

The New Zealand Tax System over the Medium-Term: Preliminary Analysis

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Key Points:

- New Zealand's mix of taxes within total revenues has shifted only slightly towards personal income taxes since 2000 (by 1%point) but is expected to shift more rapidly in the next ten years with unchanged policies (from 42% in 2007 to 46% by 2017).
- The corporate tax share is expected to decline due to recent rate changes but the medium-term future of the corporate tax base, and corporate revenues, is less certain and will require careful analysis.
- Initial projections suggest GST shares will decline slightly to 2017.
- Evidence across the OECD for 2000-06 shows that both average wages and 'tax wedges' (average or marginal rates of income tax) in New Zealand continue to be relatively low overall. However tax wedges have risen noticeably compared to other OECD countries, especially for particular taxpayer types.
- Tax wedges including the impact of transfers such as Working for Families have generally increased for taxpayers without children and fallen for those with children. However, even for those with children, marginal tax wedges rose or fell depending on wage levels. There were substantial rises for those on 120-180% of average wages (AW) but similar sized falls for those on 55-80% AW - a key WFF target group.
- An OECD decomposition of New Zealand's tax wedge changes into effects from policy change, inflation and real wage growth shows that often a large fraction (50-75%) of the gains from policy change were eroded by (or compensated for) real or inflationary fiscal drag over the 6 years from 2000.
- Fiscal drag effects therefore seem likely to have substantial impacts on marginal and average rates over the next decade (see separate note: "Marginal and average tax analysis – 1990 to 2017"). This could generate taxpayer responses that will need careful modelling and could affect the future profile of the income tax base.

The New Zealand Tax System over the Medium-Term

1. Introduction

This paper offers some preliminary evidence on changes to the New Zealand tax system over the last decade and provides some pointers to possible changes over the next decade or so, likely to occur in the absence of policy reforms. This is designed to identify some potential issues for further examination and provide a catalyst for discussion of possible beneficial reforms to the system.

New Zealand's tax system, and specific individual taxes, are designed to help deliver key policy objectives such as redistribution and efficient revenue-raising. The properties that enable these outcomes to be achieved can however change over the medium-term (10-15 years) in two important ways. Firstly, successive annual Budget reforms can generate cumulative changes to the revenue, redistributive or other properties of a tax which are unintended or unforeseen. For example, sequential piecemeal reforms, even if they meet their intended targets at the time, can sometimes build over the medium-term into tax systems that could either achieve the same objectives at lower cost, or achieve more for the same cost.

Secondly, in the absence of any discretionary policy change, most taxes will evolve in ways that affect their ability to deliver on key objectives. For example, fiscal drag over the medium-term can change the revenue, efficiency and redistributive properties of income tax; and by squeezing disposable incomes can also affect the longer-term revenue prospects for indirect taxes such as GST. Similarly, recent decades have witnessed increasing global integration of financial markets, new tax avoidance technologies and policy reforms in other countries, all of which can affect corporate behaviour and therefore the evolution of the corporate tax base.

This note looks at how the mix of different taxes in New Zealand has evolved in recent years, how it may evolve in future, and how it compares to other OECD countries.

2. Medium-Term Properties of the New Zealand Tax System

This section begins (2.1) by examining how the mix of taxes in total tax revenue has changed in recent years and may change over the next decade. This points in particular to a growing share of source deductions (income taxes) in total revenues. Section 2.2 therefore focuses on income taxes, considering how New Zealand's recent performance compares with other OECD countries. Section 2.3 then reports some estimates (by the OECD) of how changes in the source deductions 'tax wedge' has affected different types of income earners and households since 2000. These results are part of an on-going OECD project looking at income tax wedges, to be published later this year.

