Tax Working Group
Te Awheawhe Tāke

Tax Working Group Information Release

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This paper has been prepared by the Secretariat to the Tax Working Group for consideration by the Tax Working Group.

The advice represents the preliminary views of the Secretariat and does not necessarily represent the views of the whole Group or the Government.

Some papers contain draft suggested text for the Final Report. This text does not constitute the considered views of the Group. Please see the Final Report for the agreed position of the Group.

Key to sections of the Official Information Act 1982 under which information has been withheld.

Certain information in this document has been withheld under one or more of the following sections of the Official Information Act, as applicable:

[1] 9(2)(a) - to protect the privacy of natural persons, including deceased people;
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In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) of the Official Information Act.

Coversheet: Potential revenue-neutral packages II

Position Paper for Session 23 of the Tax Working Group
22-23 November 2018

Purpose of discussion

Reach final agreement on what revenue-neutral packages to recommend in the Final Report.

Reach agreement on the narrative regarding productivity for the Final Report.

Key points for discussion

1. Does the Group agree that the Final Report should include the four package options proposed in this paper?
2. If not, what packages should be included in the Final Report?
3. Does the Group have a preference for the design of personal income tax reductions to include in packages? Does the Group wish to include options in the packages that have higher marginal income tax rates so long as average tax rates are reduced?
4. Does the Group broadly agree with the narrative on productivity in Appendix A for inclusion in Final Report?

Recommended actions

We recommend that you:

a Note that the Secretariat's preliminary revenue projection from taxing more capital gains provides $10 billion of revenue over 5 years. This is slightly smaller than that provided in the previous packages paper due to incorporating rollover relief decisions and because of refinements in the modelling.

b Note that the Secretariat will refine all of the costings in this paper and they should be considered as indicative only.

c Note that the total fiscal cost of the revenue-negative measures that have been considered to date exceeds the value of the revenue-positive options that the Group has considered. A revenue-neutral package therefore requires the inclusion of only some revenue-negative measures and/or deferring the application date of some measures. The Group could also recommend multiple packages that the Government could choose from depending on their priorities.

d Note updated analysis of productivity, distributional and marginal effective tax rate impacts of different measures in the Appendices to this paper. This includes:

a. Updated industry analysis of taxing more capital gains and further consideration of the overall productivity and efficiency impacts of taxing more capital gains (Appendix A).
b. Distributional and fiscal analysis of increasing the bottom threshold and increasing the second income tax rate (Appendix B).
c. Analysis of the impact of increasing the bottom personal income tax threshold on work incentives (Appendix C).

e Indicate the extent to which the Group agrees with the broad narrative about the packages, especially on productivity, as contained in this paper and appendices, for the Final Report.

f Agree that the Final Report will recommend the following broadly revenue-neutral packages (fiscal estimates are the sum of projected fiscal impacts over five years from 2021/22 to 2025/26):

	Revenue raiser	Personal income tax reductions	Savings measures	Business tax/housing measures
Package 1 *Personal income tax reduction package*	***+$10 billion*** Taxing more capital gains	***-$9.5 billion*** Increase bottom threshold to $25,000 from 1 April 2022	***-$1.6 billion*** ESCT exemption (no abatement) Reduce lower PIE rates for KiwiSaver	***-$70 million*** Depreciation deductions for seismic strengthening

Note: Package 1 is revenue negative by $1.2 billion over 5 years. The package could be made exactly revenue neutral by decreasing the amount of income tax reduction provided

	Revenue raiser	Personal income tax reductions	Savings measures	Business tax/housing measures
Package 2 *Business and housing, savings, and personal income tax reduction package*	***+$10 billion*** Taxing more capital gains	***-$5.4 billion*** Increase bottom threshold to $22,000 from 1 April 2023	***-$1.6 billion*** ESCT exemption (no abatement), provide more member tax credits to primary caregivers, reduce lower PIE rates for KiwiSaver	***-$3 billion*** Depreciation deductions[1], black-hole expenditure, loss continuity, removing residential loss ring-fencing

[1] For commercial, industrial and multi-unit residential buildings.

	Revenue raiser	Personal income tax reductions	Savings measures	Business tax/housing measures
Package 3 *Savings and personal income tax reductions package*	***+$10 billion*** Taxing more capital gains	***-$5.4 billion*** Increase bottom threshold to $22,000 from 1 April 2023	***-$4.9 billion*** ESCT exemption (abatement at 6c per dollar for above $48k), increase member tax credit, provide more member tax credits to primary caregivers, reduce lower PIE rates	***-$70 million*** Depreciation deductions for seismic strengthening

	Revenue raiser	Personal income tax reductions	Savings measures	Business tax/housing measures
Package 4 *Savings, personal income tax reductions, and delayed business and housing package*	***+$10 billion*** Taxing more capital gains	***-$5.4 billion*** Increase bottom threshold to $22,000 from 1 April 2023	***-$2.3 billion*** ESCT exemption (abatement at 6c per dollar for above $48k), reduce lower PIE rates for KiwiSaver, Member Tax Credit for primary caregiver	***-$2.4 billion*** Depreciation deductions[1], black-hole expenditure, loss continuity applying from 2023/24. Residential loss ring-fencing removed from 2021/22.

g Indicate, if the Group does not agree to recommend these packages, what packages should be included in the final report. In particular, indicate if the Group wants to include increasing the second income tax rate in the packages.

Potential revenue-neutral packages II

Position Paper for Session 23
of the Tax Working Group

November 2018

Prepared by the Inland Revenue Department and the New Zealand Treasury

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Executive Summary

This paper seeks final decisions from the Group on what packages of measures to recommend in the Final Report. It follows the packages paper discussed at meeting 21.

The Minister of Finance and Minister of Revenue requested the Group recommend measures that could result in a revenue-neutral package. Taxing more capital gains, with the design features the Group has recommended is projected to raise approximately $10 billion over five years. This is slightly smaller than that provided in the previous packages paper due to incorporating rollover relief decisions and because of refinements in the modelling.

The Secretariat will refine all of the costings in this paper and as a result they should be considered as indicative only.

What package or packages to recommend should be considered alongside the expected impacts of taxing more capital gains. Different packages can mitigate some of the potential negative effects of taxing more capital gains and/or strengthen some of its positive effects. Table 1 summarises the effects of taxing more capital gains across four key dimensions that have been of concern to the Group and were outlined as the Government's objectives in the Terms of Reference.

Table 1: Expected impacts of taxing more capital gains

Equity	Taxing more capital gains would increase horizontal equity and would likely increase the progressivity of the tax system.
Efficiency and productivity	The effect of taxing more capital gains on productivity will depend on how the revenue raised is used. By itself, the effect on productivity is unclear, but likely to be negative. Taxing more capital gains would likely improve the allocation of resources. However, it would also increase the total level of taxation on investment, create compliance costs, and lock-in effects.
Housing market impacts	Taxing more capital gains could potentially increase rents and decrease house prices, although there is considerable uncertainty. However, these impacts are expected to be modest.
Savings impact	Taxing more capital gains will increase the neutrality of taxes on different assets (except with regard to owner-occupied housing) but will increase the level of taxation on income from savings.

Table 2 outlines four illustrative revenue-neutral packages. Revenue neutral for these packages means that revenue gains approximately equal revenue losses when added up over five years. Each package is constructed on the basis that taxing more capital gains raises the same approximate $10 billion in additional revenue over five years. The packages therefore only differ in terms of the composition of revenue-negative measures. Table 2 summarises the relative effects of each package on key aspects of social, human and financial/physical capital.

We expect all four of these illustrative packages to increase horizontal equity, integrity and the progressivity of the tax system. The overall packages have differing impact on savings but all of them will decrease the tax cost on returns in Kiwisaver for low-income households. Overall, the packages will have different housing market impacts although these impacts are expected to be modest.

The second package is focused more on efficiency-enhancing measures and is the package most likely to lead to (modest) positive effects on economic efficiency and productivity. The second package is therefore more likely to be consistent with the Government's objective for changes to the tax system to promote the long-term sustainability and productivity of the economy.

The appendices provide updated analysis on the productivity, distributional, and work incentive effects of measures in the packages. In particular, they provide:

a. Updated industry analysis of taxing more capital gains and further consideration of the overall productivity and efficiency impacts of taxing more capital gains and business tax measures (Appendix A).
b. Distributional and fiscal analysis of the personal income tax options that increase the bottom threshold and consider increasing the second income tax rate (Appendix B).
c. Analysis of the impact on work incentives of increasing the bottom personal income tax threshold (Appendix C).

Natural capital is not the focus of the packages presented here, and we have scoped the packages in this paper as revenue neutral excluding environmental tax measures. This is because the Group has already agreed to recommend a framework to support natural capital through expanding the use of environmental taxes and recycling revenue from these to support natural capital initiatives and provide for just transitions. The Group has also agreed to new tax concessions to support natural capital.

Table 2: Potential packages	***Social capital***	***Human capital***	***Financial/physical capital***		
	Equity and progressivity	*Work incentives and incentives to build human capital*	*Efficiency and productivity*	*Housing affordability*	*Effect on private savings*
Package 1 – Personal income tax reduction package • ***Savings:*** *ESCT exemption for those earning less than $48k. Reduce lower PIE rates for KiwiSaver funds by 5%* • *Depreciation deductions solely for seismic strengthening (30 year straight-line)* • ***Personal income tax reductions***: *Increase bottom threshold from $14,000 to $25,000 from 2022-23*	All packages enhance horizontal equity and increase the progressivity of the tax system. Package 1 focuses on income redistribution through larger personal tax reductions and targeted savings measures.	Income tax reductions can increase incentives to enter job market. However, this impact is likely to be very small. Package 1 has larger personal income tax reductions than other packages.	The personal tax cuts are likely to have a smaller efficiency benefit compared with business tax measures. With no other offsetting efficiency-enhancing tax changes, this package does less to mitigate the negative economic effects of taxing more capital gains. As a result, the package would be less supportive of productivity than package 2.	Taxing more capital gains could potentially increase rent and decrease house prices. This package does not have tax changes that would reduce rents, but it has greater scope for personal income tax cuts to support those on lower incomes, who are more likely to be renters.	Taxing more capital gains will increase taxes on savings for higher income earners. For lower income earners the effect of savings concessions outweighs the effect of taxing more capital gains for Kiwisaver savings.
Package 2 – Business and housing, savings, and personal income tax reductions package • ***Business tax/housing:*** *implement all business tax and housing measures from 2021/22.* • ***Savings:*** *ESCT exemption for those earning less than $48,000, member tax credit for primary caregiver, reduce lower PIE rates for KiwiSaver by 5%* • ***Personal income tax reductions:*** *increase bottom threshold from $14,000 to $22,000 from 2023-24.*	All packages enhance horizontal equity and increase the progressivity of the tax system. Package 2 has less income redistribution than package 1 to accommodate more business tax and housing measures.	Income tax reductions can increase incentives to enter job market. However, this impact is likely to be very small. Packages 2, 3 and 4 have smaller personal income tax reductions than package 1.	Positive efficiency impacts of business tax measures would help to offset the potential negative economic effects of taxing more capital gains. Package 2 would have greater productivity benefits than other packages and therefore be more likely to be overall positive for productivity compared with other packages.	Depreciation deductions and removal of loss ring-fencing will help to mitigate effects of taxing more capital gains on rents. Personal income tax reductions can moderate any impact on renters.	Taxing more capital gains will increase taxes on savings for higher income earners. For low-middle income earners the effect of savings concessions outweigh the effect of taxing more capital gains for Kiwisaver savings.
Package 3 – Savings and personal income tax reductions package • ***Savings:*** *ESCT exemption with abatement, 5% discount for all KiwiSaver PIEs, member tax credit increase to 0.75, member tax credit for primary caregiver* • *Depreciation deductions solely for seismic strengthening (30 year straight-line)* • ***Personal income tax reductions:*** *Increase bottom threshold from $14,000 to $22,000 from 2023-24*	All packages enhance horizontal equity and increase the progressivity of the tax system. Package 3 has less income redistribution than package 1 to accommodate more saving measures.	Income tax reductions can increase incentives to enter job market. However, this impact is likely to be very small . Packages 2, 3 and 4 have smaller personal income tax reductions than package 1.	The personal tax cuts are likely to have a small efficiency benefit compared with business tax measures. With no other offsetting efficiency-enhancing tax changes, this package does less to mitigate the negative economic effects of taxing more capital gains. As a result, the package would be less supportive of productivity than package 2.	Taxing more capital gains could potentially increase rent and decrease house prices. This package does not have tax changes that would reduce rents, but has some income tax reductions that could help mitigate the effect on renters.	Taxing more capital gains will increase taxes on savings for higher income earners. This package has greater savings concessions than the other packages. For all households investing through Kiwisaver the effect of savings concessions outweigh the effect of taxing more capital gains for Kiwisaver savings.
Package 4 – Savings, personal income tax reductions, and delayed business and housing package • ***Business tax/housing:*** *implement all business tax and housing measures at 1 April 2023 (residential loss ring-fencing is not deferred as the fiscal cost is the same whether deferred or not)* • ***Savings:*** *ESCT exemption, with 6c abatement for every dollar earnt above $48,000 and reduce lower PIE rates for KiwiSaver by 5%, member tax credit for primary caregiver* • ***Personal income tax reductions:*** *increase bottom threshold from $14,000 to $22,000 from 2023-24*	All packages enhance horizontal equity and increase the progressivity of the tax system. Package 4 has less income redistribution than package 1 to provide a mix of savings, business tax, and housing measures.	Income tax reductions can increase incentives to enter job market. However, this impact is likely to be very small. Packages 2, 3 and 4 have smaller personal income tax reductions than package 1.	Positive efficiency impacts of business tax measures could provide a offset to potential negative economic effects of taxing more capital gains. Will have less positive impact to efficiency and productivity than package 2 but more impact than packages 1 and 3.	Depreciation deductions and removal of loss ring-fencing likely to mitigate effects of taxing more capital gains on rents. However, due to the depreciation deductions being deferred the impact of this is less than package 2. Personal income tax reductions can moderate any impact on renters.	Taxing more capital gains will increase taxes on savings for higher income earners. For low-middle income earners the effect of savings concessions outweigh the effect of taxing more capital gains for Kiwisaver savings.

1. Introduction

Purpose

1. This paper seeks decisions from the Group on what packages of measures to recommend in the Final Report. It also seeks agreement with the broad narrative about the packages, especially on productivity, for the Final Report.

2. This paper also provides additional information on the distributional and productivity impacts of taxing more capital gains alongside other potential measures as well as the impact of changes to the bottom income tax threshold on work incentives. This is in addition to previous information provided to the Group in previous papers including *Potential high-level effects of proposals to extend the taxation of capital income, Potential revenue neutral packages* and *Personal tax rates and thresholds.* We have provided this additional information to assist the Group in recommending overall cohesive packages.

Content and scope

3. Part 2 of this paper provides updated modelling of the projected revenue from taxing more capital gains.

4. Part 3 outlines potential packages using the revenue from taxing more capital gains.

5. Appendix A contains further information on productivity and the impact on business of potential packages.

6. Appendix B contains further distributional analysis of taxing more capital gains and of potential personal income tax reductions.

7. Appendix C contains information on the impact on work incentives of increasing the bottom personal income tax threshold.

8. Appendix D contains the assumptions for the projection of capital gains revenue.

2. Projected revenue from taxing more capital gains and fiscal impact of other measures

Projected revenue from taxing more capital gains

9. An updated projection of the revenue from taxing more capital gains is in Table 3 below. The modelling for this projection updates that previously provided to factor in further changes from quality assurance and design decisions from the Group.

10. This projection is subject to further quality assurance and changes because of better data sourced by the Secretariat. As a result, the projection will likely change. In addition, there is significant inherent uncertainty about future revenue from taxing more capital gains and revenue will be volatile.

11. The projection has been updated to incorporate the following design decisions from the group:
    - rollover relief for small businesses with turnover less than $5m per annum[2];
    - rollover relief for all property received as part of an inheritance, relationship property agreement and insurance proceeds; and
    - domestic shares held by managed funds taxed on an accruals basis with a discount (we have used a 10% discount for the estimate)

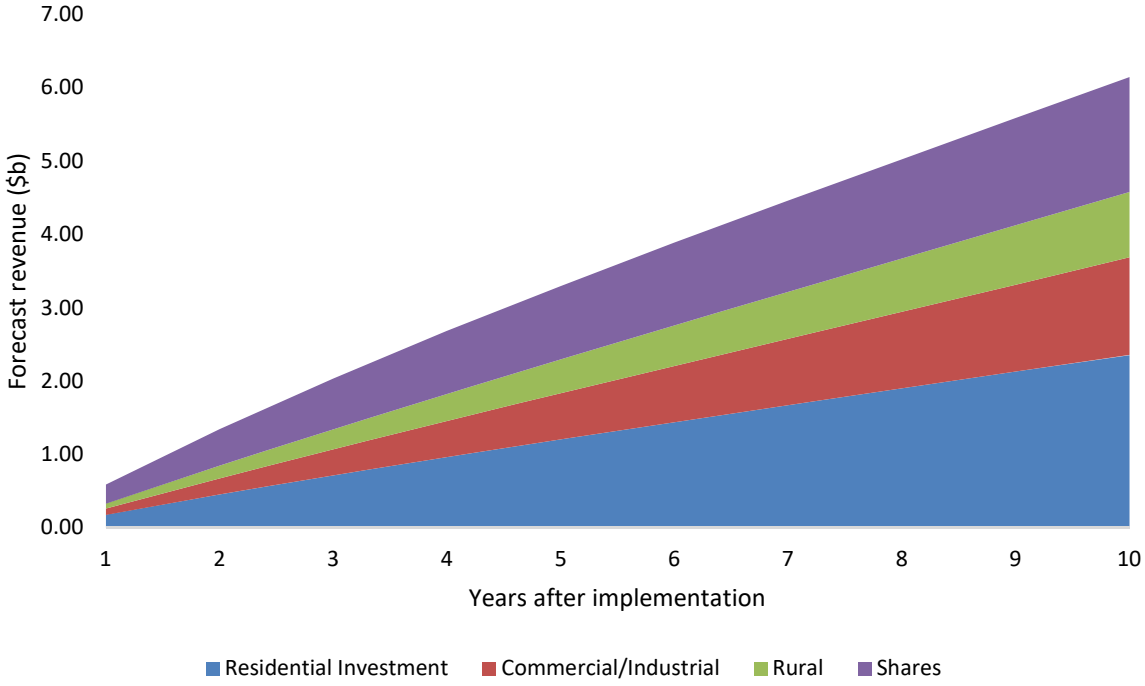
12. The costing does not include capital loss ring-fencing, or concessions for small businesses sold as part of a retirement. The projection is on the basis that taxing more capital gains applies from 1 April 2021. It is also on the basis that a 'Canadian' transition applies so that there is no grandparenting of assets acquired before 1 April 2021.

