Economic Outlook	November 2017

Table 13 – Elasticity values used in sensitivity analysis

Elasticities	Base case	Low	High
Individual income tax	1.2	0.6	2.5
Company tax	2.4	1.2	4.8
GST	1.3	0.7	2.6
Excise duties	1.0	0.5	2.0
Other indirect tax	1.0	0.5	2.0
Interest, profits and dividends	0.0	0.0	0.0
Other receipts	1.0	0.5	2.0

Source: The Treasury

Table 14 – Output gap estimates used in sensitivity analysis (% of potential GDP)

June year	The Treasury	RBNZ	IMF	OECD
1997	1.4	-	-2.1	1.3
1998	-0.6	-	-3.1	0.0
1999	-1.8	-	-3.5	-0.6
2000	0.9	0.4	-2.4	0.3
2001	-0.3	-1.0	-2.4	0.0
2002	0.0	-0.4	-2.1	0.1
2003	0.6	0.3	-0.7	1.3
2004	2.0	1.8	0.4	2.1
2005	1.9	1.6	0.6	2.0
2006	1.9	1.4	0.3	1.4
2007	2.4	1.8	0.9	1.8
2008	2.7	1.9	0.3	1.0
2009	-0.6	-1.5	-1.8	-1.0
2010	-1.3	-2.0	-2.6	-1.4
2011	-1.9	-2.3	-2.7	-1.2
2012	-1.3	-1.4	-2.7	-0.9
2013	-1.5	-1.3	-2.6	-0.7
2014	-1.6	-1.2	-2.5	-0.7
2015	-0.7	-0.2	-1.6	-0.3
2016	0.0	0.4	-0.4	0.2
2017	0.2	0.5	0.2	0.4
2018	0.0	0.3	0.3	0.6
2019	0.3	0.7	0.3	1.0
2020	0.8	1.2	-	-
2021	0.8	-	-	-
2022	0.5	-	-	-

Sources: The Treasury, RBNZ, IMF, OECD

Table 15 – Cyclically-adjusted balance with alternative output gap and elasticity values (% of GDP)

June year	OBEGAL	Baseline CAB	CAB using alternative output gaps			CAB using alternative elasticities	
			RBNZ	IMF	OECD	Low	High
1997	1.8	1.0	-	3.0	1.0	1.3	0.3
1998	2.2	2.6	-	4.1	2.2	2.4	2.8
1999	0.1	1.1	-	2.1	0.5	0.7	2.0
2000	0.5	0.0	0.3	1.9	0.4	0.2	-0.4
2001	1.2	1.3	1.7	2.6	1.2	1.3	1.5
2002	1.9	1.9	2.2	3.1	1.8	1.9	1.9
2003	3.2	2.8	3.0	3.6	2.4	3.0	2.5
2004	3.8	2.6	2.7	3.6	2.5	3.1	1.5
2005	4.5	3.4	3.6	4.2	3.3	3.9	2.3
2006	4.3	3.2	3.5	4.1	3.5	3.7	2.2
2007	3.3	2.0	2.3	2.8	2.3	2.6	0.7
2008	3.0	1.4	1.9	2.8	2.4	2.2	-0.1
2009	-2.1	-1.7	-1.2	-1.1	-1.5	-1.9	-1.4
2010	-3.2	-2.5	-2.2	-1.9	-2.5	-2.9	-1.9
2011	-8.9	-3.5	-3.3	-3.1	-3.9	-4.0	-2.6
2012	-4.3	-2.7	-2.7	-2.0	-2.9	-3.1	-2.1
2013	-2.0	-1.1	-1.2	-0.5	-1.5	-1.5	-0.4
2014	-1.2	-0.3	-0.5	0.2	-0.7	-0.6	0.5
2015	0.2	0.5	0.4	1.2	0.5	0.4	0.8
2016	0.7	1.0	0.9	1.3	1.0	0.9	1.0
2017	1.5	1.4	1.3	1.5	1.4	1.4	1.3
2018	1.1	1.1	1.1	1.1	0.9	1.1	1.1
2019	1.2	1.0	1.0	1.2	0.8	1.1	0.9
2020	1.7	1.2	1.2	-	-	1.4	0.8
2021	1.7	1.3	-	-	-	1.5	0.9
2022	2.1	1.8	-	-	-	1.9	1.5

Source: The Treasury

Table 16 – Core Crown fiscal impulse with alternative output gap and elasticity values (% of GDP)

June year	Fiscal impulse	Fiscal impulse using alternative output gaps			Fiscal impulse using alternative elasticities	
		RBNZ	IMF	OECD	Low	High
1997	2.3	-	2.3	2.8	2.2	2.4
1998	0.1	-	0.6	0.5	0.5	-0.7
1999	0.9	-	1.4	1.2	1.1	0.3
2000	0.9	-	0.0	-0.1	0.3	2.0
2001	-1.2	-	-0.6	-0.7	-1.0	-1.7
2002	-0.8	-0.7	-0.8	-0.9	-0.8	-0.6
2003	-0.2	-0.2	0.2	0.1	-0.4	0.0
2004	0.7	0.7	0.5	0.4	0.4	1.2
2005	-1.6	-1.7	-1.5	-1.6	-1.6	-1.6
2006	0.5	0.4	0.3	0.2	0.5	0.5
2007	0.4	0.4	0.5	0.4	0.3	0.6
2008	0.4	0.3	0.0	-0.1	0.3	0.5
2009	3.2	3.2	3.8	3.8	3.9	1.8
2010	1.8	1.9	1.8	2.0	2.0	1.6
2011	0.5	0.6	0.7	0.9	0.6	0.3
2012	-0.5	-0.4	-0.7	-0.6	-0.6	-0.3
2013	-1.7	-1.6	-1.6	-1.6	-1.7	-1.8
2014	-0.7	-0.6	-0.6	-0.6	-0.7	-0.7
2015	-1.6	-1.6	-1.7	-1.9	-1.8	-1.3
2016	-0.1	-0.1	0.1	-0.2	-0.3	0.1
2017	-0.8	-0.9	-0.7	-0.9	-0.9	-0.7
2018	0.4	0.4	0.5	0.6	0.4	0.3
2019	0.7	0.7	0.5	0.8	0.6	0.9
2020	-0.1	-0.1	-	-	-0.2	0.1
2021	0.1	0.2	-	-	0.1	0.1
2022	-0.7	-	-	-	-0.6	-0.8

Source: The Treasury

Table 17 – Terms of trade adjustment to the cyclically-adjusted balance (% of GDP)

