TAXING POVERTY IN NEW ZEALAND

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ABSTRACT

A frequent claim in popular media is that the wealthy pay the most tax. As an absolute measure of tax collected this is correct, as the rich earn the most income. However, perhaps a more insightful perspective is a relative measure incorporating not only who pays the most income tax, but a measure that incorporates other taxes such as indirect taxes and duties. Indirect taxes and duties collect over one-third of tax revenue in New Zealand and present as a not insignificant tax burden, particularly for lower income taxpayers.

This study has three objectives. First it provides an insight into indirect taxes and duties paid by decile group in New Zealand in order to highlight the impact of non-income taxes on different income groups. Second, it challenges the rhetoric associated with claims that no groups would be disadvantaged by the last income and consumption tax changes made in New Zealand. Third, it argues that there is a need for greater transparency on the impact of tax changes and, in particular, there is a role for the government agency responsible for collecting statistical information to engage in more analysis of tax data when that data is not readily accessible for academics.

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I. INTRODUCTION

One of the potential impacts of taxation is to deprive the poor of resources that may otherwise be available to spend on goods and services.¹ Most countries income tax systems allow for individuals' different circumstances to be taken into account: those who earn lower incomes generally pay lower rates of income tax; those who earn higher incomes generally pay higher rates of income tax. Many tax systems also include transfers that provide compensation for tax paid by lower income earners. New Zealand's tax and transfer system adopts both of these measures.

Over recent decades New Zealand has moved towards a broader taxation base. This has resulted in increased levels of taxation collected from consumption, in the form of goods and services taxation (GST) and reduced tax revenue collected from income taxes. In recent years, the top personal income tax rate has reduced from 39% to 33%; the company income tax rate has reduced from 30% to 28%; and GST has increased from 12.5% to 15%. In addition, excise taxes on products such as tobacco, fuel and alcohol have increased. However, indirect taxes such as GST and excise taxes cannot take an individual's circumstances, i.e., ability to pay, into account: everyone consuming a particular good or service will face the same tax liability. Thus, the purpose of this study is to examine the tax burden of some key indirect taxes paid by the lowest and highest income earners in New Zealand.

Books such as: *The Spirit Level*; *Inequality and the 1%*; *The Price of Inequality*; and *Capital in the 21st Century* have highlighted how increased inequality is a societal problem: it is not only those who are the poorest in society who suffer when inequality worsens.² Multiple studies prior and subsequent to the publication of the aforementioned works support the finding that when the poor are made better off, then society as a whole benefits.³ This is the case regardless of how the poor are made better off, that is, whether this is through direct payments, increases in income or decreases in tax.⁴ Thus, it is important to assess how tax changes have the potential to make the poor worse off and the wealthy better off.

¹ Katherine S Newman and Rourke L O'Brien, *Taxing the Poor: Doing damage to the truly disadvantaged* (University of California Press, 2011).

² Richard G Wilkinson and Kate Pickett, *The Spirit Level: Why equality is better for everyone* (Penguin Books, 2010); Joseph E Stiglitz, *The Price of Inequality* (WW Norton, 2013); D Dorling *Inequality and the 1%* (Verso, 2014); Thomas Piketty, *Capital in the Twenty-First Century* (Harvard University Press, 2014).

³ Richard G Wilkinson, 'Health Inequalities: Relative or absolute material standards?' (1997) 314 British Medical Journal 591; Ganesh Nana, 'The Cost of Inequality' in Max Rashbrooke (ed) Inequality: A New Zealand crisis (Bridget Williams Books, 2015); Jonathan Ostry, Andrew Berg and Charalambos G Tsangarides, Redistribution, Inequality and Growth (International Monetary Fund, 2014); Organisation for Economic Cooperation and Development, In It Together: Why less inequality benefits all (OECD Publishing, 2015); Joseph E Stiglitz, The Great Divide (Allen Lane, 2015).

⁴ Newman and O'Brien, above n 1.

A common narrative heard in New Zealand is that the rich pay most of the tax.⁵ As a proportion of all tax collected, this is correct. However, this does not take into account total income or other gains, such as capital gains. Nor does it reflect tax paid as a proportion of income received or payment of additional indirect taxes and duties. The ultimate aim of this study is to quantify the main classes of indirect taxes paid by different decile groups in New Zealand.

Data reported in this study is from the 2015/16 Household Economic Survey. This data is compiled by Statistics New Zealand and reports detailed expenditure undertaken by 4,700 New Zealand households.⁶ Data collected includes consumption of items that have additional excise taxes or duty, such as tobacco, alcohol and fuel. It is these components that are the topic of interest in this study as collectively they contribute a further 8.5% to tax revenue, in addition to the 26% collected through the comprehensive GST. Thus the first research question the study sets out to address is how much do different decile groups pay in excise and indirect taxes as a proportion of expenditure and income. The second research question examines the accuracy of the claims made about the impact of the 2010 tax changes in New Zealand. The third research question examines whether those in the lowest deciles pay a higher proportion of their income in excise taxes and duties than those in the highest deciles.

The study is structured as follows. First, section two provides a brief background of the tax environment in New Zealand in order to provide the context for the discussion later in the article. Section two also outlines the literature on poverty and inequality in New Zealand. Section three provides more detail on the data used in this study and the research questions. Section four outlines data from the 2015/16 Household Economic Survey, which shows the higher proportions of excise taxes and duties paid by lower income earning households. Section five discusses the rhetoric surrounding the claims made in relation to the tax changes made in New Zealand in 2010 and challenges the accuracy of some of these claims. Section six makes a call for greater provision of data to academics to allow greater engagement and participation in tax debates. However, if this is not possible, then the author argues that there is a need for the government agency – Statistics New Zealand – to undertake this analysis on behalf of society in order that deeper analysis of the impact of tax changes on the poorest part of society is made visible. Conclusions are drawn in the final section.

⁵ For example, Susan Edmunds, 'Small number of taxpayers bear the brunt of New Zealand tax bill', *Dominion Post* (Wellington), 26 June 2016, 5.

⁶ Further information on the Household Economic Survey may be found at: http://www.stats.govt.nz/browse_for_stats/people_and_communities/Households/household-economic-survey-inforeleases.aspx.