Table 3: Projected revenue from taxing more capital gains ($ billion)

Year	1	2	3	4	5	6	7	8	9	10
Residential investment	0.18	0.45	0.71	0.96	1.2	1.4	1.7	1.9	2.1	2.4
Commercial, industrial and other property	0.09	0.22	0.36	0.49	0.63	0.77	0.90	1.0	1.2	1.3
Rural property	0.07	0.17	0.27	0.37	0.46	0.55	0.64	0.73	0.81	0.89
Domestic shares not held by managed funds	0.16	0.39	0.57	0.71	0.83	0.94	1.02	1.1	1.2	1.2
Domestic shares held by managed funds (10% discount)	0.10	0.11	0.13	0.15	0.17	0.19	0.22	0.25	0.29	0.34
Total	*0.59*	*1.3*	*2.0*	*2.7*	*3.3*	*3.9*	*4.5*	*5.0*	*5.6*	*6.2*

[2] The Group agreed to outline two potential options for small business rollover and inheritance. To be conservative, the projected revenue includes the design options with higher fiscal cost. These are rollover for all assets in an inheritance and rollover for all active business assets for small businesses.

Figure 1: Total revenue from taxing more capital gains – first 10 years



Revenue-negative measures

13. Table 4 below outlines the revenue-negative measures the Group have considered for inclusion in a potential package.

14. The fiscal impacts in table 4 are based on assumptions about specific design features for the measures. There are a range of potential design alternatives for most of the policies. If the Group recommends different design features for the measures then the fiscal impacts will change. In addition, the Secretariat will undertake further quality assurance of the final costings which may change the results and so they should be considered as indicative only. Many of these revenue estimates do not take into account wider economic or behavioural effects.

Table 4: Revenue-negative measures

Item	***Key benefit***	***Approximate fiscal cost over 5 years***
Remove ESCT on employer's matching contribution of 3% of the salary to KiwiSaver for members earning up to $48,000 per year.	Provide support to low-income savers.	$960 million
Remove ESCT on employer's matching contribution of 3% of the salary to KiwiSaver. The amount of ESCT that is exempt is reduced by 6 cents per dollar of income over $48,000 (so no exemption for employees earning over $72,000).	Provide support to low-income savers. Remove fiscal "cliff" of above option.	$1.7 billion

Reduce lower PIE rates by five percentage points for KiwiSaver funds[3] (5.5%, 12.5%, 28%).	Provide support to low-income savers.	$630 million
Increase member tax credit from $0.50 per $1 of contribution to $0.75 per $1 of contribution.	Provide support to savers.	$2.5 billion
Primary caregiver receives full member tax credit in year of child's birth regardless of their KiwiSaver contributions.	Provide support to savers, in particular women during maternity.	$60 million
Restore building depreciation on commercial, industrial and multi-unit residential buildings. *Fiscal costs in this table assume a 1% diminishing value depreciation rate.*	Increase neutrality of investment by reducing tax cost of investing in buildings and building-owning businesses. Would promote supply of multi-unit rental accommodation.	*Commercial* $770 million *Industrial* $360 million *Multi-unit residential* $150 million
Restore building depreciation solely for seismic strengthening work(up to 67% of new building standard, 30 year straight-line deductions).	Provide support to property owners undertaking seismic strengthening work.	$70 million
Expand "black hole" expenses deductibility *Fiscal costs in this table are with a five year spreading of expenses.*	Increase neutrality of investment by improving incentives for innovation and risk-taking.	$120 million
Removing rental loss ring-fencing restrictions.	Reduce upward pressure on rents, and encourage more investment in rental housing.	$1.3 billion
Reduce restrictions on loss carry-forwards when a company is sold	Improve incentives for innovation and risk-taking.	$240 million
Total fiscal cost excluding personal income tax reductions (and excluding mutually exclusive measures)		*$8 billion*
Personal income tax reductions (increase in bottom threshold).	Support those on lower incomes. Can result in modest improvements in incentives to work and save.	Depends on level of income tax reduction.

[3] The current forecast fiscal cost for lower PIE rates for KiwiSaver is higher than that previously provided to the Group. This is due to the costing now being projected to 2021-22 when KiwiSaver balances are expected to be higher. The amount is also increased as this cost includes reduced revenue from taxing share gains on an accrual basis for KiwiSaver funds.

3. Potential packages

15. The A3s below provide potential revenue-neutral packages that could be funded with the revenue from taxing more capital gains. We have provided four potential packages each with a different focus. These are:
    1. Personal income tax reductions package
    2. Business and housing, savings, and personal income tax reductions package
    3. Savings and personal income tax reductions package
    4. Savings, personal income tax reductions and delayed business and housing package

16. The personal income tax reductions in the packages apply from 2022/23 (package 1) and 2023/4 (packages 2-4). This is to accommodate the different revenue cost of other measures in packages so that the overall packages are broadly revenue neutral. Instead of deferred application dates, the different packages could have annual tax reductions of a lower size but applying earlier. The Secretariat can provide updated information, if the Group wants to consider any particular option.

Scope of packages outlined

17. The four packages include increases in the bottom personal income tax threshold. The Group previously agreed to outline to the Government the additional option of increasing the second personal income tax marginal rate alongside increasing the bottom threshold (while ensuring a reduction in average tax rates). Analysis on this option is included in Appendix B. However, the packages outlined do not include this option as it may be considered inconsistent with the Terms of Reference for the Group. However, this is a judgement for the Group and the Group can choose to include options in specific packages that include increasing the second rate.

18. Both taxes and transfers are important for achieving distributional objectives. Depending on the objective, including changes to the transfer system may be more effective than only adjusting income tax settings. In particular, transfers can be targeted to those with very low taxable incomes or particular needs (eg, families with children).

19. The options in this paper do not include targeted benefit changes, consistent with the scope of the Terms of Reference. However, in the analysis of an increase in the bottom tax threshold, we have assumed that net payments to main benefit recipients increase in line with the tax changes. This means that the packages do include changes to net benefits. In addition, increasing the second tax rate can have the effect of targeting the tax reduction towards lower income individuals, with a similar effect to targeted transfer changes.

Effects consistent across all packages

20. The A3s below primarily compare the packages with different revenue-negative measures. All of the packages include taxing more capital gains as well as integrity and compliance cost changes recommended by the Group. We have summarised the effects of these measures in the following paragraphs and they are not repeated in the A3s.

Taxing more capital gains

21. All four packages include taxing more capital gains. Table 1 summarises the effects of taxing more capital gains across four key dimensions that have been of concern to the Group and were outlined as the Government's objectives in the Terms of Reference.

Table 1: Expected impacts of taxing more capital gains

Equity	Taxing more capital gains would increase horizontal equity and would likely increase the progressivity of the tax system.
Efficiency and productivity	The effect of taxing more capital gains on productivity will depend on how the revenue raised is used. By itself, the effect on productivity is unclear, but likely to be negative. Taxing more capital gains would likely improve the allocation of resources. However, it would also increase the total level of taxation on investment, create compliance costs, and lock-in effects.
Housing market impacts	Taxing more capital gains could potentially increase rents and decrease house prices, although there is considerable uncertainty. However, these impacts are expected to be modest.
Savings impact	Taxing more capital gains will increase the neutrality of taxes on different assets (except with regard to owner-occupied housing) but will increase the level of taxation on income from savings.

Compliance and administration costs

22. Taxing more capital gains will increase compliance costs for some New Zealand businesses and individuals.

23. The Group has agreed to measures aimed at reducing compliance costs for businesses. The packages outlined below do not include specific compliance cost reduction measures as the fiscal impact of these measures have not been able to be quantified yet. For individuals, personal income tax reductions may provide a degree of compensation for higher compliance costs.

24. There will be a moderate administration cost to implement the taxation of more capital gains, and potentially further administrative impact for other measures.

Revenue integrity

25. Taxing more capital gains will help improve the revenue integrity of the New Zealand tax system for the future. In addition, further integrity measures the Group have recommended will also improve the integrity of the tax system. These additional measures are not included in the packages below because we cannot quantify the fiscal impact of the measures.

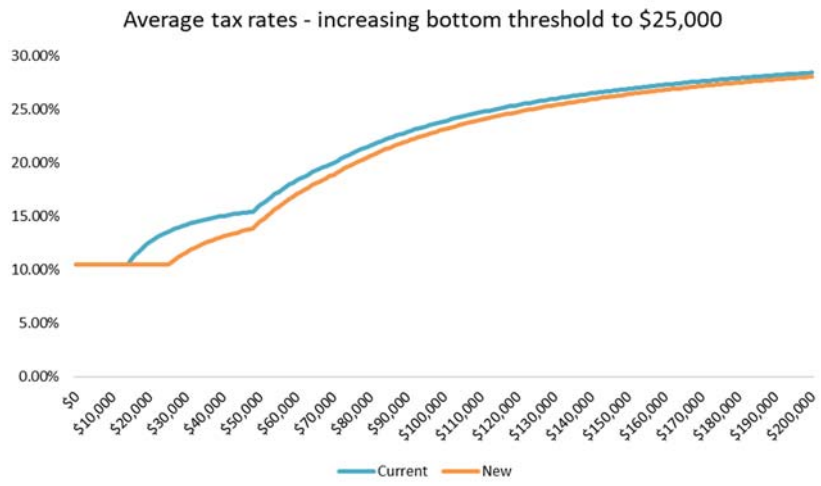
Tax reform package 1: Personal income tax reduction package

The proposal:

- Broad-based taxation of more capital gains (excluding the family home)
- Reducing personal income taxes by lifting the bottom threshold from $14,000 to $25,000 from 2022/23.
- Moderate changes in the taxation of KiwiSaver.
- Depreciation deductions for seismic strengthening.

Marginal income tax scale

Current tax scale		New tax scale	
Taxable Income	Rates	Taxable Income	Rates
$0 - $14,000	10.5%	$0 - $25,000	10.5%
$14,000 - $48,000	17.5%	$25,000 - $48,000	17.5%
$48,000 - $70,000	30.0%	$48,000 - $70,000	30.0%
$70,000 +	33.0%	$70,000 +	33.0%



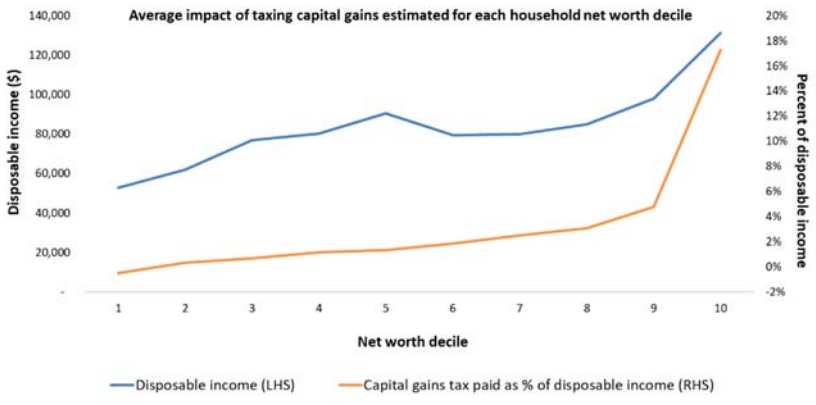
Fiscal impact ($ billion)

	2021/22	2022/23	2023/24	2024/25	2025/26	5-year total
Taxing more capital gains	0.59	1.34	2.03	2.68	3.30	9.94
ESCT change for those earning less than $48k	-0.18	-0.19	-0.19	-0.20	-0.20	-0.96
Reducing the lower PIE rates for KiwiSaver funds by 5%	-0.09	-0.11	-0.12	-0.14	-0.16	-0.62
Depreciation for seismic	-0.01	-0.01	-0.01	-0.02	-0.02	-0.07
Personal income tax reduction	-	-2.17	-2.30	-2.44	-2.58	-9.49
Net revenue impact	0.31	-1.14	-0.59	-0.12	0.34	-1.20

Projections are preliminary and indicative. The package is revenue negative by $1.2 billion over five years. The package could be made exactly revenue-neutral by decreasing amount of income tax reductions.

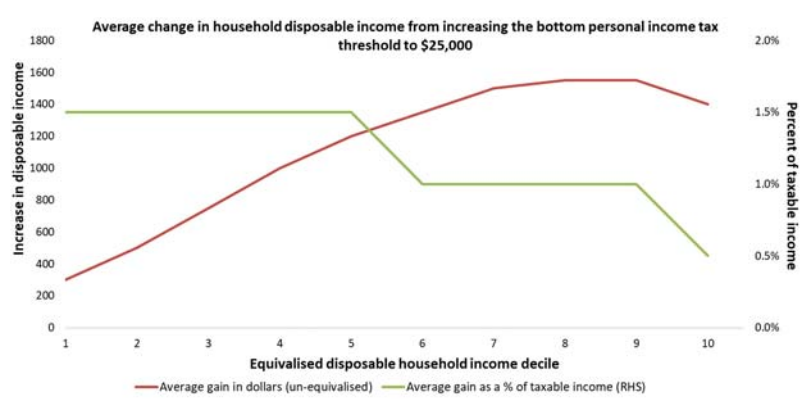
Fairness and social capital

- The impact on individuals and households will depend on individual circumstances and vary over time. The personal income tax reductions would deliver an additional $770 per annum ($15 per week) to individuals with annual taxable incomes above $25,000 from 2022/23.
- The package would increase the progressivity of the tax system:
  - Taxing more capital gains is likely to be progressive, particularly with respect to wealth.
  - Increasing the bottom income tax threshold to $25,000 would increase the progressivity of the personal income tax scale. Lower-income households generally receive a higher average gain as a percentage of income, although lower in dollar terms, compared with higher-income households.
  - The saving measures are also targeted at low-to-middle income earners.



Source: HES 2015 and Treasury calculations

Note: The distributional analysis for both the cost of increasing the tax on capital gains, and the benefit of the tax threshold change, use legal incidence, as opposed to economic incidence.



Source: HES 2017 and Treasury calculations

Notes:
(1) The average dollar gain (un-equivalised) per equivalised household income decile increases from decile 1 to 9, where after it decreases for decile 10. Differences largely reflect the average number of earners in each household. The average gain is higher for households in decile 9 relative to decile 10 because of household composition effects: households in decile 10 typically consist of one or two high income earning persons, whereas households in decile 9 have more multiple family unit households with more earners per household on average.
(2) The average household gain as a percentage of taxable income has been rounded to the nearest 0.5 percent for robustness and reliability. Due to this rounding, the impact at lower household deciles appears flat, although is still higher than for higher income households. Unrounded percentages could show a more gradual decrease across deciles and/or a steeper downward trend for higher income deciles.

Efficiency (financial/physical and human capital)

Investment, productivity, and savings:

- With no offsetting efficiency-enhancing tax changes, the package does less to mitigate the negative economic effects of taxing more capital gains than other packages. The package would be less supportive of productivity than package 2.
- Some of the KiwiSaver changes could result in an increased incentive to save relative to the status quo.

Employment and human capital:

- The income tax reductions increase returns to work by reducing average tax rates for all workers and marginal tax rates for some workers.
- There could be a positive impact on labour force participation and hours worked, although the impact is likely to be very small.

Housing market impact:

- Reductions in income taxes would help to compensate lower income households if rents increase. The Accommodation Supplement (which is automatically linked to housing costs) would also help to mitigate the impact on rents for low-income households.

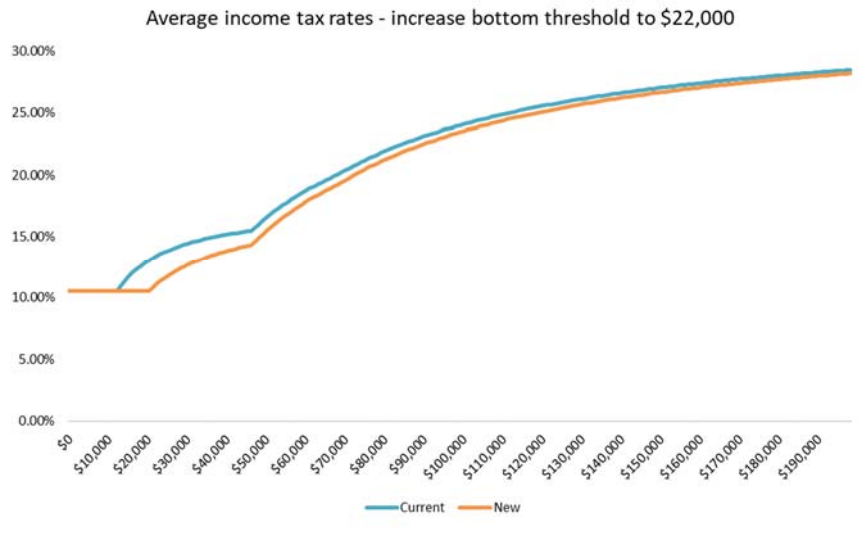
Tax reform package 2: Business and housing, savings, and personal income tax reductions package

The proposal:

- Broad-based taxation of more capital gains (excluding the family home)
- Reducing personal income taxes by lifting the bottom threshold from $14,000 to $22,000 from 2023/24
- Business tax and housing measures to improve efficiency and productivity applying from 2021/22.
- Moderate changes in the taxation of KiwiSaver.