2.1 *The Tax Mix*

In the absence of policy changes, changes in the shares of the main taxes in total tax revenues depend largely on the how the bases for each tax change (income, taxable profits, consumption spending etc.) and the fiscal drag associated with each tax. Figure 2.1 below shows how the tax shares have been affected between 2001/02 and 2006/07. It then uses a version of the Treasury's Long-Term Fiscal Model (LTFM) to project changes in tax revenues to 2016/17. This model captures fiscal drag for income taxes but, in line with past evidence, treats other taxes as growing in proportion to their tax bases. The growth of consumption spending over the next 10 years is also

assumed *not* to be affected by the impact of income tax fiscal drag on disposable incomes (consumer spending grows at the rate of GDP growth).¹

The Figure shows that, though the rise in the share of source deductions is modest up to 2006 (largely due to the faster growth of corporate revenues) it is projected to rise from 42% in 2006 to 46% in 2016. Both the GST and corporate tax shares decline to 2016; the corporate revenue decline is mainly due to the impact of the reduced corporate rate in the early projection years. These represent initial estimates based on the assumption that the tax bases for each tax grow on average at the same rate as GDP over the next decade. Further work will investigate alternatives.

The impact of these changes in terms of tax revenues as ratios of GDP can be seen in Table 2.1. Without policy changes, total tax revenues are projected to rise slightly from 31.5% of GDP in 2006 to 32.4% by 2016. This reflects the impact of fiscal drag on income tax revenues but is much less than the increase from 2001, mainly because the 1% (budget-related) corporate tax fall (2006-16) compensates for the 2% source deduction rise. Just over half of this projected 2% rise in source deductions from 2006 to 2016 is due to inflationary effects with the remainder due to expected growth of real wage rates, employment growth etc.²

Note that if New Zealand's rate of GDP growth were to improve over the next decade (e.g. due to recent policy changes) this would tend to raise, not lower, the ratio of source deductions to GDP. This is because the accompanying faster income growth would, via fiscal drag, push up source deduction revenues more quickly. The next subsections give more details on the income tax projections.

Table 2.1 Tax/GDP Ratios

	Tax Revenues (as % of GDP)		
	2001/02	2006/07	2016/17
Source deductions (incl FBT)	11.9%	13.2%	15.0%
Other individuals tax	2.5%	2.1%	2.2%
Corporate tax	4.1%	5.5%	4.6%
Other income tax	0.8%	1.4%	1.4%
Goods and services tax (GST)	6.4%	6.5%	6.6%
Other indirect tax	3.1%	2.9%	2.7%
Total Tax Revenue	28.8%	31.5%	32.4%

2.2 *Income Tax Changes in New Zealand and the OECD, 2000-06*

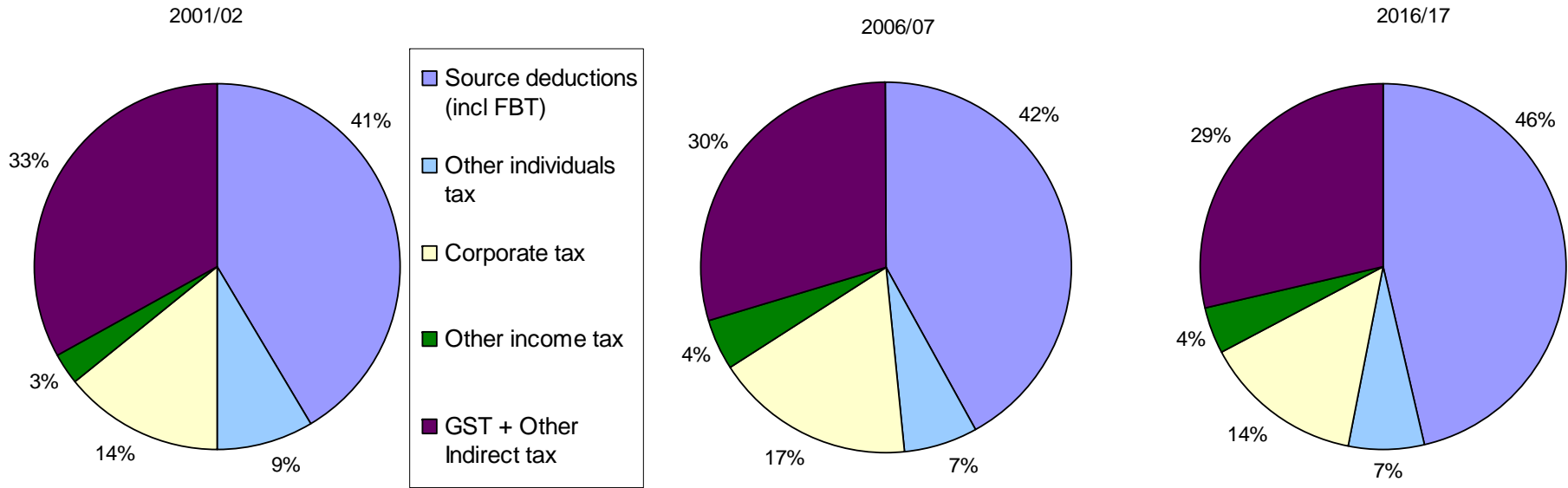
The OECD is currently considering changes, during 2000-06, in the 'tax wedge' facing income earners in different OECD countries. The tax wedge is the average (or marginal) rate of all taxes combined that are levied on personal incomes and can be examined for individuals by income level, family type etc.³ These can give some indication of overall and distributional impacts of policy changes and/or fiscal drag effects; and highlight where there may be disincentives to earn additional income &/or declare it for tax.