June year	Baseline CAB	Terms-of-trade adjustment (impact on CAB)				CAB with terms-of-trade adjustment			
		50-year average	30-year average	20-year average	Statistical filter	50-year average	30-year average	20-year average	Statistical filter
1997	1.0	0.7	0.9	1.3	-0.3	1.6	1.8	2.2	0.7
1998	2.6	1.0	1.2	1.6	-0.1	3.5	3.7	4.2	2.5
1999	1.1	1.2	1.4	1.9	0.1	2.4	2.6	3.0	1.3
2000	0.0	1.4	1.6	2.1	0.3	1.4	1.6	2.1	0.3
2001	1.3	1.3	1.5	2.1	0.1	2.7	2.9	3.5	1.4
2002	1.9	1.1	1.3	1.9	0.1	3.0	3.2	3.8	2.0
2003	2.8	1.0	1.2	1.8	0.4	3.8	4.0	4.6	3.2
2004	2.6	0.0	0.2	0.7	-0.3	2.5	2.8	3.3	2.3
2005	3.4	-0.5	-0.3	0.3	-0.4	2.9	3.1	3.6	3.0
2006	3.2	-0.2	0.0	0.6	0.1	3.0	3.2	3.7	3.3
2007	2.0	-0.3	-0.1	0.5	0.3	1.7	1.9	2.4	2.3
2008	1.4	-1.7	-1.5	-0.9	-0.8	-0.3	-0.1	0.5	0.6
2009	-1.7	-0.7	-0.5	0.2	0.4	-2.4	-2.2	-1.6	-1.4
2010	-2.5	-0.7	-0.5	0.0	0.4	-3.2	-3.0	-2.5	-2.2
2011	-3.5	-1.7	-1.5	-0.9	-0.3	-5.2	-5.0	-4.4	-3.8
2012	-2.7	-1.6	-1.3	-0.8	0.1	-4.3	-4.1	-3.5	-2.7
2013	-1.1	-1.2	-0.9	-0.4	0.7	-2.3	-2.0	-1.5	-0.4
2014	-0.3	-3.1	-2.9	-2.3	-0.8	-3.4	-3.2	-2.6	-1.1
2015	0.5	-2.5	-2.3	-1.7	-0.1	-2.0	-1.8	-1.2	0.4
2016	1.0	-2.0	-1.8	-1.3	0.5	-1.1	-0.8	-0.3	1.4
2017	1.4	-2.6	-2.4	-1.8	0.1	-1.2	-1.0	-0.5	1.4
2018	1.1	-3.3	-3.1	-2.5	-0.3	-2.2	-2.0	-1.4	0.8
2019	1.0	-3.2	-2.9	-2.4	0.0	-2.1	-1.9	-1.3	1.0
2020	1.2	-3.3	-3.1	-2.5	0.0	-2.1	-1.9	-1.3	1.2
2021	1.3	-3.4	-3.2	-2.6	0.0	-2.1	-1.9	-1.3	1.3
2022	1.8	-3.5	-3.2	-2.6	0.1	-1.7	-1.4	-0.8	1.9

Source: The Treasury

Government Finance Statistics for Central Government

Government Finance Statistics (GFS) is a fiscal reporting framework developed by the International Monetary Fund (IMF) and is specifically designed for government reporting.

The main purpose for having a common government reporting framework is to more easily enable cross-country comparisons of fiscal data and assessment of fiscal policy (eg, as in the case of the IMF's Article IV consultation with New Zealand).

It is important to note that even though the GFS framework provides a consistent presentation format there are underlying differences between countries in measurement and recognition. These differences mean that it can be difficult to make meaningful cross-country comparisons.

Further information on GFS can be found on the IMF's website⁶.

New Zealand's GFS Accounts

The following section provides fiscal forecasts for central Government on a GFS basis. These are prepared by applying top-down adjustments to the Forecast Financial Statements presented in the *Budget Update*, which were prepared on a Generally Accepted Accounting Practice (GAAP) basis. The major differences between the forecasts are:

Coverage	The Central Government entity is defined here as the consolidation of core Crown (excluding Reserve Bank) and Crown entities, as opposed to the emphasis on the total Crown in the <i>Budget Update</i> document. As a result, the Government's interest in the Reserve Bank and State-owned enterprises is equity accounted rather than consolidated line-by-line.
Other economic flows	The GFS operating balance excludes valuation changes on assets and liabilities, which are instead reported in a Statement of other economic flows.
Transactions	Defence weapons are treated as being expensed at the time of purchase. In addition there are some reclassifications of transactions (eg, some levies move to taxation revenue).

The GFS data presented in this section is provisional. Statistics New Zealand release an official GFS series for actuals, which will also include local government. Table 18 outlines some of the key indicators for the central government under a GFS presentation.

⁶ <http://www.imf.org/external/np/sta/gfsm/index.htm>

Table 18 – Summary indicators for central government

	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast
\$million					
Net operating balance	6,189	6,079	7,431	7,904	9,588
Fiscal Balance (Net lending/borrowing)	1,076	(800)	2,473	2,252	5,179
Cash surplus/(deficit)	(1,292)	(2,968)	471	905	3,772
Net worth	115,788	122,404	130,936	140,516	152,314
Net financial worth	9,703	9,966	6,392	2,464	(4,925)
Borrowing	78,173	74,240	77,519	77,488	83,627
%GDP					
Net operating balance	2.1	2.0	2.3	2.4	2.7
Fiscal Balance (Net lending/borrowing)	0.4	(0.3)	0.8	0.7	1.5
Cash surplus/(deficit)	(0.4)	(1.0)	0.1	0.3	1.1
Net worth	39.8	40.2	40.9	42.0	43.5
Net financial worth	3.3	3.3	2.0	0.7	(1.4)
Borrowing	26.9	24.4	24.2	23.2	23.9

Source: The Treasury

The following tables provide additional detail around the calculation of the key indicators.

Table	Name of the statement	What the statement shows
19	Statement of operations	A summary of the results of all transactions during an accounting period.
20	Statement of other economic flows	Changes to stocks of assets, liabilities and net worth that come about from sources other than transactions.
21	Balance sheet	Stocks of assets and liabilities and the corresponding net worth.
22	Statement of sources and uses of cash	A summary of all cash flows presented using classifications similar to the Statement of operations.
23	Statement of stocks and flows	How the operating balance is applied to capital investment and debt repayment at a component level.
24	Reconciliation between GAAP and GFS operating balance	The adjustments between the GAAP and GFS operating balance.
25	Reconciliation between GAAP residual cash and GFS cash surplus/(deficit)	The adjustments between the GAAP and GFS cash indicators.

The GFS manual (on the IMF’s website) includes additional explanations on definitions for some of the terminology used in this section.

Table 19 – Statement of operations
for the years ended 30 June

	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast
	\$m	\$m	\$m	\$m	\$m
Revenue					
Taxation revenue	83,588	88,318	93,928	99,043	104,397
Interest revenue and dividends	3,474	3,710	3,587	3,791	3,786
Sale of goods and services and other revenue	10,395	10,939	11,131	11,332	11,431
Total revenue	97,457	102,967	108,646	114,166	119,614
Expenses					
Compensation of employees	23,638	24,306	24,432	24,881	24,903
Consumption of capital	3,692	3,837	3,933	3,985	4,056
Social benefits	26,391	29,261	30,377	31,617	33,033
Grants and subsidies	5,573	6,136	6,303	6,485	6,547
Finance costs	3,147	2,986	2,931	3,109	2,895
Other expenses	28,941	30,747	30,494	30,824	30,738
Forecast for new operating spending and top-down adjustment	(114)	(385)	2,745	5,361	7,854
Total expenses	91,268	96,888	101,215	106,262	110,026
Net operating balance	6,189	6,079	7,431	7,904	9,588
Net acquisition of non-financial assets					
Acquisition of non-financial assets	9,393	10,393	8,188	8,017	6,187
Disposal of non-financial assets	(275)	(271)	(655)	(493)	(445)
Consumption of fixed assets	(3,692)	(3,837)	(3,933)	(3,985)	(4,056)
Change in inventories	(13)	(73)	(34)	6	14
Forecast for new capital spending and top-down adjustment	(300)	667	1,392	2,107	2,709
Fiscal Balance (Net lending/borrowing)	1,076	(800)	2,473	2,252	5,179
Net acquisition of financial assets					
Receivables	691	1,274	977	1,533	1,235
Advances	(1,969)	(112)	60	(208)	(174)
Other financial assets	(1,902)	(7,165)	3,890	1,341	10,285
Other assets	786	636	463	240	186
	(2,394)	(5,367)	5,390	2,906	11,532
Net incurrence of liabilities					
Borrowings	(621)	(3,983)	3,227	(89)	6,079
Accounts payable	(1,874)	384	(292)	34	220
Other liabilities	(975)	(968)	(18)	709	54
	(3,470)	(4,567)	2,917	654	6,353
Difference between net lending/borrowing and financing	-	-	-	-	-

