The Treasury

Budget 2022 Information Release

August 2022

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[1] 6(a) - to avoid prejudice to the security or defence of New Zealand or the international relations of the government

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[25] 9(2)(b)(ii) - to protect the commercial position of the person who supplied the information or who is the subject of the information

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[33] 9(2)(f)(iv) - to maintain the current constitutional conventions protecting the confidentiality of advice tendered by ministers and officials

[34] 9(2)(g)(i) - to maintain the effective conduct of public affairs through the free and frank expression of opinions

[35] 9(2)(g)(ii) - to maintain the effective conduct of public affairs through protecting ministers, members of government organisations, officers and employees from improper pressure or harassment;

[36] 9(2)(h) - to maintain legal professional privilege

[37] 9(2)(i) - to enable the Crown to carry out commercial activities without disadvantage or prejudice

[38] 9(2)(j) - to enable the Crown to negotiate without disadvantage or prejudice

[39] 9(2)(k) - to prevent the disclosure of official information for improper gain or improper advantage

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TE TAI ŌHANGA
THE TREASURY

Treasury Report: Updating Assumptions and Other Information About the 2021 Half Year Update Fiscal Strategy Model

Date:	2 December 2021	**Report No:**	T2021/3046
		File Number:	MC-1-5-2-2022

Action sought

	Action sought	Deadline
Minister of Finance Hon Grant Robertson	**Agree** to publish the Fiscal Strategy Model online alongside the 2022 Budget Policy Statement. **Agree** to the proposed allowance assumptions in the Fiscal Strategy Model. **Note** that the Treasury has updated some long-term tax and economic assumptions in the Fiscal Strategy Model.	7 December 2021

Contact for telephone discussion (if required)

Name	Position	Telephone		1st Contact
Matthew Bell	Senior Analyst, Modelling and Research	[39]	N/A (mob)	✓
Peter Gardiner	Manager, Modelling and Research		[35]	

Minister's Office actions (if required)

Return the signed report to Treasury.

Note any feedback on the quality of the report	

Treasury Report: Updating Assumptions and Other Information About the 2021 Half Year Update Fiscal Strategy Model

Executive Summary

This report seeks your agreement to publish the 2021 Half Year Economic and Fiscal Update (HYEFU) version of the Fiscal Strategy Model (FSM) online alongside the 2022 Budget Policy Statement (BPS) and other material related to the 2021 HYEFU. It also seeks a decision on the operating and capital allowance assumptions to be applied in the model over the post-forecast projected years. These allowance assumptions should reflect your long-term fiscal strategy.

Operating and capital allowances, and their growth rates, are the principal policy assumptions in the FSM you can adjust to meet your desired long-term fiscal strategy. We recommend:

- assuming a **2% per annum growth rate of allowances** (as a proxy for inflation) in the projection period (this is unchanged from the 2021 Budget version of the FSM).
- assuming new **capital allowances of $6.0 billion** per year from 2026/27 (this is a $2.0 billion increase from the 2021 Budget version of the FSM).
- assuming new **operating allowances of $2.7 billion** per year from 2026/27 (this is a $0.7 billion increase from the 2021 Budget version of the FSM).

Given the improved fiscal and economic outlook, particularly in regard to significant increases in tax outturns and forecasts, there is space to make these increases to the allowances in the projection period while meeting your current long-term objectives for fiscal policy. We can work with your office to consider different allowance assumptions if you wish.

Under these recommended allowance settings and modified assumptions, net core Crown debt is projected to be 14.8% of GDP and total Crown OBEGAL is projected to be in a surplus of 0.5% of GDP by the end of the decade-long projection period (2035/36).[1] This is based on the HYEFU 2021 economic and fiscal forecasts as the base of the projections (with allowance settings in the forecast period as agreed by Budget Ministers in November 2021), and these updated economic and tax assumptions in the FSM.