¹ Future developments of the model will explore the importance of this aspect.

² The LTFM assumes 2% annual inflation and 1.5% annual productivity (real wage rate) growth.

³ These can be calculated to include, or exclude, employers' social security contributions (ssc). Those reported here *include* ssc's (where relevant).

Figure 2.1 Changes in the Tax Mix 2001/02 to 2016/17



Tables 2.2 – 2.4 compare New Zealand's performance with the 23 major OECD countries,⁴ showing how the ATW and MTW have changed over the 6 years. Data in the first two tables relate to single full-time workers and therefore do not capture the recent reductions in tax wedges for families.

Table 2.2 Change in the Tax Wedge, 2000-06: NZ v OECD 23

	At percent of Ave Wage:			
	67%	100%	133%	167%
Change in Average Wage: US\$ (%)				
NZ		4188 (2.9%)		
OECD 23 (ave.)		6518 (3.7%)		
Change in Average Tax Wedge^a				
NZ	0.4%	1.6%	2.0%	2.5%
OECD 23 (ave.)	-0.7%	-0.5%	-0.7%	-0.5%
Change in Marginal Tax Wedge^a				
NZ	0.0%	12.0%	0.0%	6.0%
OECD 23 (ave.)	0.1%	-2.3%	-1.3%	-2.3%

^a includes social security contributions.

Table 2.3 Change in the Tax Wedge, 2000-06: NZ Rank^b

At % of Ave Wage:	New Zealand's Rank			
	67%	100%	133%	167%
Change in Average Wage	-	18	-	-
Change in Average Tax Wedge	5	6	4	4
Change in Marginal Tax Wedge	10 =	1	6 =	3

^b The ranks shown relate to changes in average wages and tax wedges, with the OECD country with the largest change ranked 1 and the smallest change ranked 23rd.

Table 2.4 Change in the Average Tax Wedge by Family Type, 2000-06

Change in:	Ave. Tax Wedge (excl. employer ssc)				ATW incl cash transfers		
	single		one-earner married couple		single	one-earner married couple	
	no child	two children	no child	two children	two children	no child	two children
OECD average	-0.5%	-0.4%	-0.2%	-0.6%	-1.3%	-0.2%	-1.4%
NZ	1.6%	1.6%	1.6%	1.6%	-10.9%	1.6%	-10.9%
NZ Rank	6	7	6	6	22	6	22

Table 2.2 shows average wages increased by around US\$6,500 in the OECD on average (3.7% per year) whereas in New Zealand the figures are US\$4,200 (2.9%). Looking at OECD data on individuals at 67%, 100%, 133% and 167% of the average wage, in 2000 New Zealand had around the 19th highest (5th lowest) average wage of the 23 OECD countries. However, it had around the lowest or second lowest tax wedge. By 2006, New Zealand's average wage ranking had fallen slightly to 20th

⁴ Some new OECD members such as Mexico, Korea and former Soviet Eastern Block countries are excluded.