Source: The Treasury

Table 20 – Statement of other economic flows
for the years ended 30 June

	2018 Forecast \$m	2019 Forecast \$m	2020 Forecast \$m	2021 Forecast \$m	2022 Forecast \$m
Other Economic Flows					
Impairments and write-offs of financial assets	(1,676)	(1,542)	(1,557)	(1,559)	(1,512)
ACC and GSF valuations changes	(1,032)	-	-	-	-
Other gains/(losses) on non financial instruments	(1,328)	(604)	(626)	(629)	(627)
Derivatives gains	1,069	553	597	648	729
Derivatives losses	(1,334)	(11)	(4)	(2)	3
Gains/(losses) on financial assets	5,279	2,431	2,782	3,148	3,550
Gains/(losses) on financial liabilities	(158)	(39)	(48)	(56)	(63)
Reserve Bank equity accounted	339	214	237	263	280
SOEs equity accounted	(322)	(228)	(181)	(13)	-
Other items	(42)	(237)	(99)	(124)	(150)
Total other economic flows	795	537	1,101	1,676	2,210

Source: The Treasury

Table 21 – Balance sheet
as at 30 June

	2018 Forecast \$m	2019 Forecast \$m	2020 Forecast \$m	2021 Forecast \$m	2022 Forecast \$m
Assets					
Cash and cash equivalents	12,773	11,559	11,250	11,201	10,931
Receivables	18,628	19,902	20,879	22,412	23,647
Marketable securities, deposits and derivatives in gain	34,871	27,489	29,870	29,088	37,487
Share investments	37,153	40,026	43,666	48,075	52,998
Advances	10,911	10,799	10,859	10,651	10,477
Inventory	756	683	649	655	669
Other assets	1,991	1,989	2,018	2,022	2,087
Property, plant & equipment	125,035	131,320	134,920	138,459	140,145
Equity accounted investments	26,050	26,269	26,558	26,860	27,201
Intangible assets and goodwill	2,443	2,611	2,713	2,773	2,683
Forecast for new capital spending and top-down adjustment	(300)	367	1,759	3,866	6,575
Total assets	270,311	273,014	285,141	296,062	314,900
Liabilities					
Payables	11,763	12,172	11,906	11,953	12,190
Deferred revenue	1,576	1,551	1,525	1,512	1,495
Borrowings	78,173	74,240	77,519	77,488	83,627
Insurance liabilities	44,104	44,728	46,266	48,192	50,230
Retirement plan liabilities	10,578	9,986	9,414	8,874	8,360
Provisions	8,329	7,933	7,575	7,527	6,684
Total liabilities	154,523	150,610	154,205	155,546	162,586
Net Worth	115,788	122,404	130,936	140,516	152,314

Source: The Treasury

Table 22 – Statement of sources and uses of cash
for the years ended 30 June

	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast
	\$m	\$m	\$m	\$m	\$m
Cash receipts from operating activities					
Total tax receipt	81,992	86,109	91,753	96,740	102,077
Interest and dividends	3,018	3,272	3,210	3,456	3,488
Sale of goods and services and other receipts	10,460	10,706	11,018	11,174	11,307
Total receipts	95,470	100,087	105,981	111,370	116,872
Cash payments from operating activities					
Compensation of employees and other payments	(50,586)	(52,510)	(51,676)	(51,559)	(51,831)
Social benefits	(26,404)	(29,308)	(30,443)	(31,709)	(33,101)
Grants and subsidies	(8,617)	(8,640)	(9,194)	(9,221)	(9,277)
Finance costs	(3,086)	(3,029)	(2,762)	(3,012)	(2,597)
Forecast for new operating spending and top-down adjustment	114	385	(2,745)	(5,361)	(7,854)
Total payments	(88,579)	(93,102)	(96,820)	(100,862)	(104,660)
Net cash inflow/(outflow) from operating activities	6,891	6,985	9,161	10,508	12,212
Net cash outflow from investments in non-financial assets					
Acquisition of non-financial assets	(8,758)	(9,557)	(7,953)	(7,989)	(6,176)
Disposal of non-financial assets	275	271	655	493	445
Forecast for new capital spending and top-down adjustment	300	(667)	(1,392)	(2,107)	(2,709)
Cash surplus/(deficit)	(1,292)	(2,968)	471	905	3,772
Net acquisition of financial assets					
Advances	(197)	(161)	(114)	(68)	2
Share investments	519	6,822	(3,358)	(766)	(9,807)
Net purchase of investments	(596)	(771)	(432)	(150)	(360)
Capital contributions	(54)	9	8	(1)	(4)
Net incurrence of liabilities					
New Zealand dollar borrowings	4,731	(1,227)	898	3,158	(1,142)
Foreign currency borrowings	(4,401)	458	42	(1)	(8)
Government stock	(198)	(3,376)	2,176	(3,126)	7,277
Net cash inflows from financing activities	(196)	1,754	(780)	(954)	(4,042)
Foreign-exchange gains/(losses) on opening cash	93	-	-	-	-
Net change in the stock of cash	(1,395)	(1,214)	(309)	(49)	(270)

Source: The Treasury

Table 23 – Statement of stocks and flows

for the year ending 30 June 2018

Opening balance statement	\$million	Statement of operations	\$million	Other economic flows	\$million	Closing balance sheet	\$million
Opening net worth	108,826	Operating balance	6,189	Holding gains	773	Closing net worth	115,788
<i>Equals</i>		<i>Equals</i>					
Non-financial assets	120,400	Transactions	5,113	Valuation changes	(22)	Non-financial assets	125,491
<i>plus</i>		<i>plus</i>		<i>plus</i>		<i>plus</i>	
Net financial worth	(11,574)	Net lending	1,076	Change in net financial worth	795	Net financial worth	(9,703)
<i>Equals</i>		<i>Equals</i>					
Financial assets	142,567	Transactions in financial assets	(2,394)	Changes in financial assets	4,647	Closing financial assets	144,820
<i>less</i>		<i>less</i>		<i>less</i>		<i>less</i>	
Opening liabilities	154,141	Transactions in liabilities	(3,470)	Changes in liabilities	3,852	Closing liabilities	154,523

for the year ending 30 June 2019

Opening balance statement	\$million	Statement of operations	\$million	Other economic flows	\$million	Closing balance sheet	\$million
Opening net worth	115,788	Operating balance	6,079	Holding gains	537	Closing net worth	122,404
<i>Equals</i>		<i>Equals</i>					
Non-financial assets	125,491	Transactions	6,879	Valuation changes	-	Non-financial assets	132,370
<i>plus</i>		<i>plus</i>		<i>plus</i>		<i>plus</i>	
Net financial worth	(9,703)	Net lending	(800)	Change in net financial worth	537	Net financial worth	(9,966)
<i>Equals</i>		<i>Equals</i>					
Financial assets	144,820	Transactions in financial assets	(5,367)	Changes in financial assets	1,191	Closing financial assets	140,644
<i>less</i>		<i>less</i>		<i>less</i>		<i>less</i>	
Opening liabilities	154,523	Transactions in liabilities	(4,567)	Changes in liabilities	654	Closing liabilities	150,610

for the year ending 30 June 2020

Opening balance statement	\$million	Statement of operations	\$million	Other economic flows	\$million	Closing balance sheet	\$million
Opening net worth	122,404	Operating balance	7,431	Holding gains	1,101	Closing net worth	130,936
<i>Equals</i>		<i>Equals</i>					
Non-financial assets	132,370	Transactions	4,958	Valuation changes	-	Non-financial assets	137,328
<i>plus</i>		<i>plus</i>		<i>plus</i>		<i>plus</i>	
Net financial worth	(9,966)	Net lending	2,473	Change in net financial worth	1,101	Net financial worth	(6,392)
<i>Equals</i>		<i>Equals</i>					
Financial assets	140,644	Transactions in financial assets	5,390	Changes in financial assets	1,779	Closing financial assets	147,813
<i>less</i>		<i>less</i>		<i>less</i>		<i>less</i>	
Opening liabilities	150,610	Transactions in liabilities	2,917	Changes in liabilities	678	Closing liabilities	154,205

