The Treasury and Office of the Minister of Finance

Budget 2019 Information Release
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TE TAI ŌHANGA
THE TREASURY

Treasury Report: Operating and capital allowances assumptions and modelling changes for the 2019 Budget fiscal projections

Date:	14 May 2019	**Report No:**	T2019/1395
		File Number:	BM-1-1-2

Action Sought

	Action Sought	Deadline
Minister of Finance (Hon Grant Robertson)	**Agree** operating and capital allowances for the projections in the fiscal strategy	This will be discussed at Budget Matters at **9am on Wednesday 15 May** so that the projections can be included in the next version of the fiscal strategy

Contact for Telephone Discussion (if required)

Name	Position	Telephone		1st Contact
Matthew Bell	Senior Analyst, Modelling and Research	[39] (wk)	N/A (mob)	✓
Peter Gardiner	Manager, Forecasting, Modelling and Research	[39] (wk)	[23] (mob)	

Actions for the Minister's Office Staff (if required)

Return the signed report to Treasury.

Note any feedback on the quality of the report	

Enclosure: No

Treasury Report: Operating and capital allowances assumptions and modelling changes for the 2019 Budget fiscal projections

Executive Summary

The Public Finance Act requires the Government to publish a report on the fiscal strategy on Budget day that includes projections of key fiscal variables over at least the next decade.

This report seeks your decisions on the operating and capital allowances to be used for those fiscal projections. These allowances, for new core Crown operating and capital spending, have a significant impact on the paths of a number of projected variables, including net core Crown debt and total Crown operating balance before gains and losses (OBEGAL). The assumptions should be consistent with the Government's fiscal strategy.

The Treasury recommends that the fiscal strategy published on Budget day uses the same operating and capital allowances as were applied at the 2018 HYEFU. That is, operating allowances of $2.6 billion per annum and capital allowances of $6.6 billion per annum, both growing at 4.5 per cent per annum.

Applying these assumptions in the 2019 Budget projections would see projections that are consistent with Government's fiscal objectives, especially those of keeping net core Crown debt to GDP in a range of 15% to 25% and maintaining the total Crown operating balance before gains and losses (OBEGAL) in surplus.

The report also describes the significant modelling changes that have been made to the Treasury's Fiscal Strategy Model (FSM), which produces the projections, since it was last published on the Treasury website at the 2018 Half Year Economic and Fiscal Update (HYEFU). These are:

- Changes to the composition of tax revenue in the long run, with the assumptions for the stable percentages of GDP for personal and company taxes increased, while those for some other tax types were lowered, but keeping the overall stable tax-to-GDP assumption unchanged.
- Reflecting the Government's policy decision, a change in the indexation of the payment rates of the main working-age benefits from inflation to average nominal wage growth.
- Interest rates are projected to be lower for longer, with longer time to reach the stable assumption for the government 10-year bond rate.

These modelling changes ensure the FSM is consistent with the Budget Economic and Fiscal Update (BEFU) forecasts. While the changes do affect the projections, the projections remain consistent with the Government's fiscal strategy.

We intend to discuss the projection period allowances with you at Budget Matters at 9am on Wednesday 15 May. We will incorporate your decisions on the projection allowances into the next iteration of the fiscal strategy, which is due to be provided to you on Friday 17 May.

Recommended Action

We recommend that you:

a **agree** that the Government's fiscal projections for the 2019 Budget use the same projection assumptions as were used in the 2018 HYEFU projections, which are **$2.6 billion** for the operating allowance and **$6.6 billion** for the capital allowance, both growing at an annual rate of 4.5% in later years,

Agree/disagree.

b **note** that assumptions for operating and capital allowances are a key determinant of the fiscal projections, which must be included in the report on the fiscal strategy that is published on Budget day, and

c **note** that the Treasury has made three changes to their Fiscal Strategy Model, which produces the economic and fiscal projections, to align the model with the BEFU forecasts and incorporate the policy decision to index the payment rates of main benefits to average wages.