(overtaken by Ireland and Greece but overtaking Italy) and tax wedges generally remained low (ranking between 17th and 22nd within the OECD).

The New Zealand income tax therefore continues to be one that, across taxpayers as a whole, maintains relatively low tax burdens, though these data do not consider the impact when tax credits such as Working for Families and other transfers are included. Also, Tables 2.2 & 2.3 show that the *change* in average and marginal tax wedges over 2000-06 was generally positive (e.g. a 12% increase in the MTW of average wage earners) whereas other OECD MTW changes were generally negative (-2.3% for the average earner). The rises in marginal tax wedges at 100% and 167% of average wage are striking but, of course, exclude the impact of tax credits for families on low incomes (see below).

In terms of rankings, Table 2.3 confirms that though New Zealand had only the 18th fastest increase in average wages (out of 23), it had around the 5th largest increase in its ATW, and between the 1st and 10th largest increase in MTW (depending on income level). Analysis by household type (Figure 2.4) shows that the increase in tax wedges *due solely to income tax* were very similar across household types. However, when cash transfers such as Working for Families tax credits are added in, the resulting effects are very unevenly spread (Table 2.4). Single person and couple households with no children, for example, suffered about a 1.6 percentage point increase in their ATW (ranking 6th largest in the OECD) whereas households with one earner but 2 children enjoyed an 11 percentage point *fall* in their ATW (2nd lowest in the OECD).⁵

2.3 Tax Wedges in New Zealand by Income and Household Type

The analysis above suggests that recent changes in income tax wedges are quite different at different wage levels and across households (at least when family tax credits are included). It is useful to combine these two aspects to examine tax wedge changes by wage level for different household types. The OECD has done this for each member country, for selected household types. They have also decomposed tax wedge outcomes into effects due to policy change, and two fiscal drag effects: an inflation effect and a real wage growth effect.⁶ Results for two household types are shown in Figures 2.1 and 2.2 below (for single persons, and lone parents with 2 children, respectively).

These diagrams show the percentage point change in the average tax wedge (including transfers) between 2000 and 2006 for individuals at different gross wage levels, relative to the average gross wage (AW). Figure 2.1, for example, shows (black line) that a single person on only 30% of the AW experienced only a small (1%point) increase in their ATW – from around 15.5% to 16.5%. However, as individuals around 90-110% of the AW transited into the 33% tax bracket during this period, their average tax wedges increased by around 2-2.5 percentage points.⁷ This change is similar to that experienced by those on much higher wages, indicating that the phenomenon is certainly not confined to those moving into the 39% tax bracket. The decomposition in Figure 2.1 shows that single persons were unaffected by policy change in this period and their tax wedge increases were roughly equally due to the inflationary and real components of their nominal wage increases.

⁵ Only Ireland had a larger MTW fall.

⁶ This is currently available for *average*, but not *marginal*, tax wedges.

⁷ For example, at 110% of the AW the tax wedge increased from 19.6% to 22%.

Figure 2.2, for lone parents with two children, is especially revealing. The black line again shows the overall effect, at different wage levels, of the combined changes to income tax and transfer payments. This confirms that for those at or below the average wage, average tax wedges declined by about 12%points.