II. BACKGROUND

This section commences with a brief overview of the tax environment in New Zealand, together with an outline of the key tax changes that occurred in New Zealand recently. This is followed with a discussion of the literature on poverty and inequality in New Zealand, as well as the literature on what is already known about the tax incidence.

A. The New Zealand Tax Environment

There are three primary ways of taxing: wealth; income; and consumption. Wealth taxes typically take the form of capital gains taxes, inheritance taxes, estate duties or gift duties. New Zealand has none of these, or any other form of tax that is designed to comprehensively tax wealth. Land taxes are in the form of local body rates, which pay for services provided by the local council, such as recreation facilities or water supply. Income taxes are progressive, but have become less so in recent years, as the top income tax rate has reduced. Consumption taxes do not have the potential to target an individual's ability to pay the tax and have increased in recent years.

The New Zealand tax system has many strengths, including strong administration and high levels of compliance. Consumption is taxed via a broad-based GST, which is charged at a rate of 15% on most items in New Zealand. Items typically carved out from consumption tax in other jurisdictions, such as food, clothing, educational materials or medical supplies are all subject to GST if purchased and consumed in New Zealand. GST collects around one-quarter of New Zealand's tax revenue.⁷

The New Zealand tax system does not have a tax-free threshold for income. Tax is paid from the first dollar earned in New Zealand. This is mitigated with a package known as the 'Working for Families tax credits'. Working for Families is a transfer payment, although it is commonly referred to as a tax credit. While this has the potential to assist greatly with targeted redistribution, it is instead more typically viewed as 'a costly in-work tax expenditure that could be much more effectively targeted on the working poor'.⁸ The upper qualification limit is high, resulting in transfers to not only middle-income but also some high-income earners. Moreover, the Working for Families package is targeted at working individuals with families: individuals who do not have children or are unemployed are not eligible.

In the 2010 New Zealand Budget, multiple tax reforms were announced. The key changes were: decreasing the top marginal personal income tax rate from 38% to 33% (it had

⁷ New Zealand Treasury, *Key Facts for Taxpayers* (New Zealand Government, 2017).

⁸ Organisation for Economic Development and Cooperation, *OECD Economic Surveys: New Zealand 2013* (OECD Publishing, 2013).

reduced from 39% to 38% in 2009); decreases in other personal income tax rates; increasing the GST from 12.5% to 15%; and reducing the company tax rate from 30% to 28%.⁹

Table 1 outlines the personal income tax and GST rates that applied from October 1st 2010 in New Zealand, together with the rates that were in place prior to the tax rate changes. The rates in 2006/07 are also included in Table 1, in order to show the changes in thresholds over the past ten years.

Table 1: Inc	come and	Consumption	Тах	Rates	in	New	Zealand:	2006/07,	2009/10	and
from 20101	0									

Income	Rates in 2006/07		Rates in 2009/10	Rates from 2010	Impact of 2010 Changes
Up to \$28,000	19.5%	Up to \$14,000	12.5%	10.5%	-2%
υριο \$38,000		\$14,001-\$48,000	21%	17.5%	-3.5%
\$38,000-\$60,000	33%	\$48,001-\$70,000	33%	30%	-3%
Over \$60,000	39%	Over \$70,000	38%	33%	-5%
Expenditure					
GST	12.5%		12.5%	15%	+2.5%

Table 1 shows that the greatest gains from the 2010 tax changes accrue to higher income earners, that is, those earning in excess of \$70,000, as these earners' tax burdens reduced by 5% for every dollar earned over \$70,000 per annum. One commentator at the time of the tax changes observed that an individual earning the minimum wage at the time would be \$8 per week better off under the budget package, or around a 2% increase in net income. However, a high-income earner (such as a backbench Member of Parliament) would receive an extra \$88 per week, or around 7% extra net income.¹¹ The 11-fold extra gain to a high-income earner in the tax package has the potential to exacerbate extant inequality in New Zealand.

Welfare benefit payments and the universal pension (New Zealand Superannuation) were adjusted by 2.02% to compensate for the 2.5% increase in the GST rate. A further change was made at the same time to the taxation of rental and commercial properties, whereby depreciation could no longer be claimed on property that had an expected useful life greater than 50 years.

⁹ New Zealand Treasury, *Budget 2010: Reform of the Tax System* (New Zealand Government, 2010).

¹⁰ For those earning less than \$38,000 in 2006-07, a low-income rebate existed that effectively reduced the marginal income tax rate to 15% for incomes below \$9,500. This rebate was removed in 2008.

¹¹ Rob Salmond, *The New New Zealand Tax System* (Institute of Policy Studies, 2011) 40.

While it is possible that no one individual was worse off from the 2010 changes, it is likely that the wealthiest in society were considerably better off. As noted by Apps and Rees *'it is generally well-understood that a tax on consumption has a regressive effect, reducing the real disposable incomes of lower and middle income earners more than proportionately'.*¹² The analysis accompanying the tax changes and the concomitant claim that no individual would be worse off from the changes was predicated on certain assumptions pertaining to spending.¹³ Thus, this study sets out to examine the impact of the current indirect tax regime on those in the different deciles in New Zealand.

In 2015/16, total tax revenue in New Zealand was \$69.7 billion.¹⁴ Of this, total GST collected was \$18.2 billion. An additional \$6.5 billion was collected in indirect taxation, including \$1.9 billion in petroleum fuels excise and duty; \$1.7 billion in tobacco excise and duty; \$1.4 billion in road user charges; and \$947 million in alcohol excise and duty.¹⁵

1. Tobacco Excise and Duty

Excise tax on tobacco in New Zealand is levied on the tobacco content of the product. The rate of excise tax and excise-equivalent duty from 1 January 2017 on manufactured cigarettes is: \$1,051.83 per kilo of tobacco content on cigarettes in excess of 0.8kg weight of actual tobacco content per 1,000 cigarettes; or \$738.13 per 1,000 cigarettes for manufactured cigarettes not exceeding weight of 0.8kg actual tobacco content per 1,000 cigarettes.¹⁶ Smoking tobacco has the same level of excise tax and excise-equivalent duty as manufactured cigarettes. Excise taxes on tobacco have increased significantly in recent years: the excise tax and excise-equivalent duty on smoking tobacco was \$698.41 per kilo of tobacco content three years earlier. To illustrate the extent to which excise taxes on tobacco have increased in New Zealand in recent years, excise tax rates on tobacco in 2006/07 were \$361.45 per kilo of tobacco content on cigarettes in excess of 0.8kg weight of actual tobacco content per 1,000 cigarettes; or \$289.16 per kilo of tobacco content.¹⁷ These figures are

¹² Patricia Apps and Ray Rees, 'Raise Top Tax Rates, Not the GST' (Discussion Paper, Australian National University Centre for Economic Policy Research, Discussion Paper No. 684, June 2013) 2.