Peter Gardiner
Manager, Forecasting, Modelling and Research

Hon Grant Robertson
Minister of Finance

Treasury Report: Operating and capital allowances assumptions and modelling changes for the 2019 Budget fiscal projections

Purpose of Report

1. This report seeks decisions on the sizes of operating and capital allowances used in the fiscal projections, produced by the Treasury's Fiscal Strategy Model (FSM). The main purpose of the projections is to illustrate the Government's long-term fiscal strategy, via key fiscal indicators like the path of net core Crown debt as a percentage of nominal GDP. The size of the operating and capital allowances in the projected years are important drivers of these fiscal indicators.

2. This report also outlines any significant changes to the projection modelling since the FSM was last published on the Treasury's website at the 2018 Half Year Economic and Fiscal Update (HYEFU). This includes indications of their effect on the projected tracks of key fiscal indicators.

Options for the projected operating and capital allowances

3. The Public Finance Act (Section 26J) requires the government to present projections of key fiscal variables over at least the next decade in a report on its fiscal strategy. For the 2019 Budget this will be presented as a chapter in the main Wellbeing Budget document. The projections begin after the final forecast year, 2022/23, and extend for a decade to 2032/33.

4. The FSM, which produces the projections, bases the modelling largely on technical and policy assumptions and uses the forecast years as their base. There is, however, discretion to set the size of the operating and capital allowances in the first projected year. After that first year, we will project the allowances to grow annually by 4.5%, which is in line with annual growth in nominal GDP over the projected years.

5. The operating allowances provide the growth of most core Crown functional spending areas, such as health, education, law and order etc. Because of this, their projected year values strongly influence the main fiscal indicator of financial performance, total Crown operating balance before gains and losses (OBEGAL).

6. Capital allowances fund the non-operational core Crown spending, particularly in property, plant and equipment assets. Over the forecasts, these are set as a multi-year value, allowing some fluidity over capital spending. However, as decisions about multi-year packages do not extend beyond the forecast horizon, projected capital allowances are still modelled as single year increments.

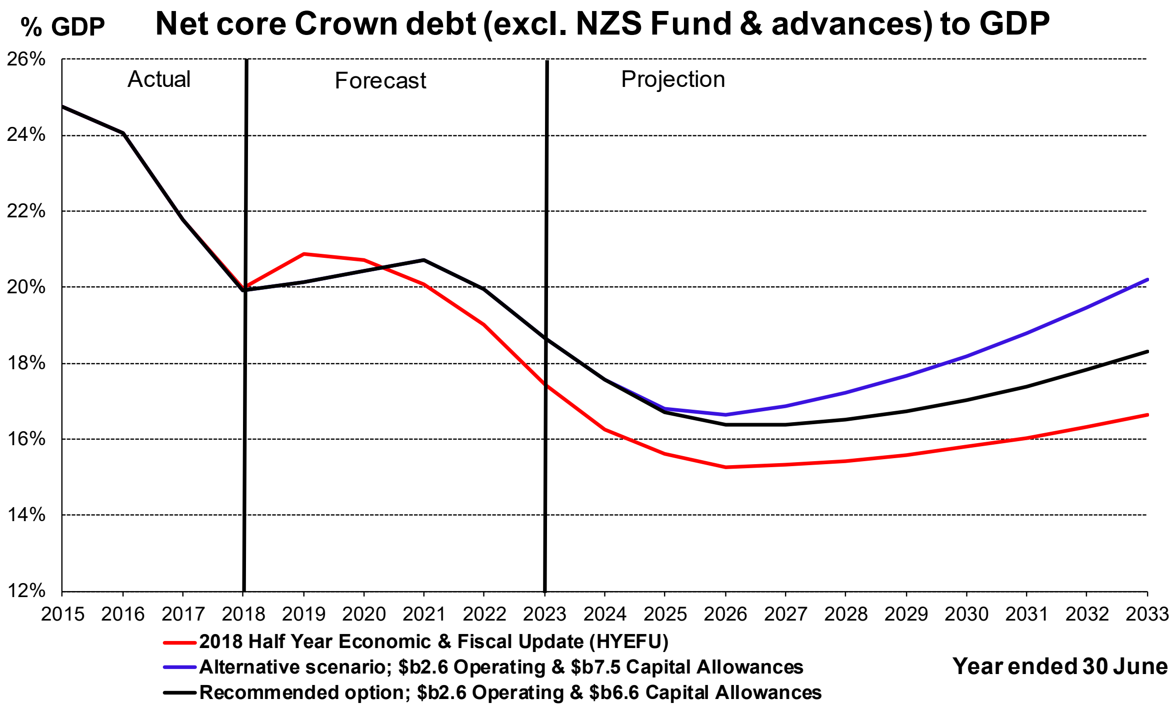
7. At the 2018 HYEFU, the starting values for projected operating and capital allowances were $2.6 billion and $6.6 billion respectively. Applying these in the 2019 Budget projections would still satisfy the Government's fiscal objectives, especially those of keeping net core Crown debt to GDP in a range of 15% to 25% and maintaining the total Crown operating balance before gains and losses (OBEGAL) in surplus.

