



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 G: Depreciation and investment incentives

Further information on specific revenue-reducing options

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Prepared by the Inland Revenue Department and the New Zealand Treasury

Proposal

1. Under this option, there would be either:
 - *Accelerated depreciation*: Depreciation rates are increased for all capital assets; or
 - *Partial expensing*: Some fixed proportion is immediately deductible (say 20%), with the remaining (80%) capitalised and depreciated over time.
2. This option would subsidise new investment to increase the capital stock.

Underlying framework

Neutrality and economic depreciation

3. In the absence of taxes, investment would flow to the areas that investors had identified as the most profitable and productive areas of the economy. If tax depreciation settings mirror actual economic depreciation (the fall in market value of assets), the deviation from that ideal created by taxation will be minimised.
4. Depreciation takes into account the “estimated useful life” of an asset. The goal is to, as closely as possible, match the tax depreciation rate with the economic life of the asset, accepting that doing so with any precision in every case is not plausible.
5. If tax depreciation is set at a rate higher than economic depreciation, investments that were not profitable in the absence of the tax system will become profitable. If tax depreciation is set at a rate lower than economic depreciation, investments that were profitable in the absence of the tax system will be unprofitable with a tax system.

Effect of expensing or accelerated depreciation

6. It may be helpful to define some terms. “Expensing” means that instead of capitalising and depreciating capital expenditure (that is, spreading it over time), expenditure is immediately deductible. “Partial expensing” means that some fixed proportion is immediately deductible (say, 20%), with the remaining (80%) capitalised and depreciated over time. If some portion of investment is expensed, then the same portion of gross proceeds is taxed when the investment is sold, and any depreciation clawback or write-off applies to the remainder.
7. “Accelerated depreciation” means that depreciation rates are increased, usually by some fixed percentage.
8. An important difference between the two is that partial expensing treats assets of different lives equally (that is, it reduces the effective tax rate on all assets equally), whereas accelerated depreciation reduces the effective tax rate on shorter-lived assets more than longer-lived assets.

9. If gross proceeds are taxed, and all investments are expensed, then the tax system becomes a cash flow tax provided that interest is not deductible or assessable¹. A cash flow tax has some attractive properties: it taxes economic rents, but does not impose any tax on marginal investments². The major issues with a cash flow tax are that it does not tax the rate of return on investment, which some believe is important to tax for equity reasons (the same reasons that support taxing comprehensive income), and that lack of any easy transition means that those with existing wealth face a net cash-flow tax penalty, as the proceeds from their assets are taxed but they did not receive an upfront deduction of the capital amount when purchased.
10. One concern with expensing when interest is deductible and assessable (i.e. it is not a true cash-flow tax) is that it encourages investment that does not meet a pre-tax cost of capital. As a result, taxpayers can be incentivised to borrow at (say) 5% and invest at 4%. In effect the tax system subsidises the investor's return and society is paying an investor 5% to invest in something that returns 4%.

Example: partial expensing and incentives to invest

If the interest rate in the economy is 5%, and we ignore risk and (for now) taxes, we would expect and hope that investors would find investments that earned above 5% and invest in them. That will improve living standards as investors will be meeting a desire of consumers (who were willing to pay prices that create a 5% return), and both parties will gain from the transaction.

If we then introduce a 30% income tax rate, the post-tax interest rate in the economy is 3.5% ($5\% \times (1 - \text{tax rate})$).

If we allow immediate expensing of a \$100 asset that earns \$3.50 before tax (a 3.5% return), the post-tax cost of the asset will be \$70, and the post-tax income will be \$2.45.

It will be a breakeven proposition for an investor to borrow \$70 to:

- buy the asset and pay 5% interest (\$3.50) before tax (which becomes 3.5% (\$2.45) after tax),
- earn \$3.50 before tax (and \$3.5 after tax).

In effect, the investor's post-tax return will be 3.5% ($\$2.45/\70), which is the same as the post-tax interest rate of 3.5% (\$2.45). Despite being privately break-even, society will make a loss of 1.5% on this investment, paid for by the remainder of taxpayers who have subsidised it through the tax system.

