Tax Working Group
Te Awheawhe Tāke

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This paper contains advice that has been prepared by the Tax Working Group Secretariat 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 Group or the Government.

Appendix B: Changes to tax rates and thresholds

Further information on potential revenue-reducing options

July 2018

Prepared by the Inland Revenue Department and the New Zealand Treasury

Executive summary

1. This paper considers three revenue reducing options related to tax rates and thresholds:
   - decreasing income tax rates, or increasing income tax thresholds;
   - inflation indexing income tax brackets; and
   - decreasing the GST rate.

2. It is important to be clear about the objective for policy changes. There are inevitable trade offs across objectives (eg, efficiency versus equity) and different ways of achieving an objective (eg, tax versus expenditure policies). The primary consideration for tax rate reductions or tax threshold increases is whether these are the highest value measures for a given fiscal cost. Other tax measures may be a higher priority, and there may be non-tax measures that are more effective than tax measures at achieving specific goals.

3. Whether to introduce these options relies on value judgements about how progressive the tax system should be and how much tax particular individuals should pay. As a result, for the interim report one option for the Group is to outline the benefits and drawbacks of particular options without making firm recommendations.

4. The paper considers three broad potential objectives: targeting lowest income households, targeting low-middle income earners and targeting productivity.

Targeting lowest income households

5. If the goal of reform is to improve disposable incomes of the poorest households, transfers (eg, welfare benefits or tax credits) are generally more targeted than income tax reductions. This is because households with the lowest persistent incomes are generally receiving income transfers, which could be adjusted directly and may not automatically increase if income taxes are reduced. If the goal of reform is to target the lowest income households it would be sensible to be recycling any revenue raised through extending the taxation of capital income into increasing transfers.

6. Some who have low taxable incomes will not necessarily have persistently low household incomes. In particular, many of those with low taxable incomes can be characterised as those with temporary low income (15-24 year olds and students), those who get support through the welfare system (superannuitants and benefit recipients), and those who are in higher income families (secondary earners).

7. The Welfare Expert Advisory Group (WEAG) is reviewing the welfare system. The WEAG may recommend changes to tax credits and other transfers to support income adequacy and poverty reduction, or otherwise improve the transfer system.

8. Income tax reductions would generally be a more expensive way of assisting these households compared to changes in the welfare system when marginal tax rates for higher income households are not able to be increased. This is because anyone above the threshold where tax rates are reduced receives the full benefit of the rate reduction.

Targeting low-middle income earners

9. If the goal of reform is to provide benefits that target low-middle income earners (for example a full time worker on the minimum wage), then the welfare system will still be a more effective tool if the goal is solely to provide income support. Income tax reductions would generally be a more expensive way of assisting these households.

10. One possible objective of tax reductions is to improve incomes for target low-middle income earners and at the same time also have additional benefits to labour-supply, savings and productivity. If this is the objective then the best *tax* measure available is likely to be increases in the first and second income tax thresholds or decreasing tax rates on the low-to-middle tax brackets (eg, the 17.5% rate).

11. This will target tax cuts reasonably closely to this group. For example a decrease in the 17.5% rate to 14.75% would benefit a full time worker on the minimum wage by $559 a year. In addition to this, such a change will affect *marginal* tax rates of individuals in that tax bracket. This means it would have modest positive impacts to labour supply, savings, and productivity as it targets their marginal tax rates as well as average tax rate. This means it would have benefits beyond the direct income support it provides to the target of the tax cut.

12. However, any changes would have different impacts on different income groups. For example, a part time worker or beneficiary earning less than $14,000 per year would not benefit from changes to tax thresholds or a decrease in the 17.5% rate. As a result, what measures to recommend rely on value judgements and the objective of any policy change. If income support is the sole goal, then tax changes in a context where marginal tax rates on higher income households cannot be increased will not be well targeted towards this.

Targeting productivity

13. If the goal of reform is to improve productivity, reducing effective tax rates on business investment through changes to building depreciation and loss continuity are likely to have the greatest impact for a given fiscal cost.

14. The next most effective way to enhance efficiency would be through reductions in individual income marginal tax rates, including the top marginal rate. While GST and individual income tax are both taxes on labour income, individual income tax is a tax on both labour and capital income. Reducing effective marginal tax rates on capital income would improve both labour supply and participation decisions as well as efficiency of investment and savings decisions.

15. Decreasing the top marginal tax rate would result in less progressivity. Overall progressivity could be maintained in conjunction with the introduction of a capital gains tax, which would increase the effective taxation of capital income. Offsetting reductions in income tax rates could help to mitigate negative effects on the incentive to save and invest.

Addressing bracket creep

16. Inflation indexing tax thresholds is an option if the Group is concerned about bracket creep where taxpayers' income increasingly shifts into higher tax brackets due to inflation.

17. This is largely an issue of fiscal management as governments can periodically adjust tax thresholds periodically. Indexation ensures that income tax thresholds are adjusted for inflation, while reducing the flexibility of governments to raise revenue through fiscal drag.

Income tax rate or threshold adjustments

Proposal

18. This section considers options to decrease the rates and thresholds for income tax.

19. As there are a large number of possible permutations of income tax rate or threshold changes, the analysis below considers a number of illustrative changes each with a fiscal cost of approximately $2 billion per annum. This includes:

    - decreasing the first income tax rate from 10.5% to 5.25%;
    - decreasing the second income tax rate from 17.5% to 14.75%;
    - decreasing the third income tax rate from 30% to 22.5%;
    - removing the fourth income tax rate and reducing the third rate from 30% to 28.75%;
    - having a tax-free threshold of $7,000;
    - moving the first income tax threshold from $14,000 to $26,000; and
    - increasing the second income tax threshold from $48,000 to $59,000;

20. The analysis is roughly scalable which means an option with half of the size (for example a tax-free threshold of $7,000 compared with a tax-free threshold of $3,500) will have approximately half of the fiscal impact, and half as much benefit to each household[1].

Problem

21. The current income tax rates and thresholds are:

Taxable income	Tax rate
Up to $14,000	10.5%
Over $14,000 and up to $48,000	17.5%
Over $48,000 and up to $70,000	30%
Remaining income over $70,000	33%

22. Income tax reductions can have different objectives, such as increasing disposable incomes of particular groups or increasing efficiency through increasing the returns to investment and employment.

Fairness objective

23. The Group may wish to recommend revenue negative measures to increase the progressivity of the tax system. Views on how progressive the tax system should be ultimately rest on value judgements. Extending the taxation of capital income by itself could increase the progressivity of the tax system. However, the Group may wish to consider personal tax rate changes which also contribute to increasing progressivity.

[1] However, this analysis should be considered preliminary. If the Group wishes to consider any specific proposal further the Secretariat will provide further analysis on that option.

24. New Zealand's tax and transfer system reduces income inequality less than the OECD average and there is higher income inequality in New Zealand compared with the OECD average.