¹³ This is discussed in section five.

¹⁴ New Zealand Government, *Financial Statements of the Government of New Zealand for the year ended 30 June 2016* (New Zealand Government, 2016) 53.

¹⁵ Ibid.

¹⁶ New 2014) Zealand Customs Service, Types of duties, fees and charges (18 February <http://www.customs.govt.nz/features/charges/feetypes/Pages/default.aspx>. The Customs and Excise Act 1996 requires the Customs and Excise Chief Executive to ensure that copies of the Duties Table are publicly available on an Internet site that is available free of charge (Customs and Excise Act 1996, s 76C)

¹⁷ Personal correspondence from New Zealand Customs Service to [author], received 16 November 2016.

also shown in Table 2. As noted above, customs and excise duty collected on tobacco products in 2015/16 was \$1.7 billion.¹⁸

Table 2: Tobacco Excise Tax and Excise-Equivalent Duty ¹⁹	
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Manufactured Cigarettes	Excise Rate 2006/07	Excise Rate from 1 Jan 2017
In excess of 0.8kg weight of tobacco content per 1,000 cigarettes	\$361.45 / kilo of tobacco content	\$1,051.83 / kilo of tobacco content
Not exceeding 0.8 weight of tobacco content per 1,000 cigarettes	\$289.16 / kilo of tobacco content	\$738.13 / kilo of tobacco content

On 29 April 2010 a specific increase was made to the excise rates. The increase varied and certain tobacco products, such as snuff, cigars, cheroots and cigarillos had a smaller increase. Since 1 January 2011, excise duties have increased annually by 10% (plus a consumer price index adjustment).²⁰

Cigarette smoking has a strong association with socioeconomic deprivation. In New Zealand, adults living in the most deprived areas are 3.1 times more likely to smoke (at 28%) as those living in the least deprived areas.²¹ The Ministry of Health report that 32.6% of those in quintile five (the lowest socio-economic group) were current smokers, as compared to 8% in quintile one (the highest socio-economic group).²² The rate of smoking in each quintile steadily increases as the quintile group is more deprived, as shown in Figure 1, which raises concerns about the effect of the excise on those in poverty.

Cigarette smoking among the Māori population in New Zealand is considerably higher than the European population, at around twice the prevalence (39.7% in 2011/12 for Māori compared to 18.6% for Europeans).²³ While there is a general trend of reducing cigarette smoking, a faster decline in smoking is visible in Europeans than Māori.²⁴ It is worthwhile also noting that the median personal income for Māori is 78.9% of the national median income.²⁵

¹⁸ New Zealand Government, above n 14.

¹⁹ New Zealand Customs Service, above n 16; and above n 17.

²⁰ Customs and Excise Act 1996, Part 7.

²¹ Ministry of Health, Annual Update of Key Results 2014/15: New Zealand Health Survey (Ministry of Health, 2015) vi.

²² Ministry of Health, *The Social Report 2016* (Ministry of Social Development, 2016).

²³ Ministry of Health, *New Zealand Health Survey* (Ministry of Health, 2012).

²⁴ In 2011, the New Zealand Government adopted a 'Smokefree 2025' goal in response to a Parliamentary Inquiry by the Māori Affairs select committee. Research is ongoing to review services that can assist with reducing tobacco use among Māori.

²⁵ Statistics New Zealand, 2013 Census, Personal Income by Ethnic Group,



Figure 1: Percentage of Current Smokers by Quintile Group (2013/14)²⁶

2. Alcohol Excise and Duty

Customs and excise duty collected on alcohol in 2015/16 was \$947 million (New Zealand Government 2016).²⁷ The excise and excise equivalent duty depends on the type of product and the alcohol content of the product. Some of the more common beverage types and their excise rate of taxes are outlined in Table 3. Note that GST is applied on top of the product cost once the excise duty is added. In addition, there is a levy applied on alcohol products called the Health Promotion Agency (HPA) levy and this is also outlined in Table 3. Figures from 2006/07 are included again to show the increase in excise rate over the past ten years.

²⁶ Above, n 23.

²⁷ New Zealand Government, above n 14.

Alcoholic Product	Excise Rate 2006/07	Excise Rate from 1 July 2016	HPA Levy
Low alcohol beer (between 1.15% and 2.5% volume)	34.974 cents/litre	42.65 cents/litre	0.5757 cents/litre
Beer above 2.5% volume	\$23.320/litre of alcohol	\$28.438 per litre alcohol	1.6945 cents / litre
Fortified wine (more than 14% volume)	\$42.472/litre of alcohol	\$51.795/litre of alcohol	6.8014 cents/litre
Unfortified wine, spirits or liqueurs: 9-14% volume	\$2.3320/litre	\$2.8438/litre	3.8043 cents/litre
Spirits or liqueurs: over 14% volume	\$42.472/litre of alcohol	\$51.795/litre of alcohol	6.8014 cents/litre up to 23% volume, then 14.5799 / litre

Table 3: Alcohol Excise Rates (excluding GST)²⁸

There are no excise duties on alcoholic beverages that contain less than 1.15% alcohol. All beer that has greater than 2.5% alcohol by volume is subject to excise duty on a per litre of alcohol basis. All table wine, excluding wine fortified by the addition of spirits, is subject to excise tax on a per litre basis.²⁹

In the opposite pattern to tobacco use, higher proportions of those living in the least deprived areas were reported as drinking alcohol in the past year at 85% as compared to 71% of those living in the most deprived areas.³⁰ However, this reverses when hazardous drinking³¹ patterns are measured, with those living in the least deprived areas less likely (at 14%) to be hazardous drinkers than those living in the most deprived areas (at 23%).³² This suggests that those in deprived areas may be subject to greater excise as a percentage of their overall income.