Marginal income tax scale

Current tax scale		New tax scale	
Taxable Income	Rates	Taxable Income	Rates
$0 - $14,000	10.5%	$0 - $22,000	10.5%
$14,000 - $48,000	17.5%	$22,000 - $48,000	17.5%
$48,000 - $70,000	30.0%	$48,000 - $70,000	30.0%
$70,000 +	33.0%	$70,000 +	33.0%



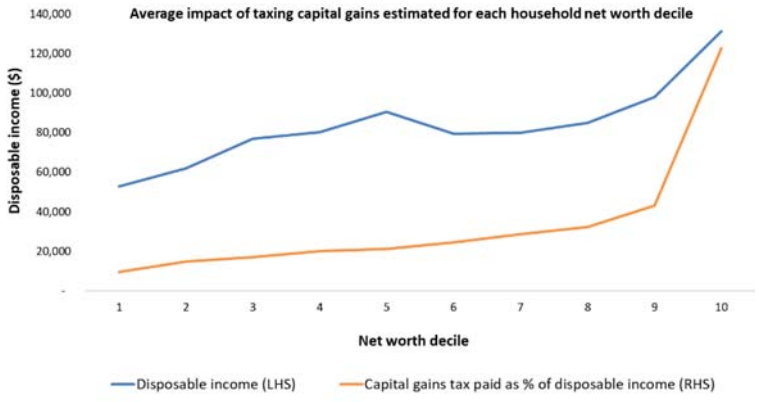
Fiscal impact ($ billion)

	2021/22	2022/23	2023/24	2024/25	2025/26	5-year total
Taxing more capital gains	0.59	1.34	2.03	2.68	3.30	9.94
ESCT change for those earning less than $48k	-0.18	-0.19	-0.19	-0.20	-0.20	-0.96
Reduce the lower PIE rates for KiwiSaver funds by 5%	-0.09	-0.11	-0.12	-0.14	-0.16	-0.62
Member Tax Credit for primary caregiver	-0.01	-0.01	-0.01	-0.01	-0.01	-0.05
Depreciation on buildings @1%	-0.30	-0.27	-0.25	-0.24	-0.22	-1.28
Enabling deductions for black-hole expenditure	-0.01	-0.02	-0.02	-0.03	-0.04	-0.12
Loss continuity	-0.05	-0.05	-0.05	-0.05	-0.05	-0.25
Removing residential loss ring-fencing	-0.57	-0.19	-0.19	-0.19	-0.19	-1.33
Personal income tax reduction	-	-	-1.69	-1.79	-1.89	-5.37
Net revenue impact	-0.62	0.50	-0.49	0.03	0.54	-0.04

Projections are preliminary and indicative.

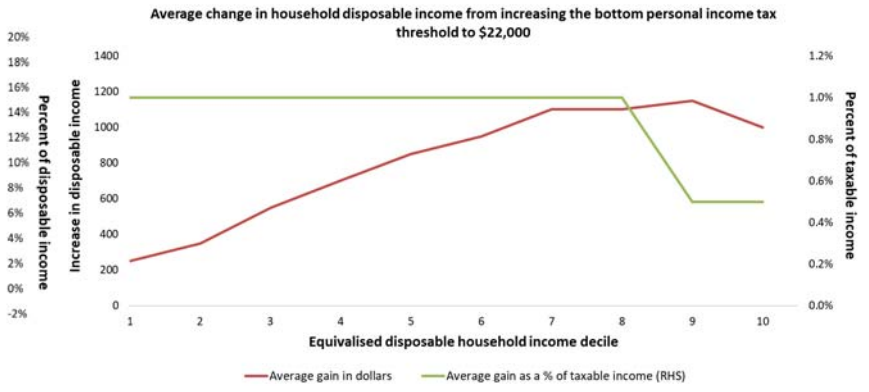
Fairness and social capital

- The impact on individuals and households will depend on individual circumstances and vary over time. The personal income tax reductions would deliver an additional $560 per annum ($11 per week) to individuals with annual taxable incomes above $22,000 from 2023/24.
- The package would increase the progressivity of the tax system:
  - Taxing more capital gains is likely to improve the progressivity of the tax system, particularly with respect to wealth.
  - Increasing the bottom income tax threshold to $22,000 would increase the progressivity of the personal income tax scale. Lower-income households generally receive a higher average gain as a percentage of income, although lower in dollar terms, compared with higher-income households.
  - The saving measures are also targeted at low-to-middle income earners.
- The business tax and ring-fencing measures are designed to improve long-term investment and income growth, and mitigate effects on rents. The distributional impacts are uncertain



Source: HES 2015 and Treasury calculations

Note: The distributional analysis for both the cost of increasing the tax on capital gains, and the benefit of the tax threshold change, use legal incidence, as opposed to economic incidence.



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Notes:
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(2) The average household gain as a percentage of taxable income has been rounded to the nearest 0.5 percent for robustness and reliability. Due to this rounding, the impact at lower household deciles appears flat, although is still higher than for higher income households. Unrounded percentages could show a more gradual decrease across deciles and/or a steeper downward trend for higher income deciles.

Efficiency (financial/physical and human capital)

Investment, productivity, and savings:

- The positive efficiency impacts of business tax measures would help to offset the potential negative economic effects of taxing more capital gains.
- Package 2 would have greater productivity benefits than other packages and therefore be more likely to be overall positive for productivity compared with other packages.
- Some of the KiwiSaver changes could result in an increased incentive to save relative to the status quo.

Employment and human capital

- The income tax reductions increase returns to work by reducing average tax rates for all workers and marginal tax rates for some workers.
- There could be a positive impact on labour force participation and hours worked, although the impact is likely to be very small.

Housing market impact:

- Providing an offset to the impact on rents, this package allows the owners of multi-unit residential properties to claim a deduction for depreciation expenses and removes loss ring-fencing which will also reduce costs for landlords. Reductions in income taxes (and the Accommodation Supplement) would help to compensate households if rents do increase.

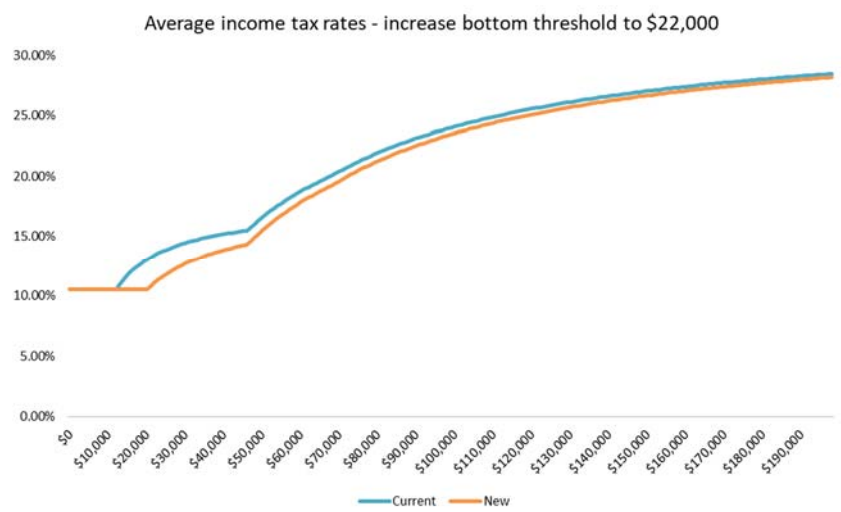
Tax reform package 3: Savings and personal income tax reductions package

The proposal:

- Broad-based taxation of more capital gains (excluding the family home)
- Reducing personal income taxes by lifting the bottom threshold from $14,000 to $22,000 from 2023/24
- Some changes aimed at improving the integrity of the tax system, and other measures aimed at reducing compliance costs for businesses.
- Large changes in the taxation of KiwiSaver.
- Depreciation deductions for seismic strengthening

Marginal income tax scale

Current tax scale		New tax scale	
Taxable Income	Rates	Taxable Income	Rates
$0 - $14,000	10.5%	$0 - $22,000	10.5%
$14,000 - $48,000	17.5%	$22,000 - $48,000	17.5%
$48,000 - $70,000	30.0%	$48,000 - $70,000	30.0%
$70,000 +	33.0%	$70,000 +	33.0%



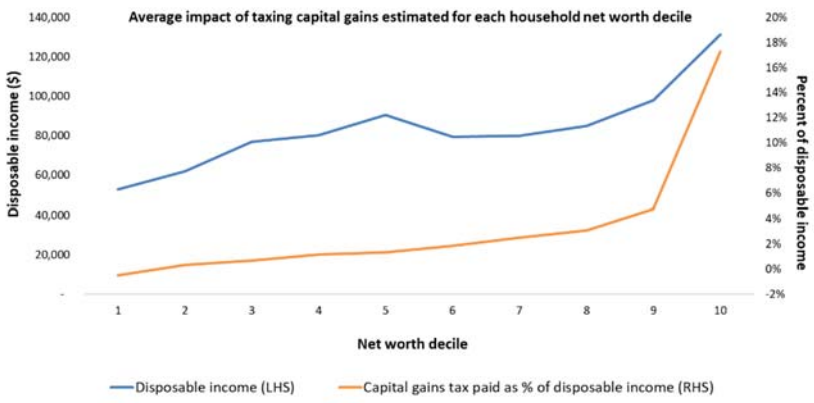
Fiscal impact ($ billion)

	2021/22	2022/23	2023/24	2024/25	2025/26	5-year total
Taxing more capital gains	0.59	1.34	2.03	2.68	3.30	9.94
ESCT change for those earning less than $48k and 6c abatement	-0.28	-0.30	-0.33	-0.36	-0.39	-1.66
Reduce the lower PIE rates for KiwiSaver funds by 5%	-0.09	-0.11	-0.12	-0.14	-0.16	-0.62
Member Tax Credit increase to 0.75	-0.46	-0.48	-0.51	-0.53	-0.55	-2.53
Member Tax Credit for primary caregiver	-0.01	-0.01	-0.01	-0.01	-0.01	-0.05
Depreciation for seismic	-0.01	-0.01	-0.01	-0.02	-0.02	-0.07
Personal income tax reduction	-	-	-1.69	-1.79	-1.89	-5.37
Net revenue impact	-0.26	0.43	-0.64	-0.17	0.28	-0.36

Projections are preliminary and indicative.

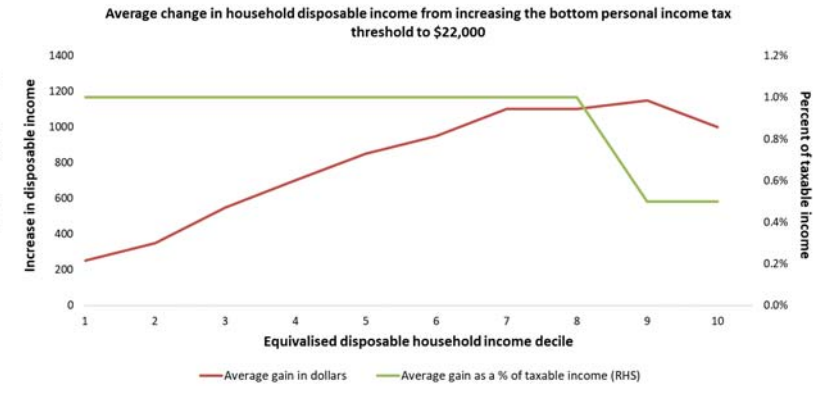
Fairness and social capital

- The impact on individuals and households will depend on individual circumstances and vary over time. The personal income tax reductions would deliver an additional $560 per annum ($11 per week) to individuals with annual taxable incomes above $22,000 from 2023/24.
- The package would increase the progressivity of the tax system:
  - Taxing more capital gains is likely to improve the progressivity of the tax system, particularly with respect to wealth.
  - Increasing the bottom income tax threshold to $22,000 would increase the progressivity of the personal income tax scale. Lower-income households generally receive a higher average gain as a percentage of income, although lower in dollar terms, compared with higher-income households.
  - The saving measures are also targeted at low-to-middle income earners.



Source: HES 2015 and Treasury calculations

Note: The distributional analysis for both the cost of increasing the tax on capital gains, and the benefit of the tax threshold change, use legal incidence, as opposed to economic incidence.



Source: HES 2017 and Treasury calculations

Notes:
(1) The average dollar gain (un-equivalised) per equivalised household income decile increases from decile 1 to 9, where after it decreases for decile 10. Differences largely reflect the average number of earners in each household. The average gain is higher for households in decile 9 relative to decile 10 because of household composition effects: households in decile 10 typically consist of one or two high income earning persons, whereas households in decile 9 have more multiple family unit households with more earners per household on average.
(2) The average household gain as a percentage of taxable income has been rounded to the nearest 0.5 percent for robustness and reliability. Due to this rounding, the impact at lower household deciles appears flat, although is still higher than for higher income households. Unrounded percentages could show a more gradual decrease across deciles and/or a steeper downward trend for higher income deciles.

Efficiency (financial/physical and human capital)

Investment, productivity, and savings:

- With no offsetting efficiency-enhancing tax changes, the package does less to mitigate the negative economic effects of taxing more capital gains than packages 2 and 4. The package would be less supportive of productivity than package 2.
- More consistent treatment of capital income could improve resource allocation, but may reduce investment and create a risk of lock in.
- The saving changes could result in an increased incentive to save relative to the status quo. This is to a greater degree than the other packages.

Employment and human capital

- The income tax reductions increase returns to work by reducing average tax rates for all workers and marginal tax rates for some workers.
- There could be a positive impact on labour force participation and hours worked, although the impact is likely to be very small.

Housing market impact:

- Reductions in income taxes would help to compensate lower income households if rents increase. The Accommodation Supplement (which is

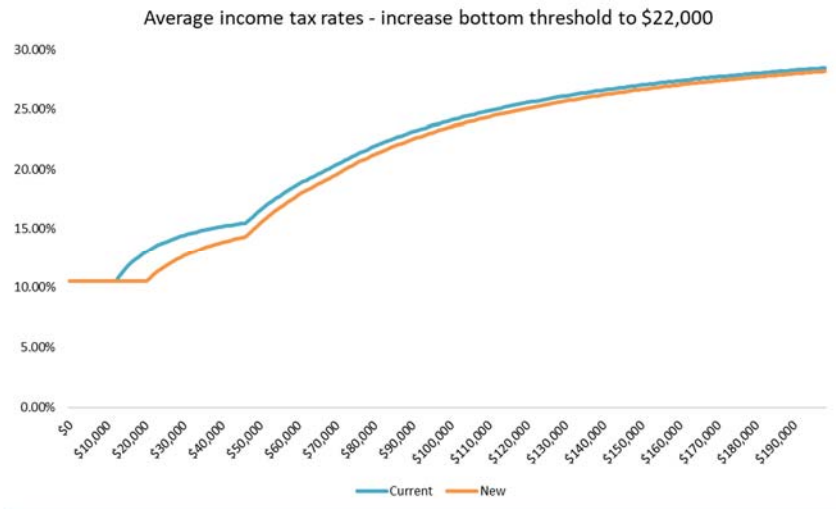
Tax reform package 4: Savings, personal income tax reductions, and delayed business and housing package

The proposal:

- Broad-based taxation of more capital gains (excluding the family home)
- Reducing personal income taxes by lifting the bottom threshold from $14,000 to $22,000 from 2023/24
- Business tax and housing measures to improve efficiency and productivity applying from 2023/24 (except residential loss ring-fencing).
- Moderate changes in the taxation of KiwiSaver.

Marginal income tax scale

Current tax scale		New tax scale	
Taxable Income	Rates	Taxable Income	Rates
$0 - $14,000	10.5%	$0 - $22,000	10.5%
$14,000 - $48,000	17.5%	$22,000 - $48,000	17.5%
$48,000 - $70,000	30.0%	$48,000 - $70,000	30.0%
$70,000 +	33.0%	$70,000 +	33.0%



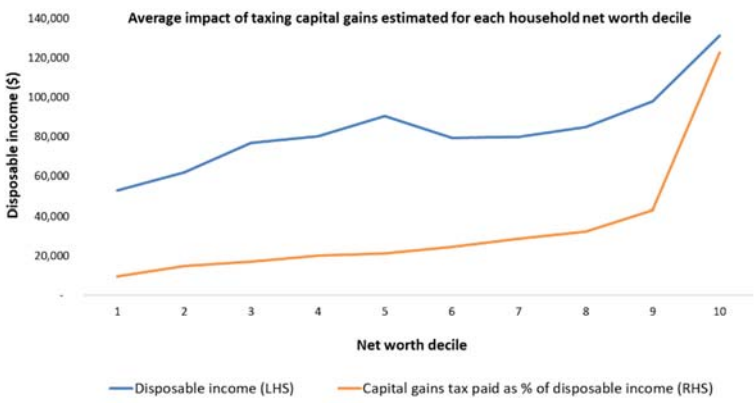
Fiscal impact ($ billion)

	2021/22	2022/23	2023/24	2024/25	2025/26	5-year total
Taxing more capital gains	0.59	1.34	2.03	2.68	3.30	9.94
ESCT change for those earning less than $48k with 6c abatement	-0.28	-0.30	-0.33	-0.36	-0.39	-1.66
Reduce the lower PIE rates for KiwiSaver funds by 5%	-0.09	-0.11	-0.12	-0.14	-0.16	-0.62
Member Tax Credit for primary caregiver	-0.01	-0.01	-0.01	-0.01	-0.01	-0.05
Depreciation on buildings @1%	-	-	-0.33	-0.30	-0.28	-0.91
Enabling deductions for black-hole expenditure	-	-	-0.01	-0.01	-0.02	-0.04
Loss continuity	-	-	-0.05	-0.05	-0.05	-0.15
Removing residential loss ring-fencing	-0.57	-0.19	-0.19	-0.19	-0.19	-1.33
Personal income tax reduction	-	-	-1.69	-1.79	-1.89	-5.37
Net revenue impact	-0.36	0.73	-0.70	-0.17	0.31	-0.19

Projections are preliminary and indicative.