Figure 1 – Reduction in the Gini coefficient on account of the tax and transfer system (2014/15)

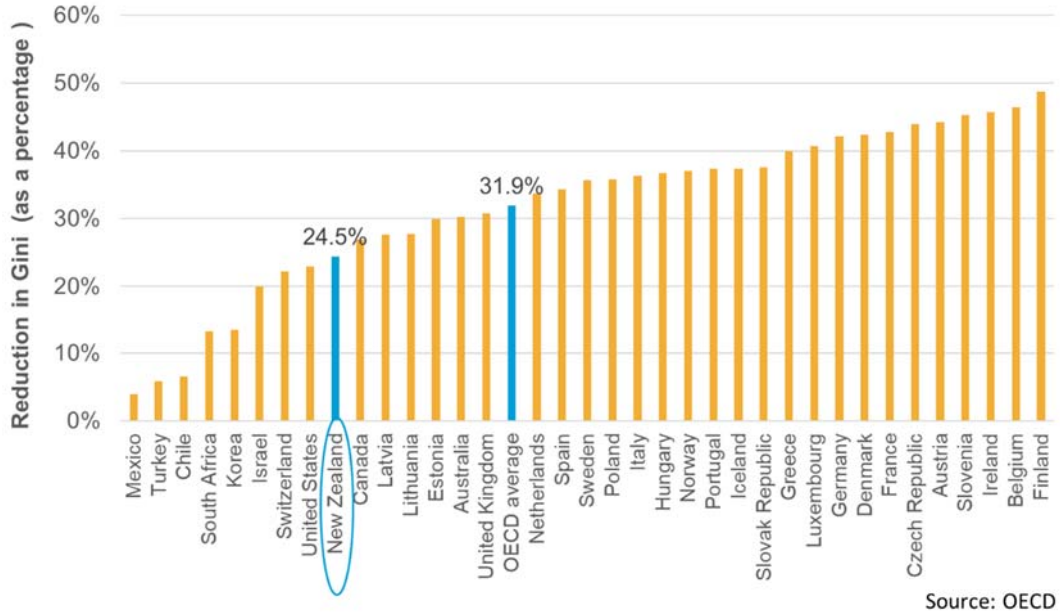
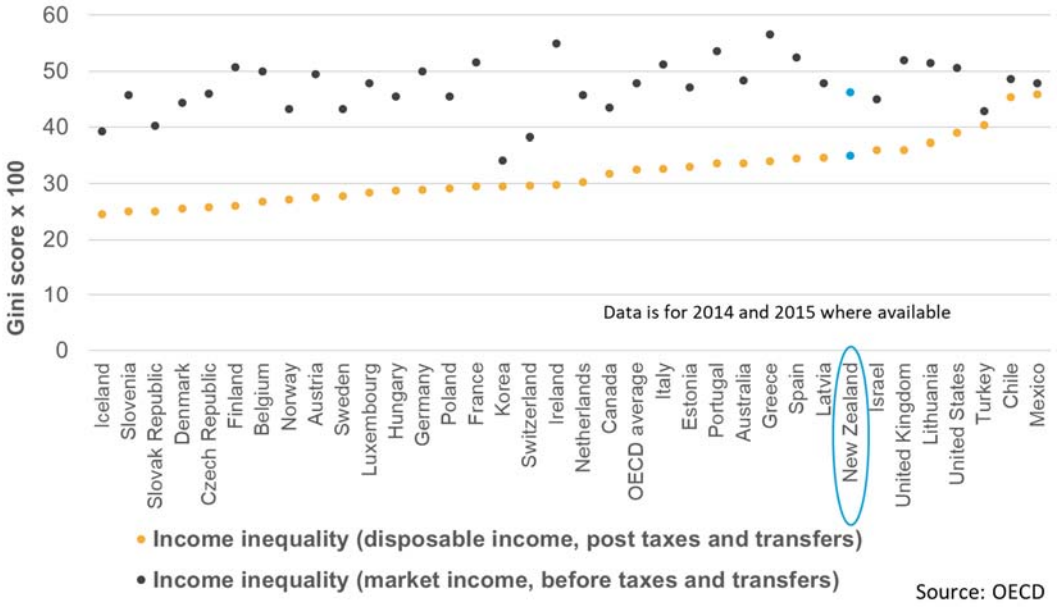


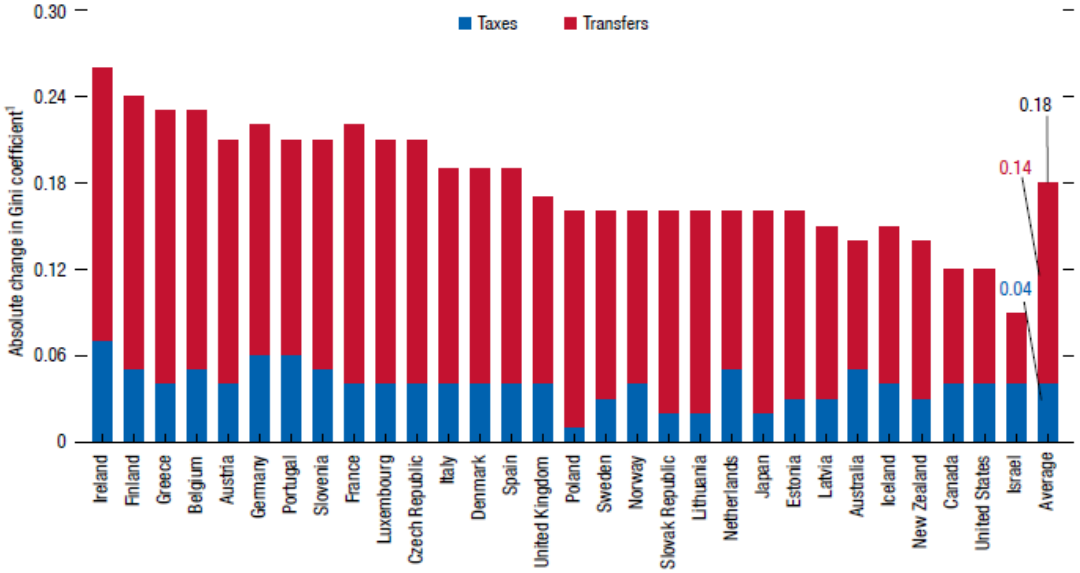
Figure 2 - Income inequality in OECD countries (2014/15)



25. However, the bulk of redistribution in New Zealand occurs through transfers rather than tax. This is consistent with most other countries. This in part reflects that tax reductions to achieve progressivity are often fiscally expensive, as they provide greater benefits to higher income households than lower income households. As a

result, the inequality impact of tax changes considered in this paper is limited. None of these options would result in significant decreases for inequality in New Zealand[2].

Figure 3 – Redistributive effect of income taxes and transfers



Source: Organisation for Economic Co-operation and Development, Income Distribution Database.
[1]Calculated as Gini coefficient for market income minus Gini coefficient for disposable income.