²⁸ New Zealand Customs Service, above n 16.

²⁹ Personal correspondence from New Zealand Customs Service to [author], 16 November 2016.

³⁰ Ministry of Health, above n 21, 13.

³¹ Hazardous drinking refers to 'an established drinking pattern that carries a risk of harming the drinker's physical or mental health, or having harmful social effects on the drinker or others' (Ibid, 14).

³² Ministry of Health, above n 21, 14.

3. Petroleum Fuels Excise and Duty and Road User Charges

Fuel products are also subject to excise duties. Table 4 provides excise rates on commonly manufactured fuel products. These rates are exclusive of GST.

Table 4: Fuel Excise Duties (excluding GST)³³

Fuel Product	Excise Rate 2006/07	Excise Rate 2015/16
Motor spirits	41.908 per litre ³⁴	59.524 cents per litre + 8 cents per gram of lead

Road user charges also exist. For those driving petrol powered vehicles, this is included in the cost of fuel purchased as outlined in Table 4. For other vehicles, such as light diesel vehicles or heavy vehicles such as trucks, 'road user charges' are paid. In 2015/16, NZ\$1.4 billion was collected in road user charges.

In addition to the abovementioned taxes, there is a 'monitoring levy' on petroleum or engine fuel that is collected by Customs New Zealand. The levy is 0.2 cents per litre and applies to fuels that are specified as motor spirits, diesel, biodiesel and ethyl alcohol. The levy is used for costs associated with fuel-quality and safety monitoring, and costs associated with International Energy Agency obligations and compliance. As noted above, petroleum fuels excise and duty collected \$1.9 billion in 2015/16.³⁵

4. Indirect Taxes Overall

In New Zealand in 2015/16, GST collected just over a quarter of total tax revenue (26.1%), while excise taxes from tobacco collect 2.5%, alcohol excise and duties collect 1.4% and fuel taxes (petroleum fuels excise and duty, and road user charges) collect 4.7%.³⁶ Table 5 shows that in the most recent year, 34.7% of government revenue was collected from taxes, duties and levies relation to consumption, as compared to 29.2% in the year ended 30 June 2007. Table 5 also shows the reduced proportion of tax collected from personal income tax over the decade: from 47.1% in 2007 to 45.3% in 2016. Also visible in Table 5 is the increase in indirect taxes and duties paid – a combined 29% increase in GST and other indirect taxes, and a decrease of 3.8% on personal income tax.

³⁶ Ibid.

³³ New Zealand Customs Service, above n 16.

³⁴ Excise duty in 2006/07 includes the Crown account and the National Land Transport Fund.

³⁵ New Zealand Government, above n 14.

	Y/E 30 June 2007	Y/E 30 June 2016	Change (%)
GST	21.2%	26.1%	+23.11%
Taxes and customs duties on fuel, tobacco and alcohol	8%	8.6%	+6.25%
Personal income tax	47.1%	45.3%	-3.82%
Corporate income tax	18.2%	15.9%	-12.64%

Table 5: Tax collected as a proportion of total tax revenue³⁷

B. Poverty, Inequality and Tax

Poverty is typically measured as the proportion of people living below a certain threshold. Whereas inequality is typically measured as the gap between those who have the most and those who have the least. Inequality can be measured in terms of wealth or income.

There are different ways of measuring poverty. One method commonly adopted internationally is earnings less than 50% of the median income.³⁸ Other ways include measuring income before housing costs, income after deducting housing costs and measures of material wellbeing. These last three measures are used in a recent New Zealand report.³⁹ This report acknowledges that it is the after housing costs income measure that is particularly useful in understanding *'consumption possibilities for households'*, as this measure shows disposable income.⁴⁰ However, tax paid in the form of consumption taxes, excise taxes and duties is a further factor that contributes to consumption possibilities.

Median household income before housing costs has increased across all income deciles in Household Economic Surveys from 2009 to 2015.⁴¹ However, when after housing cost measures are included these increases disappear for low-income households. Those with incomes at the top of the bottom decile have not returned to the same level of the 1980s in real terms.⁴² What is particularly noticeable is the proportion of household income that is spent on housing costs by low-income households: an increase from 29% to 49% on average

³⁷ New Zealand Government, *Financial Statements of the Government of New Zealand for the year ended 30 June 2007* (New Zealand Government, 2007); New Zealand Government, above n 14.

³⁸ This is the method used by the OECD.

³⁹ Ministry of Social Development, *The Material Wellbeing of NZ Households: Overview and key findings from the 2016 Household Incomes Report and the companion report using non-income measures (2016 NIMs Report).* (Ministry of Social Development, 2016).

⁴⁰ Ibid, 6.

⁴¹ Ibid, 11.

⁴² Ibid, 13.

for the bottom quintile from the late 1980s, and an increase from 19% to 32% for the second from bottom quintile.⁴³

Housing expenditure has become a particular problem for households in recent years, as household incomes have not increased at the same rate as housing costs. Housing affordability across all households, measured as the proportion of households where housing costs are at least 30% of disposable household income, increased from 25.3% in 2001 to 28.5% in 2013.⁴⁴

Inequality is well-established in New Zealand. Regardless of whether income or wealth are used as measures of inequality, New Zealand scores around the average of OECD countries.⁴⁵ There are multiple causes suggested for increasing inequality in many jurisdictions. Among other reasons proposed are: erosion of the real minimum wage; increased labour competition from low-wage countries; and unequal distribution of capital income and wages/salaries.⁴⁶ This study is interested in the extent to which the changes to the tax system have the potential to contribute to increasing levels of poverty and inequality in New Zealand, by reducing resources available for consumption by those who are least well off in society.

As observed by the OECD, the focus of much discussion on inequality has been on the top (1% or 5%): 'less well understood is the relative decline of low earners and low-income households – not just the bottom 10% but the lowest 40%'.⁴⁷ This study queries the role of the tax system in exacerbating this issue. Many countries have increased consumption taxes in recent times: these taxes may be preferred by governments as they provide a stable revenue source. Along with increases in consumption taxes, some countries have reduced income taxes. New Zealand has done both. However, as noted at the outset, consumption taxes do not have the capacity to adjust to an individual's capacity to pay in the same way as income taxes. Moreover, recent research has suggested that there is a case to be made for improving progressivity of the income tax system with higher income and wealth taxes.⁴⁸

Inequality in market incomes has increased in recent periods. Market income is income from wages and salaries, as well as self-employment and returns on investment.⁴⁹ Using the Gini

⁴³ Ibid.