Fairness and social capital

- The impact on individuals and households will depend on individual circumstances and vary over time. The personal income tax reductions would deliver an additional $560 per annum ($11 per week) to individuals with annual taxable incomes above $22,000 from 2023/24.
- The package would increase the progressivity of the tax system:
  - Taxing more capital gains is likely to improve the progressivity of the tax system, particularly with respect to wealth.
  - Increasing the bottom income tax threshold to $22,000 would increase the progressivity of the personal income tax scale. Lower-income households generally receive a higher average gain as a percentage of income, although lower in dollar terms, compared with higher-income households.
  - The saving measures are also targeted at low-to-middle income earners.
- The business tax and ring-fencing measures are designed to improve long-term investment and income growth, and mitigate effects on rents. The distributional impacts are uncertain.



Source: HES 2015 and Treasury calculations

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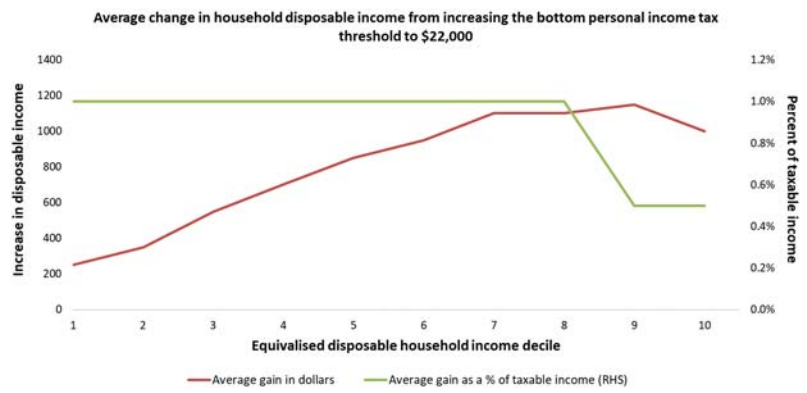


Source: HES 2017 and Treasury calculations

Notes:

(1) The average dollar gain (un-equivalised) per equivalised household income decile increases from decile 1 to 9, where after it decreases for decile 10. Differences largely reflect the average number of earners in each household. The average gain is higher for households in decile 9 relative to decile 10 because of household composition effects: households in decile 10 typically consist of one or two high income earning persons, whereas households in decile 9 have more multiple family unit households with more earners per household on average.

(2) The average household gain as a percentage of taxable income has been rounded to the nearest 0.5 percent for robustness and reliability. Due to this rounding, the impact at lower household deciles appears flat, although is still higher than for higher income households. Unrounded percentages could show a more gradual decrease across deciles and/or a steeper downward trend for higher income deciles.

Efficiency (financial/physical and human capital)

Investment, productivity, and savings:

- The impact on long-term productivity is uncertain. The package includes productivity-enhancing business tax measures, but their introduction is deferred to accommodate more pro-saving measures. As a result, the package is more likely to be productivity enhancing than packages 1 and 3, but less likely than package 2.
- Some of the KiwiSaver changes could result in an increased incentive to save relative to the status quo.

Employment and human capital

- The income tax reductions increase returns to work by reducing average tax rates for all workers and marginal tax rates for some workers.
- There could be a positive impact on labour force participation and hours worked, although the impact is likely to be very small.

Housing market impact:

- Providing an offset to the potential impact on rents, this package immediately removes loss ring-fencing and allows the owners of multi-unit residential properties to claim a deduction for depreciation expenses from 2023/24. Reductions in income taxes (and the Accommodation Supplement) would help to compensate households if rents do increase.

Impact on KiwiSaver of different packages

27. The overall impact on KiwiSaver of taxing more capital gains and the savings measures is summarised in tables 5 and 6 below. All of the packages result in a significant overall reduction in the level of taxation on KiwiSaver. In addition to the savings measures, personal income tax reductions will also reduce the tax cost on savings, including KiwiSaver. As a result, the tables below will understate the total tax benefit to KiwiSaver.

Table 5: Tax cost/benefit for Kiwisaver from individual measures

	Tax cost/benefit for KiwiSavers earning		
Measure	***$0-48,000***	***$48,000-$70,000***	***$70,000+***
1. Additional tax on KiwiSaver funds from taxing more capital gains	-$28m[4]	-$16m	-$40 m
2. ESCT exemption for those earning less than $48,000	$180m	$0m	$0
3. ESCT exemption, with 6c abatement for every dollar earnt above $48,000	$180m	$96m	$0
4. Increase member tax credit from $0.50 for every $1 of contribution to $0.75	$215m	$123m	$126m
5. Member tax credit for primary caregiver	$7m	$2m	$3m
6. Reduce lower PIE rates for KiwiSaver by five percentage points	$65m	$24m	$4m

Table 6: Tax cost/benefit for Kiwisavers from packages

	Net tax cost/benefit for KiwiSavers earning		
Package	***$0-48,000***	***$48,000-$70,000***	***$70,000+***
Package 1 – Personal income tax reduction package (1, 2, and 6)	$217m benefit	$8m benefit	$36m cost
Package 2 – Efficiency, savings and personal income tax reductions package (1, 2, 5 and 6)	$224m benefit	$10m benefit	$33m cost
Package 3 – Savings and personal income tax reduction package (1, 3, 4, 5, and 6)	$439m benefit	$229m benefit	$93m benefit
Package 4 – Savings, tax reductions, and delayed business package (1, 3, 5, 6)	$224m benefit	$106m benefit	$33m cost

Estimates are for 2021-22 tax year

[4] The cost of additional tax on KiwiSaver funds from taxing more capital gains will appear high when compared with the total forecast revenue from taxing more capital gains from managed funds. This is primarily due to data limitations. The managed fund revenue estimate includes only the accrued gains from New Zealand shares held by all managed funds while the additional tax estimate from KiwiSaver includes New Zealand and Australian shares held by KiwiSaver funds.

Secretariat recommendations

28. The Terms of Reference for the Group asked the Group to examine further improvements in the structure, fairness and balance of the tax system. In particular, the Terms of Reference outlined that the Group should report to the Government on whether there are changes to the tax system which would make it more fair, balanced, and efficient; support the integrity of the tax system, operate fairly, and promote the balance between the productive and speculative economy.

29. Taxing more capital gains, alongside the other recommendations of the Group, will likely meet a number of these objectives. In particular, taxing more capital gains will improve horizontal equity, the integrity of the tax system, and the progressivity of the tax system.

30. The main concern with taxing more capital gains is that it would likely have negative effects on overall investment and productivity, unless its introduction was combined with other efficiency-enhancing revenue-negative measures.

31. The objective of supporting a more efficient and productive economy would be supported through the business tax and housing options outlined in packages 2 and 4. Both packages would help to mitigate the potential negative impacts of taxing more capital gains, while improving the progressivity of the tax system and provide revenue to enable personal income tax reductions. However, the overall effect on productivity and efficiency of a package would also depend on the final design of taxing more capital gains.

What business tax and housing measures are highest priority?

32. Within the business tax and property measures, we consider the measure likely to have the greatest benefit relative to fiscal cost to be reintroducing deductions for building depreciation. This is because building depreciation has the most potential to result in greater tax neutrality following the taxation of more capital gains. Greater tax neutrality is likely to be the most efficiency enhancing measure available for New Zealand's tax system and most consistent with horizontal equity. In addition, enabling building depreciation would also help address issues with seismic strengthening and would likely help with improving housing supply.

33. Following building depreciation, the Secretariat considers removing residential loss ring-fencing is likely to be the next measure with the highest value for fiscal cost. This is because this measure also helps improve tax neutrality.

34. In addition the justification for the loss ring-fencing is reduced when the gains on residential housing are taxed. The prime reason why returns on residential housing are undertaxed is the absence of a general tax on capital gains. This is largely remedied if these gains are taxed.

35. While there can still be some timing benefits because gains are only taxed when realised, this is a general issue with taxing realised gains and there is no clear reason for special treatment of residential rental property over other capital assets. It is likely to lead to greater tax on debt-financed than equity-financed investment in rental property. Removing loss ring-fencing on rental property could also have potential benefits for improving housing supply.

36. Beyond these, we consider that black hole and loss continuity are likely to be the next most important measures.

37. The Secretariat's fuller advice on these measures is contained in previous papers, including *Potential revenue-reducing options,* and *Expenditure.*

Appendix A: Impact on business

38. This note focuses on the productivity implications of taxing more realised capital gains and considers the role of revenue negative business tax changes in aiding productivity.

Taxing capital gains, productivity, and investment

39. When considering the impacts of possible tax changes on efficiency and productivity, it is important to be clear about terminology. Investment in the business sector is sometimes described as "productive investment" which can leave the impression that investment in housing is unproductive. However, investment in building new housing is critically important in providing the housing services that New Zealanders require. This investment can be just as productive as most people would use the term as investment in business assets that can be producing other goods or services for New Zealanders.

40. At the same time investment in business assets including industrial and commercial buildings, computers and other equipment and intangible assets can make New Zealand's labour force more productive and support higher wage rates in New Zealand. An important consideration is how tax changes are likely to affect the business sector and both labour productivity and multi-factor productivity. Multi-factor productivity reflects the overall efficiency of how both labour and capital inputs are used in the production process. The New Zealand experience and why this matters is discussed in previous papers.

Impact of taxing more capital gains on economic efficiency and productivity

41. Taxing more realised capital gains has an uncertain impact on economic efficiency and productivity due to two competing influences: an increase due to improved resource allocation from income being taxed more neutrally, and a decrease due to a higher level of capital taxation, compliance costs (as discussed in the paper *Compliance costs of taxing more capital gains*), and lock in.

42. The net effect of these two influences is expected to be a net negative for productivity and investment, as previously noted in the paper *Potential revenue-neutral packages* and *Appendix A of the interim report to the Tax Working Group*. However, these negative effects may be mitigated if a sufficient proportion of the revenue from taxing more capital gains is used to make other productivity-enhancing policy changes. Thus, the overall impact on efficiency will depend on the package of measures.

Efficiency gains from taxing more capital gains

43. In terms of the efficiency gains from taxing more capital gains, the tax reduces non-neutralities in the current tax system by limiting inconsistent treatment of appreciation/depreciation. Over the life of an asset the government allows depreciation for assets that are expected to fall in market value to be subtracted from taxable income. This involves treating the depreciation of that asset as a business expense. If the economic value of an asset appreciates rather than depreciates it is consistent to apply a negative deduction, or a tax, onto the appreciation of the asset. In principle, there would be a case for taxing these gains as they accrue in the same way deductions are allowed for depreciation as losses in value accrue. But no country does so - mainly because of practical considerations such

as valuation and cash flow concerns. A tax on realised gains means that these gains are at least taxed when assets are sold.

44. Greater neutrality in investment decisions is important in promoting economic efficiency and productivity. For example, the IMF (IMF, 2017) argued that the incentive to invest in one asset rather than another for tax reasons was part of the reason for resource misallocation in the economy. They stated that "Upgrading the design of their tax systems can help countries chip away at resource misallocation by ensuring that firms' decisions are made for business and not tax reasons."

45. Resource misallocation has also been noted in the New Zealand context, with poor service sector productivity and old, small, unproductive firms seen as part of the concern (Conway, 2016).

46. We do not want to overstate the productivity benefits associated with taxing more capital gains lowering this potential misallocation. It is likely that other non-tax related factors (management structure, scale economies, competition issues) are the primary drivers of such misallocations in the New Zealand economy. However, in so far as relative tax incentives do play a role in changing behaviour - both in terms of resource allocation and the neutral selection of assets - there will be efficiency and productivity gains from this change.

Efficiency costs from taxing more capital gains

47. There are downsides for efficiency from taxing more capital gains. One downside is lock-in which may prevent some efficiency-enhancing changes in asset ownership from occurring. The negative consequences of lock-in depend on the scale and design of the roll-over relief that is associated with the tax.

48. Compliance costs will also have a negative effect on economic efficiency with the taxpayers that are liable for taxes on capital gains likely to face relatively high costs and compliance costs are high relative to the revenue raised by the tax. Furthermore, there will be distributional consequences as compliance costs vary depending on the type of asset that is taxed. However, the aggregate cost is expected to be more limited due to the fact that relatively few taxpayers would be liable for the tax each year compared to other business taxes.

49. There will also be increases in taxes on savings and investment which can lower investment and reduce labour and multi-factor productivity.

50. Most business investment takes place through companies. Taxing capital gains influences investment by companies in two ways: by taxing gains in companies' assets, and by taxing the appreciation of shares for domestic shareholders of the company. Additional taxes on investment at the company level will tend to reduce investment. Whether gains on shares also have an impact on business will depend on the type of company being considered.

51. A foreign investor will demand a given rate of return which depends on the return available when investing elsewhere in the global financial market. The implication of this is that the post-tax rate of return demanded to provide finance for an asset is likely to be largely fixed, and additional taxes in New Zealand are likely to push up the cost of capital (i.e., the hurdle

pre-tax rate of return at which investment will become profitable). However, foreign shareholders will not generally be liable for tax on capital gains on the shares that they own in New Zealand companies.

52. This means that for FDI into New Zealand, taxing more capital gains will not normally be additional taxes at the shareholder level. It will only be taxes on realised gains at the company level which will impact on hurdle rates of return and investment. An exception is that gains in the value of shares in land-rich companies may be taxed where non-resident income from the share sale is taxed.

53. Likewise foreign portfolio shareholders in New Zealand listed companies will not normally be subject to taxes imposed by New Zealand on realised gains. For such companies with substantial foreign shareholding, the cost of capital is likely to be largely influenced by what foreign shareholders demand. If after-tax rates of return from investing in New Zealand shares are not expected to be comparable with what these shareholders can obtain from investing overseas, foreign shareholders are likely to be unwilling to invest. It is common to think of such foreign investors as "marginal investors" who largely determine the cost of capital, see OECD (2006). Gains on shares in these firms for domestic investors are likely to largely fall on domestic shareholders rather than pushing up hurdle rates of return.

54. However, most small and medium enterprises (SMEs) are not able to readily access international capital markets making domestic investors important for funding additional investment. As domestic shareholders are taxed on the capital gains from their shares this will increase the cost of finance for SMEs and reduce investment.

55. There are other, less direct, channels through which taxing capital gains may influence productivity. For example, the impact on saving behaviour and therefore potentially the cost of capital and capital market depth. However, the direction of these impacts are highly uncertain.

56. Finally, the productivity enhancing nature of any CGT depends on its design. As described the key benefits on productivity of taxing more capital gains were due to its comprehensive nature. Removing coverage may reduce the neutrality benefits of the tax and create a tax incentive for switching investment between asset classes. This may undermine the comprehensive nature of the tax and will reduce the productivity benefit.

What proportion of taxing more capital gains is likely to fall on businesses and business investment?

57. An obvious question is "What fraction of capital gains tax revenue is likely to fall on business and business investment?". Although we do not have very accurate estimates, it seems reasonable to assume that well over a third of the tax on realised gains is likely to fall on business.[5]

[5] The Secretariat has estimated that, by year 5, capital gains tax revenue will be $1.2 bn for residential investment, $0.63 bn for commercial, industrial, and other property, $0.46 bn for rural property, and $0.83 bn for shares in listed companies. Of the total $3.3 bn of revenue from a CGT in the 5th year, 33% comes from on commercial, industrial, other and rural property. This is expected to fall largely on businesses. At the same time, the estimates do not take account of gains on intangible property or gains from sales in shares in closely held companies. This means that the amount of the tax that falls on businesses is likely to be larger than 33%.

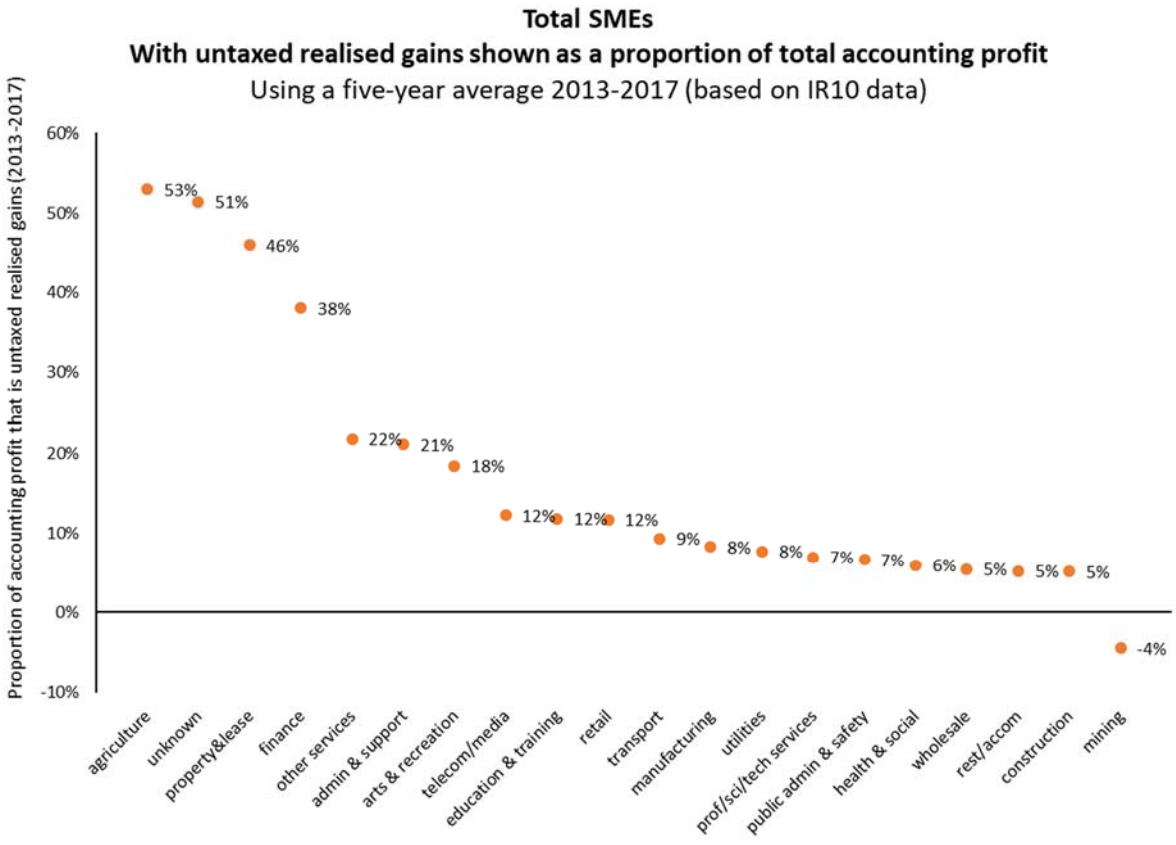
58. Not all of this will necessarily fall on business investment. For example, taxing realised gains on New Zealand land will not reduce New Zealand's stock of land and will not necessarily do much to reduce the amount of land available for business production (although the exemption of gains on principal residence may have some small effect). Instead it is likely that the tax will put some downward pressure on property prices. But it is clear that a significant portion of the tax will fall on business and some part of this will fall on business investment with potential negative effects on labour and multifactor productivity. When considering the overall productivity impact of the government's package of measures it will be important to consider how the revenue is recycled.