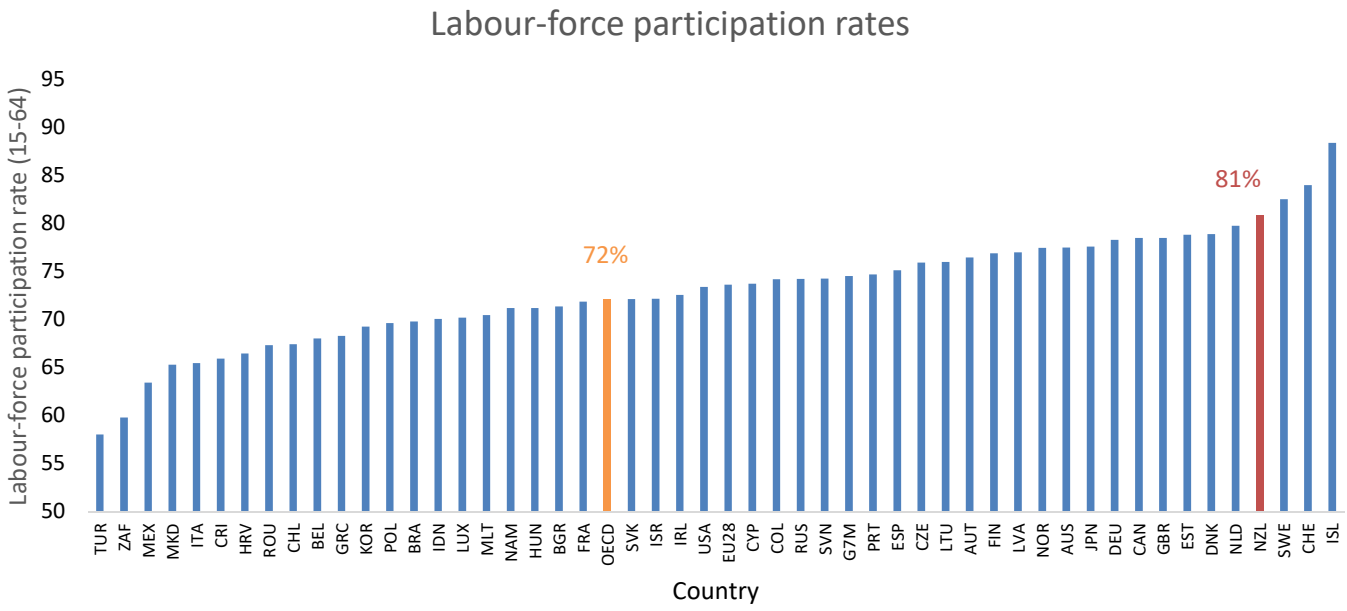
Productivity objective

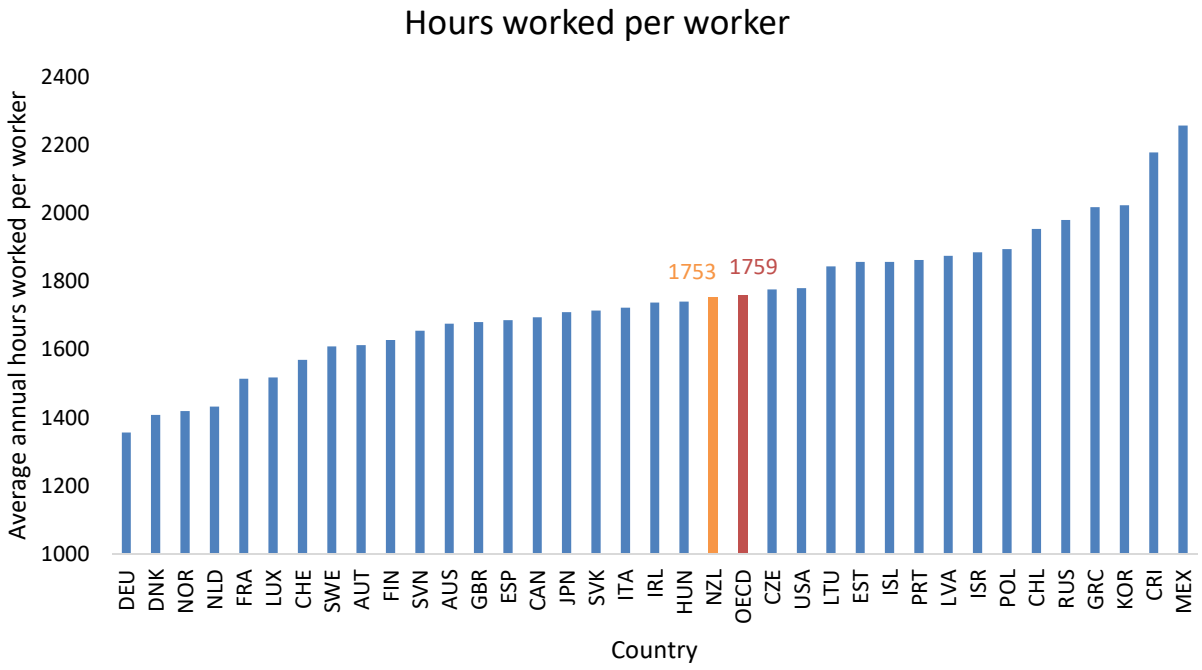
26. Income tax changes can improve efficiency through enhancing returns to work, saving and investment in human and physical capital.

Skills and labour supply

27. Overall New Zealand has high labour-force participation rates relative to the OECD while also exhibiting average number of hours worked close to the OECD average.

[2] This paper shows the modelled impact on measured annual income inequality using the Gini coefficient of a range of options. There are different impacts depending on the policy option. This analysis only uses one particular measure of annual income inequality, which may be a poor proxy for the overall objective (eg, lifetime inequality or poverty alleviation) and does not model behavioural responses.





28. New Zealand has generally low marginal income taxes on labour income, which is generally supportive of work and skill accumulation. However, the tax-benefit interface can create high effective marginal tax rates for some households. High effective marginal tax rates can create poverty traps in some circumstances (eg, when people do not receive much higher disposable income by increasing their hours of work owing to abatement of benefits and tax credits). Lowering the high effective marginal tax rates would contribute to increased productivity.

29. The predominant cause of these high effective marginal tax rates are the policy settings that determine entitlement to transfer payments, including benefits administered by the Ministry of Social Development and tax credits administered by

the Inland Revenue Department. Addressing high effective marginal tax rates requires considering the tax and transfer system as a whole, and entails significant trade offs with objectives for income adequacy and fiscal cost.

Investment

30. Income tax reductions can have positive impacts on savings rates, investment and productivity. The Group has previously considered the tax treatment of savings and the impact of tax on business. Decreasing income tax rates can contribute towards these objectives as they can increase savings, the returns on investment, and productivity.

What is the best tax change for a given objective?

31. The two goals of increasing progressivity and productivity can have trade-offs. Tax changes that are focused on reducing income inequality; typically focus on lower tax rates and thresholds to have the greatest impact on low to middle income households.

32. Tax changes that aim to improve investment and efficiency typically focus on marginal tax rates, including higher income tax rates. This is because labour and investment decisions are typically affected by *marginal* tax rates (the tax rate that applies if a person earns an additional dollar of income) rather than *average* tax rates (the average tax rate that applies to their total income).

33. Due to these competing objectives, it is important to have a clear goal of who and what is being targeted for income tax reductions.

Targeting very low income households

34. Generally income tax reductions are not well targeted towards improving incomes for the poorest in society. This is because those on very low incomes are generally receiving welfare benefits and the welfare system is likely to be the more appropriate means for improving incomes for this group.

35. Those with low taxable income can be a poor proxy for those on persistently low household incomes. In particular, many of those with low taxable incomes can be characterised as those with temporary low income (15-24 year olds and students), those who get support through the welfare system (superannuitants and benefit recipients), and those who are in higher income families (secondary earners).

36. Tax changes are also generally poorly targeted towards very low-income households as they provide greater benefits to higher income households than poorer income households. Changes targeted at the lowest income households are also unlikely to have significant positive impacts on productivity and investment and can in some cases result in disincentives to work.[3] As a result, for a given fiscal cost, a tax

[3] This arises because labour-supply responses are impacted by income effects (where as you become richer due to tax cuts you wish to have more leisure time making labour less attractive), and substitution effects (where tax cuts increase the returns to labour

reduction focused on the lowest income households will result in less redistribution than a welfare transfer, without any additional benefits to labour incentives or productivity.