⁴⁴ Statistics New Zealand, customised report and licensed by Statistics NZ for re-use under the Creative Commons Attribution 3.0 New Zealand licence.

⁴⁵ Bryan Perry, 2013 Household Incomes Report – Key Findings (Ministry of Social Development, 2013).

⁴⁶ Organisation for Economic Cooperation and Development, *Growing Unequal? Income distribution and poverty in OECD Countries* (OECD Publishing, 2008); R M Solow, 'Thomas Piketty is Right: Everything you need to know about "Capital in the Twenty-First Century" (April 22 2014) *New Republic.*

⁴⁷ Organisation for Economic Cooperation and Development, above n 3, 15.

⁴⁸ John Hatgioannides, Marika Karanassou and Hector Sala, 'Should the Rich be Taxed More? The fiscal inequality coefficient' (Discussion Paper, IZA Institute of Labor Economics, IZA DP No 10978, August 2017).

⁴⁹ Omar Aziz, Matthew Gibbons, Chris Ball and Emma Gorman 'The Effect on Household Income of Government Taxation and Expenditure in 1988, 1998, 2007 and 2010' (2012) 8(1) *Policy Quarterly* 29.

coefficient measure, this increased from 0.42 in 1988 to 0.52 in 2010.⁵⁰ Recent research from Hazledine and Rashbrooke shows the increase in wealth held by the richest 0.01% of New Zealanders rose from 6% of gross domestic product in 1996 to more than 21% by 2015.⁵¹ Hazledine and Rashbrooke also report that this wealth inequality is forecast to persist across multiple generations. The absence of capital gains or other wealth taxes in New Zealand is likely to contribute to this result, as the absence of wealth taxes minimises opportunities for redistribution.

Recent research suggests that inequality is increasing in New Zealand – and particularly so for Māori and Pacific people.⁵² A range of measures from health and education through to housing affordability and social connectedness show increasing gaps between Māori and Pacific people, when compared to the European population.⁵³ Performance gaps are evident in: school retention rates, which are 67.9% for Māori students, as compared to 82.5% for all students; higher rates of Māori youth not in education, employment or training, at 23.2% for Māori youth, compared to 11.4% for European youth; and lower levels of school leavers achieving the university entrance standard, at 26.8% for Māori youth as compared to 49% for all school leavers.⁵⁴

As noted in the introduction to this article, it is not uncommon to see media headlines suggesting that it is only the highest income earners who contribute to the tax base. In September 2016, the New Zealand Acting Finance Minister announced data 'showing' increased income redistribution across New Zealand's income tax system.⁵⁵ The data reported an increase in the top 10% of households' proportion of tax payment from 35.5% in 2007/08 to 37.2% in 2016/17. While this only takes into account income tax and does not include all other forms of taxes such as consumption taxes or excise taxes, the figures also do not acknowledge that the increased redistribution is largely due to the increasing retired population in New Zealand. The cost of New Zealand Superannuation accounted for 81% of the increased redistribution, with a further 19% resulting from other benefits, including accommodation supplements. New Zealand Superannuation payments increase as people live longer in their retirement, the opportunity to redistribute more to the poorest in society is diminished. Transfers, such as Working for Families, which are based on need,

⁵⁰ Ibid.

⁵¹ Tim Hazledine and Max Rashbrooke, 'The New Zealand Rich List Twenty Years On' (2017) New Zealand Economic Papers 1.

⁵² Lisa Marriott and Dalice Sim, 'Indicators of Inequality for Māori and Pacific People' (2015) 20 New Zealand Studies 24.

⁵³ Bryan Perry, *Household Incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2012* (Ministry of Social Development, 2013); Marriott and Sim, above n 52.

⁵⁴ Marriott and Sim, above n 52.

⁵⁵ Steven Joyce, *Significant Income Redistribution After Tax Reforms* (6 September 2016) Beehive https://www.beehive.govt.nz/release/significant-income-redistribution-after-tax-reforms-0.

reduced slightly over the ten year period: \$1.224 billion in 2016/17 from \$1.226 billion in 2007/08.

Aziz, Gibbons, Ball and Gorman assess the effect on household income of government tax and spending changes in (among other years) 2007 and 2010.⁵⁶ The study reports that 'on average, households in higher income deciles pay a higher level and proportion of indirect tax than lower income households'.⁵⁷ It is not unexpected that higher income households will pay a higher level or proportion of the excise duties. Those who earn more have a greater capacity to purchase goods and services and will therefore be paying more taxes and duties. However, it is arguably of more interest to know how much is paid as a proportion of income, which would better reflect individuals' or households' ability to pay.

Of relevance to this study is research by Apps and Rees suggesting that it is preferable to raise top income tax rates, rather than GST.⁵⁸ Apps and Rees note that the *'direct, regressive effects of such GST changes are well understood'* and argue that the concessions made to compensate low-income households from an increase in GST exacerbate regressive distributional effects and generate *'serious losses of economic efficiency'*.⁵⁹ This loss of efficiency results as increasing the rate of GST will need to include measures to compensate low-income households that will, in turn, result in increased income tax rates across middle-income taxpayers.⁶⁰ Thus, Apps and Rees argue that expanding GST continues a move away from taxing the highest income earners towards middle-income earners.

The impacts of inequality are well-established across social, economic and political spheres.⁶¹ As noted by the OECD, factors such as income inequality pulls down growth and it is the growing gap between the lowest 40% and the rest of society that accounts for this effect.⁶²

This section has discussed poverty and inequality, while acknowledging that they capture different measurements. Increases in poverty can impact on inequality: to the extent that larger numbers of people are living on less, then inequality figures are likely to increase. The tax system has a role to play here, as the tax system removes resources from people. The tax system can also return resources to people through the transfer system, such as the Working for Families package.

⁵⁶ Aziz et al, above n 49.

⁵⁷ Ibid, 35.

⁵⁸ Apps and Rees, above n 12.

⁵⁹ Ibid, 1.

⁶⁰ Ibid, 12.