This report also outlines changes made to two assumptions used in the projection logic of the FSM. These changes were made to reflect the influence of updated data outturns and analysis on the potential outlook for the government 10-year bond rate. For the 2021 HYEFU version of the FSM, we are:

- Revising down the transition path for tax revenue categories to reach their assumed long-run percentages of GDP in projected years from 0.5 percentage points (ppt) of GDP per year to 0.2 ppt per year, mainly because the end-of-forecast value for total Crown tax revenue of 29.3% of GDP is significantly higher than the long-run assumption of 27.4% of GDP. A slower transition to the long-run assumption produces what appears to be a more likely path for tax relative to GDP. If you would like to retain the tax transition rate of 0.5 ppt of GDP per year used in the 2021 Budget version of the FSM, it would mean running smaller projected operating allowances than those recommended above (that is, $2.7 billion growing at 2% per annum) to achieve OBEGAL surpluses in all projected years.
- Revising the long-term assumption for the 10-year government bond nominal annual rate down from 4.8%, as was applied in the 2021 Budget version of the FSM, to 4.3%, in line

[1] Throughout this report we have used the standard definition of net core Crown debt, rather than the measure that looks through the impact of Funding for Lending Programme advances in the forecast period.

with the recommendations in the background paper to the 2021 Long-Term Fiscal Statement, *Long-term projections of the New Zealand Government's interest rate*.

We seek your decisions on this report by Tuesday 7 December in order to finalise the HYEFU FSM, which will be published online on Wednesday 15 December.

Recommended Action

We recommend that you:

a **agree** to publish the Fiscal Strategy Model (FSM) online alongside the 2022 Budget Policy Statement and other material related to the 2021 Half Year Economic and Fiscal Update

Agree/disagree.

b **agree** to set the allowance assumptions in the FSM as follows:

i. operating allowance of $2.7 billion for Budget 2026 growing at 2% per year (relative to $2.0 billion assumption in the 2021 Budget version of the FSM)

Agree/disagree.

ii. capital allowance of $6 billion for Budget 2026 growing at 2% per year (relative to $4 billion assumption in the 2021 Budget version of the FSM)

Agree/disagree.

c **Indicate** if you or your advisors would like to discuss with the Treasury other potential combinations of projected operating and/or capital allowances

Agree/disagree.

d **note** that the Treasury has updated some long-term tax and economic assumptions in the Fiscal Strategy Model.

Peter Gardiner
Manager, Modelling and Research

Hon Grant Robertson
Minister of Finance

Treasury Report: Updating Assumptions and Other Information About the 2021 Half Year Update Fiscal Strategy Model

Purpose of Report

1. This report seeks your agreement to publish the 2021 Half Year Economic and Fiscal Update (HYEFU) version of the Fiscal Strategy Model (FSM) online alongside the 2022 Budget Policy Statement (BPS) and other material related to the 2021 HYEFU. It also seeks a decision on the operating and capital allowance assumptions used in the model. These allowance assumptions should reflect your long-term fiscal strategy.

2. This report also outlines changes made to two assumptions used in the projections of the FSM, namely the transition rate used in bringing tax revenue categories to their long-run stable percentages of GDP and the long-run stable assumption for the nominal annual return rate on the government 10-year bond. These changes were made to reflect the influence of updated data outturns and a research project on the potential outlook for the government 10-year bond rate.

Background

3. The Public Finance Act (PFA) requires the Government to publish medium-term projections as part of the Fiscal Strategy Report at each Budget. The Treasury uses the FSM to produce these decade-long projections of key fiscal variables, which show likely future progress against your long-term fiscal objectives. Although not a legal requirement, the established practice has been to publish the FSM alongside the BPS to illustrate the Government's long-term fiscal strategy.

4. Your long-term objectives for fiscal policy, as stated in the Fiscal Strategy section of the Wellbeing Budget 2021 are to[2]:

   i. Stabilise net core Crown debt as a percentage of GDP by the mid-2020s and then reduce it as conditions permit (subject to any significant shocks).

   ii. Run an operating balance consistent with meeting the long-term debt objective.