37. In addition, under current welfare policies, many welfare recipients will not benefit from changes in tax as their benefits are set based on a fixed after-tax amount.

38. As a result of this, we consider that a tax-free threshold or reducing the lowest marginal tax rate are unlikely to be the most cost effective way of targeting very low income households. They would also be unlikely to have major productivity benefits. Such a change could reduce tax rates for some who are on very high effective marginal tax rates which would be reducing poverty traps and increasing productivity, however the impact of this may be limited relative to the significant impact of welfare abatements on high effective marginal tax rates. Some welfare abatements would also increase to match any income tax reductions, for example where they guarantee a specific minimum income.

39. If the Group wishes to improve outcomes for very low-income households, we would recommend the Group recommends recycling some of any revenue gains for more targeted welfare measures for very low income households.

40. The Welfare Expert Advisory Group (WEAG) is reviewing the welfare system. The WEAG may recommend changes to tax credits and other transfers to support income adequacy and poverty reduction, or otherwise improve the transfer system.

Targeting low-middle income earners

41. If the goal of reform is to provide benefits that target low-middle income earners (for example a full time worker on the minimum wage), then the welfare system will still be a more effective tool if the goal is solely to provide income support. Income tax reductions would generally be a more expensive way of assisting these households.

42. One possible objective of tax reductions is to improve incomes for target low-middle income earners (e.g. a full time worker on the minimum wage earning $34,320 a year), and at the same time also have additional benefits to labour-supply, savings and productivity. If this is the objective then the best *tax* measure available is likely to be increases in the first and second income tax thresholds or decreasing tax rates on the low-to-middle tax brackets (eg, the 17.5% rate).

43. This will target tax cuts reasonably closely to this group. For example a decrease in the 17.5% rate to 14.75% would benefit a full time worker on the minimum wage by $559 a year. In addition to this, such a change will affect *marginal* tax rates of individuals in that tax bracket. This means it would have modest positive impacts to labour supply, savings, and productivity as it targets their marginal tax rates as well

relative to leisure making labour more attractive). Tax changes for low-income households would have an income effect but little substitution effect which can lead to reduced labour-supply.

as average tax rate. This means it would have benefits beyond the direct income support it provides to the target of the tax cut.

44. However, such changes would mean that lower income groups would not benefit from the change. For example, a part time worker or beneficiary earning less than $14,000 per year would not benefit from changes to tax thresholds or a decrease in the 17.5% rate. As a result, what measures to recommend rely on value judgements and what the objective of any policy change is. If income support is the sole goal, then tax changes in a context where marginal tax rates on higher income households cannot be increased will not be well targeted towards this.

45. With regard to economic effects, labour supply responses to tax changes have previously been estimated using Treasury's microsimulation model. In 2017, Treasury modelled increasing the lower $14,000 tax threshold to $18,000 in conjunction with increasing the second threshold from $48,000 to $52,000. The estimated effect was a small positive labour supply response: total hours worked were estimated to increase by 0.3% in the long run.

Productivity focused tax changes

46. If the Group's goal is to decrease income tax in order to improve productivity then the aim of the change should be on marginal tax rates. If the Group wishes to improve labour-supply and human capital, the area of potentially highest concern is households with high effective marginal tax rates. However, tax changes are unlikely to have significant impacts on these high effective tax rates as these are predominantly caused by welfare abatements. As a result, tax changes are unlikely to have significant impacts on high effective marginal tax rates for a given fiscal cost.

47. If the goal of tax changes is on increasing investment and savings in New Zealand then decreasing marginal tax rates, including the top marginal tax rate, is likely to have the greatest impact on incentives at the margin for most saving and investment decisions by New Zealand households. Decreasing the rate for these individuals would also improve returns to skill accumulation and employment.

48. While GST and individual income tax are both taxes on labour income, individual income tax is a tax on both labour and capital income. Decreasing income tax rates can therefore contribute towards enhancing returns to both saving and working.

49. However, changes to the top rate would decrease the progressivity of the tax system and provide significantly greater benefit to higher income households compared with lower income households. As a result, while such a change would have positive impacts for productivity, it may not be considered as valuable as changes that improve outcomes for lower-income New Zealanders and are focused more on social capital.

50. Overall progressivity could be maintained in conjunction with the introduction of a capital gains tax, which would increase the effective taxation of capital income. Offsetting reductions in income tax rates could help to mitigate negative effects on the incentive to save and invest.

Distributional impact

51. The distributional impact of each of the tax changes is summarised below and further information on the distributional impact is provided in Annex I using a range of different measures.

	First rate to 5.25%	**Second rate to 14.75%**	**Third rate to 22.5%**	**Remove fourth rate and reduce third rate to 18.75%**	**Tax-free threshold of $7,000**	**First tax threshold to $26,000**	**Second tax threshold to $59,000**
As a proportion of income	Progressive	Progressive	Regressive	Regressive	Progressive	Progressive	Roughly proportional
Benefit to decile 2[4]	$730	$450	$410	$70	$730	$470	$530
Benefit to decile 5	$1,160	$1,090	$750	$280	$1,200	$1,150	$800
Benefit to decile 10	$1,450	$1,810	$2,730	$7,320	$1,460	$1,630	$2,410
Impact on inequality (as measured by Gini)[5]	0.7% reduction	0.3% reduction	0.3% increase	1.6% increase	0.7% reduction	0.4% reduction	0.1% increase

52. Changes to income tax rates and thresholds have impacts on the level of entitlements for some welfare recipients. Assuming current welfare policies are unchanged, then the impact on these benefits are below.

Effect of tax rate and threshold changes on benefits (jobseeker support, sole parent support, supported living payment)

53. These benefits are set at a level that ensures the benefit recipients receive a given amount after tax. This means that that while the gross benefit amount will reduce with a change in tax, the net amount the person will receive will not change.

Effect of tax rate and threshold changes on recipients of New Zealand Superannuation

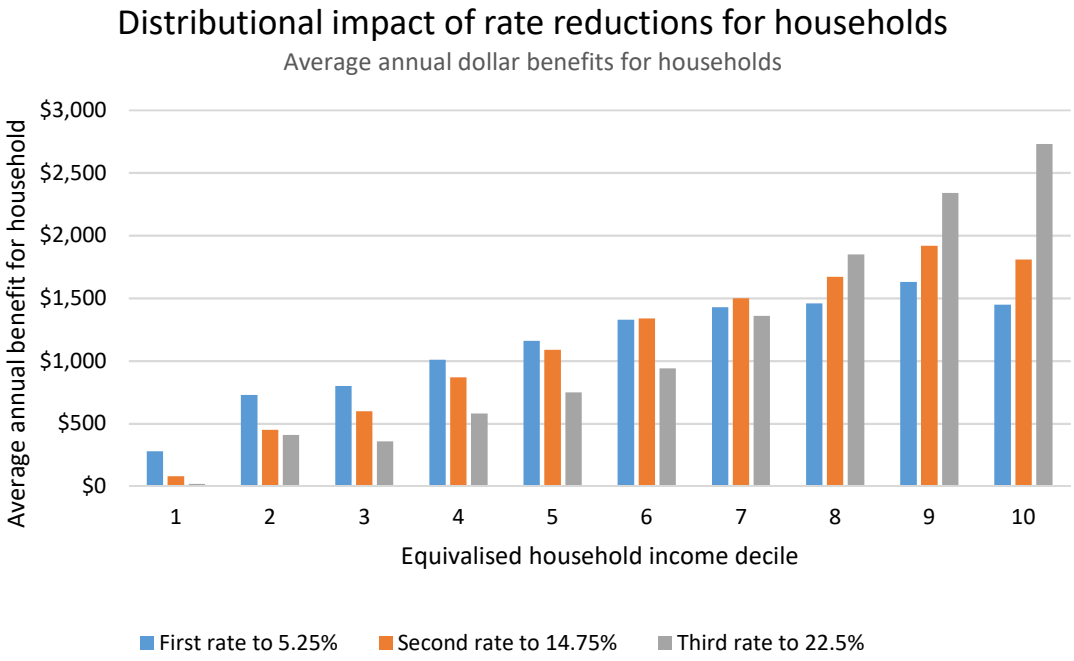
54. NZ Superannuation rates are set on a gross basis, and therefore recipients will benefit directly from a reduction in tax rates and thresholds. New Zealand Superannuation is also set so it remains within a band relative to average after-tax weekly income (section 16 of the Act). This means that there would most likely also be an increase