⁶¹ Above n 2.

⁶² Organisation for Economic Cooperation and Development, above n 3, 3.

III. DATA AND RESEARCH QUESTIONS

The following section provides some more detail on the data used in this study. It outlines the data used and acknowledges the limitations of the study. Research questions are also outlined in this section.

A. Data

Data used in this study was collected by Statistics New Zealand for the New Zealand Household Economic Survey. This survey collects detailed information on expenditure patterns and income from 4,700 New Zealand households. The full Household Economic Survey is run every three years, where information is collected on expenditure and income. The survey collects household expenditure data, rather than individual expenditure information.

Expenditure is captured from an expenditure diary that is kept for two weeks during which time the respondent is asked to record all expenditure, regardless of whether that expenditure is one-off or recurring. In addition to capturing data on income and expenditure, demographic data, such as ethnicity, qualifications and household type is also measured.

This study is interested in excise taxes and duties paid by lower-income households in New Zealand. It was not possible to get a detailed breakdown of GST paid by households.⁶³ However, for the purposes of context, it is important to note that the comprehensive GST in New Zealand means that almost all expenditure items are subject to GST. Under the *Goods and Services Tax Act 1985*, a small number of specified items will be either zero-rated or exempt supplies for the purposes of GST.⁶⁴ The main exempt supplies in New Zealand are: the supply of financial services; the supply of donated goods and services by a non-profit entity; and the supply of residential accommodation.⁶⁵ The primary supplies that are zero-rated in New Zealand are: the supply of international travel services; overseas postal services; and services provided outside New Zealand.⁶⁶

GST is charged on top of the cost of the good or service in the items investigated in this study (tobacco products, fuel, and alcohol), i.e., on top of excise taxes and duties. Appendix I provides a more detailed outline of the impact of GST on the main expenditure categories collected in the Household Economic Survey.

⁶³ Official Information Act requests were made to the New Zealand Treasury, Inland Revenue and Statistics New Zealand requesting data on GST paid by household or individual. However, all agencies advised that they could not provide this information.

⁶⁴ *Goods and Services Tax Act*, ss 11 and 14.

⁶⁵ Goods and Services Tax Act, s 14(1)(a), (b) and (cb).

⁶⁶ Goods and Services Tax Act, s 11A(b), (g) and (j).

1. Exclusions and Limitations

The study uses 'income' data, rather than earning data, that is, groups are categorised by income deciles. Income data includes traditional earnings, as well as other government transfers such as welfare benefits, pensions and the Working for Families package.

One of the known problems with using sample surveys is that very high income households are under-represented.⁶⁷ A further identified issue is that different surveys can report different numbers of very high-income households and the size of their reported incomes can vary considerably.⁶⁸ Moreover, the sample excludes those who are not living in private dwellings as traditionally defined. Therefore, people who are homeless, living in motels, hostels, caravan parks or in rest homes are excluded.

The use of income or expenditure measures of poverty has been criticised for a number of potential identification problems, including: misreporting of income due to fluctuations; non-market transactions; and behaviours that are driven by tax rates, for example, in New Zealand there is a spike in the number of people earning the amount just below the top marginal tax threshold of \$70,000. However, the use of detailed expenditure information combined with annual income information overcomes many of these issues.

It is acknowledged that the approach adopted herein does not take into account other benefits that may be received by low-income earners, such as reduced health care costs. A further factor that is not captured in the data is capital gains. In New Zealand these are not taxable and therefore are not included in taxable income. The result of this is that the analysis assesses income and expenditure, and does not capture wealth gains.

A limitation of this study is that the survey data is not reported by individuals. However, as the data represents the actual living arrangements that individuals are adopting, this is likely to be a more accurate representation of ability to spend or save than assessing individuals in isolation.

2. Research Questions

Lower income earners are likely to spend most or all of their income, as compared to higher income earners who are likely to save at least some of their income. Economists argue that analysis based on current income does not take into account *'the fact that the income that is saved by households in the current period will still be spent, and thereby incur GST in the future'*.⁶⁹ Notwithstanding the assumption that saved income will be spent in the future, the primary focus of this study is the short-term impact of tax changes on disposable income, as for low income earners the short-term can be more critical to their existence.

⁶⁷ Ministry of Social Development, above n 39.

⁶⁸ Ibid.

⁶⁹ Alastair Thomas, 'The Distributional Effects of Consumption Taxes in New Zealand' (Working Papers in Public Finance, 08/2015, Victoria University of Wellington, July 2015) 7.

The research questions addressed in this study are:

- 1 What do decile groups pay in excise and indirect taxes as a proportion of their expenditure and income?
- 2 How accurate were the claims made about the impact of the 2010 tax changes in New Zealand?
- 3 Do those in the lowest deciles pay a higher proportion of their income in excise taxes and duties than those in the highest deciles?

B. Spending on Alcohol, Tobacco and Fuel

This section addresses research questions one and three: what do decile groups pay in excise and indirect taxes as a proportion of their expenditure and income; and do those in the lower deciles pay a higher proportion of their income in excise taxes and duties than those in the highest deciles. Data was provided by Statistics New Zealand from the 2015/16 Household Economic Survey allowing analysis of some of the current spending patterns in New Zealand. The data are outlined in Table 6.

Decile Band Alcohol		Tobacco		Petrol and diesel		
	% of total spend	Amount of spend	% of total spend	Amount of spend	% of total spend	Amount of spend
Under \$23,800	3%	\$388.40	4%	\$192.10	5%	\$1,201.40
\$23,800 - \$35,699	4%	\$428.80	4%	\$199.10	5%	\$1,102.40
\$35,700-\$47,499	5%	\$617.00	9%	\$401.80	7%	\$1,532.30
\$47,500-\$62,199	6%	\$683.30	10%	\$478.30	8%	\$1,825.00
\$62,200-\$76,999	9%	\$1,069.80	11%	\$482.80	10%	\$2,329.00
\$77,000-\$93,599	9%	\$1,035.10	12%	\$537.40	10%	\$2,321.70
\$93,600-\$111,699	10%	\$1,212.30	13%	\$599.50	12%	\$2,854.80
\$111,700-\$136,599	13%	\$1,453.00	18%	\$847.20	13%	\$3,103.50
\$136,600-\$180,199	16%	\$1,862.50	12%	\$533.50	14%	\$3,246.80
Above \$180,200	24%	\$2,825.70	7%	\$324.50	15%	\$3,548.10

Table 6: Purchases by Income Decile Group in	n New Zealand (2015/16) - Pe	ercentage of
total spend and amount of spend ⁷⁰		

⁷⁰ Data provided by Statistics New Zealand on request.