The impact of taxing capital gains on industries

59. One question is how the tax is likely to affect investment across different sectors of the economy.

60. The key piece of data available for considering what industries will be liable to pay the tax come from the IR10 filings of SMEs, where an SME is defined as having annual turnover of less than $80m pa (Figure 2). The figures exclude government, unit trusts and superannuation funds.

Figure 2: Untaxed realised gains as a proportion of total accounting profit by industry



61. **Figure 2** shows the proportion of accounting profit that is untaxed realised capital gain. This indicates that the current tax system is distorting investment signals across firms and industries. As these capital gains are untaxed, there is a tax incentive to invest in and shift resources to industries that have a high proportion of untaxed realised gains. Taxing more

realised capital gains will be associated with more consistent tax treatment across, creating incentives at the margin for a reallocation in resources from lightly taxed industries towards industries that received little of the benefit of the absence of a tax on capital gains. The impact of taxing capital gains on the allocation of resources across the economy are highly uncertain and will depend on many factors.

62. In broad terms, the main sectors with untaxed capital gains appear to be agriculture, forestry, and fishing along with a series of service sectors (property, finance, administration and support, arts and recreation). Higher tax payments from taxing more capital gains are likely to reduce investment into these sectors. However, the flip side of that argument is that the current tax system is implicitly subsidising these industries. If this subsidy is removed it engenders fairer treatment of different industries and may lead to an increase in investment is industries with lower proportional capital gain income.

63. According to the SME data, the industries with a small proportion of income from capital gains are predominately made up of secondary industries (construction and manufacturing) and a range of services (accommodation, health, and professional services). It should be noted that the focus on a specific time period and on SMEs only may provide a distorted picture of where these gains occur - for example, the mining sector is reported to have had a capital loss during this period. Extending the analysis outside this period or to significant enterprises as well may lead to different results.

64. There are also other limitations associated with this data. A significant portion of rental property capital gains will not be captured in the data due to individuals filing IR3Rs instead of IR10s. This data excludes government, unit trusts, and superannuation funds in order to focus on private business activity and residential property. The exclusion of the last two likely understates untaxed capital gains in the finance industry.

Is taxing capital gains double taxation?

65. One concern raised about taxing more realised capital gains is that it constitutes "double-taxation" of firm activities. If this was true this would violate the neutrality goal of the tax system and have a negative impact on productivity both through investment and resource allocation. However, it is not the case.

66. It may be helpful to look at a particular example. If the interest rate is 10%, then an asset that is expected to earn $10 in perpetuity will be worth $100. (The value of a perpetuity is a/r, where a is the income from the perpetuity, and r is discount rate).

67. If there is an income tax of 30%, the asset now earns $7 per year. On a post-tax basis, the discount rate is now 7% instead of 10% (the discount rate representing other post-tax opportunities available to the investor). The income tax, applied broadly, ensures that the asset is still valued at $100 as it affects both the earnings, but also the discount rate ($7/0.07 = $100).

68. To ensure that investors do not excessively favour increasing future earnings over current earnings, a comprehensive income tax must also tax accruing gains that represent increased future income flows. If it does not do that, then the tax creates a bias favouring some types of investment over others. This can be seen by considering the taxation of increases in goodwill.

69. If there is a rise in expected future income, goodwill is likely to increase. It has been argued that if an increase in goodwill is taxed, then this "accelerates" the taxation of future income, and that this is not appropriate given that future income will itself be taxed. However, the lack of a tax on this capital gain can create an incentive to invest more in goodwill than would be true in the absence of taxation. This can be shown by an example.

70. Imagine that the investor above can incur deductible costs of $100, to create an expected $8 in future earnings from customer loyalty. Discounting this stream of income ($8 per year) after tax will give this investment a market value of $80 (($8 * (1-0.3)) / 0.07). But it will only cost the investor $70 after tax if the costs are deductible. This is a profitable investment for the investor.

71. If there were no tax system at all, this investment would be unprofitable. It would cost $100 and only provide $80 in future value ($8/0.1). In effect, by not taxing capital gains the tax system has incentivised an investment in goodwill that would not make sense without a tax system.

72. The way to correct the distortion identified above is to tax capital gains on an accrual basis. Doing so is generally considered to be undesirable for other reasons, and so any gains are only taxed on a realisation basis. The result is that taxing capital gains provides a partial correction to the distortion. But a capital gains tax does not "accelerate" the taxation of future income – it partially stops a distorting deferral.

73. As a corollary, if goodwill decreases in value, in principle a deduction should be available on an accruing basis. A realisation based tax will not provide that, but will partially correct for the problem by providing a tax deduction when a transaction occurs to crystallise the loss.

74. The issue above is separate from the question of whether there can be a double tax issue with a capital gains tax when there is imperfect integration of the corporate and personal income tax bases. That imperfect integration does involve a double tax issue, and careful design of taxation of capital gains would take this into account.

Revenue-reducing business tax measures and productivity

75. To promote overall productivity, the packages consider revenue-reducing measures that have been identified where business are currently being overtaxed - or the taxation of business is creating non-neutralities.

76. The packages under consideration would raise net revenue from the business sector. The full set of business tax measures under consideration would reduce revenue by up to $1.5 billion over the next five years (less in the packages that exclude all or some of the business tax measures), which is around 15% of the total revenue raised from taxing more capital gains. This compares with the estimate that over a third of the revenue raised from taxing capital gains would be raised from the business sector.

77. Therefore, a key judgment is whether the non-business measures considered in the packages – including personal income tax reductions and savings incentives – would have

benefits for efficiency and/or equity that outweigh potential negative impacts on business investment.

Personal income tax reductions

78. Personal tax reductions can also have an impact on productivity through changes in labour supply or human capital. These are covered in more detail in Appendix C.

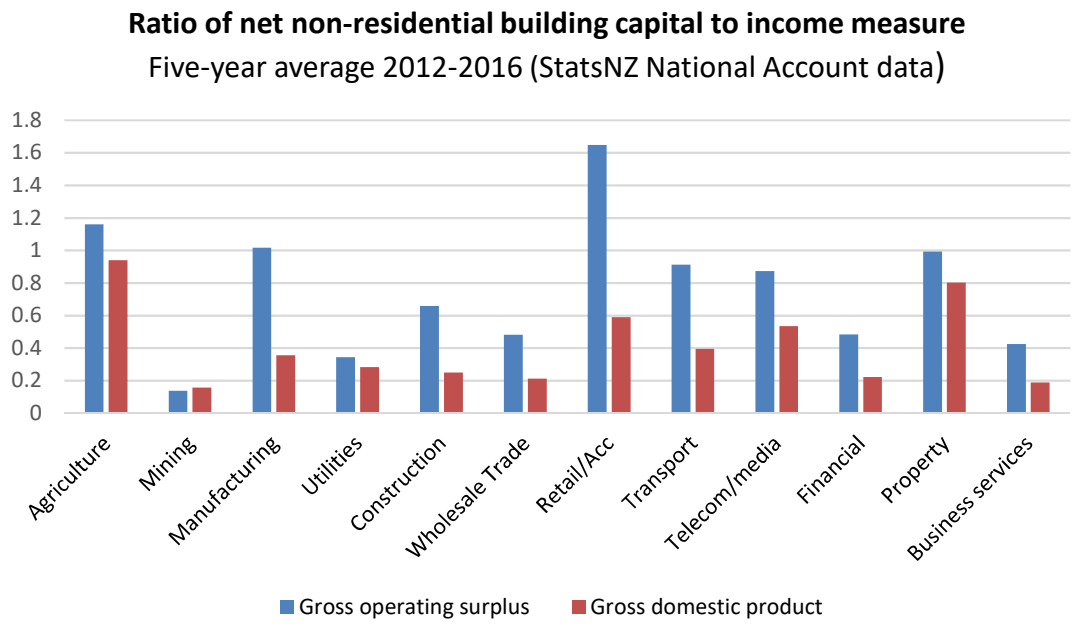
Building depreciation

79. The largest revenue negative business tax item in the packages is restoring building depreciation on commercial, industrial, and multi-unit residential building.

80. Restoring building depreciation at 1% on commercial, industrial, and multi-unit residential building is estimated to cost $1.3 bn over five years - or around 13% of the revenue negative package for that period.

81. Of the fiscal cost for restoring building depreciation, $150m over the first five years is on multi-unit residential accommodation. As a result, only $1.1 bn over five years (or 11% of the revenue neutral package) is spent reducing the "business sector" tax payment mentioned above.

Figure3: Stock of non-residential building to income



82. **Figure**shows the value of the net non-residential building capital stock as a percentage of Gross Domestic Product (GDP) and Gross Operating Surplus (GOS). The graph shows the first 12 of the 16 broad industry ANZSIC 2006 categories, with the last four excluded due to the heavy level of public sector involvement.

83. Thinking in income terms, GDP indicates the total income generated for all factors of production while GOS indicates the income generate for capital owners. GOS plus capital gains is close to accounting profit. Comparing the value of the non-residential capital stock

to GOS gives an indication of the impact allowing depreciation on non-residential building will have for capital income in that industry. We consider that the bars showing non-residential capital as a fraction of GOS provide the most relevant way of comparing the impact of restoring building depreciation across industries.

84. Non-residential building is an important asset class across all industries. As a result, an allowance for depreciation will encourage investment across a large range of firms and industries.

85. The retail and accommodation industry tends to be low margin, implying that gross operating surplus (GOS) in this industry is low relative to GDP. As a result, when compared to GOS the level of non-residential building in the retail and accommodation industry eclipses other industries. GOS is a measure of the income for capital owners - it is similar to accounting profit in this regard. As a result, this suggests that the retail and accommodation sector will benefit the most for the reintroduction of non-residential building depreciation. This is an industry that received a relatively small amount of benefit from the current lack of a tax on realised gains.

86. The other industries that only saw a moderate capital gain that would appear to benefit significantly from the reintroduction of building depreciation are manufacturing, transport, and telecommunications and information technology. The two industries with the largest proportion of untaxed capital gains among SMEs are also the two sectors that have the largest proportion of non-residential building relative to output (excluding the last four sectors with heavy government involvement) - agriculture, forestry, and fisheries and property services. However, among industries that have a substantial untaxed capital gain the finance industry appears to have a relatively low exposure to non-residential buildings.

Black-hole expenditure and loss carry forwards

87. The other key items of business expenditure are included in the package of business tax measures are expanding "black hole" expense deductibility, and reducing restrictions on loss carry-forwards when a company is sold. We do not have any good basis for estimating the effects across industries of this change.

88. Expanding "black hole" expense deductibility deals with another non-neutrality in the business tax system. Black hole expenses refer to capital investments that is not immediately deductible for tax purposes and does not give rise to a depreciable asset, and so cannot be deducted as tax depreciation (eg an unused research patent).

89. The estimated five-year cost of allowing additional black hole expense deductibility is $120m, or 1.2% of total expenditure in the revenue neutral package. This costing is based on allowing deductions over a five-year period, the same period for deductions as that used in Australia.

90. When a company makes a loss it can carry it forward to the next tax year to reduce taxable income. However, when a company is sold or sufficient numbers of shares change hands the company may fail a "shareholder continuity test" which then removes the firms ability to deduct this loss in the next tax year. In this case a firm may never be able to claim deductions for valid business expenses. It may discourage firms with accumulated losses from bringing in new equity finance when they need to do so. Reducing restrictions on

loss carry-forwards will be especially important for the investment decisions of risk taking SMEs.

91. The estimated five-year cost for allowing additional loss carry-forwards for sold companies is $240m, or 2.3% of total expenditure in the revenue neutral package.

Overall package

92. The measures considered are all included in some, but not all, package options. Fiscal constraints of revenue neutrality means that trade-offs will need to be made. With a focus on enhancing long-term productivity – as articulated in the Group's Terms of Reference – suggesting that the business tax measures and well-designed income tax measures could form the basis of a package that enhances fairness and productivity.

93. To support productivity further, the Group could consider further business tax measures beyond those considered in the paper. Such an approach could be considered if the Group wishes to avoid raising net revenue from the business sector. Beyond the revenue-reducing measures considered in this paper, corporate tax rate reductions would be a business tax policy option that could enhance productivity. Reducing the corporate tax rate would need to be balanced against other considerations. The Group previously recommended that the company rate should be kept under review but not changed at this point.

Appendix B: Distributional analysis

94. The tax packages options discussed in this paper will result in varying outcomes for those affected by the tax policy changes.

95. This appendix considers the potential distributional impacts of taxing capital gains (based on past analysis presented to the Group) and household distributional analysis for the various income tax options considered in this paper.

96. The main personal income tax options analysed are increases in the bottom income tax threshold. For illustrative purposes, analysis is also presented for options which allow for a higher second marginal tax rate to enable a larger increase in the bottom tax threshold (so that all taxpayers have a reduced average tax rate). The appendix also provides updated analysis of the implications of a tax free zone to supplement the analysis already provided to the Group.

97. Both taxes and transfers are important for achieving distributional objectives. Depending on the objective, changes to the transfer system may be desirable compared with only adjusting income tax settings. In particular, transfers can be targeted to those with very low taxable incomes or particular needs (e.g., families with children). The options in this paper do in fact include a mix of tax and transfer changes as we have assumed that net payments to main benefit recipients are increased to get the benefit of income tax reductions.

98. Table 8 provides a breakdown of the benefit rate changes that have been modelled so that main benefit recipients receive a benefit from changes to personal income tax settings. The changes in benefit rates under the different options are mostly small or show no change due to the fact they are either lower than, or only slightly above, the bottom tax threshold of $14,000 per year.

Taxing more capital gains

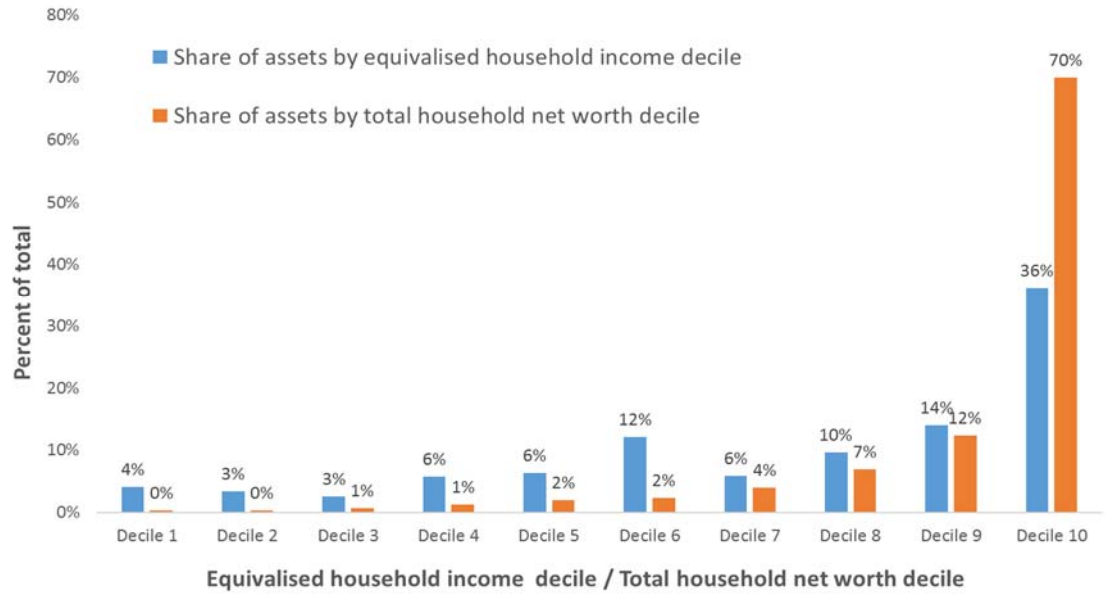
99. Earlier background papers on distributional analysis and incidence provided a broad overview of the distribution of household income, net worth and the potential incidence of taxing more capital gains. Overall, taxing capital gains, excluding owner-occupied housing, is expected to increase the progressivity of the tax system, especially with respect to wealth. Moreover, income tax data in other jurisdictions (e.g. Australia and the United States) indicate that net taxable capital gains payments tend to be highly progressive.

100. The impact of taxing capital gains on any particular individual will depend on individual circumstances and vary over time. Distributional estimates are based on averages and therefore impacts on individuals will differ. For example, the average wealth of households in a particular decile may be significantly influenced by a small number of households in that decile.

101. In terms of assets that could potentially be subject to capital gains taxation, 36 per cent of these assets are owned by the top income decile (using equivalised household income), and 70 per cent of assets are owned by the top net worth decile (using un-equivalised total household net worth).