5. You are achieving these objectives within the forecast period of the 2021 HYEFU. Based on the allowance settings agreed by the Budget Ministers last month, net core Crown debt is forecast to peak at 40.1% of GDP in 2022/23 before falling to 30.2% of GDP by the end of the forecast period (2025/26). Total Crown operating balance before gains and losses (OBEGAL) is forecast to go into surplus in 2023/24 and reach $8.2 billion, or 1.8% of GDP, by the final forecast year.

6. Beyond the forecast period there are two principal policy assumptions in the Fiscal Strategy Model which you can adjust to meet your desired long-term fiscal strategy:

   - **Operating allowances**, reflecting yearly growth in ongoing operating expenditure. These have the largest impact on total Crown operating balance before gains and losses (OBEGAL) and net core Crown debt.
   - **Capital allowances**, reflecting one-off yearly expenditure on capital. These affect net core Crown debt but have minimal impact on total Crown OBEGAL.

[2] We will provide advice in the coming months on a new set of long-term objectives and short-term intentions to announce at the 2022 Budget. This will be signalled in the Budget Policy Statement 2022.

7. The next section presents options for projected operating and capital allowances. These options are based on operating allowances that are as close as possible to those used in the final two forecast years of $3 billion, and are therefore likely to be realistic, **while maintaining OBEGAL surpluses over the projected years**. Capital allowances are based on different rates of decline of net core Crown debt to GDP, while still ensuring the projected capital allowances are at levels that could realistically be spent annually in these future years.

Options for Projected Operating and Capital Allowances

8. In all scenarios we have assumed a 2% growth rate of allowances (indexed to inflation). This is unchanged from the assumption in the 2021 Budget version of the FSM. Table 1 presents four alternative options for the operating allowance that are consistent with your fiscal strategy.

Table 1 – Options on operating allowance and their fiscal impact

	Assumption		Fiscal impact		
	Initial operating allowance (in 2025/26)	Initial capital allowance (in 2025/26)	Net debt in 2035/36 (% GDP)	Total Crown OBEGAL in 2035/36 (% GDP)	Core Crown Expenses in 2035/36 (% GDP)
Option 1	$3.0bn	$6.0bn	17.8%	~0.1%	29.3%
Option 2	$3.0bn	$3.9bn	13.7%	0.1%	29.2%
Option 3	$2.8bn	$5.0bn	13.9%	0.4%	28.9%
Option 4 (recommended)	$2.7bn	$6.0bn	14.8%	0.5%	28.7%
Budget 2021 settings	$2.0bn	$4.0bn	27.8% in 2034/35	0.2% in 2034/35	28.0% in 2034/35

9. **We recommend Option 4 in Table 1, which has starting projected operating allowances of $2.7 billion per year, accompanied by capital allowances of $6.0 billion per year,** in both cases growing at 2% per year in later projected years. This remains consistent with your fiscal strategy, allows more funding to deal with future cost pressures, and ensures adequate and realistic capital funding to allow projects in the capital pipeline to proceed smoothly. Under these allowance settings total Crown OBEGAL is projected to be in a surplus of 0.5% of GDP by 2035/36 (the end of the projection period) as shown in Figure 1, while net core Crown debt is projected to be 14.8% of GDP in 2035/36, as shown in Figure 2.

10. However, if you wish to keep net core Crown debt to GDP at a level closer to 20% of GDP over the projections and are willing to have total Crown OBEGAL show a slight deficit in only the very final year of projections (of ~$0.7 billion or ~0.1% of GDP) then the better option would be Option 1. This applies starting projected operating and capital allowances of $3.0 billion and $6.0 billion per year respectively, both growing at 2% per year after that.

11. Options 2 and 3 present some alternative combinations of operating and capital allowances which continue to achieve an OBEGAL surplus over all projected years. Compared to our recommended Option 4, they use higher operating allowances and lower capital allowances.

12. We can work with you and your office to illustrate different operating and/or capital allowance assumptions for projected years if you wish. We do not recommend, given cost pressures, going substantially lower than the $2.7 billion starting projected operating allowance in our recommended option. This would likely leave limited space for any new spending other than cost pressures in future Budgets. We also do not recommend opting for a starting projected capital allowance significantly above the $6 billion in our recommended option, as this would risk being higher than what could realistically be spent within a given year.

