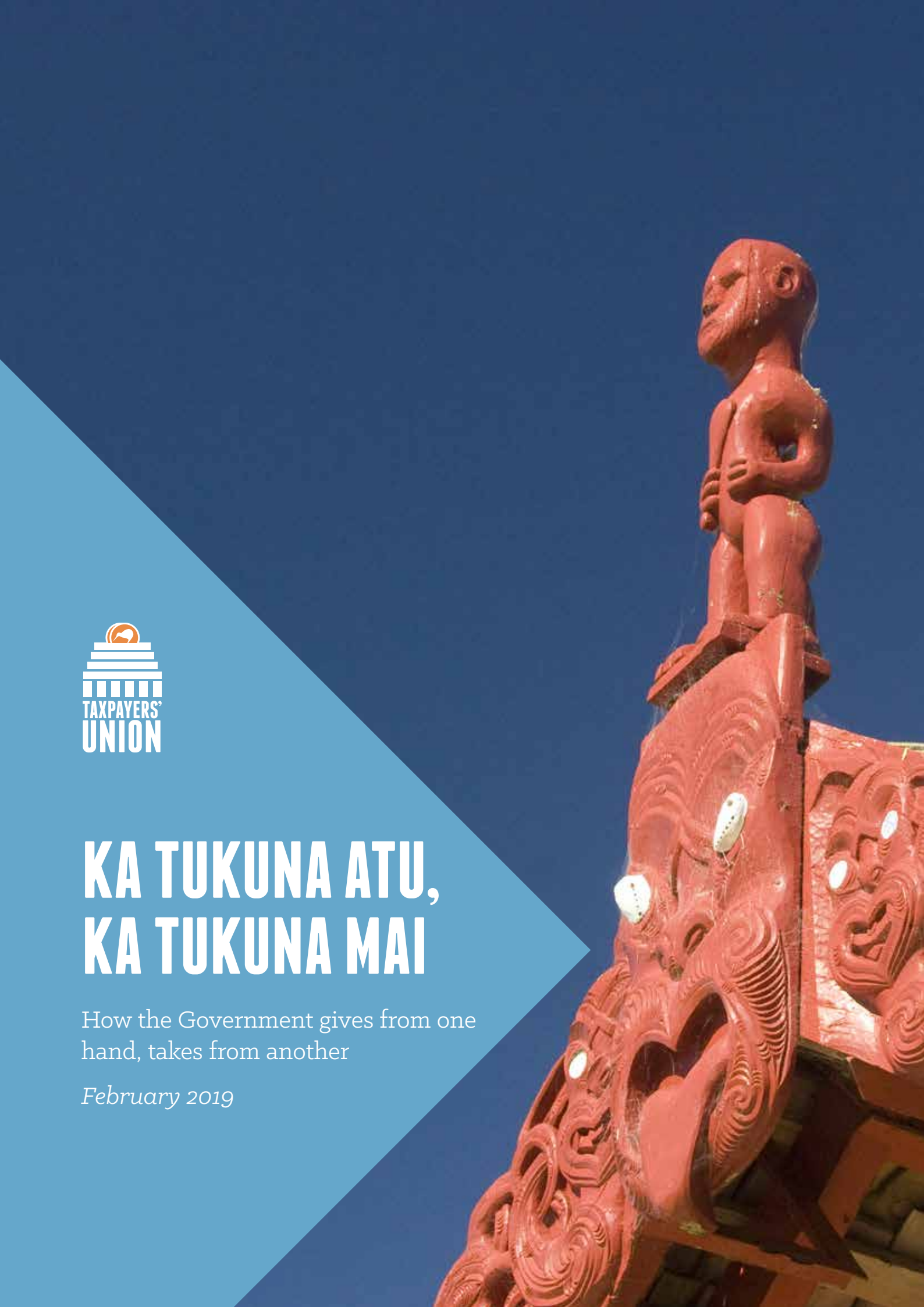


TAXPAYERS' UNION

KA TUKUNA ATU, KA TUKUNA MAI

How the Government gives from one hand, takes from another

February 2019

INTRODUCTION

When adjusted for average incomes, New Zealanders pay the highest rate of tobacco excise in the OECD.