for the year ending 30 June 2021

Opening balance statement	\$million	Statement of operations	\$million	Other economic flows	\$million	Closing balance sheet	\$million
Opening net worth	130,936	Operating balance	7,904	Holding gains	1,676	Closing net worth	140,516
<i>Equals</i>		<i>Equals</i>					
Non-financial assets	137,328	Transactions	5,652	Valuation changes	-	Non-financial assets	142,980
<i>plus</i>		<i>plus</i>		<i>plus</i>		<i>plus</i>	
Net financial worth	(6,392)	Net lending	2,252	Change in net financial worth	1,676	Net financial worth	(2,464)
<i>Equals</i>		<i>Equals</i>					
Financial assets	147,813	Transactions in financial assets	2,906	Changes in financial assets	2,363	Closing financial assets	153,082
<i>less</i>		<i>less</i>		<i>less</i>		<i>less</i>	
Opening liabilities	154,205	Transactions in liabilities	654	Changes in liabilities	687	Closing liabilities	155,546

for the year ending 30 June 2022

Opening balance statement	\$million	Statement of operations	\$million	Other economic flows	\$million	Closing balance sheet	\$million
Opening net worth	140,516	Operating balance	9,588	Holding gains	2,210	Closing net worth	152,314
<i>Equals</i>		<i>Equals</i>					
Non-financial assets	142,980	Transactions	4,409	Valuation changes	-	Non-financial assets	147,389
<i>plus</i>		<i>plus</i>		<i>plus</i>		<i>plus</i>	
Net financial worth	(2,464)	Net lending	5,179	Change in net financial worth	2,210	Net financial worth	4,925
<i>Equals</i>		<i>Equals</i>					
Financial assets	153,082	Transactions in financial assets	11,532	Changes in financial assets	2,897	Closing financial assets	167,511
<i>less</i>		<i>less</i>		<i>less</i>		<i>less</i>	
Opening liabilities	155,546	Transactions in liabilities	6,353	Changes in liabilities	687	Closing liabilities	162,586

Source: The Treasury

Table 24 – Reconciliation between GAAP and GFS operating balance
as at 30 June

	2018 Forecast \$m	2019 Forecast \$m	2020 Forecast \$m	2021 Forecast \$m	2022 Forecast \$m
Operating balance per GAAP	6,997	6,773	8,837	9,567	11,652
Remove gains/losses and net surpluses from associates and joint ventures	(3,856)	(3,036)	(3,417)	(3,846)	(4,340)
Operating balance before gains and losses (OBEGAL)	3,141	3,737	5,420	5,721	7,312
Remove SOE portion of OBEGAL (incl. eliminations)	429	217	140	(28)	(54)
Remove ETS expenses	786	521	545	548	548
Remove impairments and write-offs on financial assets	1,676	1,542	1,557	1,559	1,512
Tertiary institutions included on a line-by-line basis	92	130	164	180	188
Reserve Bank (equity accounted)	51	81	(96)	(89)	(67)
Specialised Military Equipment (expensed)	(13)	(157)	(305)	13	146
Other adjustments	27	8	6	-	3
Net operating balance per GFS	6,189	6,079	7,431	7,904	9,588

Source: The Treasury

Table 25 – Reconciliation between GAAP residual cash and GFS cash surplus/(deficit)
as at 30 June

	2018 Forecast \$m	2019 Forecast \$m	2020 Forecast \$m	2021 Forecast \$m	2022 Forecast \$m
Residual cash per GAAP	(1,255)	(3,875)	(1,727)	(1,893)	652
Back out advances	127	54	11	(47)	(109)
Back out investments	3,201	3,882	2,499	2,010	1,627
Contribution to NZS Fund	500	1,000	1,500	2,200	2,500
Add in cash flows from Crown entities	(3,637)	(3,968)	(1,704)	(1,251)	(778)
Remove cash flows from the Reserve Bank	(61)	150	(28)	(21)	(21)
Add in NZSF cash flows	(134)	(178)	(50)	(61)	(74)
Other adjustments	(33)	(33)	(30)	(32)	(25)
Cash surplus/(deficit)	(1,292)	(2,968)	471	905	3,772

Source: The Treasury

Accounting Policies

The forecast financial statements contained in the published *Budget Economic and Fiscal Update 2018* are based on the following accounting policies:

Statement of Compliance

These forecast financial statements have been prepared in accordance with the Public Finance Act 1989 and with New Zealand Generally Accepted Accounting Practice (NZ GAAP) as defined in the Financial Reporting Act 2013.

These forecasts have been prepared in accordance with Public Sector PBE Accounting Standards (PBE Standards) – Tier 1. These standards are based on International Public Sector Accounting Standards (IPSAS). The forecast financial statements comply with PBE FRS-42: Prospective Financial Statements and NZ GAAP as it relates to prospective financial statements.

For the purposes of these forecast financial statements, the Government reporting entity has been designated as a public benefit entity (PBE). Public benefit entities (PBEs) are reporting entities whose primary objective is to provide goods or services for community or social benefit and where any equity has been provided with a view to supporting that primary objective rather than for a financial return to equity holders.

The use of public resources by the Government is primarily governed by the Public Finance Act 1989, the State Sector Act 1988, the Crown Entities Act 2004 and the State-owned enterprises Act 1986.

Reporting and Forecast Period

The reporting periods for these forecast financial statements are the years ended 30 June 2018 to 30 June 2022.

The “2017 Actual” figures reported in the statements are the audited results reported in the Financial Statements of Government for the year ended 30 June 2017. The “2018 Previous Budget” figures are the original forecasts to 30 June 2018 as presented in the 2017 Budget.

Where necessary, the financial information for State-owned enterprises and Crown entities that have a balance date other than 30 June has been adjusted for any transactions or events that have occurred since their most recent balance date and that are significant for the Financial Statements of the Government. Such entities are primarily in the education sector.

Basis of Preparation

These forecast financial statements have been prepared on the basis of historic cost modified by the revaluation of certain assets and liabilities, and prepared on an accrual basis, unless otherwise specified (for example, the Statement of Cash Flows).

The forecast financial statements are presented in New Zealand dollars rounded to the nearest million, unless separately identified.

Judgements and Estimations

The preparation of these financial statements requires judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, revenue and expenses. For example, the present value of large cash flows that are predicted to occur a long time into the future, as with the settlement of ACC outstanding claim obligations and Government superannuation retirement benefits, depends critically on judgements regarding future cash flows, including inflation assumptions and the risk-free discount rate used to calculate present values.

These forecasts include budget adjustments for new unallocated spending during the year (both operating and capital) and top-down adjustments which reduce the bias for forecast expenditure by departments to reflect maximum spending limits instead of mid-point estimates. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Where these judgements significantly affect the amounts recognised in the forecast financial statements they are described in the notes of the forecast financial statements.

Reporting Entity

The Government reporting entity as defined in section 2(1) of the Public Finance Act 1989 means:

- the Sovereign in right of New Zealand, and
- the legislative, executive, and judicial branches of the Government of New Zealand.

The description “Consolidated Financial Statements of the Government reporting entity” and the description “Financial Statements of the Government” have the same meaning and can be used interchangeably.

Basis of Combination

These forecast financial statements combine the following entities using the acquisition method of combination:

Core Crown entities

- Ministers of the Crown
- Government departments
- Offices of Parliament
- the Reserve Bank of New Zealand
- New Zealand Superannuation Fund

Other entities

- State-owned enterprises
- Crown entities (excluding tertiary education institutions)
- Air New Zealand Limited
- Regenerate Christchurch
- Organisations listed in Schedule 4 and 4A (Non-listed companies in which the Crown is majority or sole shareholder) of the Public Finance Act 1989
- Organisations listed in Schedule 5 (Mixed ownership model companies) of the Public Finance Act 1989
- Legal entities listed in Schedule 6 (Legal entities created by Treaty of Waitangi settlement Acts) of the Public Finance Act 1989

The Crown has a full residual interest in all the above entities with the exception of Air New Zealand Limited, Tāmaki Redevelopment Company Limited (listed in Schedule 4A of the Public Finance Act 1989), Regenerate Christchurch and the entities listed in Schedule 5 of the Public Finance Act 1989 (Mixed Ownership Model Companies).