¹ This would be an R-based cash flow tax in the language of the Meade Committee (1978) ([The Structure and Reform of Direct Taxation](#), Report of a committee chaired by Professor J.E. Meade, London: George Allen & Unwin). A cash flow tax that included financial flows (R + F-based) would allow deductions for interest and tax the interest to the recipient, but would also tax the principal to the borrower when received (and allow a deduction for the lender when paid), which results in the same outcome.

² Appendix B of the final [McLeod Report](#) has a discussion of the costs and benefits of cash-flow taxation.

11. The above leads to an obvious concern with accelerated depreciation and partial expensing. In the absence of taxes, borrowing (or reducing lending) at a 5% interest rate to invest at a 5% rate of return is marginal. With economic depreciation and a tax rate of 30%, borrowing at 5% to earn 5% is still marginal. However, with expensing, borrowing at 5% to earn 3.5% becomes marginal. It becomes profitable for investors to invest at a lower rate of return than the interest rate because investments are effectively subsidised by the tax system. The same is true of accelerated depreciation for investments funded with debt.
12. A similar conclusion holds for investments with partial expensing or accelerated depreciation funded by equity, which may lead an investor to prefer a 4% pre-tax return that was sheltered by generous depreciation or expensing over a passive investment that earned 5% pre-tax but with no sheltering. Diverting equity away from passive investments earning 5% pre-tax to earn 4% pre-tax reduces tax revenue and lowers national income. This may raise the question of why cash flow taxes have any appeal. Under a comprehensive “real-based” cash flow tax system all interest income and expense would be exempt and non-deductible, so the investor would never face a situation where they were comparing earning 5% passively that would be taxed, with earning 4% pre-tax but where the return was sheltered by generous depreciation or expensing.
13. The benefits of providing partial expensing are that it does promote investment (although as discussed above, this can come at the cost of national income by subsidising investments that would otherwise be unprofitable), and relative to a company rate cut it is less fiscally expensive because it only applies to **new** investment.
14. On the other hand, experience with broad-based investment incentives in the 1970s and 1980s was quite negative. Large banks of unused losses were built up as deductions generally exceeded revenues for investing firms. The build-up blunted the effectiveness of the incentives; caused variations in effective tax rates depending upon the relative amount of revenue from existing assets; and led to schemes for trading losses that lead to unexpected revenue losses, a tax sheltering industry and large profitable firms not paying tax. These effects undermined confidence in the fairness of the tax system.
15. While New Zealand moved away from the investment incentive approach under the broad-based, low-rate system, the tax system does have some limited industry-based investment incentives (including, for example, “to encourage the ownership and breeding of stallions and broodmares” for the horse-racing industry, some farming and forestry expenditure, film industry expenditure, and petroleum mining expenditure³). In the Secretariat’s view these examples suggest that the practical real-world outcome of diverting from neutrality and trying to target investment incentives is underwhelming. The McLeod Review endorsed a cautious approach because⁴:

³ Budget 2018 *Tax Expenditure Statement*, <https://treasury.govt.nz/sites/default/files/2018-05/b18-taxexpstmt.pdf>

⁴ Tax Review 2001, p 22.. <https://treasury.govt.nz/sites/default/files/2007-11/taxreview2001-report.pdf>

- reduced tax revenues from tax incentives have to be made up elsewhere;
 - tax incentive policy can easily become politicised, with resources being captured by concentrated interest groups; and
 - any exceptions to a broadly neutral approach can be a thin end of a wedge and unravel an overall general approach. For example, many submitters to our review argued for tax incentives across a large number of activities and industries without identification of how this should be financed.
16. Allowing accelerated depreciation or partial expensing for new investment is a way to lower the effective marginal tax rate on new investment by foreigners. Because of our thin cap provisions, which restrict interest deductions for foreign investors, there is little risk that foreign investors could have negative tax rates (which would never be in our interests) unless the portion that could be expensed was very high.
17. If the TWG want to encourage marginal foreign investment but are wary of dropping the company tax rate, providing accelerated depreciation or partial expensing may be a less costly way of doing that than reducing the company rate. This point is made by EY in its submission and referred to as “a form of tax competition in a constrained world, as a way of attracting and retaining investment capital”.
18. In the secretariat’s view, if the TWG wants to do the most to increase productivity for any given fiscal cost, it should focus on areas where tax depreciation rates are likely to be **below** economic depreciation rates (see, for example, the accompanying material on building depreciation), rather than introducing accelerated depreciation.