Figure 1 – Total Crown operating balance before gains and losses (OBEGAL) as a percentage of GDP for different options of operating and capital allowances

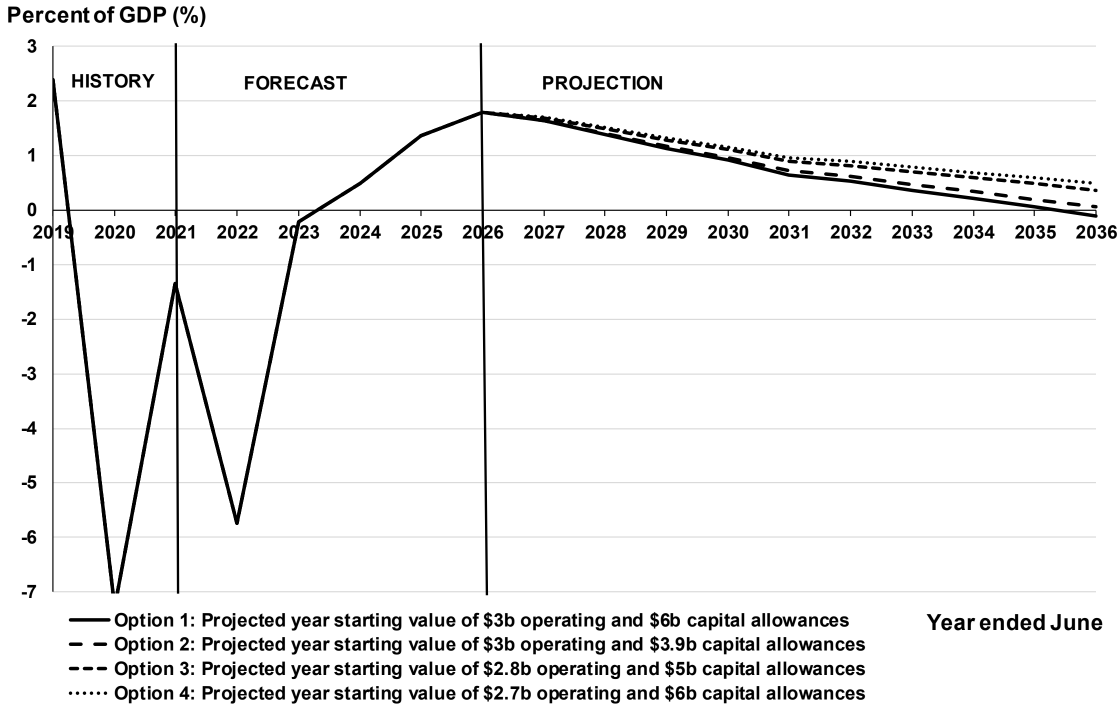
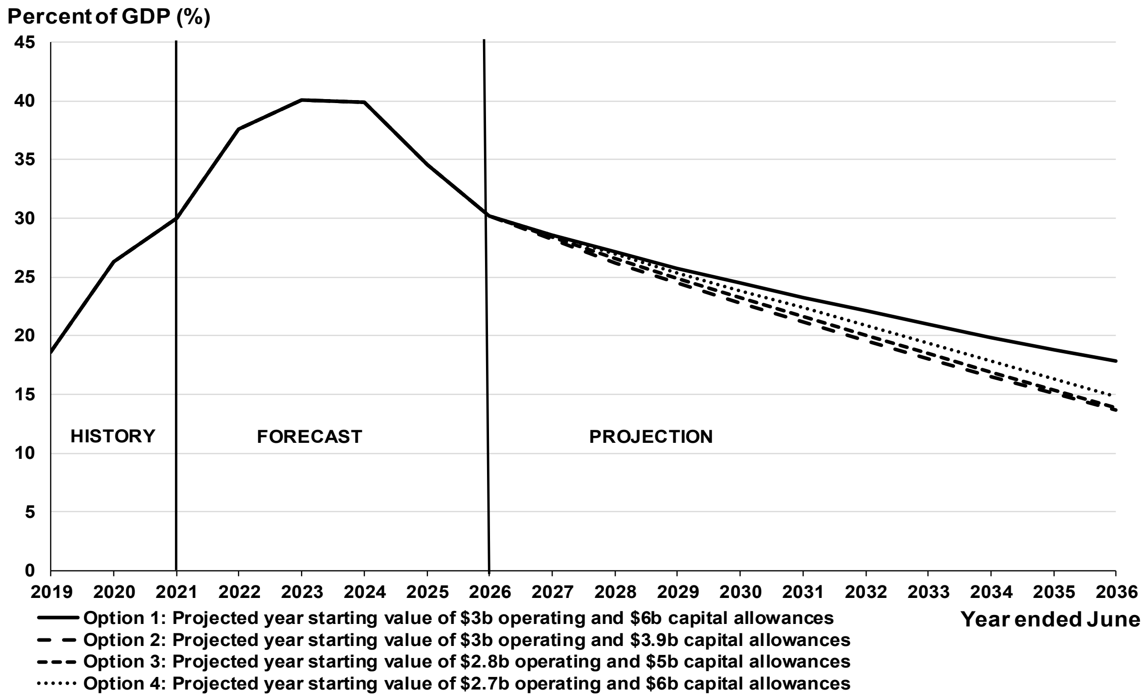