8. For the reasons stated in the previous paragraph the Treasury recommends that the fiscal strategy published on Budget day uses the same operating and capital allowances as were applied at the 2018 HYEFU.

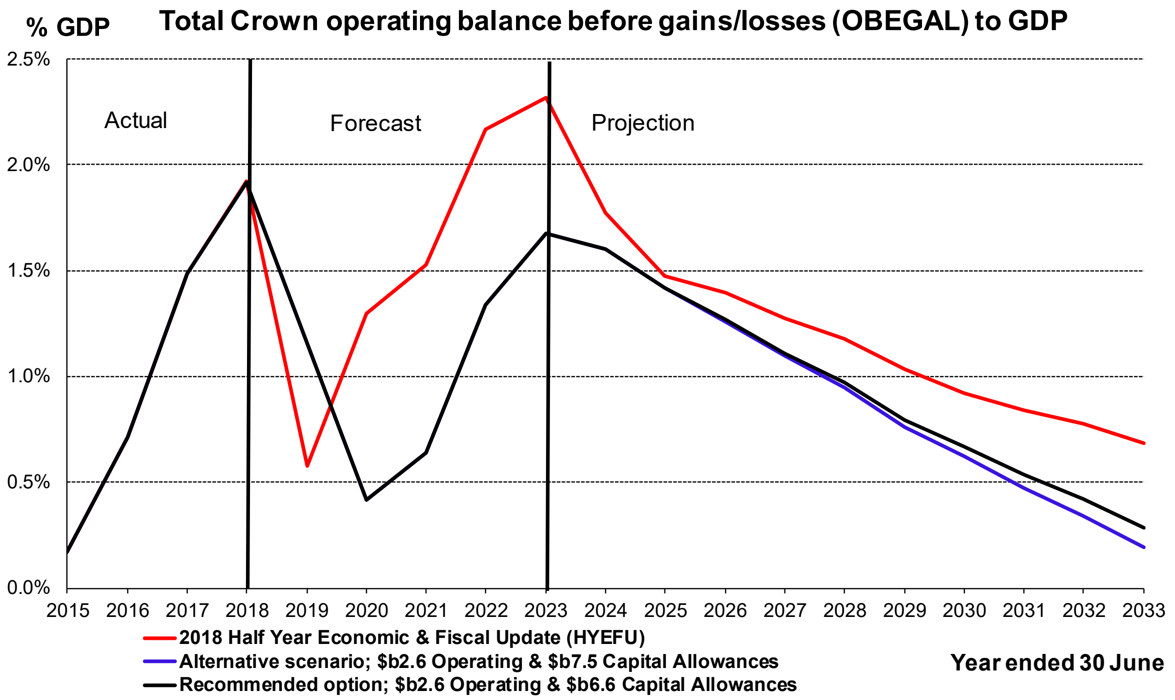
9. In the analysis and graphs that follow, we have also included another scenario where the starting values for projected operating and capital allowances are $2.6 billion and $7.5 billion respectively. This has been included to give an indication of how changes to the capital allowance affect the key fiscal indicators. The graphs also include, for comparative purposes, the projections produced at the 2018 HYEFU.