Figure 2.1 Change in Average Tax Wedge, 2000-06: Single Person

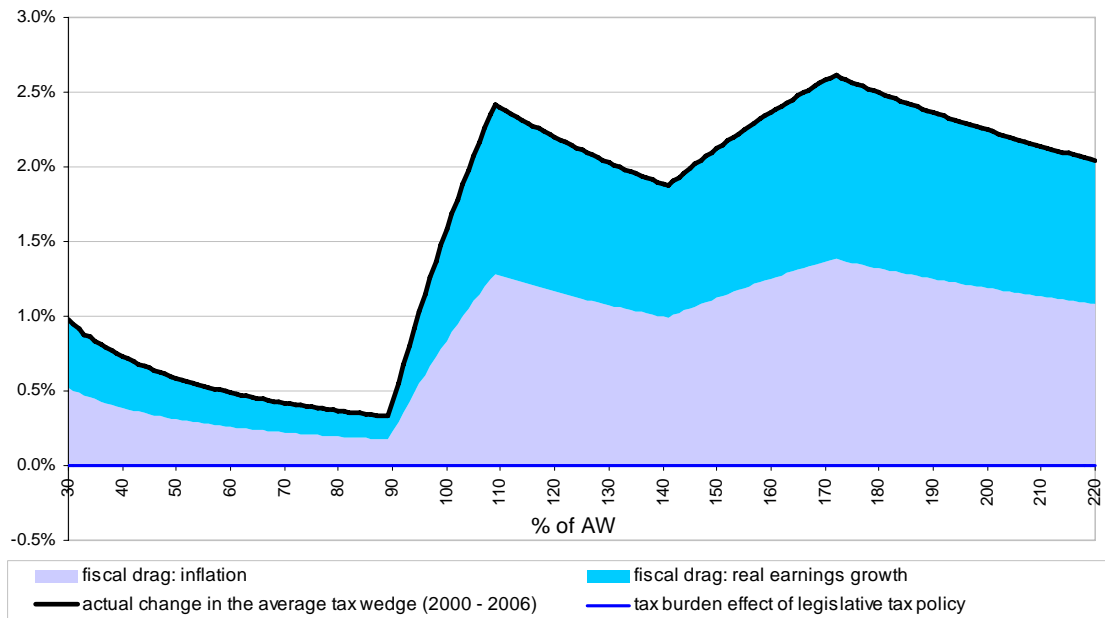
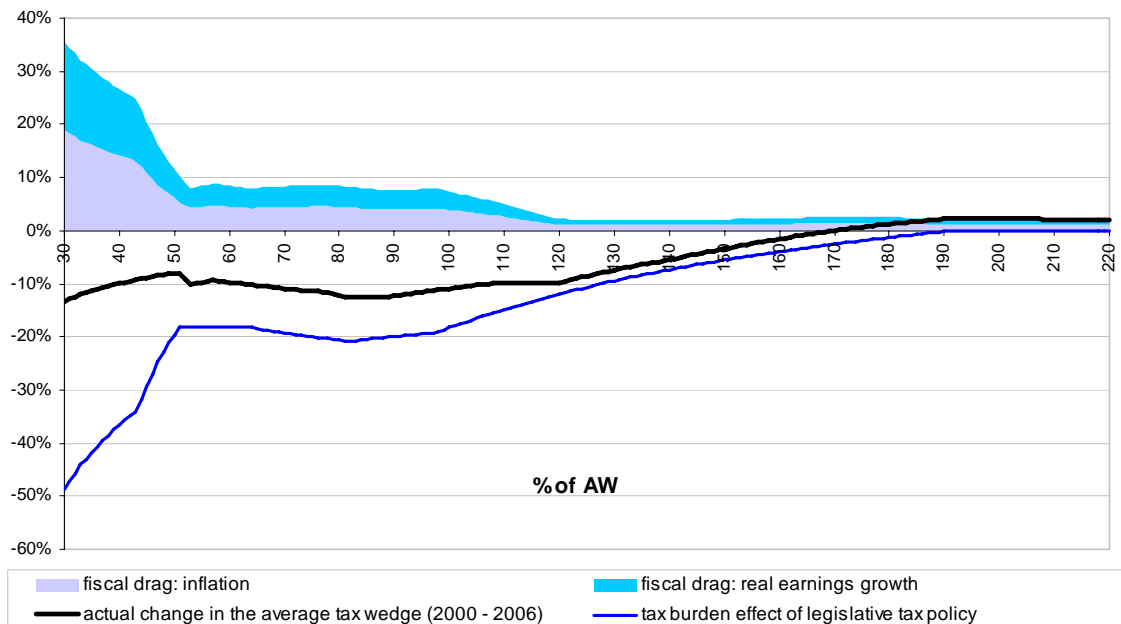