Corresponding assets, liabilities, revenue and expenses, are added together line by line. Transactions and balances between these sub-entities are eliminated on combination. Where necessary, adjustments are made to the financial statements of controlled entities to bring the accounting policies into line with those used by the Government reporting entity.

Tertiary education institutions are equity-accounted for the reasons explained in the note to the Government's financial statements for the period ended 30 June 2017. This treatment recognises these entities' net assets, including asset revaluation movements, surpluses and deficits.

The basis of combination for a joint venture depends on the form of the joint venture.

Significant Accounting Policies

The accounting policies set out below have been applied consistently to all periods in the *Budget Economic and Fiscal Update 2018*.

Revenue

Taxation revenue levied through the Crown's sovereign power

The Government provides many services and benefits that do not give rise to revenue. Further, payment of tax does not of itself entitle a taxpayer to an equivalent value of services or benefits, since there is no relationship between paying tax and receiving Crown services and transfers. Such revenue is received through the exercise of the sovereign power of the Crown in Parliament.

Tax revenue is recognised when a taxable event has occurred and the tax revenue can be reliably measured. The taxable event is defined as follows:

Revenue type	Revenue recognition point
Source deductions	When an individual earns income that is subject to PAYE
Resident withholding tax (RWT)	When an individual is paid interest or dividends subject to deduction at source
Fringe benefit tax (FBT)	When benefits are provided that give rise to FBT
Income tax	The earning of assessable income during the taxation period by the taxpayer
Goods and services tax (GST)	When the purchase or sale of taxable goods and services occurs during the taxation period
Customs and excise duty	When goods become subject to duty
Road user charges and motor vehicle fees	When payment of the fee or charge is made
Other indirect taxes	When the debt to the Crown arises
ACC levies	The levy revenue is earned evenly over the levy period
Other levies	When the obligation to pay the levy is incurred

The New Zealand tax system is predicated on self-assessment where taxpayers are expected to understand the tax laws and comply with them. Inland Revenue has implemented systems and controls (eg, performing audits of taxpayer records) in order to detect and correct situations where taxpayers are not complying with the various acts it administers.

Revenue earned through operations

Revenue from the supply of goods and services to third parties is measured at the fair value of consideration received. Revenue from the supply of goods is recognised when the significant risks and rewards of ownership have been transferred to the buyer. Revenue from the supply of services is recognised on a straight-line basis over the specified period for the services unless an alternative method better represents the stage of completion of the transaction.

Interest revenue

Interest revenue is accrued using the effective interest method.

The effective interest rate exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount. The method applies this rate to the principal outstanding to determine interest revenue each period.

Dividend revenue

Dividend revenue from investments is recognised when the Government's rights as a shareholder to receive payment have been established.

Rental revenue

Rental revenue is recognised in the statement of financial performance on a straight-line basis over the term of the lease. Lease incentives granted are recognised evenly over the term of the lease as a reduction in total rental revenue.

Donated or subsidised assets

Where an asset is acquired for nil or nominal consideration, the fair value of the asset received is recognised as revenue in the statement of financial performance.

If control of the donated assets is conditional on the satisfaction of performance obligations, the revenue is deferred and recognised when the conditions are satisfied.

Gains

Gains may be reported in the Statement of Financial Performance when assets are revalued or liabilities are devalued in certain circumstances as described in the accounting policies for those assets and liabilities. For the purposes of reporting the operating balance before gains and losses (OBEGAL) these gains are excluded from total revenue and presented elsewhere in the Statement of Financial Performance.

Expenses

General

Expenses are recognised in the period to which they relate.

Welfare benefits and entitlements

Welfare benefits and entitlements, including New Zealand Superannuation, are recognised in the period when an application for a benefit has been received and the eligibility criteria have been met.

Grants and subsidies

Where grants and subsidies are at the government's discretion until payment, the expense is recognised when the payment is made. Otherwise, the expense is recognised when the specified criteria for the grant or subsidy have been fulfilled and notice has been given to the government.

Interest expense

Interest expense is accrued using the effective interest method.

The effective interest rate exactly discounts estimated future cash payments through the expected life of the financial liability to that liability's net carrying amount. The method applies this rate to the principal outstanding to determine interest expense each period.

Losses

Losses may be reported in the Statement of Financial Performance when assets are devalued or liabilities are revalued in certain circumstances as described in the accounting policies for those assets and liabilities. For the purposes of reporting the operating balance before gains and losses (OBEGAL) these losses are excluded from total expenses and presented elsewhere in the Statement of Financial Performance.

Foreign currency

Transactions in foreign currencies are initially translated at the foreign exchange rate at the date of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of financial performance, except when recognised in the statement of comprehensive revenue and expense when hedge accounting is applied.

Non-monetary assets and liabilities measured at historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currencies and measured at fair value are translated into New Zealand dollars at the exchange rate applicable at the fair value date. The associated foreign exchange gains or losses follow the fair value gains or losses to either the statement of financial performance or the statement of comprehensive revenue and expense.

Foreign exchange gains and losses arising from translating monetary items that form part of the net investment in a foreign operation are reported in a translation reserve in net worth and recognised in the statement of comprehensive revenue and expense.

Sovereign receivables and taxes repayable

Receivables from taxes, levies and fines (and any penalties associated with these activities) as well as social benefit receivables which do not arise out of a contract are collectively referred to as sovereign receivables.

Receivables arising from sovereign revenue will be initially recognised at fair value. These receivables are subsequently adjusted for penalties and interest as they are charged, and tested for impairment. Interest and penalties charged on tax receivables are presented as tax revenue in the statement of financial performance.

Taxes repayable represent refunds due to taxpayers and are recognised at their nominal value. They are subsequently adjusted for interest once account and refund reviews are complete.

Financial Instruments – forecasting policies

For forecast purposes sales and purchases of bonds and other liquid instruments are assumed to be issued at par value, with no discounts or premiums forecasted. Generally, financial assets and financial liabilities held at the forecast reference date are assumed to be held until they mature.

Forecasts of instruments that have non-market elements (e.g. low or no interest rates with long maturities such as student loans or social benefit receivables) include the write-down to fair value when the loan or receivable is forecast to be issued and the revenue from the effective interest unwind.

Interest income and interest expense are recognised using the effective interest rate method (which in most instances will equal the coupon rate for future instruments).

Forecasts use the exchange rates, interest rate curves and electricity pricing curves prevailing at the forecast reference date. As a consequence, no additional realised or unrealised foreign exchange gains or losses are forecast.

Gains and losses reflect long run rate of return assumptions appropriate to the forecast portfolio mix, after adjusting for interest income and interest expense (recognised separately using the effective interest rate method).

Derivatives

Only the value of derivatives as at the forecast reference date are forecast to be realised. No additional realised or unrealised derivative gains or losses are recognised over the forecast period. Forward margins on forward foreign exchange contracts existing at the start of the forecast period are amortised over the period of the contract on a straight line basis.

Forecasts for derivatives only include those that exist at the forecast reference date, and then only to their maturity. That is, by the end of the forecast period only those derivatives existing at the forecast reference date with a maturity beyond the end of the period should be recognised in the financial statements.

Except in limited circumstances, future derivative activity is not included in forecasts. This is because fair value forecasts of future derivatives are assumed to be zero due to forecast exchange rates being fixed at the rate at the forecast reference date, as are interest rate curves and other assumptions (eg, electricity pricing curves) affecting the value of derivatives.

Financial instruments – accounting policies

Non-derivative financial assets

Financial assets are designated into the following categories: loans and receivables at amortised cost, financial assets available-for-sale, financial assets held-for-trading and financial assets designated as fair value through the operating balance. This designation is made by reference to the purpose of the financial instruments, policies and practices for their management, their relationship with other instruments and the reporting costs and benefits associated with each designation.