Table 6 shows that the proportion of spending on alcohol increases steadily as incomes increase. It is likely that this reflects increased quality of consumption as income increases, rather than solely increased quantity. Research from the Ministry of Health reports higher proportions of alcohol drinkers in the least deprived areas, but hazardous drinkers are more likely to be living in the most deprived areas.⁷¹ Therefore, the relationship between quality and quantity is difficult to infer from the data outlined above.

Figures on tobacco expenditure are also outlined in Table 6. This shows an unusual pattern, whereby the proportion of total tobacco expenditure increases from deciles one to eight, and then decreases in deciles nine and ten. This was unexpected as it is the lower decile groups that are reported by the Ministry of Health as having the highest level of tobacco usage, in which case the expected pattern of expenditure on tobacco would be highest in the low income decile groups and this would decline as the decile groups' incomes increase.⁷² However, the definition of a 'smoker' used in the Ministry of Health statistics is an adult who smokes at least once a month,⁷³ which means that lower income groups may have higher numbers of smokers who smoke fewer cigarettes than higher income groups. It is also possible that there may be some other source for tobacco for lower income groups, such as purchases of black-market tobacco.

Table 6 also provides detail on expenditure on petrol and diesel as another spending category that attracts a high level of excise tax and duty in New Zealand. A similar pattern to alcohol is visible for this expenditure type, whereby the proportion of the total spend increases in higher income groups.

Decile Band	Alcohol	Tobacco	Petrol and diesel
Under \$23,800	3%	1.6%	10%
\$23,800 - \$35,699	1%	0.7%	4%
\$35,700-\$47,499	1%	1%	4%
\$47,500-\$62,199	1%	0.9%	3%
\$62,200-\$76,999	2%	0.7%	3%
\$77,000-\$93,599	1%	0.6%	3%

Table 7: Purchases by Income Decile Group in New Zealand (2015/16) – Percentage of income⁷⁴

⁷¹ Ministry of Health, above n 21.

⁷² Ministry of Health, above n 22.

⁷³ Ministry of Health, above n 21.

⁷⁴ Data provided by Statistics New Zealand on request.

\$93,600-\$111,699	1%	0.6%	3%
\$111,700-\$136,599	1%	0.7%	2%
\$136,600-\$180,199	1%	0.3%	2%
Above \$180,200	2%	0.2%	2%

Taking the mid-point of the salary decile band, Table 7 shows the percentage spent on alcohol, tobacco and fuel, as a proportion of income. Spending in all decile groups on alcoholic products is between 1% and 3% of the mid-point salary in the decile band, with the highest expenditure as a percentage of salary occurring in the lowest income group. A similar pattern is seen with tobacco where the highest expenditure as a percentage of salary on tobacco was in the lowest income group. Also similar to alcohol and tobacco is the proportion of salary spent on petrol and diesel, which decreases as incomes increase, with a significantly higher proportion of income spent on fuels in the lowest income group.

The most significant expenditure category is fuel, which perhaps is not surprising. Alcohol and tobacco are both discretionary expenditures for many people. It may also be possible to trade-off the quality of consumption or to purchase these products on a black market. However, there are limited alternative options for fuel and often expenditure on this item is less discretionary. The patterns of expenditure by decile group are also provided in Figure 2 for each of the three categories discussed herein.



Figure 2: Expenditure by Income Decile Group on Alcoholic Products, Tobacco and Fuel (2016) – Percentage of Income⁷⁵

⁷⁵ Data provided by Statistics New Zealand on request.

Statistics New Zealand also provided data on the total expenditure by decile group. This is outlined in Figure 3. Figure 3 shows that only the lowest decile group, on average, spends more than their income, spending on average nearly two and a half times their income. This pattern may be facilitated by debt or with financial assistance from other sources, such as family. In addition, some tertiary students will be included in this category, who may be funding their studies and expenditure through loans in the short-term, with the expectation of income growth when they join the workforce. With the exception of the top decile, there is a general downward trend of expenditure as a proportion of income.



Figure 3: Expenditure by Income Decile Group (Percentage of Income) (2016)

It is also relevant to observe again that the majority of expenditure in New Zealand is subject to GST. The primary expenditure categories that are not subject to GST and are likely to be incurred regularly by many people are residential property and financial services. The data in Figure 3 indicates that lower income earners, who are spending higher proportions of their income, are also likely to be paying a higher proportion of their income in GST. However, as noted previously, detailed data to examine this further is not available at the present time.

In relation to research questions one and three, the data outlined above shows that the lower income decile groups pay the lowest absolute amounts of indirect taxes and duties on alcohol, tobacco and fuels. However, as a proportion of income, the lowest decile groups pay the highest relative amounts of indirect taxes and duties on these three product groups.

C. A Challenge to Claims

This section addresses research question two: how accurate were the claims made about the impact of the 2010 tax changes. When the budget reforms were announced the claim was made that *'the Government has made it clear that it would not increase the rate of GST unless it would benefit the New Zealand economy in the long term and unless it saw the vast bulk of New Zealanders better off*^{7.76} Four case studies were presented to illustrate the various changes on groups of people, and to show the impacts of the changes on people. These four examples are outlined in Table 8.

Scenario	Suggested changes as per press release
(1) Married couple. One earns salary of \$50,000 per annum. One earns salary of \$26,000 per annum. Two children under the age of 13. Mortgage payments of \$300 per week.	Tax cut of \$45.85/week. Pay an extra \$21.14 in GST/week. Net gain \$24.71/week.
(2) Retired couple. Receiving New Zealand Superannuation (NZS). Own their house.	Tax cut of \$11.52/week. Increase in NZS of \$10.12/week. Pay an extra \$10.87 in GST/week. Net gain \$10.77/week.
(3) Single person. Salary \$50,000 per annum. Rent expense of \$120 per week. Saving \$50 per week.	Tax cut \$29.42/week. Pays \$13.51 more in GST/week. Net gain \$15.91/week.
(4) High income couple. Salary \$150,000 per annum each. Own 10 investment properties valued at \$6.5 million. Rents private a return of \$769.34 per week 'over and above interest and maintenance costs'.	Combined personal tax cut of \$235.76 a week. Tax increases by \$253.84 per week (as can no longer claim depreciation as expenses). Pay \$89.39 more each week in GST if they continue to spend all of their after-tax income. Net loss \$107.47.