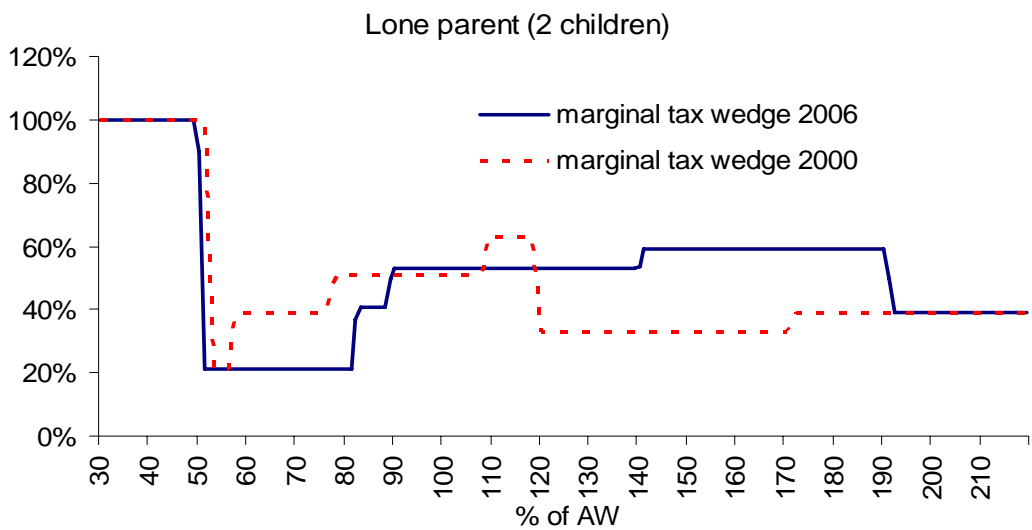
Figure 2.2 Change in Average Tax Wedge, 2000-06: Lone Parent (2 children)



However the decomposition indicates that, were it not for real and inflationary fiscal drag effects, those on 30% of AW would have experienced a -50%point change in their

tax wedge.⁸ That is, most of the income benefits of the cash transfers to the poorest lone parents over this period were in effect largely compensating them for their tax increases (real transfer decreases) due to fiscal drag over just 6 years. For lone parents between 50% and 100% of the average wage, Figure 2.2 shows that fiscal drag eroded around half of their tax wedge reduction due to policy change (increasing it from around -20%points to -10%points). Once again, the overall fiscal drag effects were split about 50:50 between inflationary and real growth effects, so that around half of the increase in the ATW due to fiscal drag for those families, is associated with improving average real wages.⁹

Figure 2.3 Marginal Tax Wedges, 2000& 2006



The impact on marginal tax wedges for some household types has also been substantial but quite different across wage levels.¹⁰ Figure 2.3 shows the *marginal* tax wedges including transfers in 2000 & 2006 equivalent to the average wedges used to produce Figure 2.2 – for lone parents with 2 children. This confirms that there has been a significant reduction in MTWs for those around 55-80% of the average wage, while for those in the 120-190% of average wage range, the increased MTW has been of the order of 20-25 percentage points - reaching an MTW of 59% in 2006. This largely reflects the wide income range over which Working for Families abates.

These results suggest that tax and social welfare policy have had large effects on both ATWs and MTWs for some households over a short period, but that fiscal drag can also quickly counteract or reinforce these effects. In a separate analysis Treasury has therefore begun to examine how far fiscal drag might affect the numbers, and effective tax rates, of different individuals and households over the next decade or so in the absence of further policy changes.

⁸ That is, for individuals on 30% of the AW, having received net transfers (after income tax) equal to about 98% of their gross wage in 2000, such individuals received transfers equal to about 110% of the gross wage in 2006 – an improvement of 12%. However the value of transfers in 2006 *in the absence of the new family benefits package* would have been only around 62% of those individuals' gross wages. Therefore the new policy reduced the tax wedge by around 49%points (110 – 62) in 2006 which was eroded to 12%points once fiscal drag during 2000-06 is accounted for.

⁹ Note that these data do not identify the separate wage growth of specific taxpayers - who were not on average wages.

¹⁰ These tax wedges included Working for Families tax credits but exclude other benefit payments.