The maximum loss due to default on any financial asset is the carrying value reported in the statement of financial position.

Major financial asset type	Designation
Trade and other receivables	All designated as loans and receivables at amortised cost
Student loans	All designated as loans and receivables at amortised cost
Kiwibank mortgages	All designated as loans and receivables at amortised cost
Other advances	Generally designated as loans and receivables at amortised cost
IMF financial assets	All designated as loans and receivables at amortised cost
Share investments	Generally designated as fair value through the operating balance
Marketable securities	Generally designated as fair value through the operating balance
Long-term deposits	Generally designated as loans and receivables at amortised cost

Loans and receivables are recognised initially at fair value plus transaction costs and subsequently measured at amortised cost using the effective interest method (refer interest revenue policy). Loans and receivables issued with durations of less than 12 months are recognised at their nominal value, unless the effect of discounting is material. Allowances for estimated irrecoverable amounts are recognised when there is objective evidence that the asset is impaired. Interest, impairment losses and foreign exchange gains and losses are recognised in the statement of financial performance.

Financial assets held-for-trading and financial assets designated at fair value through the operating balance are recorded at fair value with any realised and unrealised gains or losses recognised in the statement of financial performance.

A financial asset is designated at fair value through the operating balance if acquired principally for the purpose of trading in the short term. It may also be designated into this category if the accounting treatment results in more relevant information because it either significantly reduces an accounting mismatch with related liabilities or is part of a group of financial assets that is managed and evaluated on a fair value basis, such as with the NZ Superannuation Fund. Gains or losses from interest, foreign exchange and other fair value movements are separately reported in the statement of financial performance. Transaction costs are expensed as they are incurred.

Available-for-sale financial assets are initially recorded at fair value plus transaction costs. They are subsequently recorded at fair value with any resultant fair value gains or losses recognised in the statement of comprehensive revenue and expense, with some exceptions. Those exceptions are for impairment losses, any interest calculated using the effective interest method and, in the case of monetary items (such as debt securities), foreign exchange gains and losses resulting from translation differences due to changes in amortised cost of the asset. These latter items are recognised in the statement of financial performance. For non-monetary available-for-sale financial assets (eg, some unlisted equity instruments) the fair value movements recognised in the statement of comprehensive revenue and expense include any related foreign exchange component. At derecognition, the cumulative fair value gain or loss previously recognised in the statement of comprehensive revenue and expense, is recognised in the statement of financial performance.

Cash and cash equivalents include cash on hand, cash in transit, bank accounts and deposits with an original maturity of no more than three months.

Fair values of quoted investments are based on market prices. Regular way purchases and sales of all financial assets are accounted for at trade date. If the market for a financial asset is not active, fair values for initial recognition and, where appropriate, subsequent measurement are established by using valuation techniques, as set out in the notes to the financial statements. At each balance date an assessment is made whether there is objective evidence that a financial asset or group of financial assets is impaired.

Non-derivative financial liabilities

Financial liabilities are designated into the following categories: amortised cost, financial liabilities held-for-trading and financial liabilities designated as fair value through the operating balance. This designation is made by reference to the purpose of the financial instruments, policies and practices for their management, their relationship with other instruments and the reporting costs and benefits associated with each designation.

Major financial liability type	Designation
Accounts payable	All designated at amortised cost
Government stock	Generally designated at amortised cost
Treasury bills	Generally designated at amortised cost
Government retail stock	All designated at amortised cost
Settlement deposits with Reserve Bank	All designated at amortised cost
Issued currency	Not designated: Recognised at face value

Financial liabilities held-for-trading and financial liabilities designated at fair value through the operating balance are recorded at fair value with any realised and unrealised gains or losses recognised in the statement of financial performance. A financial liability is designated at fair value through the operating balance if acquired principally for the purpose of trading in the short term. It may also be designated into this category if the accounting treatment results in more relevant information because it either eliminates or significantly reduces an accounting mismatch with related assets or is part of a group of financial liabilities that is managed and evaluated on a fair value basis. Gains or losses from interest, foreign exchange and other fair value movements are separately reported in the statement of financial performance. Transaction costs are expensed as they are incurred.

Other financial liabilities are recognised initially at fair value less transaction costs and are subsequently measured at amortised cost using the effective interest method. Financial liabilities entered into with durations of less than 12 months are recognised at their nominal value. Amortisation and, in the case of monetary items, foreign exchange gains and losses, are recognised in the statement of financial performance as is any gain or loss when the liability is derecognised.

Currency issued for circulation, including demonetised currency after 1 July 2004, is recognised at face value. Currency issued represents a liability in favour of the holder.

Derivative financial instruments

Derivative financial instruments are recognised both initially and subsequently at fair value. They are reported as either assets or liabilities depending on whether the derivative is in a net gain or net loss position respectively. Recognition of the movements in the value of derivatives depends on whether the derivative is designated as a hedging instrument and, if so, the nature of the item being hedged (see Hedging section below).

Derivatives that are not designated for hedge accounting are classified as held-for-trading financial instruments with fair value gains or losses recognised in the statement of financial performance. Such derivatives may be entered into for risk management purposes, although not formally designated for hedge accounting, or for tactical trading.

Hedging

Individual entities consolidated within the Government reporting entity apply hedge accounting after considering the costs and benefits of adopting hedge accounting, including:

- whether an economic hedge exists and the effectiveness of that hedge
- whether the hedge accounting qualifications could be met, and
- the extent to which it would improve the relevance of reported results.

(a) Cash flow hedge

Where a derivative qualifies as a hedge of variability in asset or liability cash flows (cash flow hedge), the effective portion of any gain or loss on the derivative is recognised in the statement of comprehensive revenue and expense and the ineffective portion is recognised in the statement of financial performance. Where the hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or non-financial liability (eg, where the hedge relates to the purchase of an asset in a foreign currency), the amount recognised in the statement of comprehensive revenue and expense is included in the initial cost of the asset or liability. Otherwise, gains or losses recognised in the statement of comprehensive revenue and expense transfer to the statement of financial performance in the same period as when the hedged item affects the statement of financial performance (eg, when the forecast sale occurs). Effective portions of the hedge are recognised in the same area of the statement of financial performance as the hedged item.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in net worth at that time remains in net worth and is recognised when the forecast transaction is ultimately recognised in the statement of financial performance. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in the statement of comprehensive revenue and expense is transferred to the statement of financial performance.

(b) Fair value hedge

Where a derivative qualifies as a hedge of the exposure to changes in fair value of an asset or liability (fair value hedge) any gain or loss on the derivative is recognised in the statement of financial performance together with any changes in the fair value of the hedged asset or liability. The carrying amount of the hedged item is adjusted by the fair value gain or loss on the hedged item in respect of the risk being hedged.

Inventories

Inventories are recorded at the lower of cost (calculated using a weighted average method) and net realisable value. Inventories held for distribution for public benefit purposes are recorded at cost adjusted where applicable for any loss of service potential. Where inventories are acquired at no cost, or for nominal consideration, their cost is deemed to be fair value, usually determined through an assessment of current replacement cost at the date of acquisition.

Inventories include unissued currency and harvested agricultural produce (eg, logs, wool). The cost of harvested agricultural produce is measured at fair value less estimated costs to sell at the point of harvest.

Property, plant and equipment – forecasting policy

Forecasts of the value of property, plant and equipment (PPE) (including state highways and rail infrastructure) use the valuations recorded in the Financial Statements of the Government for the prior year and any additional valuations that have occurred up to the forecast preparation date. As a consequence, no further realised or unrealised gains or losses are forecast for the entire forecast period.

Property, plant and equipment – accounting policies

Measurement on initial recognition

Items of PPE are initially recorded at cost. Cost may include transfers from net worth of any gains or losses on qualifying cash flow hedges of foreign currency purchases of PPE. Where an asset is acquired for nil or nominal consideration the asset is recognised initially at fair value, where fair value can be reliably determined, as revenue in the statement of financial performance.

