On debt and taxes

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Successive New Zealand governments have been lauded for legislation such as the 1989 Public Finance Act and the 1994 Fiscal Responsibility Act that required governments to properly measure its fiscal position and reduce Crown debt to prudent levels.[i] The legislation has been remarkably successful. New Zealand governments ran fiscal surpluses between 1995 and 2008, and even though there were large deficits between 2009 and 2013, surpluses have been achieved once more. Gone are the days of perpetual government deficits, with the implicit need to tax future generations to repay the debt.

In 2013, the Public Finance Act was changed to formally require the government to consider the impact of its fiscal strategy on present and future generations (Public Finance (Fiscal Responsibility) Amendment Act section 26G clause (g)). This raises the question: if the government has a balanced fiscal position and maintains prudent debt levels, has it done enough to ensure its fiscal initiatives do not harm future generations? The cross-party consensus in New Zealand seems to be 'yes.' Sadly, however, the answer is 'No.' Perhaps surprisingly, economists have known this for at least forty years, following a remarkable series of papers by four acclaimed Harvard and MIT professors, Paul Samuelson, Peter Diamond, Martin Feldstein and Robert Barro.[ii]

These papers show that even though government deficits and debt levels may be accurate *accounting* measures of a government's expenditure and revenue policies, they do not measure the *economic* impacts of these policies on different generations. These impacts can be classified two ways. First, fiscal policies affect economic efficiency, for instance, if taxes change incentives. Secondly, fiscal policies transfer resources between generations, even when they are fully funded from contemporaneous tax flows.

Paul Samuelson (1958) and Peter Diamond (1965) provided the key insights. A programme such as New Zealand Superannuation that provides benefits to people whose average age is much older than the average age of taxpayers can be funded in two ways. If it is funded on a pay-as-you-go basis, taxes are raised each year and transferred directly to the recipients. If it is funded on a save-as-you-go basis, taxes paid by working-age cohorts are collected and placed in a fund such as the New Zealand Superannuation Fund and accumulated over time. The pensions received by these cohorts are paid out of the accumulated funds. Diamond showed that when the rate of return to capital exceeds the growth rate of the economy, a pay-as-you-go funded pension programme imposes large opportunity costs on all but the first generation of recipients, as these generations could provide themselves with pensions more

cheaply by accumulating assets in a Government fund. The saving depends on the difference between the rate of return to capital and the growth rate of the economy, but it is reasonable to expect that it is approximately twice as expensive to fund pensions on a pay-as-you-go basis as on a save-as-you-go basis. Currently, this difference is perhaps $6 billion a year, and the cost on future generations will be much higher.[iii]

The easiest way to measure the opportunity cost of pay-as-you-go funded superannuation programmes is to consider what happens when they are first introduced. With pay-as-you-go funding, the first working age cohorts pay taxes to the first generation of recipients, and in turn they get a pension from younger cohorts when they are older. Equally, the government could have required the first and all subsequent generations of taxpayers to contribute taxes into a government wealth fund to pay for their own pensions, and paid for the pensions provided to the first recipients by issuing debt. The interest on this debt would be paid by additional taxes levied on each subsequent generation. This interest is an explicit measure of the opportunity cost that a pay-as-you-go funded pension scheme imposes on all but the first generation of recipients. This cost is not currently measured in the government's accounts.

The same logic means that pay-as-you-go funded expenditure programmes such as education that provide benefits to young people provide large cost savings to current and future generations. Education could be funded on an intergenerationally neutral basis if the government issued debt to fund the costs of a cohort's education expenses, and subsequently levied taxes to repay the debt plus interest. Current and future generations save the interest on this debt when education is funded on a pay-as-you-go basis.

Does it matter if a country ignores these opportunity costs and benefits if it provides both education and pensions on a pay-as-you-go basis? Won't they simply net out? We don't know for New Zealand. But many countries use National Transfer Accounting techniques to calculate these costs and benefits, and in each case it appears that since 1960 spending on older people has expanded much faster spending on young people, imposing significant additional costs on current and future generations (Lee 1995, Mason et al, 2006.)

There is another way that a government's tax policies can impose substantial costs on future generations. Martin Feldstein (1977) observed that governments often tax the return from land at a much lower rate than the return from other capital investments. When this happens, the price of land is bid up. This causes a large intergenerational transfer to the first owners of land, which is offset by costs imposed on all subsequent generations who have to buy or rent land at artificially high prices. These intergenerational transfers are completely ignored in the government's current accounting measures. This issue is quite important. In 1989, the government changed the way superannuation accounts were taxed and while the new taxes helped reduce Government debt levels they also created one of the most distortionary tax environments for land and housing in the OECD.[iv] (This is because New Zealand has the biggest gap between the way owner-occupied land and other capital income is taxed in the

OECD.) These distortions provide an incentive to double the amount people pay for land conveniently located to desirable amenities, a cost borne by current and future generations. These costs appear nowhere in the government accounts as they concern transactions between private individuals, not between a government and its citizens.

(In passing, this provides a useful place to mention the last of the five papers. Robert Barro (1974) argued that it may be the case that the intergenerational consequences of policies that artificially inflate the price of land are undone by the bequest policies of those that benefit from the policy. This is a possibility, even though subsequent research suggests it is neither a very large effect or a particularly good way of conducting public policy.)

Does it matter if measures of government deficits and debts do not adequately capture the intergenerational transfers associated with government programmes? Yes, it does. If you only measure one aspect of a complex problem, you are likely to choose interventions that score highly on that aspect even if they impose large costs on unmeasured aspects. Unless governments measure the impacts of their policies on future generations, they are at risk of choosing policies which inadvertently harm them because the costs or benefits of these policies are different than they imagined.

This raises the question: if the intergenerational economic consequences of pay-as-you-go funded policies have been known for so long, why have they not been highlighted by successive governments or the Treasury? The answer is not clear. It may be because the accuracy with which government deficits and debts are measured is much higher than the accuracy with which intergenerational costs and benefits are measured. The Treasury may be reluctant to calculate both measures for fear of undermining the accuracy of the accountancy measures. But if they do not want to do it, the task should be given to someone else. Since some judgement is required to estimate the costs and benefits of government policies on different generations, an independent body, possibly similar in structure to the Parliamentary Commission for the Environment, could be set up.

Does it matter if we bill future generations when we adopt new expenditure policies? To some extent this is matter of personal and political preference. Some people may be quite happy to bill future generations, while others would hate to be remembered that way. Thanks to research conducted by The Treasury and the University of Otago, we do know something about these preferences.[v] Two-thirds of New Zealanders of all ages and income levels indicate they are prepared to pay 2 percent higher taxes now if it means taxes on the next generation only go up by 3 percent rather than 5 percent. This suggests a widespread desire not to “bill it to the future”, making it imperative that the Government adopts processes to systematically measure the impact of its policies on future generations.

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[i] See Janssen (2001) for a discussion of the legislation.
[ii] See the discussion in Kotlikoff (2002). The papers are
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[iii] The calculations are made in Coleman (2014).
[iv] See the discussion in Coleman (2017).
[v] See Au, Coleman and Sullivan (2015).