At the same time, tobacco tax hikes have not caused a significant reduction in smoking rates.

Increasing tobacco excise will further burden families with tax and cause more social harm in the form of crime. At the same time, it's unlikely that further excise increases would have a substantial impact on smoking prevalence.

Maori take on a disproportionate share of the tobacco excise burden. The annual cost of tobacco tax to Maori is approximately $120 million more than the combined annual budget of the entire Vote Maori Development portfolio and the average annual amount spent on Treaty Settlements. This gap between direct social spending and the burden of tobacco excise should be expected to increase in coming years due to further increases in tobacco excise.

While the Government's recent Provincial Growth Fund spending announcements put pressure on this gap in spending, it fails to acknowledge the serious financial harm of tobacco excise.

According to modelling from public health researchers at the University of Otago, even 20 percent annual increases in excise from 2015 would not reach the 2025 Smokefree (less than five percent smoking prevalence by 2025) until 2034: missing the target by nine years.

If the Government wishes to meet its Smokefree 2025 target it will need to pursue alternative policies.

This should include reconsidering the tax and regulatory treatment of alternative nicotine products, including vaping, snus, and heat-not-burn products.

Excise should be determined by the relative risk and harm of the product subject to tax. Overtaxing nicotine products with reduced levels of harm is likely to prevent current smokers from moving on to these reduced harm products.

There is evidence that some of these products have significantly reduced risks compared to traditional smoked tobacco, while other products still need more testing before their health risks can be compared to tobacco.

Adopting an evidence-based approach where excise is adjusted according to objective health risks would make it easier for people to quit when reduced-

harm products are released, but also provide strong incentives for producers to limit the risk of their products and invest in R&D to make existing products safer.

The Government could adopt a variety of different systems for risk-weighting of excise, but the simplest approach would be to categorise products according to approximate risk in order to limit compliance costs.

As approximate risks for products fall, the Government could then change the excise rate that applies to each

category, or create new categories as required. This would maintain the incentive on producers to innovate new or existing products to reduce their health risks even further.

The current regime of significant excise increases coupled with restrictions on the advertising of alternative products is failing to deliver significant reductions in smoking prevalence. The Government should abandon significant excise increases, adjust excise rates according to product health risks, and improve the availability of health information.

TOBACCO EXCISE AND MĀORI

While the Government spends significant amounts of money meeting its historical obligations to Maori and seeking to repair economic and social deprivation in Maori communities, the current and future cost of tobacco excise alone outstrips any direct social spending.

Since 1993, the Government has spent $2.24 billion meeting Treaty Settlement obligations[1] - equivalent to $89.6 million per year, while Vote Māori Development (which includes Te Puni Kokiri and Whanau Ora) is scheduled to receive $316 million in the 18/19 FY, falling to $301 million by 2022[2]: an annual average budget of approximately $400 million.

The cost to Maori of tobacco taxes is much higher and will grow.

The latest data from the Ministry of Health indicates 33.5 percent of adult Māori (15 or older) smoke, compared to an adult population prevalence of 14.9 percent[3].

The Government collects $1.8 billion in tobacco excise annually. With population size and smoking prevalence data we can calculate that – assuming Māori who smoke consume similar levels of tobacco to smokers of other ethnicities – Māori have an annual tobacco excise tax burden of $519.1 million. This is approximately $120 million higher per year than the combined average value of Treaty Settlements and Vote Maori Development spending or approximately 5.8 times the annual average value of Treaty Settlements.