Capitalisation of borrowing costs

Generally, Government borrowings are not directly attributable to individual assets. Therefore, borrowing costs incurred during the period, including any that could be allocated as a cost of completing and preparing assets for their intended use are expensed rather than capitalised.

Subsequent measurement

Subsequent to initial recognition, classes of PPE are accounted for as set out below.

Revaluations are carried out for a number of classes of PPE to reflect the service potential or economic benefit obtained through control of the asset. Revaluation is based on the fair value of the asset, with changes reported by class of asset.

Class of PPE	Accounting policy
Land and buildings	<p>Land and buildings are recorded at fair value and, for buildings, less depreciation accumulated since the assets were last revalued.</p> <p>Land associated with the rail network and state highways is valued using an estimate based on adjacent use, as an approximation to fair value.</p> <p>Valuations undertaken in accordance with standards issued by the New Zealand Property Institute are used where applicable.</p> <p>Otherwise, valuations conducted in accordance with the Rating Valuation Act 1998, may be used if they have been confirmed as appropriate by an independent valuer.</p> <p>When revaluing buildings, there must be componentisation to the level required to ensure adequate representation of the material components of the buildings. At a minimum, this requires componentisation to three levels: structure, building services and fit-out.</p>
Specialist military equipment	<p>Specialist military equipment is recorded on a depreciated replacement cost basis less depreciation accumulated since the assets were last revalued.</p> <p>Valuations are obtained through specialist assessment by New Zealand Defence Force advisers, and the basis for the valuation is confirmed as appropriate by an independent valuer.</p>
State highways	<p>State highways are recorded on a depreciated replacement cost basis less depreciation accumulated since the assets were last revalued.</p>
Rail network	<p>Rail infrastructure used for freight services (freight only and dual use lines required for freight operations) are recorded at fair value less depreciation accumulated since the assets were last revalued. Rail infrastructure not required for freight operations and used for metro services is recorded on a depreciated replacement cost basis less depreciation accumulated since the assets were last revalued.</p>
Aircraft	<p>Aircraft (excluding specialised military equipment) are recorded at fair value less depreciation accumulated since the assets were last revalued.</p>
Electricity distribution	<p>Electricity distribution network assets are recorded at cost, less depreciation and impairment losses accumulated since the assets were purchased.</p>
Electricity generation	<p>Electricity generation assets are recorded at fair value less depreciation accumulated since the assets were last revalued.</p>
Specified cultural and heritage assets	<p>Specified cultural and heritage assets comprise national parks, conservation areas and related recreational facilities, as well as National Archives holdings and the collections of the National Library, Parliamentary Library and Te Papa. Of these, non-land assets are recorded at fair value less subsequent impairment losses. Assets are not reported with a financial value in cases where they are not realistically able to be reproduced or replaced, and where no market exists to provide a valuation. For example, Crown research institutes own various collections, library resources and databases that are an integral part of the research work they undertake. These collections are highly specialised and there is no reliable basis for establishing a valuation. They have therefore not been valued for financial reporting purposes.</p>
Other plant and equipment	<p>Other plant and equipment, which includes motor vehicles and office equipment, are recorded at cost less depreciation and impairment losses accumulated since the assets were purchased.</p>

Revaluation

Classes of PPE that are revalued are revalued at least every five years or whenever the carrying amount differs materially to fair value.

Items of PPE are revalued to fair value for the highest and best use of the item on the basis of the market value of the item, or on the basis of market evidence, such as discounted cash flow calculations. If no market evidence of fair value exists, an optimised depreciated replacement cost approach is used as the best proxy for fair value. Where an item of PPE is recorded at its optimised depreciated replacement cost, this cost is based on the estimated present cost of constructing the existing item of PPE by the most appropriate method of construction, less allowances for physical deterioration and optimisation for obsolescence and relevant surplus capacity. Where an item of PPE is recorded at its optimised depreciated replacement cost, the cost does not include any borrowing costs.

When an item of property, plant and equipment is revalued, any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset.

Unrealised gains and losses arising from changes in the value of PPE are recognised as at balance date. To the extent that a gain reverses a loss previously charged to the statement of financial performance for the asset class, the gain is credited to the statement of financial performance. Otherwise, gains are added to an asset revaluation reserve for that class of asset. To the extent that there is a balance in the asset revaluation reserve for the asset class, any loss is deducted from that reserve. Otherwise, losses are reported in the statement of financial performance.

Depreciation

Depreciation is charged on a straight-line basis at rates calculated to allocate the cost or valuation of an item of PPE, less any estimated residual value, over its remaining useful life. Typically, the estimated useful lives of different classes of PPE are as follows:

Class of PPE	Estimated useful lives
Buildings	25 to 150 years
Specialist military equipment (SME)	5 to 55 years
State highways:	
Pavement (surfacing)	7 years
Pavement (other)	50 years
Bridges	70 to 105 years
Rail Network:	
Track and ballast	40 to 50 years
Tunnels and bridges	75 to 200 years
Overhead traction and signalling	15 to 80 years
Aircraft (excluding SME)	10 to 20 years
Electricity distribution network	2 to 80 years
Electricity generation assets	25 to 100 years
Other plant and equipment	3 to 30 years

Specified heritage and cultural assets are generally not depreciated.

Impairment

For assets held at cost, where an asset's recoverable amount is less than its carrying amount, it is reported at its recoverable amount and an impairment loss is recognised. The main reason for holding some assets (for example, electricity generation assets) is to generate cash. For these assets the recoverable amount is the higher of the amount that could be recovered by sale (after deducting the costs of sale) or the amount that will be generated by using the asset through its useful life. Some assets do not generate cash (for example, state highways) and for those assets, depreciated replacement cost is used. Losses resulting from impairment are reported in the statement of financial performance, unless the asset is carried at a revalued amount in which case any impairment loss is treated as a revaluation decrease.

Disposal

Realised gains and losses arising from disposal of PPE are generally recognised in the statement of financial performance when the significant risks and rewards of ownership of the asset have transferred to the acquirer. Any balance attributable to the disposed asset in the asset revaluation reserve is transferred to taxpayer funds.

Public private partnerships

A public private partnership (also known as a service concession arrangement) is an arrangement between the Government and a private sector partner in which the private sector partner uses specified assets to supply a public service on behalf of the Government for a specified period of time and is compensated for its services over the period of the arrangement. The costs of the specified assets are financed by the private sector partner, except where existing assets of the Government (generally land) are allocated to the arrangement. Payments made by the Government to a private sector partner over the period of a service concession arrangement cover the costs of the provision of services, interest expenses and repayment of the liability incurred to acquire the specified assets.

The assets in a public private partnership are recognised as assets of the Government. If the assets are progressively constructed, the Government progressively recognises work-in-progress at cost and a financial liability of the same value is also recognised. When the assets are fully constructed, the total asset cost and the matching financial liability reflect the value of the future compensation to be provided to the private-sector partner for the assets.

Subsequent to initial recognition:

- the assets are accounted for in accordance with the accounting policy applicable to the classes of property, plant and equipment that the specified assets comprise, and
- the financial liabilities are measured at amortised cost.

Equity accounted investments

NZ GAAP determines the combination bases for entities that make up the Government reporting entity and is used by public benefit entities to determine whether they control another entity.

However, NZ GAAP is not clear about how the definitions of control and significant influence should be applied in some circumstances in the public sector, for example, where legislation provides public sector entities with statutory autonomy and independence, in particular with Tertiary Education Institutions. Treasury's view is that because the Government cannot determine their operating and financing policies, but does have a number of powers in relation to these entities, it is appropriate to treat them as associates.

Biological assets

Biological assets (eg, trees and sheep) managed for harvesting into agricultural produce (eg, logs and wool) or for transforming into additional biological assets are measured at fair value less estimated costs to sell, with any realised and unrealised gains or losses reported in the statement of financial performance. Where fair value cannot be reliably determined, the asset is recorded at cost less accumulated depreciation and accumulated impairment losses. For commercial forests, fair value takes into account age, quality of timber and the forest management plan.