Figure 2 – Net core Crown debt as a percentage of GDP for different options of operating and capital allowances



13. Were you to stay with your 2021 Budget assumptions of starting projected operating and capital allowances of $2.0 billion and $4.0 billion respectively, both growing at 2% per year, by 2035/36 total Crown OBEGAL would be at 2.0% of GDP, while net core Crown debt would be reduced to 3.9% of GDP.

14. The policy options and the fiscal projections presented above are based on:

- The economic and fiscal forecast base published in the 2021 HYEFU.
- A reduced transition rate to long-term stable percentages of GDP for the tax revenue categories in the FSM..
- A reduced assumption for the long-run stable nominal annual rate of return for the government 10-year bond rate of 4.3%.
- These last two changes are discussed in the next section.

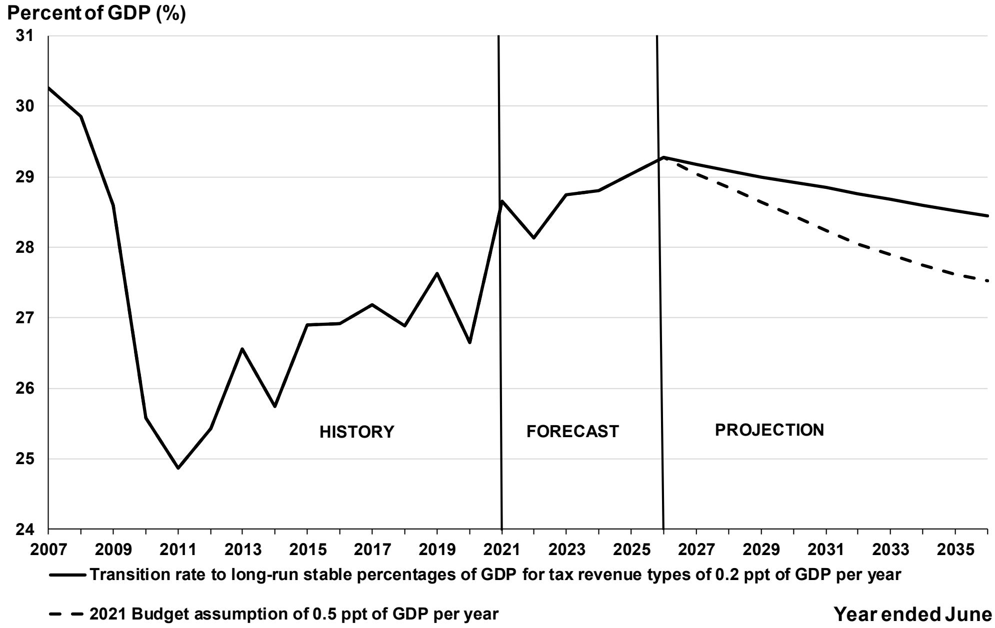
Changes to Long-Term Tax and Economic Assumptions

15. The FSM uses numerous assumptions about economic and fiscal variables to produce medium-term projections of key fiscal indicators. Two main changes have been made to key assumptions since the 2021 Budget version of the FSM was published.