The Māori share of the population[4] is expected to grow, which could cause the share of the tobacco tax burden on Maori to grow. At the same time, while tobacco-use prevalence is expected to fall (both due to tobacco excise increases and other factors), excise revenue is expected to gradually increase – reaching $2.2 billion by 2021[5]. The result: the total annual cost of tobacco excise to Maori should be expected to grow in coming years, causing the gap between extractive tobacco taxes and targeted social spending to blow out even further.

It should be noted that this assumes prevalence elasticity is approximately equal across ethnicities (i.e. tobacco taxes are ethnicity neutral in their percentage effectiveness).

Some previous modelling chooses to reject this assumption, but the evidence is limited. Van der Deen, Wilson, and Blakely (2016)[6] cite Grace, Kivell, and Laugesen (2015)[7], but Grace et al. (2015) openly acknowledge that based on the income characteristics of their sample, the results are not conclusive.

Van der Deen et al. (2016) also cite evidence that low-income individuals face higher price-elasticities for other products, but a review of the wider literature indicates these effects are mixed at best[8].

However, even if income is a factor in determining tobacco price-elasticity, any income heterogeneity between ethnicities may disappear or become small when conditioned on smoking status (i.e. the difference in average incomes between Maori and Pakeha

smokers may be much smaller than Maori and Pakeha generally), causing tobacco taxes to have little effect on excise incidence by ethnicity.

Finally, even if there is a slightly increased income elasticity of demand, revenue and population may outstrip or significantly blunt these effects, causing Maori to continue to pay far more than they receive in direct social spending or reparations.

Like other communities, there could be significant benefits to Maori from de-regulating the supply of smokeless tobacco products – albeit on a much larger scale.

Smokeless tobacco is receiving increased support in Māori communities. Hapai Te Hauora said on January 1 2019[9], "Hāpai Te Hauora are working to understand the vaping environment and has been working with Vape Vendors around New Zealand who are self-regulating to ensure good ethical practice is in place."

ADJUSTING EXCISE FOR INCOME

Income-adjusted tobacco tax in New Zealand is the highest in the OECD[10,11].

Tax on a pack of cigarettes is equivalent to 1.5 percent of the average weekly income of New Zealanders: more than twice Canada's income-adjusted tobacco excise burden and six-times the burden in the United States.

For smokers, this will come as no surprise. In our report Up in Smoke we calculated that a pack-a-day smoker is worse off by nearly $3000 a year in real terms compared to 2010 when the Government began significantly increasing tobacco excise.

In May, Statistics New Zealand published data showing that tobacco excise was disproportionately responsible for causing inflation in the March 2018 quarter[12]. Further, it was confirmed that low-income households were facing significantly larger increases in their cost of living compared to wealthier households due to tobacco excise increases.

While tobacco excise might punish low income communities, the Government currently receives $1.7 billion per year in excise[13] – equivalent to 13 percent of total company tax receipts. If planned increases in tobacco excise go ahead, this is expected to grow to $2.2 billion by 2021. That imposes a significant financial incentive on the Government to maintain this revenue stream, particularly in the presence of international economic risks putting compliance with the Budget Responsibility Rules at risk.

Even much higher rates of tobacco excise would fail to deliver the Smokefree 2025 target of less than five percent smoking prevalence. Cobiac et al. (2014) estimate that even 20 percent annual increases in tobacco excise from 2015 would only deliver the less than five percent prevalence target in 2034. Increases in tobacco excise over the period 2015 through 2018 have only been 10 percent per annum, which would require waiting until 2039 to meet the target, if excise was increased at that rate every year.