Biological assets managed for harvesting into agricultural produce, or being transformed into additional biological assets are reported as other assets. Other biological assets are recorded as other property, plant and equipment in accordance with the policies for property, plant and equipment.

Intangible assets

Intangible assets are initially recorded at cost.

The cost of an internally generated intangible asset represents expenditure incurred in the development phase of the asset only. The development phase occurs after the following can be demonstrated: technical feasibility; ability to complete the asset; intention and ability to sell or use; and development expenditure can be reliably measured. Research is "original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding". Expenditure incurred on the research phase of an internally generated intangible asset is expensed when it is incurred. Where the research phase cannot be distinguished from the development phase, the expenditure is expensed when incurred.

Where an intangible asset with a market value is internally generated for nil or nominal consideration it is initially reported at cost, which by definition is nil/nominal.

The Government's holdings of assigned amount units arising from the Kyoto protocol are reported at fair value. Other intangible assets with finite lives are subsequently recorded at cost less any amortisation and impairment losses. Amortisation is charged to the statement of financial performance on a straight-line basis over the useful life of the asset. Typically, the estimated useful life of computer software is three to five years.

Intangible assets with indefinite useful lives are not amortised, but are tested at least annually for impairment.

Realised gains and losses arising from disposal of intangible assets are recognised in the statement of financial performance when the significant risks and rewards of ownership have transferred to the acquirer.

Intangible assets with finite lives are reviewed at least annually to determine if there is any indication of impairment. Where an intangible asset's recoverable amount is less than its carrying amount, it is reported at its recoverable amount and an impairment loss is recognised. Losses resulting from impairment are reported in the statement of financial performance.

Goodwill is tested for impairment annually.

Non-current assets held for sale and discontinued operations

Non-current assets or disposal groups are separately classified where their carrying amount will be recovered through a sale transaction rather than continuing use; that is, where such assets are available for immediate sale and where sale is highly probable. Non-current assets held for sale, or disposal groups, are recorded at the lower of their carrying amount and fair value less costs to sell.

Investment property

Investment property is property held primarily to earn rentals or for capital appreciation or both. It does not include property held primarily for strategic purposes or to provide a social service (eg, affordable housing) even though such property may earn rentals or appreciate in value – such property is reported as property, plant and equipment.

Investment properties are measured at fair value. Gains or losses arising from fair value changes are included in the statement of financial performance. Valuations are undertaken in accordance with standards issued by the New Zealand Property Institute.

Employee benefits

Pension liabilities

Obligations for contributions to defined contribution retirement plans are recognised in the statement of financial performance as they fall due. Obligations for defined benefit retirement plans are recorded at the latest actuarial value of the Crown liability. All movements in the liability, including actuarial gains and losses, are recognised in full in the statement of financial performance in the period in which they occur.

Other employee entitlements

Employee entitlements to salaries and wages, annual leave, long service leave, retiring leave and other similar benefits are recognised in the statement of financial performance when they accrue to employees. Employee entitlements to be settled within 12 months are reported at the amount expected to be paid. The liability for long-term employee entitlements is reported as the present value of the estimated future cash outflows.

Termination benefits

Termination benefits are recognised in the statement of financial performance only when there is a demonstrable commitment to either terminate employment prior to normal retirement date or to provide such benefits as a result of an offer to encourage voluntary redundancy. Termination benefits settled within 12 months are reported at the amount expected to be paid, otherwise they are reported as the present value of the estimated future cash outflows.

Insurance contracts

The future cost of outstanding insurance claims liabilities are valued based on the latest actuarial information. The estimate includes estimated payments associated with claims reported and accepted, claims incurred but not reported, claims that may be re-opened, and the costs of managing these claims. Movements of the claims liabilities are reflected in the statement of financial performance. Financial assets backing these liabilities are designated at fair value through the operating balance.

Reinsurance

Premiums paid to reinsurers are recognised as reinsurance expense in the statement of financial performance. Premiums are measured from the attachment date over the period of indemnity of the reinsurance contract, in accordance with the expected pattern of the incidence of risk. Prepaid reinsurance premiums are included in prepayments in the statement of financial position.

Reinsurance and other recoveries receivable

Reinsurance and other recoveries receivable on paid claims and outstanding claims, are recognised as revenue in the statement of financial performance.

Recoveries receivable are assessed in a manner similar to the assessment of outstanding claims and are measured as the present value of the expected future receipts.

Leases

Finance leases transfer, to the Crown as lessee, substantially all the risks and rewards incident on the ownership of a leased asset. Initial recognition of a finance lease results in an asset and liability being recognised at amounts equal to the lower of the fair value of the leased property or the present value of the minimum lease payments. The capitalised values are amortised over the period in which the Crown expects to receive benefits from their use.

Operating leases, where the lessor substantially retains the risks and rewards of ownership, are recognised in a systematic manner over the term of the lease. Leasehold improvements are capitalised and the cost is amortised over the unexpired period of the lease or the estimated useful life of the improvements, whichever is shorter. Lease incentives received are recognised evenly over the term of the lease as a reduction in rental expense.

Other liabilities and provisions

Other liabilities and provisions are recorded at the best estimate of the expenditure required to settle the obligation. Liabilities and provisions to be settled beyond 12 months are recorded at the present value of their estimated future cash outflows.

Contingent liabilities and contingent assets

Contingent liabilities and contingent assets are reported at the point at which the contingency is evident or when a present liability is unable to be measured with sufficient reliability to be recorded in the financial statements (unquantifiable liability). Contingent liabilities, including unquantifiable liabilities, are disclosed if the possibility that they will crystallise is more than remote. Contingent assets are disclosed if it is probable that the benefits will be realised.

Commitments

Commitments are future expenses and liabilities to be incurred on contracts that have been entered into at balance date.

Commitments are classified as:

- **Capital commitments:** aggregate amount of capital expenditure contracted for but not recognised as paid or provided for at balance date.
- **Lease commitments:** non-cancellable operating leases with a lease term exceeding one year.

Cancellable commitments that have penalty or exit costs explicit in the agreement on exercising the option to cancel are reported at the value of those penalty or exit costs (ie, the minimum future payments).

Interest commitments on debts, commitments for funding, and commitments relating to employment contracts are not separately reported as commitments.

Comparatives

When presentation or classification of items in the financial statements is amended or accounting policies are changed voluntarily, comparative figures have been restated to ensure consistency with the current period unless it is impracticable to do so.

Comparatives referred to as Previous Budget were forecasts published in the 2017 Budget Economic and Fiscal Update.

Segment analysis

The Government reporting entity is not required to provide segment reporting as it is a public benefit entity. Nevertheless, information is presented for material institutional components and major economic activities within or undertaken by the Government reporting entity. The three major institutional components of the Crown are:

- **Core Crown:** This group, which includes Ministers, government departments, Offices of Parliament, the Reserve Bank of New Zealand and the New Zealand Superannuation Fund most closely represents the budget sector and provides information that is useful for fiscal analysis purposes. Investments in Crown entities and SOEs are reported at historic cost with no impairment. This ensures losses in those entities are reflected in the appropriate segment.
- **Crown entities:** This group includes entities governed by the Crown Entities Act 2004. These entities have separate legal form and specified governance frameworks (including the degree to which each Crown entity is required to give effect to, or be independent of, government policy).
- **State-owned enterprises:** This group includes entities governed by the State-owned enterprises Act 1986, and (for the purposes of these statements) also includes Air New Zealand, Mercury NZ Limited (previously Mighty River Power), Meridian Energy and Genesis Energy. This group represents entities that undertake commercial activity.

Functional analysis is also provided of a number of financial statements items. This functional analysis is drawn from the Classification of the Functions of Government as developed by the Organisation for Economic Co-operation and Development (OECD).