102. It is important to note that when considering low-income households it is recommended to focus on decile 2 households rather than decile 1 households. This is because income data for decile 1 households is unreliable and this decile has a significant number of households with implausibly low incomes (Perry, 2017).

Figure 4: Share of household assets that could potentially be subject to capital gains taxation by income and net worth decile, 2014/15



Source: Statistics New Zealand (HES 2015) with subsequent Treasury calculations
Note: These estimates are based on the distribution of assets excluding cash, deposits and owner-occupied housing (proxy for assets subject to the taxation of capital income).

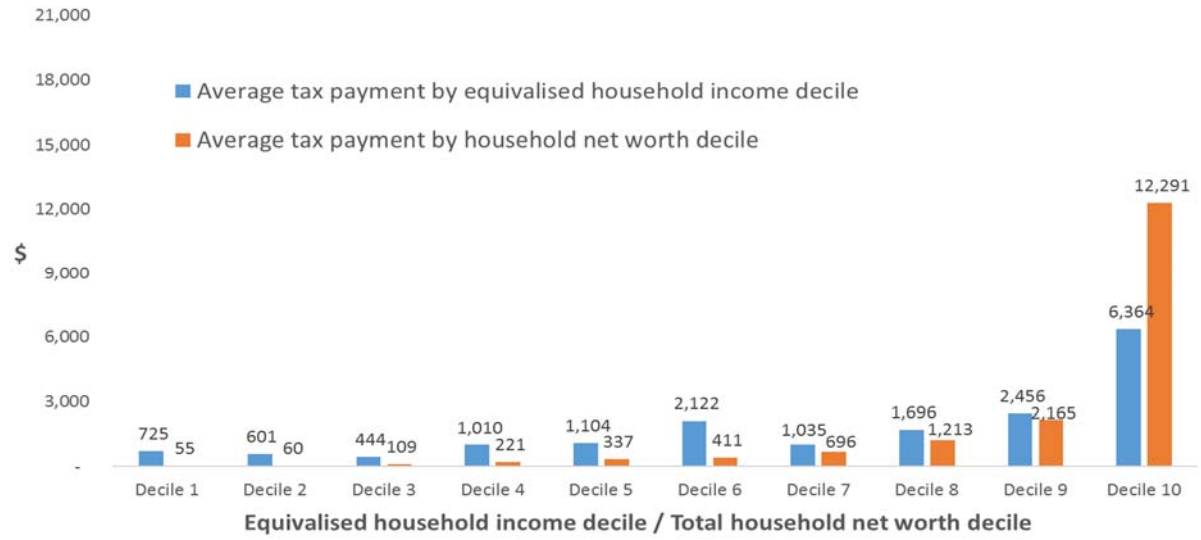
103. As most of the capital gains on these assets are currently untaxed, a shift towards taxing more capital gains (all else equal) will result in higher average tax rates across all the household income deciles. However, the overall distributional impact will depend on how the revenue is used.

104. In the absence of any capital gains data for New Zealand households, it is not possible to provide precise estimates of the distributional impact of taxing capital gains. However, a very rough estimate of the distributional impact of taxing capital gains can be inferred from the available distributional data on household assets and secretariat estimates of projected revenue from taxing capital gains.[6] The total capital gains tax liability is then distributed between deciles based on their share of assets that could attract capital gains taxation (based on the proxy estimate as per figure 4 above). This is done for both equivalised household income deciles as well as total household net worth deciles, as seen in Figure 5 below.

[6] Assuming an average capital gain of 3 per cent per annum, revenue is estimated at $3.3 billion in year five, discounted to the year the tax is introduced (or $2.9 billion in 2021/22). This assumes that all revenue can be attributed to New Zealand households, which is only an approximation.

105. Figure 5 below shows that this results in a general increase in the levels of income tax paid with higher income deciles paying proportionally more in income tax as the result of taxing capital gains.

Figure 5: Estimated average annual tax payment on capital gains per household inferred from household wealth data.[7]

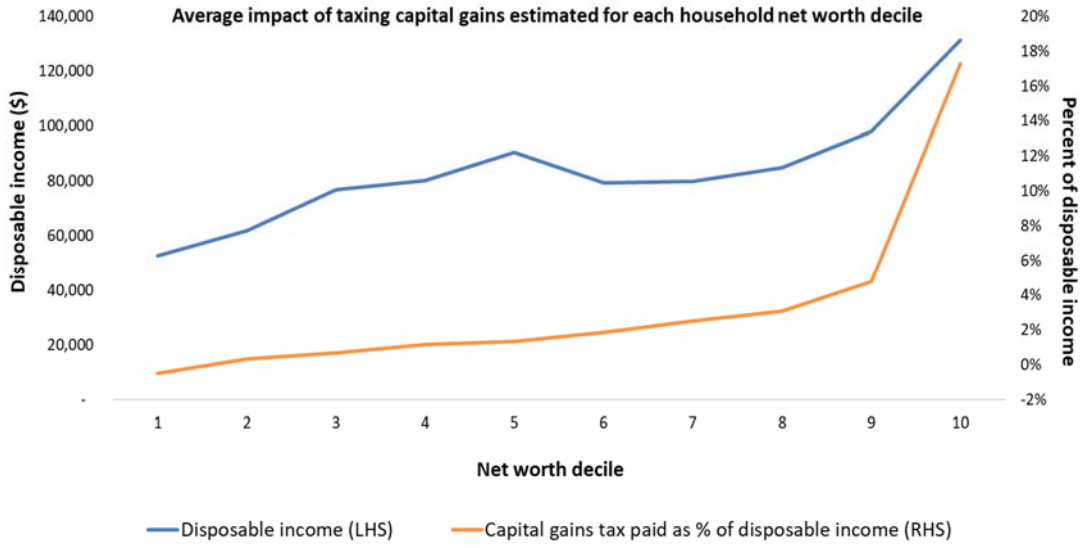


Source: Statistics New Zealand (HES 2015) with subsequent Treasury calculations

106. Taxing capital gains would likely be highly progressive with respect to net worth deciles. Figure 6 below shows the potential distribution of the average capital gains tax payment when expressed as a percentage of disposable income by household net worth decile. This illustrative scenario suggests that, on average, higher net worth deciles will carry a higher tax cost when expressed as a percentage of disposable income. However the actual impact on households will depend on individual circumstances and will vary over time.

[7] The relatively high average capital gains tax liability for decile 6 can be explained as households including low income and high net worth. These are typically older households with individuals retiring or nearing retirement age.

Figure 6: Estimated annual average capital gains tax payment as percentage of disposable income.[8]



Source: Statistics New Zealand (HES 2015) with subsequent Treasury calculations

107. This analysis is limited by focussing on the legislative incidence of the policy. The actual distributional impact of extending the taxation of capital income will depend on who bears the economic incidence of the tax and dynamic effects of the policy. For example, the policy may impact on the housing market and increase rents, which could have a regressive effect.

Personal income tax rate and threshold change scenarios

108. Distributional analysis of income tax scenarios has been undertaken using the Treasury's modelling of the tax system using household survey data linked to IRD and MSD's administrative data.[9] The modelling assumes there are no behavioural responses to the tax changes, these give what are termed "morning after effects" from the policy change.

109. The analysis focuses on income tax threshold changes, as requested by the group. The following scenarios were modelled

Scenario 1. The first tax threshold is raised to $25,000
Scenario 2. The first tax threshold is raised to $25,000 and the second tax rate is raised to 20%
Scenario 3. The first tax threshold is raised to $22,000
Scenario 4. The first tax threshold is raised to $30,000 and the second tax rate is raised to 20%

110. Scenario 1 and 3 show changes to the bottom tax threshold only and have been used in the revenue neutral packages. They have been modelled to meet a particular fiscal cost in tax year 2021/22. Scenario 1 costs $2 billion per annum and scenario 3 costs $1.5 billion. It is also important to note that scenarios with a higher fiscal cost are likely to be more redistributive by default.

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[8] See Distributional analysis and incidence. Background Paper for Session 15 of the Tax Working Group August 2018.

[9] This analysis was carried out using Treasury's micro-simulation model of the tax and welfare system – TAWA.

111. The other scenarios are included for illustrative purposes. Scenario 2 and 4 is to illustrate options where the second tax rate is allowed to increase. Updated estimates for a tax free threshold (scenario 5) is explored later in this section for illustrative purposes.

112. Table 6 below shows the fiscal cost for each scenario. The fiscal cost includes the impact of both personal tax changes and increases in welfare payments (so that main benefit recipients also benefit from tax cuts) and changes to NZS.

Table 6: Fiscal cost estimates for 2021/22 tax year

Scenario	**Total Fiscal Cost**	**Tax and threshold Cost**	**Benefit Cost**	**NZS Cost**
(1) The first tax threshold is raised to $25,000	$2,040,000,000	$1,780,000,000	$50,000,000	$210,000,000
(2) The first tax threshold is raised to $25,000 and the second tax rate is raised to 20%	$810,000,000	$620,000,000	$50,000,000	$140,000,000
(3) The first tax threshold is raised to $22,000	$1,490,000,000	$1,290,000,000	$50,000,000	$150,000,000
(4) The first tax threshold is raised to $30,000 and the second tax rate is raised to 20%	$1,950,000,000	$1,720,000,000	$50,000,000	$180,000,000

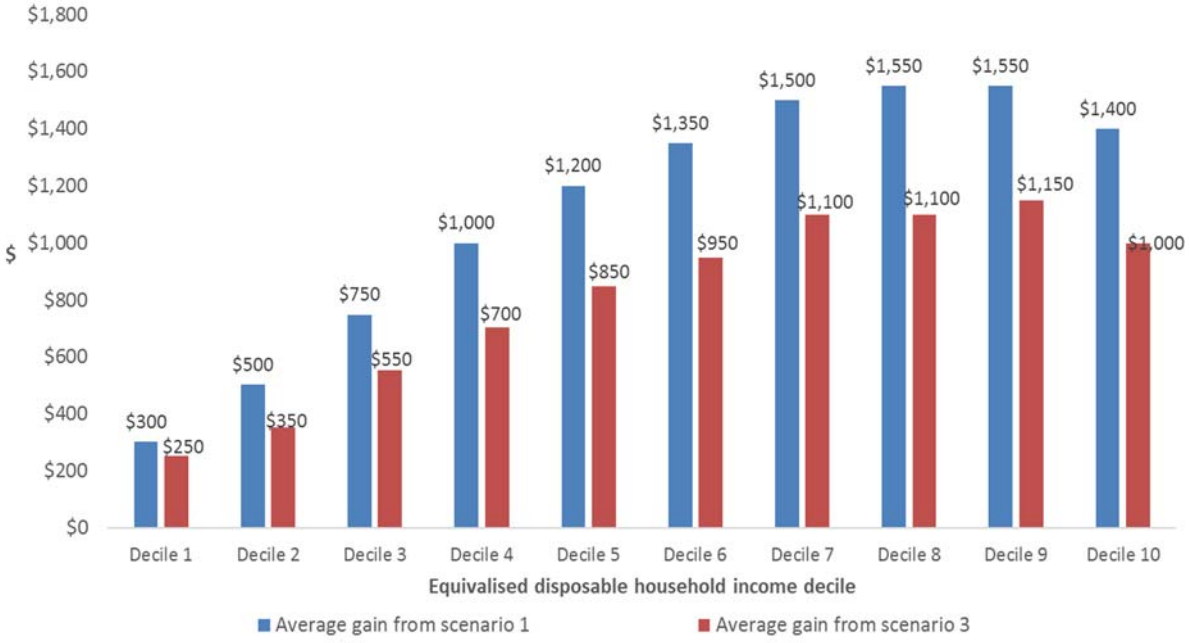
Source: The Treasury (based on HES 2017)

113. Scenario 1 provides larger average gains when compared to scenario 3 due to its higher fiscal cost ($2 billion versus $1.5 billion per annum). The average gain for households in decile one is low as a result of these households earning low incomes (less than $14,000).

114. Figure 7 below shows the average actual change in disposable income (un-equivalised) for households in different equivalised household income deciles. The relatively low average gain for households in low income deciles is due to income earners in these households earning relatively low incomes.

115. The average dollar gain (un-equivalised) per equivalised household income decile increases from decile 1 to 9, where after it decreases for decile 10. Differences largely reflect the average number of earners in each household. The average gain is higher for households in decile 9 relative to decile 10 because of household composition effects: households in decile 10 typically consist of one or two high income earning persons, whereas households in decile 9 have more multiple family unit households with more earners per household on average.

Figure 7: Average gain in annual disposable income per household from personal tax changes



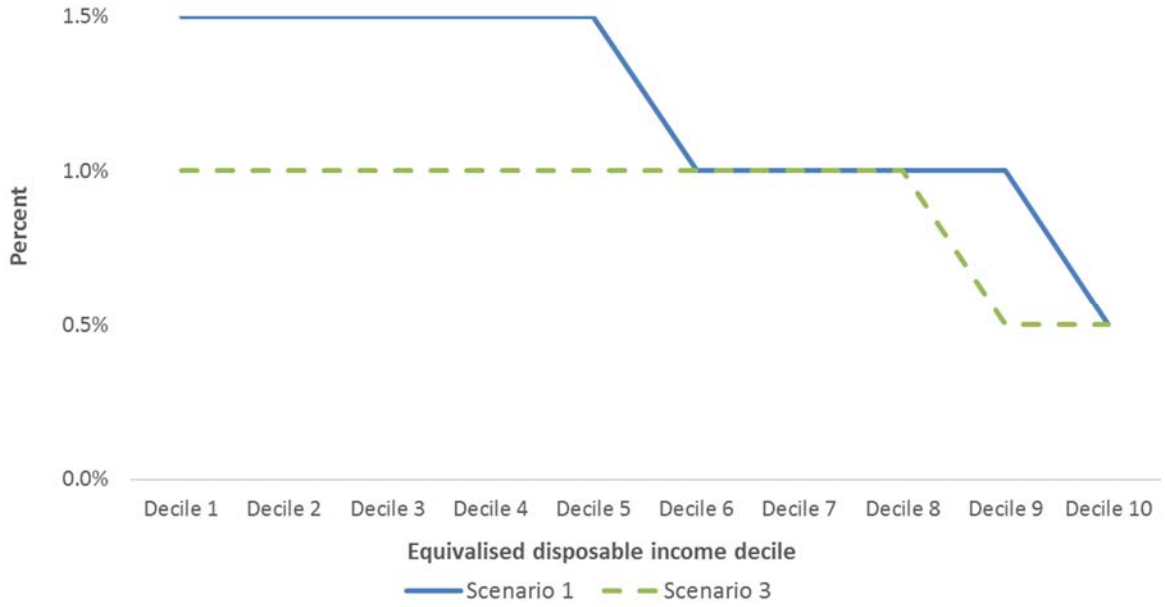
Source: Statistics New Zealand (HES 2017) with subsequent Treasury calculations
Note: Although deciles are ranked according to equivalised disposable income deciles, the average gain per household is in terms of un-equivalised or actual disposable income.

116. When the average gain is expressed as a percentage of taxable income, scenarios with larger fiscal costs achieve greater average benefits for lower income deciles (see table 9 below). Similarly these changes benefit households in lower income deciles more, as the gain per decile as a percentage of taxable income is lower for households in higher income deciles.[10]

117. The average household gain as a percentage of taxable income has been rounded to the nearest 0.5 percent for robustness and reliability. Due to this rounding, the impact at lower household deciles appears flat, although is still higher than for higher income households. Unrounded percentages could show a more gradual decrease across deciles and/or a steeper downward trend for higher income deciles.

[10] These percentages are rounded to the nearest 0.5 per cent for the purpose of robustness and reliability, and also as this produces reliable estimates across historical HES datasets (HES 2014/15, 2015/16, and HES 2016/17).

Figure 8: Average gain in annual disposable income per household as a percentage of taxable income

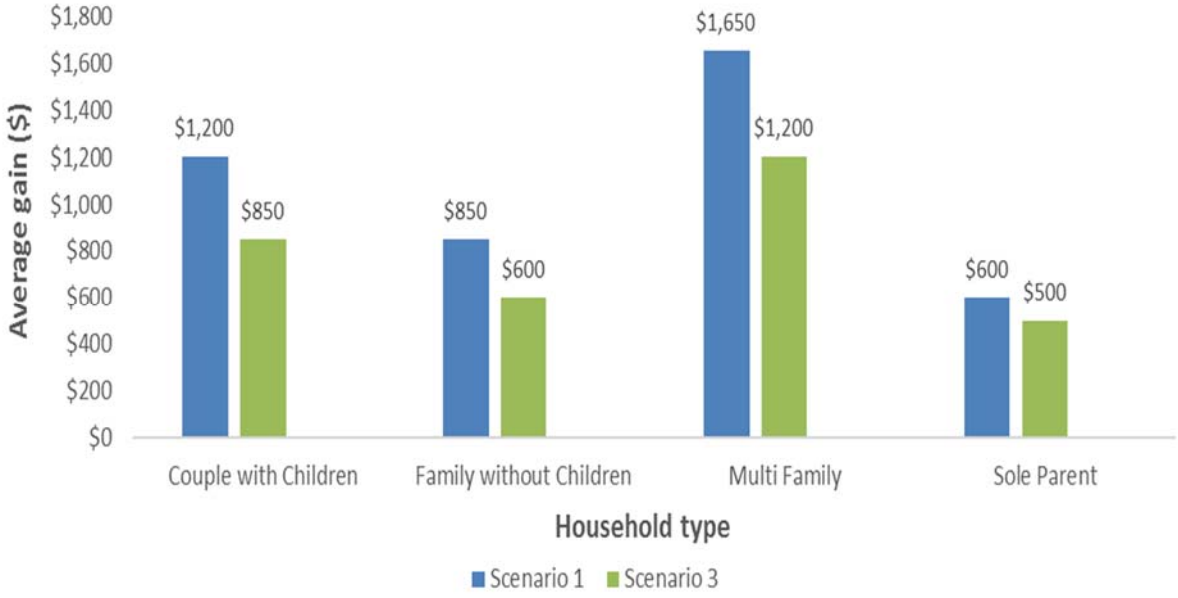


Source: Statistics New Zealand (HES 2017) with subsequent Treasury calculations

By household type

118. At the household level, scenarios with the highest fiscal cost (i.e. scenario 1) provides the largest average gain per household, while multi-family households (households with multiple family units) receive on average the highest gain under the different scenarios, followed by couples with children. Multi-family households, are households that consists of more than one family unit and as such will receive a larger average gain due to having potentially more income earners.