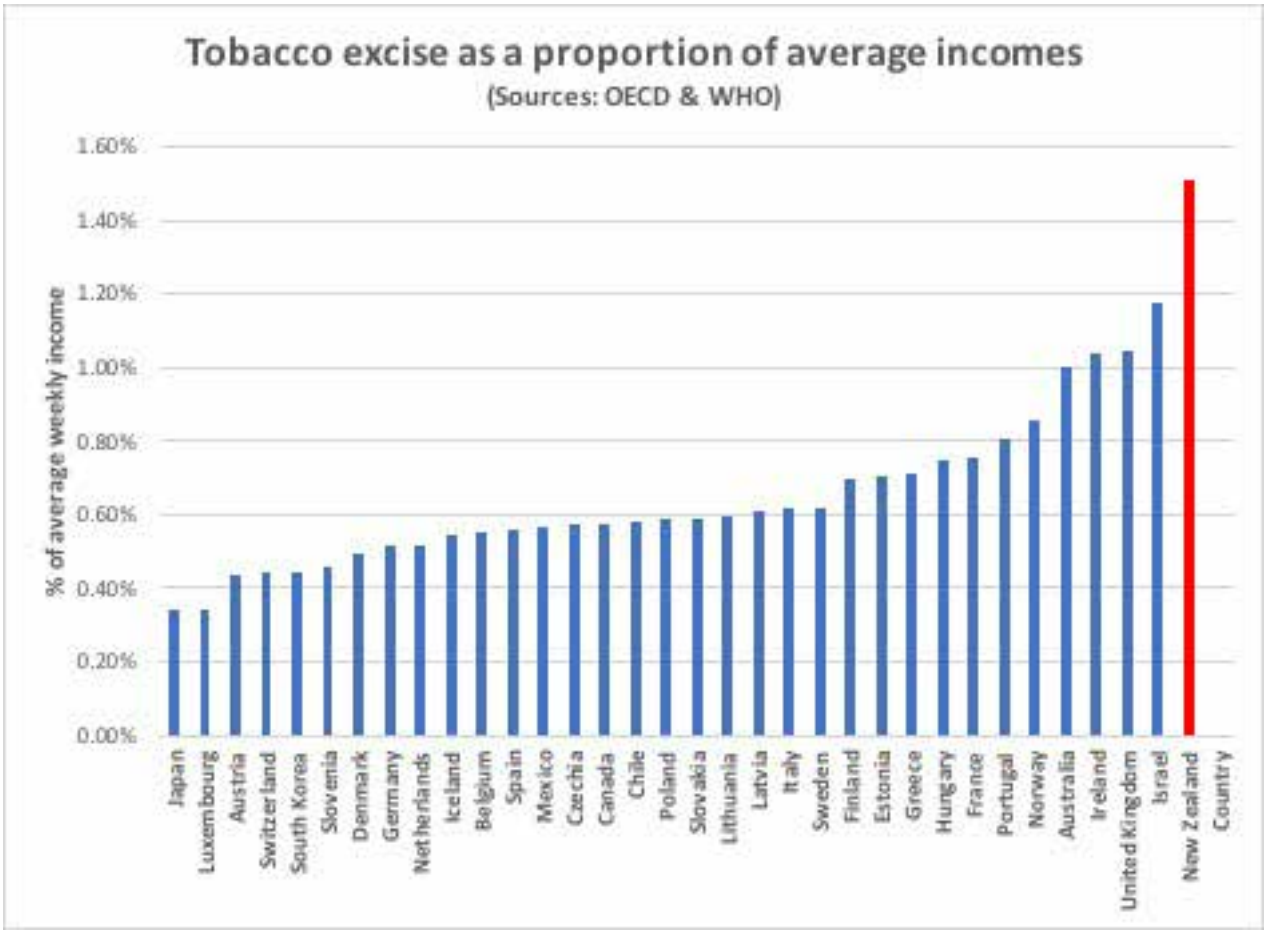
Adopting that strategy would cause the income-adjusted rate of tobacco excise to explode even further.

If the Government continues with 10 percent annual tobacco excise increases, tax on a single pack of cigarettes will grow to 11.5 percent of the median wage (assuming income growth 1.5 percent per annum) by 2039 - when public health researchers expect the country would meet the 2025 target.

If income tax rates are only adjusted for inflation and not growth in average earnings, a median income earner can expect to earn $1362.95 per week in gross income.