Fairness and distribution

19. Generally, measures to increase the capital stock are usually undertaken with the intention that more capital in the economy will increase labour productivity and therefore wages. The distribution of the effects of the policy will therefore hinge on whether that intention is achieved.
20. For fairness, the first order consideration is that taxpayers more generally subsidise those who are making investments subject to accelerated depreciation or partial expensing. That may be considered unfair, particularly if the measure does not lead to higher incomes for New Zealand overall.

Submissions

21. Depreciation incentives were raised by some submitters as an area for investigation. Talley’s suggested that accelerated depreciation should be introduced as a targeted incentive scheme to stimulate growth in regional New Zealand in particular industries, identifying renewal of New Zealand’s fishing fleet, and expansion of wood processing facilities as two examples.

22. EY state that while historically most tax incentives have failed there may be grounds to revise that viewpoint and state that:
- incentives can be a form of tax competition targeted at the most mobile forms of capital; and
 - availability of sophisticated data, analysed in real time, gives a better chance of designing and administering a smart, targeted incentive.
23. In general, engaging in tax competition can be an expensive exercise as lower taxes on some investment implies higher taxes on others, which then raises the question of engaging in further rounds of competition for those now disfavoured investments.
24. While data is likely to open opportunities for better tax administration, it is not clear how well it could be used to target depreciation incentives to the most sensible areas, particularly when market prices will already be operating to incorporate information from all across the economy to indicate where investment is needed. If there is non-market information (including, for example, the presence of externalities), it is not clear what sort of data would or could be used to identify this and how it could be used to set optimal tax depreciation rates that were different from economic depreciation rates.
25. The Taxpayers' Union argue in favour of full expensing of capital investment. While the idea may have merit in the context of moving to a full cash flow or consumption tax system, doing so within an income tax system will create negative tax rates and large distortions that would lower national income.
26. The Manufacturers' Network argue in favour of accelerated depreciation on the basis that many other countries have such rules and:
- New Zealand not doing so puts New Zealand manufacturers and exporters at a disadvantage; and
 - accelerated depreciation would better reflect the productive life of equipment, which may need to be upgraded before it is fully depreciated under the current settings.
27. If depreciation deductions are accelerated to levels higher than economic depreciation, we may make manufacturers and exporters more competitive (i.e. able to sell products at lower prices), but it will be at a cost to the rest of taxpayers who are effectively subsidising these industries through the tax system.
28. If tax depreciation is currently set at a rate lower than economic depreciation, there is a case to increase it (see the section on building depreciation), but this is not accelerating depreciation deductions, it is rather better matching them with the economic depreciation of an asset.

Cost to government

29. Some submitters made the argument that accelerated depreciation is “cost neutral” or “only” a timing issue for the government because earlier depreciation deductions necessarily imply lower depreciation deductions later.
30. While it is true that for any investment earlier depreciation deductions means lower depreciation deductions later, if the depreciation incentives are permanent then some deductible expenses are, across the economy, permanently brought forward and the government experiences a one-off cost of the level of the depreciation deductions brought forward.
31. Furthermore, even if depreciation deductions were temporary, the government faces the cost of the time value of money. The time value of money is a real cost that must be funded by the government by paying interest on borrowings, or forgoing earnings on other assets or reducing its expenditure and not achieving the social or economic objectives that prompted the expenditure.

Costing

32. Accelerating depreciation rates by 20%, or allowing partial expensing of 20% has the following revenue cost⁵:

	\$m increase/(decrease)				
	2019/20	2020/21	2021/22	2022/23	2023/24
Accelerated depreciation at 20%	(160)	(260)	(310)	(340)	(350)
Partial expensing at 20%	(680)	(540)	(430)	(360)	(310)

Recommendations

We recommend that you **indicate** whether you would like the secretariat to include any material on depreciation incentives for the interim report.

⁵ These costs are prepared on the basis that it only applies to new investments and buildings and land are not included.