10. In both the recommended option and alternative scenario, we note that the operating allowance is slightly higher than the $2.4 billion figure in the last year of the forecast period, but this is consistent with the fiscal headroom available. No scenario has been provided with a higher starting projected operating allowance than $2.6 billion. This is because using a value of $2.7 billion or higher results in OBEGAL moving into deficit by the final projected year.

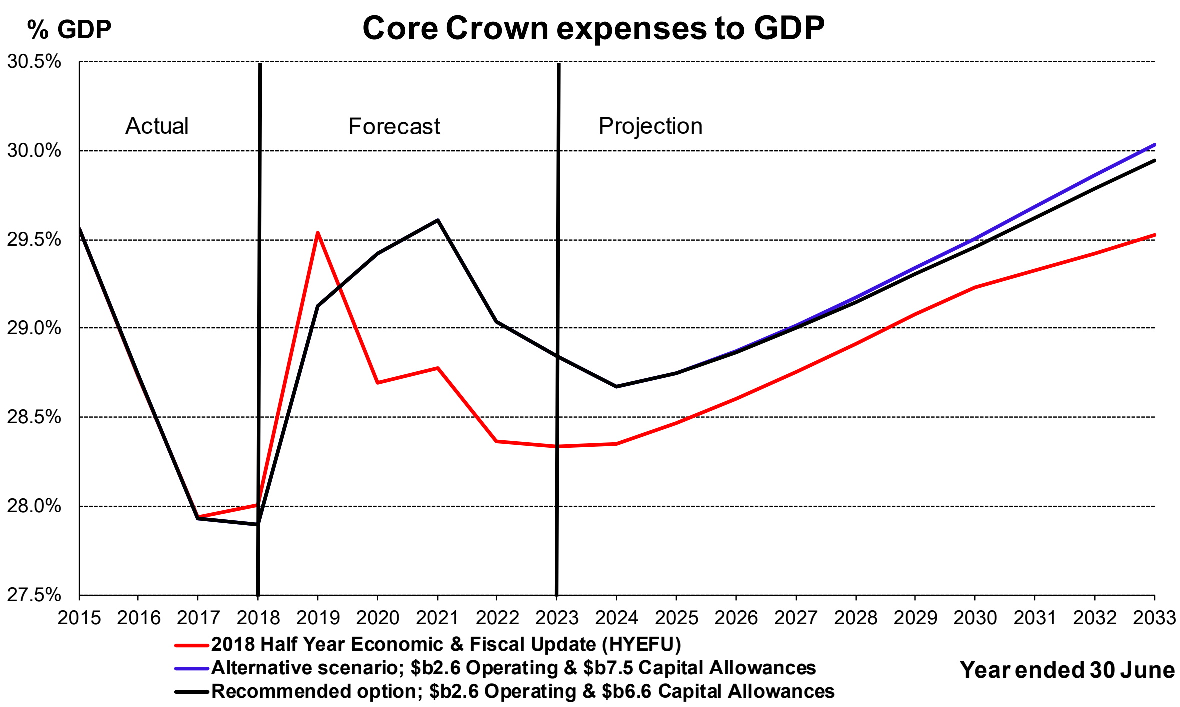
11. ***Projected scenarios for net core Crown debt as a percentage of nominal GDP***



12. ***Projected scenarios for total Crown OBEGAL as a percentage of nominal GDP***



13. ***Projected scenarios for core Crown expenses as a percentage of nominal GDP***



14. Given that changes to capital allowances only affect OBEGAL and core Crown expenses by altering interest costs on debt, it is not surprising that the recommended Treasury option and the alternative scenario differ little in these projected tracks. However, the impact of the higher capital allowances scenario is much more evident in the net core Crown debt graph. Here, not only is the track almost two percentage points of GDP higher by the end of the projection, but it is also on a more steeply accelerating trajectory.

15. In recent years significantly higher capital allowances have been used in projections, than those applied over the forecast horizon. This has maintained net core Crown debt as a percentage of nominal GDP at a stable level somewhere between 15% and 20%. The Treasury does not advise increasing projected capital allowances above $6.6 billion, as they are already very large relative to those in the forecast period.