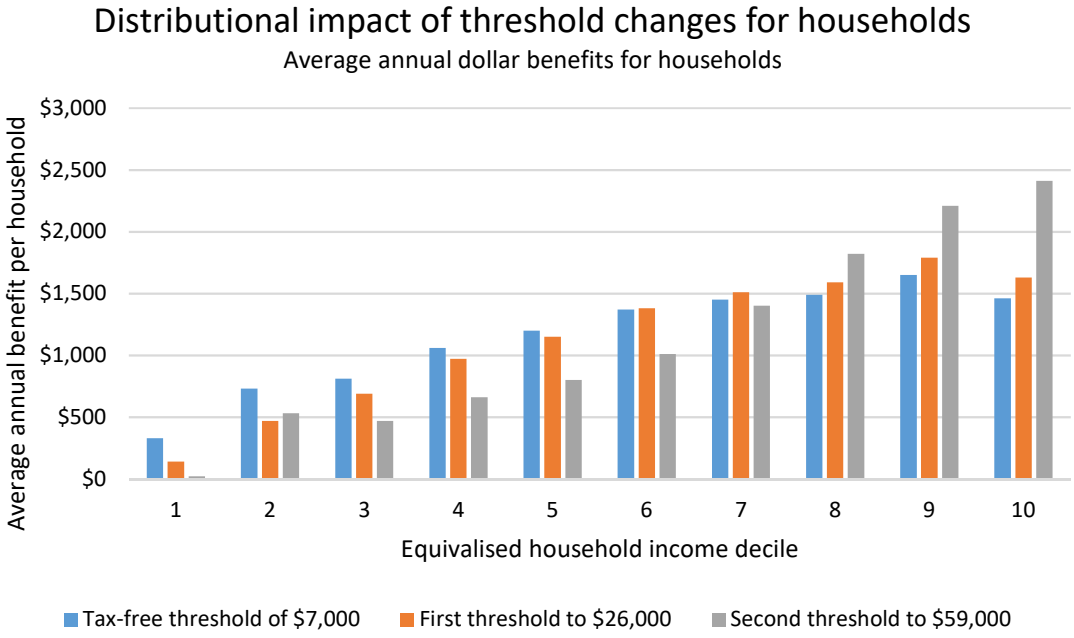
[4] When considering the impact of tax changes on low-income households we would recommend focusing on the impact of the changes to decile 2 households rather than decile 1 households. This is because income data for decile 1 households is unreliable and has a significant number of households with implausibly low incomes (Perry, 2017).

[5] This shows the modelled impact on measured annual income inequality using the Gini coefficient. This analysis only uses one particular measure of annual income inequality, which may be a poor proxy for the overall objective (eg, lifetime inequality or poverty alleviation) and does not model behavioural responses. A range of other distributional information is in the tables at the end of this paper.

in New Zealand Superannuation consequential to a reduction in tax rates and thresholds.

55. The charts below show absolute dollar impacts for household income deciles.[6] The tables in Annex I show a range of measures, including impacts as a percentage of income.





[6] Decreasing the top rate is not included in this chart as it stretches the horizontal axis. The distributional impact of this change is included in the Annex.

Indexation of income tax thresholds

Proposal

56. Under this option, income tax thresholds would be adjusted regularly for inflation.

Problem

57. Inflation indexation addresses what is known as 'bracket creep'. Bracket creep is where higher average tax rates apply to taxpayers as their income increases over time due to inflation, but tax thresholds are held steady. This results in average tax rates increasing over time, in particular for taxpayers on lower income tax rates.

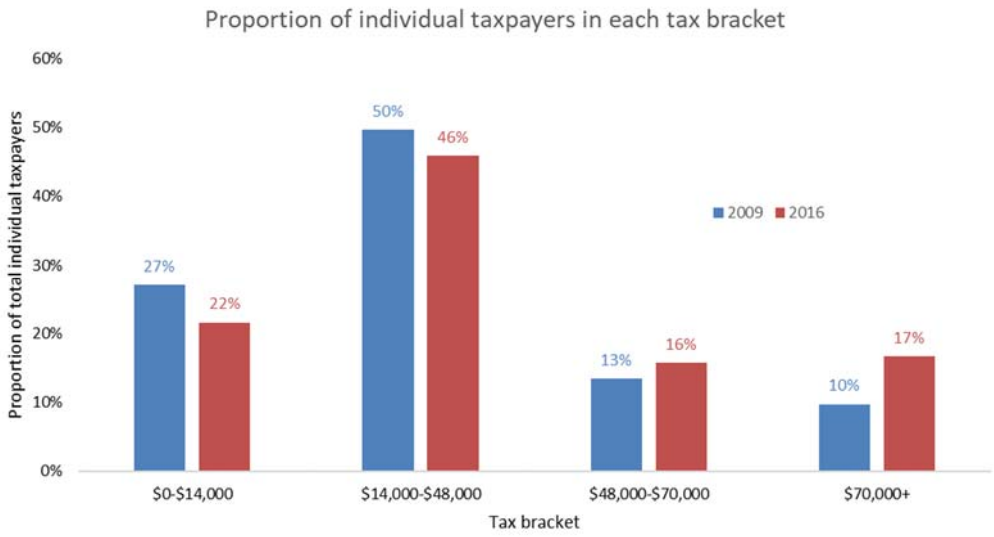
58. There are three primary justifications for inflation indexing thresholds:
    - bracket creep reduces the progressivity of our tax system as average tax rates for low income households increase over time;
    - bracket creep can be considered a non-transparent increase in taxation; and
    - the increase in taxation can reduce incentives to participate in the workforce or to work more hours.

59. If tax brackets had been annually indexed for inflation since October 2010, current tax brackets would be 8.8% higher:

	October 2010 Tax brackets	**Inflation indexed brackets**[7]
10.5%	$0-$14,000	$0 - $15,232
17.5%	$14,001-$48,000	$15,233 - $52,223
30%	$48,001-$70,000	$52,224 - $76,159
33%	$70,000+	$76,160+

60. This 'bracket creep' has, in part, resulted in more taxpayers moving into higher tax brackets.

[7] To October 2017. Inflation caused by the increased GST rate has been removed from the calculation.