Figure 9: Average gain in annual disposable income by household type



Source: The Treasury (based on HES 2017)

Impact on income inequality

119. In terms of the impact on income inequality, the results below show the changes in summary measures of household income inequality for the various scenarios. It shows two measures of income inequality: the Gini score and 80:20 ratio (the 80:20 ratio is the ratio of the average income of the 20% of the richest to the 20% of the poorest). A higher number for both measures indicate greater income inequality. These results should be compared to the status quo (SQ). All scenarios show a *very small* reduction in measured income inequality (e.g., scenario 1 reduces the Gini coefficient by 0.5% and scenario 3 by 0.4%).

Table 7: Inequality outcomes by equivalised household disposable income

Scenario	Gini score	80:20 Ratio[11]
SQ	0.3539	2.8170
Scenario 1	0.3521	2.8078
Scenario 2	0.3523	2.7982
Scenario 3	0.3525	2.8087
Scenario 4	0.3519	2.7980

Source: Treasury

120. For context, the increase in the Gini coefficient attributed to tax changes between 2007 and 2011 was 0.64 Gini points, while the reduction in scenario 1 is estimated to be 0.08 Gini points and in scenario 3 is 0.14 Gini points.[12]

121. The most common and appropriate unit of measure for inequality is at the individual level. However for the purposes of this analysis, the unit of measures is at the household level. However, this measure is reasonable as a broad guide to the change in income inequality estimated as a result of a change in taxes.

Additional data tables:

Table 8: Change in net benefit rates compared to Status quo (2021/22).

Weekly net benefit rates ($)	Status quo (Tax year 2021/22)	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Benefits - Job Seeker Support Rate/Single-At-Home	149.37	149.37	149.37	149.37	149.37
Benefits - Job Seeker Support Rate/Single-Young	186.71	186.71	186.71	186.71	186.71
Benefits - Job Seeker Support Rate/Single	224.06	224.06	224.06	224.06	224.06
Benefits - Job Seeker Support Rate/Sole-Parent	347.58	356.70	356.70	356.70	356.70
Benefits - Job Seeker Support Rate/Couple	186.71	186.71	186.71	186.71	186.71
Benefits – Job Seeker Support /Rate/Couple-Parent	200.04	200.04	200.04	200.04	200.04
Benefits – Supported Living Payment /Rate/Single-Young	226.63	226.63	226.63	226.63	226.63

[11] The 80/20 ratio is inter-decile.

[12] Creedy, J. & Eedrah, J. 2014. The Role of Value Judgements in Measuring Inequality. New Zealand Treasury Working Paper 14/13

Benefits - Supported Living Payment - Rate/Single	280.06	283.46	283.46	283.46	283.46
Benefits - Supported Living Payment - Rate/Sole-Parent	394.55	407.66	407.66	405.28	407.66
Benefits - Supported Living Payment - Rate/Couple	233.37	233.37	233.37	233.37	233.37
Benefits - Supported Living Payment - Rate/Couple-Parent	246.69	247.25	247.25	247.25	247.25
Benefits - Sole Parent Support Rate	347.58	356.70	356.70	356.70	356.70

Source: Treasury

Note: These rates are per recipient, so the couple rates are the amount given to each member of the couple.

Table 9: Average gain per households due to tax and threshold changes (2021/22).

Average gain in annual disposable income by equivalised disposable income decile relative to the status quo settings.				
Decile	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Decile 1	$300	$250	$250	$300
Decile 2	$500	$350	$350	$500
Decile 3	$750	$450	$550	$800
Decile 4	$1,000	$500	$700	$1,050
Decile 5	$1,200	$500	$850	$1,200
Decile 6	$1,350	$500	$950	$1,300
Decile 7	$1,500	$550	$1,100	$1,400
Decile 8	$1,550	$500	$1,100	$1,400
Decile 9	$1,550	$450	$1,150	$1,400
Decile 10	$1,400	$400	$1,000	$1,250
Average gain in annual disposable income as a percentage of taxable income by equivalised disposable income decile.				
Decile	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Decile 1	1.50%	1.00%	1.00%	1.50%
Decile 2	1.50%	1.00%	1.00%	1.50%
Decile 3	1.50%	1.00%	1.00%	1.50%
Decile 4	1.50%	0.50%	1.00%	1.50%
Decile 5	1.50%	0.50%	1.00%	1.50%
Decile 6	1.00%	0.50%	1.00%	1.00%
Decile 7	1.00%	0.50%	1.00%	1.00%
Decile 8	1.00%	0.50%	1.00%	1.00%
Decile 9	1.00%	0.00%	0.50%	1.00%
Decile 10	0.50%	0.00%	0.50%	0.50%

Source: Treasury

Note: Results are for Tax Year 2021/22 based on HES 2016/17 survey data linked with IRD and MSD data.

Table 10: Average gain per household by household type (2021/22)

Average gain in annual disposable income relative to the status quo settings by household type				
Household Type	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Couple with Children	$1,200	$450	$850	$1,100
Family without Children	$850	$300	$600	$800
Multi Family	$1,650	$700	$1,200	$1,600
Sole Parent	$600	$350	$500	$600
Average gain in annual disposable income as a percentage of taxable income by household type				
Household Type	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Couple with Children	1.00%	0.50%	0.50%	1.00%
Family without Children	1.00%	0.50%	0.50%	1.00%

Multi Family	1.00%	0.50%	1.00%	1.00%
Sole Parent	1.50%	1.00%	1.00%	1.50%

Source: Treasury

Note: A household is defined as 'Couple with children' if it consists of one family with two non-dependants and at least one dependant; a 'Family without children' household consists of one family with no dependants; a 'Multi Family' household consists of more than one family; a 'Sole Parent' household consists of a single family with one non-dependant and at least one dependant.

Updated analysis of taxpayers in bottom tax threshold and tax free zone

122. Previous advice discussed the limitations of tax free zones in terms of targeting those on persistently low incomes. It included older, published analysis of the characteristics of individuals with very low taxable incomes. We have undertaken analysis to the most recent HES surveys to update this analysis.

123. Table 11 shows the characteristics of individuals with taxable incomes below $14,000. It confirms the earlier work that many individuals with very low taxable incomes are receiving transfers, are young, self-employed, or in higher income households.

124. We have included analysis of a fifth scenario of a tax free zone (tax free threshold for income under $9,000) for illustrative purposes. It has a fiscal cost of $2 billion per annum. This scenario also assumes greater increase in benefit payments than other scenarios, which affects its estimated distributional impact.

Additional data tables:

Table 11: Individuals with <$14,000 taxable income[13]

Individuals with <$14000 taxable income (number)	HES15	HES16	HES17
Zero taxable income	1,208,000	1,229,000	1,206,000
Main source of taxable income			
Benefits	192,000	173,000	199,000
Private income	408,000	413,000	377,000
Total number of individuals	**1,808,000**	**1,815,000**	**1,782,000**
Main source of taxable benefit income			
Core benefit	152,000	140,000	166,000
Super	17,000	9,000	14,000
Student Allowance	44,000	40,000	35,000
Main source of private taxable income			
Wages and Salaries	312,000	305,000	304,000
Other taxable income	26,000	41,000	34,000
Capital Non-PIE income	73,000	54,000	38,000
Self-employed income	51,000	62,000	51,000
Negative self-employment income	38,000	23,000	26,000
Under 18 years old	1,128,000	1,131,000	1,120,000

[13] Access to the anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975 and secrecy provisions of the Tax Administration Act 1994. Statistics NZ confidentiality protocols were applied to the data sourced from the Ministry of Social Development. The results in this paper have been confidentialised to protect individual persons, households, businesses and organisations from identification. The results presented in this study are the work of the Treasury, not Statistics NZ.

Students (over 18 part / full time education)	159,000	155,000	147,000
Secondary earner			
Above median (Family taxable income)	200,000	188,000	172,000
Below median (Family taxable income)	110,000	97,000	95,000
Working for Families			
Does not receive Working for Families	42,000	38,000	36,000
Receives Working for Families	182,000	182,000	162,000
Over 18 non-student	521,000	527,000	515,000
Primary earners (over 25, do not receive WfF)	26,000	34,000	33,000

Source: The Treasury
Note: Results are for Tax Year 2019/20 based on HES 2014/15, HES 2015/16, and HES 2016/17 survey data linked with IRD and MSD data.

Table 12: Fiscal cost estimates for scenario 5 (2021/22)

Scenario	Total Fiscal Cost	Tax and threshold Cost	Benefit Cost	NZS Cost
(5) The first tax threshold is lowered to $9,000 and the first tax rate is set to 0%	$2,050,000,000	$1,530,000,000	$180,000,000	$340,000,000

Source: The Treasury (based on HES 2017)

Table 13: Change in net benefit rates compared to status quo for scenario 5 (2021/22).

Weekly net benefit rates ($)	Status quo (Tax year 22)	Scenario 5
Benefits - Job Seeker Support Rate/Single-At-Home	149.37	166.89
Benefits - Job Seeker Support Rate/Single-Young	186.71	202.28
Benefits - Job Seeker Support Rate/Single	224.06	236.71
Benefits - Job Seeker Support Rate/Sole-Parent	347.58	358.98
Benefits - Job Seeker Support Rate/Couple	186.71	202.28
Benefits – Job Seeker Support /Rate/Couple-Parent	200.04	214.57
Benefits – Supported Living Payment /Rate/Single-Young	226.63	239.08
Benefits - Supported Living Payment - Rate/Single	280.06	291.46
Benefits - Supported Living Payment - Rate/Sole-Parent	394.55	405.95
Benefits - Supported Living Payment - Rate/Couple	233.37	245.29
Benefits - Supported Living Payment - Rate/Couple-Parent	246.69	258.09
Benefits - Sole Parent Support Rate	347.58	358.98

Source: Treasury
Note: These rates are per recipient, so the couple rates are the amount given to each member of the couple.

Table 14: Average gain per households due to tax and threshold changes (2021/22).

Average gain in annual disposable income by equivalised disposable income decile relative to the status quo settings.	
Decile	Scenario 5
Decile 1	$800
Decile 2	$750
Decile 3	$950
Decile 4	$1,050
Decile 5	$1,200
Decile 6	$1,250
Decile 7	$1,400
Decile 8	$1,350
Decile 9	$1,300
Decile 10	$1,200
Average gain in annual disposable income as a percentage of taxable income by equivalised disposable income decile.	
Decile	Scenario 5
Decile 1	3.50%
Decile 2	2.00%
Decile 3	2.00%
Decile 4	1.50%
Decile 5	1.50%
Decile 6	1.00%
Decile 7	1.00%
Decile 8	1.00%
Decile 9	0.50%
Decile 10	0.50%

Source: Treasury

Note: Results are for Tax Year 2021/22 based on HES 2016/17 survey data linked with IRD and MSD data.

Table 15: Average gain by household type (2021/22)

Average gain in annual disposable income relative to the status quo settings by household type	
Household Type	Scenario 5
Couple with Children	$1,100
Family without Children	$800
Multi Family	$1,800
Sole Parent	$550
Average gain in annual disposable income as a percentage of taxable income by household type	
Household Type	Scenario 5
Couple with Children	1.00%
Family without Children	1.00%
Multi Family	1.00%
Sole Parent	1.00%

Source: Treasury

Note: A household is defined as 'Couple with children' if it consists of one family with two non-dependants and at least one dependant; a 'Family without children' household consists of one family with no dependants; a 'Multi Family' household consists of more than one family; a 'Sole Parent' household consists of a single family with one non-dependant and at least one dependant.

Table 16: Inequality outcomes by equivalised household disposable income for scenario 5.

Scenario	Gini score	80:20 Ratio[14]
SQ	0.3539	2.8170
Scenario 5	0.3506	2.7909

Source: Treasury

[14] The 80/20 ratio is inter-decile.

Appendix C: Impact of increasing the bottom personal income tax threshold on financial work incentives

125. Changes to personal income tax rates can influence incentives for individuals to enter the workforce or to increase their earnings once in the workforce. This section considers what impact the proposals to increase the bottom threshold outlined in Appendix B would have on work incentives for low-income individuals receiving benefits. The overall effect on work incentives is expected to be very small, partly because of the way that the tax and transfer system interact. Moreover, aggregate labour supply may not be particularly responsive to tax changes.

126. The section also considers the impact that these tax changes could have on the incentives people have to build their human capital.

Effect of tax change on labour-supply – the extensive and intensive margin

127. There are two main groups of individuals who are impacted when considering changes to personal income tax rates:

- *The intensive margin:* This group of individuals is already in work, and whose work intensity (more or fewer hours) is influenced by their returns from working. The *"effective marginal tax rate" (EMTR)* is the key tool used to analyse how tax and transfer payments affects their incentives. EMTRs measure the amount of additional earnings an individual receives for each unit of additional work, after tax and transfer payments are abated (reduced). High EMTRs discourage work.
- *The extensive margin:* This group of individuals decides to enter or exit the workforce given the trade-offs available to them. Average tax rates as well as benefit levels (measured by replacement rates) are generally the tools used to analyse how tax and transfer payments affect their incentives to work. Replacement rates are the ratio of transfer payments relative to income from working (i.e., the extent that transfer payments replace income from working). High replacement rates discourage work.

128. An increase in the bottom tax threshold will increase the net incomes available to everyone who could earn above that band, making it more likely that individuals would be willing to participate in the labour market. At the same time, the impact on work incentives from a tax change depends on the interaction of the tax change with the transfer system, in particular where an increase in income causes a person to receive less in transfer payments. The amount of transfer payments a person receives depends on household composition, such as whether a person has a partner or children, family income, and housing costs, for example.

129. Recent analysis (Creedy Mok 2017) indicates that both margins matter for the labour supply choices of families – with the extensive margin particularly important for couples. For second earners or sole parents, individuals who identify having large opportunity costs of working, these participation considerations matter. In particular, the availability of higher net earnings for a second earner appears to be an important determinant of whether he or she enters the labour market. Working for Families is

especially important in determining how strong work incentives are for couples with children due to the abatement of the tax credits.

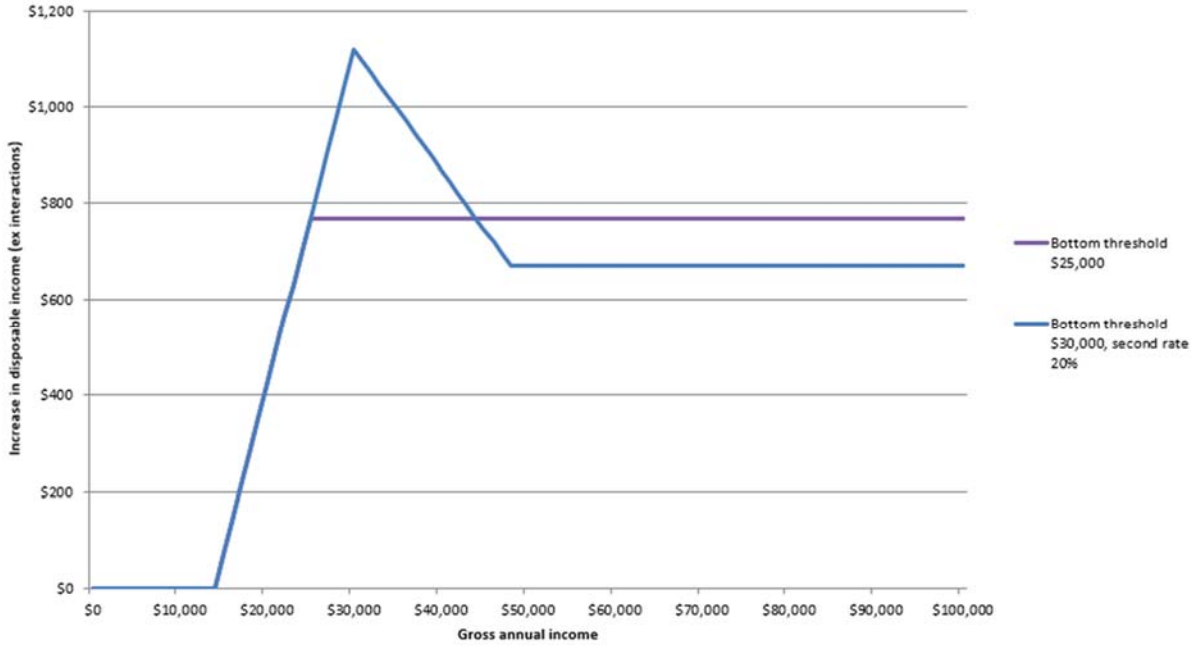
130. At the intensive margin, the increase in the bottom tax threshold will result in greater financial returns from working more hours for individuals who are not receiving an abated benefit. However, some individuals may also consider working fewer hours as their average hourly income increases. The balance of these considerations means that the aggregate labour supply does not change significantly. There is also the ability (or lack of) for individuals to increase their working hours to be factored in.

131. The Creedy Mok 2017 analysis also indicates that sole parents and single women without children are especially responsive to changes in the net earnings available to them in the labour market – both when deciding to participate, and also deciding what type of job (e.g., the number of hours) to take on. However, the analysis of single individuals across this range is significantly complicated by the high abatement rates on core benefits. How this functions through the extensive and intensive margins is covered in more detail below.

132. Increasing the bottom tax threshold will also have an impact on New Zealand superannuitants. Any decrease to personal income taxes will increase the amount of payments for superannuitants, as they receive both an increase in their NZS payment as well as an annual adjustment for wage rate changes. Recent data indicates that the labour participation rates for people between 65 and 69 years old is 45%, up from 11.7% in 1998. This suggests that superannuitants have become more engaged with the labour market and may be responsive to personal tax changes.