Changes to the projection modelling in the Fiscal Strategy Model (FSM)

16. Almost every economic and fiscal update round requires changes to the FSM. Projections are based on trend or long-run averages for growth rates or levels of key economic, fiscal and demographic variables, and generally assume no post-forecast policy changes. While many economic variables are at, or very close to, their assumed long-run trend growth rates or levels at the end of the forecasts, some require transition in the early projected years and some for even longer periods.

17. In addition, policy changes, significant changes in the economic and/or forecast bases of the projections, or modifications to the Crown Forecast Financial Statements can also lead to changes in the FSM.

18. At the upcoming 2019 Budget, three important changes are being made to the FSM.

Stable assumptions for percentages of tax to GDP and transition rates

19. While the stable percentage of overall tax revenue to nominal GDP has not been changed (28.0% for total Crown and 28.3% for core Crown tax respectively), individual values of each of the five major tax types used in the FSM have been adjusted, some higher and some lower. Both the overall percentage and those of the individual tax types are based on historical averages.

20. The transition rates at which the tax types move to their long-run stable percentages, from their final forecast year values, have also been reduced.

21. These changes have been made because, since updating these assumptions for Budget 2018, the forecast tax bases have altered markedly. As an example, source deductions tax (mainly PAYE on wages and salaries) ended the 2018 Budget forecast period at 11.0% of GDP. This actually matched the historical average used as its stable value. However, a combination of forecast and policy changes had lifted this end-of-forecast value to 11.4% at the 2018 HYEFU, and it is now at 11.3% in the 2019 BEFU. A rapid adjustment down to 11.0% in the early projection years did not look realistic, so a slower reduction to 11.2% is now modelled.

22. The assumptions for stable percentages of GDP for source deductions tax and corporate tax were increased, while for GST it was left unchanged. For transport taxes and the combined group of remaining tax types, other taxes, the assumptions were lowered.

23. In total, the increases and decreases in assumptions for each tax type exactly offset, and there is only a small impact on the fiscal indicators from these adjustments. There is a larger impact as a result of reducing the transition rates for each tax type. Together the changes lower **net core Crown debt to GDP by 2.1 percentage points of GDP** by 2032/33, the final year of the 2019 BEFU FSM projection. The effect on the flow measure, total Crown OBEGAL to GDP, is to **increase its average** over the 10-year projection **by 0.25 percentage points of GDP**.

Indexation of the main working-age benefits

24. Cabinet has agreed to change the annual indexation of the main working-age benefits from inflation to the same average wage measure used in adjusting New Zealand Superannuation (NZS) rates [CAB-MIN-19-0174 refers]. As a consequence this change in welfare indexation growth is now being built into the FSM projections for each of Jobseeker Support, Supported Living Payment and Sole Parent Support.

25. The impact of these changes on net core Crown debt to GDP by 2032/33 is to **raise it by 1.0 percentage point of GDP**. The effect on OBEGAL to GDP, is to **decrease** its average over the projection period **by 0.11 percentage points of GDP**.

Reduction of the transition rate for the 10-year bond rate return assumption

26. An important economic variable in the FSM is the annual nominal rate of return on the 10-year government bond. This is used to calculate interest expenses on public debt, interest returns on some publicly-owned financial assets and as an input to New Zealand Superannuation Fund (NZSF) returns and capital contribution calculations. In the latter case, the discount rate used in the calculation uses the 10-year bond rate as one of its key components.

27. The long-term stable value of 5.3% is not being changed at the 2019 Budget. However, with an end-of-forecast value now at only 2.9%, compared to 4.4% as recently as the 2018 HYEFU, it no longer appears realistic to assume the stable value will be attained only a few years into the projections. Consequently a slower transition path of only 25 basis points per year is now modelled, meaning the value of 5.3% is not actually attained until the final projection year, 2032/33.

28. This change has only small impacts on the projections of key fiscal indicators, because reduced debt-financing costs are largely offset by higher contributions to the NZSF. The impact on net core Crown debt to GDP by 2032/33 is to **reduce it by 0.2 percentage points of GDP**. The effect on OBEGAL to GDP over the projections is to **increase** its average over the projection **by 0.04 percentage points of GDP**.