Benefits

Fairness

61. The main benefit of inflation indexing income tax thresholds is that it would increase households' after-tax incomes. It would also remove the effective increase in average tax rates over time, which could be considered a non-transparent increase in taxation.

Efficiency impact

62. Indexing thresholds would have positive impacts on labour supply. However, these impacts are expected to be modest.

63. Previous Treasury modelling indicates that the impact on labour supply would not be large. This modelling indicated that adjustments for fiscal drag would:
    - For sole parents: increase the proportion choosing to work by 0.2 percentage points[8]
    - For other groups: increase the proportion choosing to work by 0.1 percentage points.
    - For sole parents already in work: 0.3% would choose to work more
    - For other demographic groups already in work: 0.2% would choose to work more

64. Similarly, the impact on investment from indexing thresholds is also expected to be modest.

[8] Percentage points of total population (for example 10% to 10.2%)

Costs – fiscal cost

65. The main cost associated with inflation indexation is the fiscal cost. As a result, the measure should be compared with other measures that could be undertaken with a similar fiscal impact.

66. If the aim of inflation indexation is to improve progressivity it may be considered poorly targeted as it provides greater benefits to higher income households than lower income households.

67. Ongoing indexation would constrain the government's fiscal flexibility. The same objective can be achieved by adjusting tax thresholds periodically. Indexation ensures that income tax thresholds are adjusted for inflation, while reducing the flexibility of governments to raise revenue through fiscal drag or pursue other revenue-reducing options which may have greater benefits.

Fiscal impact

68. If at 1 April 2019 tax thresholds were adjusted for the full impact of inflation since they were last changed in 2010,[9] this would have a fiscal cost of around $1.7 billion per annum.

69. Subsequent annual increases to thresholds for inflation would have an approximate fiscal impact of $300m per annum (assuming inflation rates of 2%). This impact is cumulative and so the total fiscal impact would be approximately $1.7b for 2019, $2b for 2020, and $2.3b for 2021.

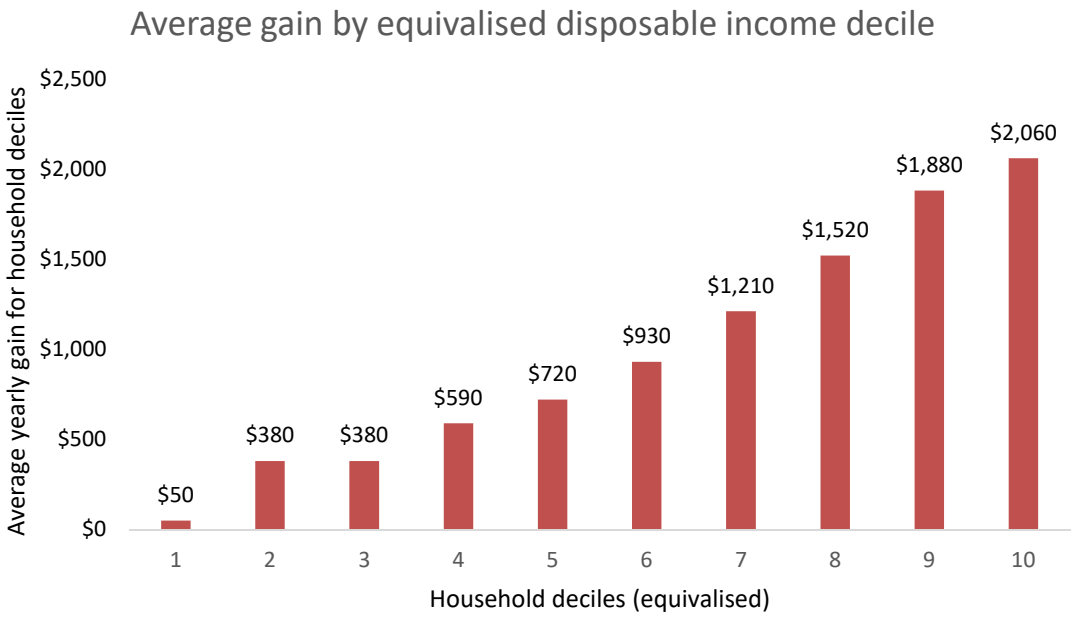
70. The rate of increase in fiscal cost will increase as income and population growth increases the number of people in higher tax brackets.

Distributional impact

71. When measured against current income, increasing tax thresholds for inflation is roughly proportional. However, higher income households benefit more in absolute dollar terms from indexation.

72. The chart below shows the distributional impact for households, if tax thresholds were adjusted at 1 April 2019 for the full impact of inflation since thresholds were last changed in 2010.

[9] This would mean the thresholds were (to the nearest $100) $0-$15,900, $15,900 to $54,400, $54,400-$79,300 and $79,300 plus.



Conclusion

73. Inflation indexing thresholds increases all thresholds uniformly. If the Group has a particular goal of reducing taxes for particular households or targeting productivity then inflation indexation is unlikely to be the most targeted measure towards these goals. Other changes are likely to be able to achieve specific goals better and at lower fiscal cost.

74. In addition, there are downsides to indexing thresholds: they decrease fiscal flexibility for future Governments and similar outcomes may be achieved with periodic tax threshold adjustments.

75. The main reason to inflation index thresholds over other options for income tax rate reductions is concerns about the transparency of tax settings and whether the increase in average tax rates over time due to bracket creep is a concern. This is ultimately a value judgement.

GST rate reduction

Proposal

76. Under this option the GST rate would be decreased.

77. For comparison, this analysis considers decreasing the GST rate to 13.5%, which has a fiscal cost of approximately $2 billion per annum.

78. Some of the analysis provided below differs from that provided in the previous paper on decreasing the GST rate. This is because of using better data and the main conclusions are unchanged.

Problem

79. Decreasing the GST rate would primarily be done for distributional reasons. The distributional impact of GST was considered in the Secretariat paper on GST. A number of submitters to the Group recommended reducing the GST rate, primarily on distributional grounds.

80. As outlined in officials' background paper on GST, the distributional impact of GST can be measured against household's current income or expenditure. When measured against current income, GST can be considered regressive, but it is roughly proportional when measured against expenditure.

81. Comparing GST to expenditure is often considered a better measure because it takes into account the household's lifetime income. This is because a person's income will generally change over their lifetime as they save for retirement. They will generally consume a high proportion of their current income while young, less over their working life and consume a high proportion of their current income when retired.

Benefits - fairness

82. The benefit of decreasing the GST rate is that it would reduce taxes, and when measured against current income would make the tax system more progressive. This may be considered fair.

Costs – savings, fiscal impact, fairness

83. Similar to income tax reductions, the primary downside of reducing the GST rate is the fiscal impact. As a result, a GST rate change should be compared with what other measures could be done with a similar fiscal cost.

84. One of the biggest differences between a GST rate reduction and an income tax rate reduction is the impact on savings. This is because GST is not a tax on savings. This means that an income tax rate reduction will have positive impacts on the tax rate for savings while a GST rate reduction will not. An income tax reduction is likely to be

of greater benefit than a GST rate reduction if the Group is concerned about high taxes on savings.

85. The distributional benefit of a GST rate reduction depends on whether the distributional impact of GST is measured against income or expenditure. However, regardless of the measure, reducing the GST rate for distributional reasons may be considered poorly targeted. This is because higher income households will benefit more from a rate change than lower income households.