Table 8: Case Studies Illustrating the Impact of Tax Changes on Groups⁷⁷

All the scenarios include components that result in a situation whereby the lower income individuals appear better off and the higher income individuals appear worse off. For example, in scenario one, in the absence of the inclusion of the non-GST attracting expense of \$300 per week (around one-third of the net income of this hypothetical couple) this couple

⁷⁶ New Zealand Treasury, *Reform of the Tax System* (New Zealand Treasury, 2010).

⁷⁷ Minister of Finance, 'Minister's Executive Summary 2010: Reform of the Tax System', 30 October 2016.

would have a gain of around \$13 a week under the tax reforms. In scenario three, again the inclusion of the non-GST attracting items such as savings and rent distorts the analysis.

It is scenario four that is particularly distorting in its presentation. The tax reforms removed the ability to claim depreciation on non-depreciating assets such as houses. Therefore, property investors who could previously claim depreciation deductions on their investment properties for tax purposes, were no longer able to do so. However, the advantage gained by property investors was only a timing benefit. The depreciation would be returned as depreciation recovery income when the property was sold, assuming that a gain was made on disposal.

The analysis in scenario four also ignores any capital gains on these properties, which are not taxable in New Zealand.⁷⁸ The scenario has asset values of \$6.5 million. Taking into account typical gains on property in recent times, capital gains are likely to be in the order of \$3 million on these properties, none of which is subject to tax.

Scenario four also assumes that this couple spends all of their after-tax income – or \$107,570 per annum *each* in order to create a situation where the tax paid increases. This may be reasonable for a low-income earner but, as shown in Figure 3, is not the case for a household with a gross income of \$300,000. What the scenario provided also does not clearly show is that *each* person would pay \$6,130 less in income tax per annum. Perhaps the distortion of the examples is most evident in the assumption that the lower-income households are able to save, whereby the higher-income household is not (as savings are not subject to GST).

While it is certainly possible that the majority of households or individuals were not worse off from the tax changes in 2010, given the data in section four it is unlikely the tax reforms either increased fairness of the tax system or assisted with inequality in New Zealand.

D. Need for Greater Information and/or Analysis

There are good sources of data collected in New Zealand by government agencies. However, these are not always readily available to academics. There are often good reasons for this. In a small country, anonymity is important and in order to facilitate the collection of high quality data, a high degree of control of this data is necessary. At the present time, much of the data collected in government surveys can only be accessed through a small number of data laboratory sites. Academics are charged for access (e.g. a \$500 application fee to get a project approved). Further charges may be made by Statistics New Zealand when data is checked on removal from the laboratory.

⁷⁸ Significant capital gains on real estate have been made in New Zealand in recent times. For example, the average house price value in Auckland in May 2013 was NZ \$631,000. The average house price value in Auckland in May 2017, four years later, was NZ \$1,044,000 – an increase of 65%. Gains on property that is either the family home or is held for a period greater than two years are not subject to tax on disposal (s CB 6A *Income Tax Act 2007*).

As noted above, requests were made by the author for access to government data for this study. The data that was provided is outlined and discussed in section four of this study. A charge was made for compiling this data for the author. Other data was not able to be compiled, such as data on GST paid by decile groups. It is suggested that this data is important in order to comprehensively analyse the tax burden of all taxes on the poorest groups in society.

The collection of data by government agencies such as that collected in the Household Economic Survey provide important repositories of valuable information. However, to the extent that they are not fully utilised to contribute to the policy debate means that their potential value is diluted. In the case of this study, the full impacts of the tax changes in 2010 and, in particular, the impacts of GST on consumption made, and concomitant GST paid, by lower income earning households has received no official analysis. This study suggests that there is a role for Statistics New Zealand to engage in greater analysis of data collected, and in particular to analyse this data to assess the outcomes of policy changes.

IV. CONCLUSION

This study has provided an insight into the higher proportions of excise taxes and duties paid by lower-income deciles on alcohol, tobacco and fuel. The study shows that the highest proportions of excise taxes and duties paid on alcohol, tobacco and fuels are paid by the lowest-income groups. The article has also challenged the claims made by the government in relation to tax changes made in 2010 that increased consumption taxes and reduced income taxes. The examples used to support the changes used artificial arrangements to suggest that lower-income households would be better off than higher-income households under the changes made. However, the groups that had the greatest gain from the 2010 reforms were higher income earners. Finally, the study makes a call for greater information provision of data collected by government agencies, or alternatively for greater analysis of this information by the government agencies, in order that data collected can be fully utilised and used to generate more informed policy discussions, as it is only with the availability of such data we can fully appreciate how tax changes are affecting those in our society who are less well off – remembering that if the poor are better off, society as a whole benefits.

APPENDIX I: GST	AND	EXPENDIT	URE CAT	FEGORIES
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Expenditure Category		
Food	Subject to GST	
Alcoholic beverages, tobacco and illicit drugs	Subject to excise taxes and GST	
Clothing and footwear	Subject to GST, unless purchased second-hand from a not-for-profit entity, where the item was donated	
Housing and housing utilities	No GST on rental costs for residential housing or mortgage principal repayments	
Household contents and services	Subject to GST, unless purchased second-hand from a not-for-profit entity, where the item was donated	
Health	Subject to GST	
Transport	No GST on international travel Excise taxes and GST apply to fuel	
Communication	Subject to GST	
Recreation and culture	Subject to GST, unless purchased second-hand from a not-for-profit entity, where the item was donated	
Education	Subject to GST	
Miscellaneous goods and services	Subject to GST except for: Life insurance Overseas travel insurance Financial services	
Other expenditure	No GST on financial services or expenditure overseas (note there is no spending in category 12)	
Sales, trade-ins and refunds	Subject to GST, unless purchased second-hand from a not-for-profit entity, where the item was donated	