16. The first assumption change relates to the rate at which the tax revenue categories in the FSM move from their end-of-forecast percentages of GDP towards the levels we have assumed for their long-run stable percentages of GDP. This transition rate has been reduced from 0.5 percentage points (ppt) of GDP per year to 0.2 ppt per year. The reason for lowering the transition rate is because, at an end-of-forecast value for total Crown tax revenue of 29.3% of GDP, a decline over the projection years to 27.5% of GDP by 2035/36 does not appear very likely.

17. As Figure 3 illustrates, with the exception of temporary dips in the tax-to-GDP percentage, the general pattern of this measure has been a rising trend between 2010/11 (when personal tax cuts reduced the percentage) and 2020/21, and this increasing trend carries on into the 2021 HYEFU forecast years.

Figure 3 – Total Crown tax revenue as percentage of GDP – the proposed new transition rate of 0.2 ppt per year compared to original 0.5 ppt per year



18. The long-run stable assumption for total Crown tax revenue to GDP is 27.4% of GDP, which was based on historical averages between 2006/07 and 2019/20. In 2020/21 alone the percentage lifted by 2 ppt of GDP. Even if the 2021 Budget version of the FSM's transition rate of 0.5 ppt of GDP per year were retained, the long-run stable assumption still would not be attained by the end of the decade-long projection period.

19. Given the strength of the 2021 HYEFU tax forecasts and recent historic trends, rapidly reducing tax-to-GDP does not appear particularly credible over the projection years.

20. To address this issue in the short amount of time before publication of the 2021 HYEFU, we advise that the best option is to not change any assumptions around the long-run stable percentages of GDP, but rather to simply reduce the transition rate to 0.2 ppt of GDP per year so that the reduction in tax revenue-to-GDP over the projected years is far more gradual.

21. Between now and the publication of the Treasury's 2022 Budget version of the FSM, more work will be done on refining the tax projection logic, including re-estimating historical averages of percentages of GDP for the five main tax categories used in the FSM, as well as for overall tax revenue-to-GDP. We will also consult with you on options about re-introducing fiscal drag modelling back into the FSM for source deductions tax revenue, as well as developing a tax projection logic that may better reflect your desired policies around the levels of future tax to GDP.

22. The other main modelling change is a reduction in the long-run stable assumption for the nominal annual return rate on the government 10-year bond. This has been reduced from the 4.8% value used in the 2021 Budget version of the FSM to 4.3%. One reason for lowering this assumption is to reflect the fact that long-term global trends, such as ageing population structures in the advanced economies and decreasing productivity growth, mean that interest rates are unlikely to rise to the levels seen before the global financial crisis significantly lowered them, although they will probably gradually lift from the current low rates (in fact this gradual increase has probably already begun). Another reason is to bring the assumption more into line with the projections of other international finance agencies, as well as those of New Zealand institutions like the New Zealand Superannuation Fund.

23. More detail about this change can be found in the background paper for the 2021 Statement on the Long-term Fiscal Position Long-term projections of the New Zealand Government's interest rate.[3]

Next Steps

24. The Treasury can work with you and your office to set alternative allowances, for either operating or capital or both, in the projections should you wish to investigate different options.

25. Your decision on the operating and capital allowances will be built in to the 2021 HYEFU version of the FSM, which will be published alongside the 2022 Budget Policy Statement (BPS) and other material related to the 2021 HYEFU on the Treasury website. Therefore, you should provide the Treasury with your decisions by **Tuesday 7 December 2021**.

[3] This paper can be sourced at: https://www.treasury.govt.nz/publications/background/ltfs21-bg-long-term-projections-nz-governments-interest-rate