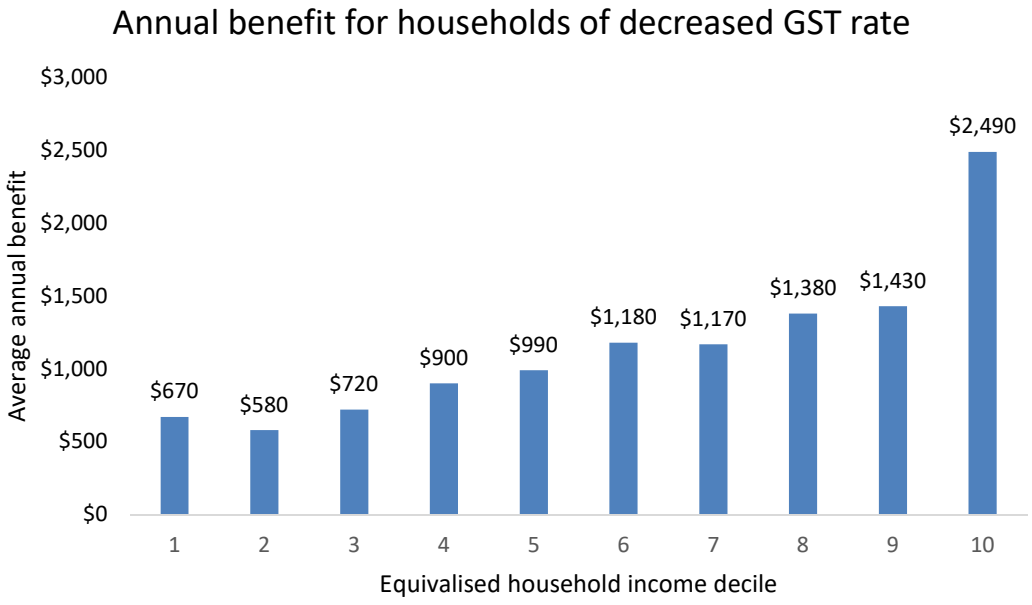
86. In addition, a GST rate reduction is poorly targeted if the Group has concerns about wealth inequality. This is because decreasing the GST rate provides a windfall gain to those with existing wealth at the time of a reduction in the GST rate.

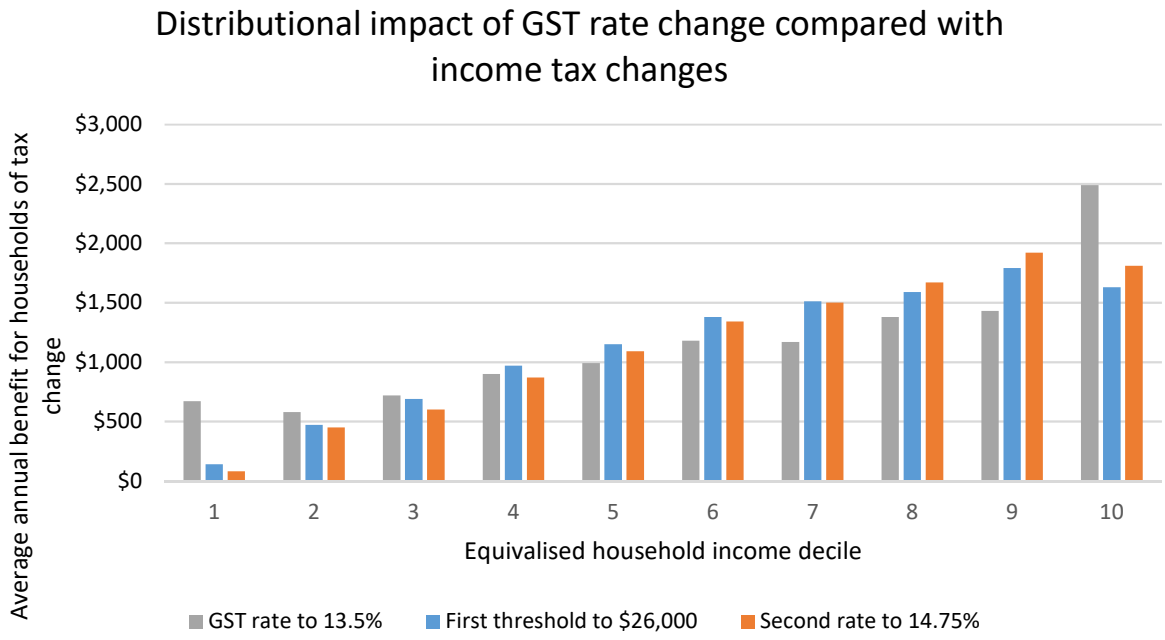
Fiscal impact

87. Reducing the GST rate to 13.5% has a fiscal cost of approximately $2 billion per annum.

Distributional impact

88. The distributional impact of a decrease in the GST rate is likely to be:
    - progressive when measured against current income;
    - roughly proportional when measures against lifetime income; and
    - regressive when measured against wealth.





[10]

89. When compared with income tax changes targeted towards lower income households, a GST rate reduction provides greater benefits to decile 1 households and slightly greater benefits to decile 2 and 3 households. A GST rate reduction provides less benefits for decile 5-9 households and greater benefits to decile 10 when compared with income tax changes.

90. The greater impact on decile 1 households is due to households in this decile having high consumption relative to their reported income. This can be in part due to them receiving income not captured by survey data used for analysis. This can be due to support from family members, from undeclared income or through incorrect survey responses. This has been an issue noted by, for example, (Perry, 2017), and is the reason why it is recommended when focusing on impact on very low income households to focus on the impact of decile 2 households.

91. High consumption relative to income can be in part due to income smoothing as households either consume previous savings (for example by retirees) or spend expected future income (for example by students). As a result, the lifetime impact of tax changes can be different compared with what impact it has on current incomes.

92. A reduction in the GST rate would provide a windfall gain to those with existing wealth at the date of the reduction of the rate. This is because a reduction in the GST rate will increase the purchasing power of existing savings.

[10] The distributional impact shown for a GST rate change and income tax changes has been done using different years for household economic survey data. This will result in some discrepancies in the results, however the overall trends will be similar.

Example scenario: The impact of GST rate reductions on savings

Take a person who has $1,150 in savings.

If the average price of a good is $10 + $1.50 in GST then this person's savings of $1,150 is effectively worth 100 average goods.

If the GST is reduced to 10% (and the GST exclusive price remains the same) the person will now be able to acquire 104 of these goods with their existing savings of $1,150. The reduction in GST provides them a windfall gain through an increase in the purchasing power of their existing savings.

93. Some welfare benefits are indexed to inflation. A GST rate reduction will decrease the inflation rate, which, if current welfare policies remain unchanged will result in the amount of these benefit increasing by less than would otherwise be the case. This means that some welfare recipients will benefit less, or will not benefit from, a GST rate decrease.

Conclusion

94. The Secretariat does not recommend decreasing the GST rate. A GST rate reduction would have a high fiscal cost and we consider there are better measures for achieving particular distributional concerns.

95. This is because:
    - a GST rate reduction is poorly targeted towards very low income households compared with welfare transfers;
    - when compared with lifetime income, a GST rate reduction does not have strong distributional benefits; and
    - an income tax rate reduction will reduce the tax rate on savings. If the Group is concerned about taxes on savings then income tax is likely to be a better area to focus on.