133. The following graph illustrates the gain in income for those individuals who do not receive benefit payments or tax credits, and therefore do not experience abatement of entitlements.

Figure 10: Gain in income for individuals not facing abatement of entitlements



134. Tax is likely to be only a small factor on financial work incentives for individuals who receive social welfare benefits, such as jobseeker support or sole parent support. This is because the availability and abatement of benefits has a much greater impact on work incentives for these individuals relative to tax changes. As a result, all of the options considered in Appendix B have relatively similar effects on both the *intensive* and *extensive margin* for these individuals[15].

135. Previous modelling carried out by Treasury in 2016 showed a distributional breakdown of all families by income and transfers received. For all families with a family taxable income below $36,700, around 35% did not receive core benefits or transfer, 43% received a benefit or transfer, and around 22% received New Zealand Superannuation[16]. This indicates the magnitude of families earning under $36,700 who are likely facing EMTRs driven by abatement rates of transfers.

Impact of changes to the bottom threshold on the intensive margin and incentives to increase earnings for those in work

136. Increasing the bottom tax threshold has a small impact on EMTRs faced by individuals receiving benefits. This is because the bulk of the high effective rates for these individuals is driven by abatement rates of social welfare benefits. As a result, the options the Group are considering are likely to have only small impacts on work incentives when looking at the *intensive margin* and incentives to increase hours worked or change jobs.

137. Due to interactions with the transfer system the EMTRs do not decline to the same extent that the tax rate decreases for this group. This indicates the importance of ensuring consistency in the full design of any combined tax and transfer policies when evaluating the redistributive and efficiency consequences of a package.

138. The EMTRs will reduce by the equivalent reduction in the tax rate faced (7%) when the individual is not yet earning enough to result in abatement of the benefit or if they have fully transitioned off the benefit.

139. For Sole Parent Support entitlements, the benefit level is such that the benefit will not have fully abated until around $30,000, therefore the threshold increase chosen will impact whether individuals in receipt of the Sole Parent Support payments will experience a reduced EMTR when they transition off the benefit.

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[15] Analysis considered three different representative household types receiving benefits: One adult receiving Sole Parent Support with one child, one adult receiving Jobseeker Support, with no children, and two adults receiving Jobseeker Support with two children. Modelling has assumed that individuals receive all MSD payments they are entitled to and move off benefits when there is financial incentive for them to do so. These are also modelled based on simulated rates at 1 April 2020; however, we note that in a typical scenario with children, the Minimum Family Tax Credit (MFTC) would also change. Given the time available to model these scenarios, the MFTC amounts have not been calculated for the purpose of this exercise. The scenarios were calculated based on a wage rate of $18.80.

[16] Modelled transfers were core benefits, Family Tax Credit, In-work Tax Credit, Independent Earner Tax Credit, and Accommodation Supplement. See https://treasury.govt.nz/sites/default/files/2017-11/b17-3578049.pdf. We note that further caveats apply to the modelling results, but these figures are indicative of the potential distribution of families who receive transfers.

140. Figures 11 and 12 show EMTR schedules for example family types over 40 hours of work per week. They compare the status quo (base) with a scenario of increasing the bottom personal income tax threshold to $22,000.

Figure 11 – EMTRs for Jobseeker Support (tax threshold increases to $22,000)

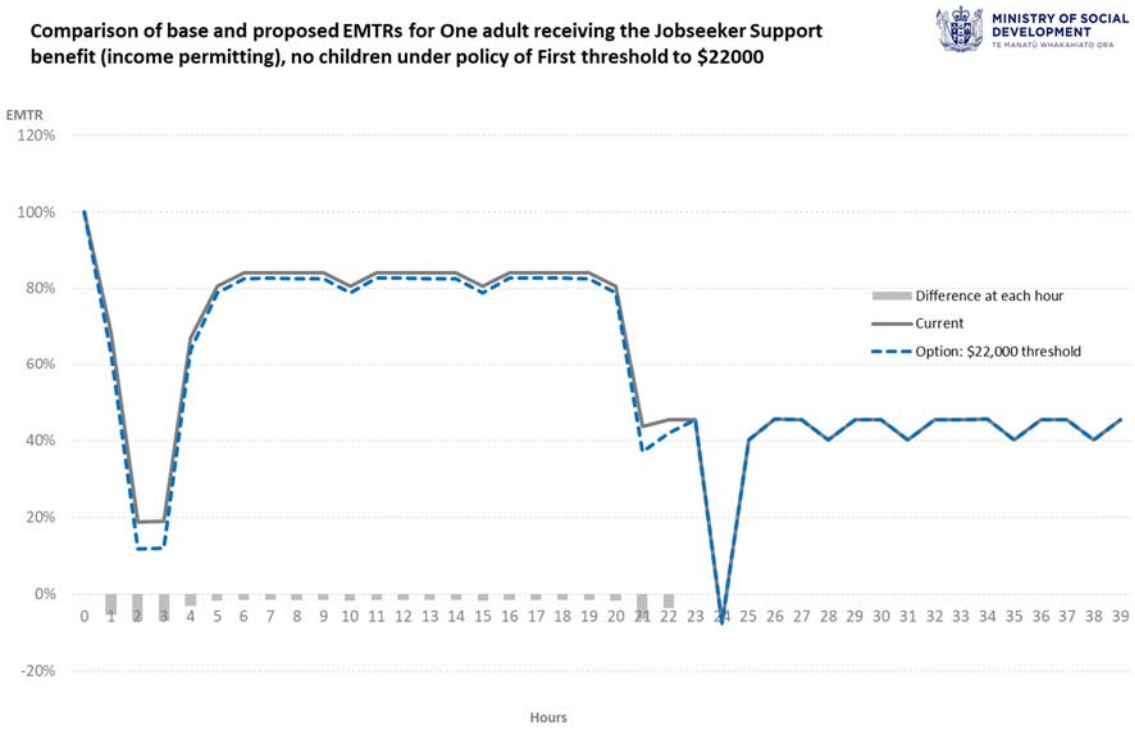
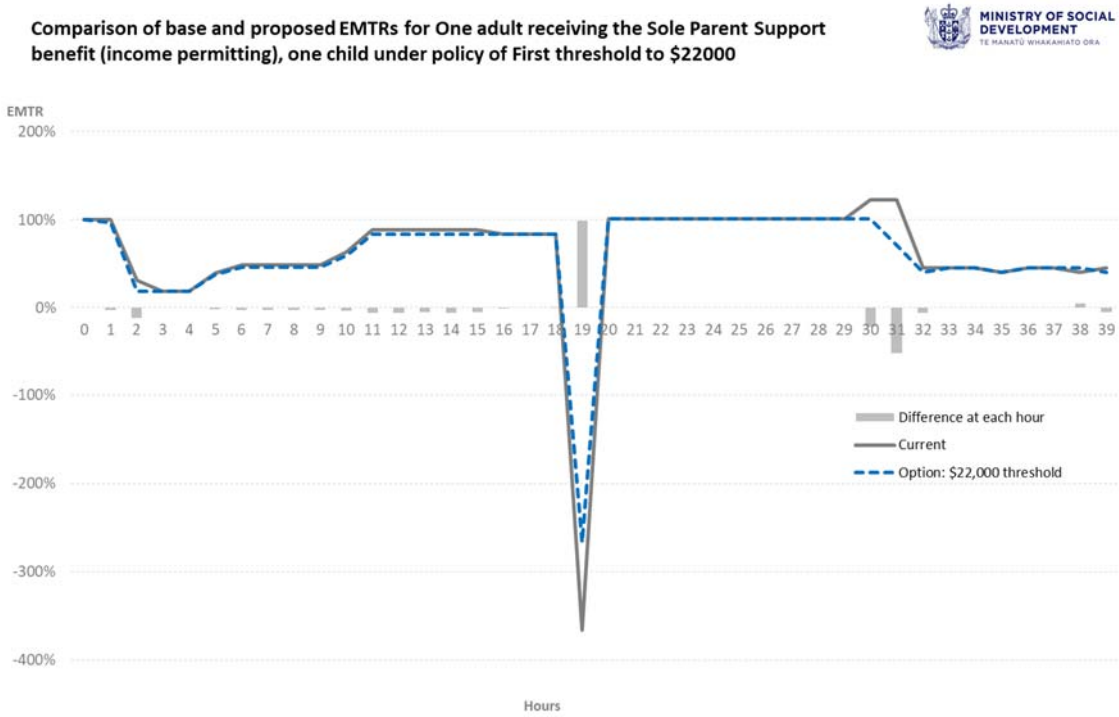


Figure 12 – EMTRs for Sole Parent Support (tax threshold increases to $22,000)



Impact of changes to the bottom threshold on the *extensive margin* and incentives to enter workforce

141. To consider the impact on incentives to enter the job market we have looked at what an individual's net pay is when comparing being unemployed on the jobseekers benefit, or receiving sole parent support, and them being in a full time job paying minimum wage[17].

142. The options to increase the bottom threshold outlined in Appendix B would have a small positive impact on the *extensive margin* and incentives to enter the job market. Increasing the first tax threshold to $30,000 and raising the second tax rate to 20% has a marginally higher impact on this incentive than the other options, however the differences between all of the options are largely minor as there is a maximum difference of approximately $500 per year between the options considered or approximately $1000 when compared to the current tax structure.

143. This is again, largely because other transfer policies have much greater impacts on work incentives than tax rates. In particular, Working for Families entitlements increase the net pay for parents with children for entering work and becoming entitled to the In Work Tax Credit. This is not affected by the change in tax rate/threshold[18].

Participation rates

144. Participation rates in New Zealand are high relative to other countries in the OECD – with participation of sole parents and second earners having increased considerably. This suggests that there is less scope for tax policy to boost participation than there has been in the past. According to OECD data, New Zealand's participation rate is 70.7%, which is the fourth highest, behind Iceland, Sweden and Estonia[19].

Human capital

145. Human capital represents the knowledge we have about producing during an hour of work and the skills we have available to use the physical capital available to us. Human capital can be built up by on the job training and also by undertaking education.

146. In theory, higher average tax rates and greater progressivity in the tax scale should reduce the amount of human capital accumulation - by reducing the incentive to sacrifice leisure and to take on the effort of education (by increasing average tax rates) and by reducing the rate of return on educational investment relative to working (as the progressivity of the tax system reduces the post-tax return to skills).

147. However, the empirical evidence has suggested a smaller disincentive effect from taxation. Overall, the magnitude of the impact of taxes on human capital formation remains an open question.

[17] For these calculations, entitlements have been calculated as if taxed in the same way as salary and wage income. Based on current tax rate structure, the amount received after tax on a 40 hour a week, minimum wage job is $29,294.

[18] The Working for Families component, Minimum Tax Credit, could be affected as this is calculated by guaranteeing a net income, among other things.

[19] The OECD defines the labour force participation rate as the labour force divided by the total working age population.

148. Learning on the job is an important component of accumulation of human capital – and is why incentives for the extensive margin is an important consideration for policy makers. However, it also suggests that the disincentive effect of EMTRs and participation exercises can be overstated, as experience in work can lead to an individual gaining skills and increasing their future income (Jara, Gasior, Makovec 2016).

149. However, the role of tax-transfer changes in helping human capital accumulate and aiding in situations where economic shocks make human capital obtained no longer of use, for example due to technological change, is limited. Education and welfare policy will be likely to have a bigger impact on human capital outcomes than marginal changes in tax rates (Torres 2012).

Appendix D: Assumptions in projected revenue for taxing more capital gains

Assumption: Growth rate

150. Residential investment property is assumed to grow at a 3% nominal annual rate (2% inflation plus 1% real growth rate) similar to what is projected in the 2018 Budget Economic and Fiscal Update.[20] That rate is also used for other categories of real property.

151. New Zealand shares are assumed to appreciate at 3% per year.[21]

Assumption: Size of base

152. The table below shows how initial values (from 1 April 2021) were derived from the most recently available data. From the most recent data available, prices are assumed to increase at a rate of 3% per year until 1 April 2021. In addition, the base for residential investment property and commercial and industrial are presumed to increase by an additional 2.8% to reflect additional building investment.

153. For managed fund assets the value of total shareholdings are projected to grow at 15% per annum (based on historic growth rates).

Base	**Data Source**	**Observation Date**	**Value at Observation Date ($Billion)**	**Grossed-Up Value at 1 April 2021 ($Billion)**
Residential rental property	Reserve Bank Household Balance Sheet	December 2017	269	324
Commercial, industrial and other property	Corelogic	October 2017	217	261
Rural	Corelogic	October 2017	181	199
Domestic shares not held by managed funds	Household Balance Sheet and	March 2018	121	133
Domestic shares held by managed funds	Reserve Bank Managed Fund Assets	June 2018	11	16

Assumption: Turnover rate

154. The costing incorporates a realisation basis. For real property categories, average holding periods are taken from Core Logic data as of the first quarter 2018. These are:

[20] BEFU 2018 projects house prices to increase by 3.4% in 2021 and 3.7% in 2022.

[21] NZX capital index information shows New Zealand shares appreciated by 3.7% per year on average from 1990 – 2017.

- Residential investment property – 6.40 years;
- Commercial and industrial property – 7.12 years;
- Agricultural property – 6.90 years.

155. New Zealand shares are assumed to have an average turnover rate of 33% (based on data from World Federation of Exchanges).

Assumption: lock-in effect

156. The costings assume that taxing more capital gains will cause behavioural changes through a "lock-in effect". The costings assume that the turnover rate will reduce by 20% as a result of this lock-in effect. The Secretariat are working to source better data to refine this assumption.

Assumption: rollover relief

157. The costing incorporates rollover relief decisions made by the Group. The assumptions regarding these rollovers are based on the following:

Proposal	***Property it affects***	***Proportion of realisations covered by rollover relief***	***Source***
Replacement active assets held by small businesses (turnover <$5m)[22]	Rural, commercial, industrial and 'other' land	32% of rural , commercial, industrial and 'other' land sales	Annual enterprise survey and LEED data. Based on: • proportion of fixed assets held by businesses in sales threshold, • proportion of non-residential land held passively • proportion of self-employed that appear to be retiring.
Inherited property, relationship property and insurance	All assets costed	8% for land 5% for shares	Estimate of value of inheritances and relationship property transfers prepared by Secretariat using RBNZ methodology (Briggs, 2008). Value of insurance rollover estimated to be small relative to total amount of realisations.

Risks: Risks that the projected revenue could be understated

[22] The Group agreed to provide multiple options for rollover relief for small business assets and inherited property. The Secretariat has done the costings based on the option with the greatest fiscal cost. This means that the costing is for all active assets for small businesses and all inherited property.

158. **Unknown parts of the base** – The projected base uses elements of the base that are known through published statistics – values of real property and New Zealand shares. Some elements of the base are not known and so are not costed. These include – residential property that is neither owner-occupied housing nor residential investment property (eg, second homes), shares in Australian listed companies, and shares in private companies and intangible property such as goodwill, brands, trademarks and intellectual property.

Risks: Risks that the forecast revenue could be overstated

159. **Overlap with current revenue account property** – Some property is already subject to tax on gain when sold (revenue account property). The most significant of these are real property sold by developers and dealers. This is not adjusted for due to lack of information. This also includes property subject to the brightline rule and taxable under the intention test.

Risks that could either overstate or understate the forecast

160. **Variation from assumptions** – actual conditions may vary from what is assumed. In particular, the actual appreciation rate is likely to vary over time and be both above and below the assumed growth rate at times. Other factors, such as size of the base and turnover rates, could also vary from the assumptions. The impact of rollover reliefs are difficult to estimate as there is a lack of data regarding who would be able to utilise reliefs.

References

Bartolini, D. (2018), "Firms at the productivity frontier enjoy lower effective taxation", *OECD Economics Department Working Papers*, No. 1475, OECD Publishing, Paris, https://doi.org/10.1787/b102e5fc-en

Conway, P. (2016) "Achieving New Zealand's productivity potential," Productivity Commission, Research paper 2016/1 http://www.productivity.govt.nz/research-paper/achieving-new-zealands-productivity-potential

Creedy, J, Mok, P. (2017) "Labour Supply Elasticities in New Zealand", Working Paper 10/2017 in Public Finance, Victoria University of Wellington. https://www.victoria.ac.nz/__data/assets/pdf_file/0011/999434/WP_10_2017_Labour_Supply_Elasticities_in_New_Zealand.pdf

IMF (2017), Fiscal Monitor, April 2017. "Chapter 2 : Upgrading the Tax System to Boost Productivity" http://www.imf.org/en/Publications/FM/Issues/2017/04/06/fiscal-monitor-april-2017

OECD (2018), Labour force participation rate (indicator). doi: 10.1787/8a801325-en (Accessed on 12 November 2018)

Torres, C. (2012), "Taxes and Investment in Skills", *OECD Taxation Working Papers*, No. 13, OECD Publishing, Paris, https://doi.org/10.1787/5k92sn0qv5mp-en.

Taber Christopher, 2002. "**Tax Reform and Human Capital Accumulation: Evidence from an Empirical General Equilibrium Model of Skill Formation**," The B.E. Journal of Economic Analysis & Policy, De Gruyter, vol. 2(1), pages 1-38, October.

Perry, B. (2017) Household Incomes in New Zealand: trends in indicators of inequality and hardship 1982 to 2016. Ministry of Social Development. Available at: https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/monitoring/household-income-report/2017/2017-incomes-report-wed-19-july-2017.pdf

Jara, H, Gasior, K, and Makovec, M. (2016). "Low incentives to work at the extensive and intensive margin in selected EU countries: research note 4/2016. Institute for Social and Economic Research, University of Essex.

The Treasury. (2016). "TR2016/1650 Preliminary Options for Tax Cuts for Budget 2017". Retrieved from https://treasury.govt.nz/sites/default/files/2017-11/b17-3578049.pdf