Next Steps

29. A discussion of the projection period allowances is on the agenda for the Budget Matters meeting at 9am on Wednesday 15 May. Your decisions on the projection allowances will then be built into the 2019 Budget FSM and the results will be included in the next iteration of the fiscal strategy, which will be provided to you on Friday 17 May.

Annex: Major economic and fiscal variables' forecasts and projections

Table 1 – Summary of economic forecasts and projections[1]

Year ending 30 June	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	...	2033
	Forecasts					Projections							
Labour force	2.0	1.8	1.7	1.5	1.4	1.0	1.0	0.9	0.8	0.7	0.7	...	0.6
Unemployment rate[2]	4.2	4.1	4.1	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	...	4.3
Average weekly hours worked	33.44	33.68	33.64	33.59	33.55	33.55	33.55	33.55	33.55	33.55	33.55	...	33.55
Labour productivity growth[3]	1.4	0.4	1.2	1.2	1.2	1.2	1.3	1.4	1.5	1.5	1.5	...	1.5
Real GDP[4]	2.4	3.0	2.8	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	...	2.1
Nominal GDP[5]	3.8	5.8	5.4	4.9	4.7	4.4	4.3	4.3	4.3	4.3	4.3	...	4.1
Consumers Price Index (CPI) (annual percentage change)	1.8	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	...	2.0
Government 10-year bonds (average percentage rate)	2.3	2.0	2.4	2.7	2.9	3.1	3.4	3.6	3.9	4.1	4.4	...	5.3
Nominal average hourly wage	3.0	3.2	3.5	3.5	3.6	3.3	3.3	3.4	3.5	3.5	3.5	...	3.5

Notes:

1 Annual average percentage change unless otherwise stated

2 Total unemployed as a percentage of the labour force (annual average)

3 Hours worked measure

4 Production measure, 2009/10 base

5 Expenditure measure

The following table of fiscal projections assumes the recommended option of $2.6 billion per annum for operating allowances and $6.6 billion per annum for capital allowances, both growing at 4.5 per cent per annum, has been applied in the projected years.

Table 2 – Summary of fiscal forecasts and projections, as percentages of nominal GDP

Year ending 30 June	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**…**	**2033**
% of GDP			**Forecasts**						**Projections**				
Core Crown revenue	30.6	30.4	30.8	30.9	31.1	30.7	30.6	30.6	30.6	30.6	30.6	…	30.7
Core Crown expenses	29.1	29.4	29.6	29.0	28.8	28.7	28.7	28.9	29.0	29.2	29.3	…	29.9
Total Crown revenue	38.8	38.1	38.4	38.3	38.3	38.1	38.0	38.0	38.0	38.0	38.0	…	38.2
Total Crown expenses	37.6	37.6	37.7	36.9	36.5	36.4	36.5	36.6	36.8	36.9	37.1	…	37.8
Total Crown OBEGAL[1]	1.2	0.4	0.6	1.3	1.7	1.6	1.4	1.3	1.1	1.0	0.8	…	0.3
Total Crown operating balance[2]	-0.1	1.5	1.8	2.6	3.0	2.5	2.4	2.3	2.2	2.2	2.1	…	1.8
Gross sovereign-issued debt	29.7	29.2	28.2	29.3	26.9	25.8	25.0	24.7	24.7	24.9	25.1	…	26.6
Net core Crown debt[3]	20.1	20.4	20.7	19.9	18.7	17.6	16.7	16.4	16.4	16.5	16.7	…	18.3
Core Crown residual cash	-0.9	-1.3	-1.3	-0.2	0.3	0.2	0.0	-0.5	-0.8	-0.9	-1.0	…	-1.3
Total Crown net worth	45.4	44.4	43.9	44.5	45.4	46.1	46.6	47.0	47.3	47.5	47.6	…	47.6
Net worth attributable to the Crown	43.4	42.5	42.1	42.8	43.9	44.5	45.1	45.5	45.9	46.1	46.3	…	46.4

Notes

[1] Operating balance (before gains and losses)

[2] Excludes minority interests

[3] Excludes financial assets of the NZS Fund and core Crown advances