96. If the Groups concern is improving incomes for very low-income households, welfare transfers are likely to be the best measure to achieve this. If the Group is focused on this we would recommend ensuring there is adequate tax revenue for the Government to increase transfers to very low income households.

97. If the Group wants to reduce taxes on targeted low-income earners, such as full time workers on the minimum wage, then income tax changes are likely to be better options.

Annex I: Distributional impact of rate and threshold changes (1 April 2019 application)

Tax Settings	Base	First rate to 5.25%	Second rate to 14.75%	Third rate to 22.5%	Over $48,000 at 28.75%	Tax-free threshold of $7,000	First threshold to $26,000	Second threshold to $59,000	"Fiscal drag" adjustment ($16,300; $55,500; $80,900)
Fiscal cost	$0	$2,050,000,000	$2,030,000,000	$2,000,000,000	$2,060,000,000	$2,100,000,000	$2,050,000,000	$2,000,000,000	$2,000,000,000
Gini	0.3384	0.3358	0.3375	0.3395	0.3439	0.3357	0.3370	0.3386	0.3495

The fiscal drag option outlined is what the expected rates and thresholds would be if indexed for full inflation from 2010 to 2020. This period has been chosen as it results in a fiscal cost of approximately $2b and enables better comparability with the other options.

Average gain by equivalised disposable income decile

	First rate to 5.25%	Second rate to 14.75%	Third rate to 22.5%	Over $48,000 at 28.75%	Tax-free threshold of $7,000	First threshold to $26,000	Second threshold to $59,000	"Fiscal drag" adjustment ($16,300; $55,500; $80,900)
1	$280	$80	$20	$0	$330	$140	$20	$60
2	$730	$450	$410	$70	$730	$470	$530	$450
3	$800	$600	$360	$60	$810	$690	$470	$440
4	$1,010	$870	$580	$160	$1,060	$970	$660	$680
5	$1,160	$1,090	$750	$280	$1,200	$1,150	$800	$840
6	$1,330	$1,340	$940	$430	$1,370	$1,380	$1,010	$1,080
7	$1,430	$1,500	$1,360	$710	$1,450	$1,510	$1,400	$1,400
8	$1,460	$1,670	$1,850	$980	$1,490	$1,590	$1,820	$1,770
9	$1,630	$1,920	$2,340	$1,800	$1,650	$1,790	$2,210	$2,190
10	$1,450	$1,810	$2,730	$7,320	$1,460	$1,630	$2,410	$2,410

Average gain as % of taxable income by equivalised disposable income decile

	First rate to 5.25%	Second rate to 14.75%	Third rate to 22.5%	Over $48,000 at 28.75%	Tax-free threshold of $7,000	First threshold to $26,000	Second threshold to $59,000	"Fiscal drag" adjustment ($16,300; $55,500; $80,900)
1	1.6%	0.5%	0.1%	0.0%	1.9%	0.8%	0.1%	0.3%
2	2.3%	1.4%	1.3%	0.2%	2.3%	1.5%	1.7%	1.4%
3	2.0%	1.5%	0.9%	0.2%	2.1%	1.8%	1.2%	1.1%
4	1.7%	1.4%	1.0%	0.3%	1.8%	1.6%	1.1%	1.1%
5	1.6%	1.5%	1.0%	0.4%	1.6%	1.6%	1.1%	1.1%
6	1.5%	1.5%	1.0%	0.5%	1.5%	1.5%	1.1%	1.2%
7	1.3%	1.4%	1.2%	0.7%	1.3%	1.4%	1.3%	1.3%
8	1.2%	1.3%	1.5%	0.8%	1.2%	1.2%	1.4%	1.4%
9	1.0%	1.2%	1.4%	1.1%	1.0%	1.1%	1.4%	1.3%
10	0.5%	0.6%	0.9%	2.5%	0.5%	0.6%	0.8%	0.8%

Average gain by equivalised net worth decile

	First rate to 5.25%	Second rate to 14.75%	Third rate to 22.5%	Over $48,000 at 28.75%	Tax-free threshold of $7,000	First threshold to $26,000	Second threshold to $59,000	"Fiscal drag" adjustment ($16,300; $55,500; $80,900)
1	$740	$620	$400	$220	$770	$700	$420	$480
2	$880	$800	$480	$500	$900	$870	$520	$580
3	$1,220	$1,200	$1,010	$560	$1,250	$1,240	$1,050	$1,080
4	$1,230	$1,250	$1,250	$680	$1,260	$1,250	$1,250	$1,250
5	$1,370	$1,350	$1,350	$1,050	$1,400	$1,360	$1,330	$1,340
6	$1,200	$1,160	$1,160	$910	$1,230	$1,160	$1,180	$1,180
7	$1,190	$1,190	$1,290	$1,020	$1,220	$1,170	$1,300	$1,270
8	$1,190	$1,190	$1,310	$1,270	$1,210	$1,170	$1,300	$1,270
9	$1,150	$1,190	$1,380	$1,940	$1,170	$1,160	$1,340	$1,310
10	$1,120	$1,360	$1,710	$3,670	$1,140	$1,240	$1,640	$1,560

Average gain as % of taxable income by equivalised net worth decile

	First rate to 5.25%	Second rate to 14.75%	Third rate to 22.5%	Over $48,000 at 28.75%	Tax-free threshold of $7,000	First threshold to $26,000	Second threshold to $59,000	"Fiscal drag" adjustment ($16,300; $55,500; $80,900)
1	1.4%	1.2%	0.7%	0.4%	1.4%	1.3%	0.8%	0.9%
2	1.3%	1.2%	0.7%	0.8%	1.4%	1.3%	0.8%	0.9%
3	1.3%	1.3%	1.1%	0.6%	1.4%	1.4%	1.1%	1.2%
4	1.3%	1.3%	1.3%	0.7%	1.3%	1.3%	1.3%	1.3%
5	1.2%	1.2%	1.2%	0.9%	1.3%	1.2%	1.2%	1.2%
6	1.3%	1.2%	1.2%	1.0%	1.3%	1.2%	1.2%	1.2%
7	1.2%	1.2%	1.3%	1.0%	1.2%	1.2%	1.3%	1.3%
8	1.1%	1.2%	1.3%	1.2%	1.2%	1.1%	1.3%	1.2%
9	1.0%	1.0%	1.2%	1.6%	1.0%	1.0%	1.1%	1.1%
10	0.7%	0.8%	1.0%	2.2%	0.7%	0.7%	1.0%	0.9%

GST rate decrease – $2b fiscal cost

	Average gain by equivalised disposable income decile	Average gain as % of taxable income by equivalised disposable income decile	Average gain by equivalised expenditure decile	Average gain as % of taxable income by equivalised expenditure decile
1	$670	3.2%	$370	0.8%
2	$580	1.8%	$450	0.9%
3	$720	1.7%	$590	1.0%
4	$900	1.5%	$710	1.0%
5	$990	1.3%	$880	1.1%
6	$1,180	1.3%	$1,060	1.1%
7	$1,170	1.1%	$1,240	1.1%
8	$1,380	1.1%	$1,400	1.1%
9	$1,430	0.9%	$1,790	1.2%
10	$2,490	0.9%	$3,030	1.4%

Note, this is provided separately to income tax changes as GST modelling can only be done using a different year as the source data (2015/16 Household Economic Survey (HES)), whereas the net worth modelling used elsewhere can only be done using the 2014/15 HES