If they smoke half-a-pack of cigarettes per day, after excise and income tax, they can expect to have $517.45 left to spend on everything else, including rent, groceries and any saving for the future.

That's not financially sustainable - especially for the 50 percent of income earners earning below the median. The Government will be required to eventually abandon ten percent annual increases in tobacco excise, putting the Smokefree 2025 target completely beyond reach unless alternative policies are developed.


Tobacco excise as a proportion of average incomes
(Sources: OECD & WHO)
% of average weekly income
1.60%
1.40%
1.20%
1.00%
0.80%
0.60%
0.40%
0.20%
0.00%
Japan
Luxembourg
Austria
Switzerland
South Korea
Slovenia
Denmark
Germany
Netherlands
Iceland
Belgium
Spain
Mexico
Czechia
Canada
Chile
Poland
Slovakia
Lithuania
Latvia
Italy
Sweden
Finland
Estonia
Greece
Hungary
France
Portugal
Norway
Australia
Ireland
United Kingdom
Israel
New Zealand
Country

MOVING TO ALTERNATIVES

Heavy-handed increases in tobacco excise have been widely acknowledged as a social policy failure. Excise increases have been accompanied by strong increases in burglaries and robberies and are expected to fail to deliver Smokefree 2025 targets. Further burdening low income families with excise hikes would be a blunt – and financially damaging – public health instrument.

There are an increasing number of alternative nicotine delivery systems available on the market that offer a reduced harm profile. E-cigarettes, snus, and heat-not-burn products have each been shown to be useful in aiding the cessation of smoking.

Smokers are increasingly aware of these products, but lack good information on their specific health risks and product characteristics.

An e-cigarette is an electronic device which heats liquid containing nicotine in order to produce a vapour which is inhaled. E-cigarettes have been estimated as 95 percent less harmful[14] than conventional cigarettes and with 0.5 percent of the cancer risk.

Despite those statistics, perceptions surveys indicate that a "sizeable minority inaccurately [judge] them to be more harmful."[15] Many more presume they are as harmful as conventional cigarettes.

While e-cigarettes are not subject to excise (as they contain nicotine, but no tobacco) they do face other legal constraints. E-cigarettes are regulated under the Smokefree Environments Act 1990 which means they face the same advertising regulations that apply to cigarettes, cigars, and other tobacco products. This prevents e-cigarette retailers, producers, or third party groups providing objective health statistics to market their products.

Snus is hydrated packaged tobacco placed under the lip of the consumer. The nicotine is then ingested into the individual's system, with reduced health effects compared to smoking. While in Sweden snus is widely used (in 2015, 4 percent of women and 19 percent of men were estimated to be users of snus)[16], it is not popular in other jurisdictions[17].

Lee (2013)[18] finds that consumers who switch to snus from cigarettes face lower rates of cancer and heart disease than those who continue to smoke.

Roth et al. (2005)[19] is a small review of studies on the comparative effects of snus. The authors find that snus is associated with reduced risks for lung cancer, oral cancer, gastric cancer and heart disease.

Heat-not-burn products have also shown potential as a reduced risk option.

Mallock et al. (2018)[20] find that heat-not-burn nicotine delivery systems produce significantly reduced amounts of a range of toxic substances compared to cigarettes. The authors find "that levels of major carcinogens are markedly reduced in the emissions of the analysed [heat-not-burn] product in relation to the conventional tobacco cigarettes".

Li et al (2018)[21] find that iQos (a heat-not-burn nicotine delivery system produced by PMI) "delivered fewer harmful constituents than the conventional cigarette"

but that "[tar] and nicotine remained almost the same".

Pieper et al. (2018)[22] is a review of available evidence on heat-not-burn products. The authors find a significant reduction in harmful emissions (80-99%) compared to cigarettes, but a similar output in nicotine. However, the authors note that there are still risks associated with heat-not-burn products.

Simonavicius et al. (2018)[23] is a review of 31 studies focussing on the health consequences of heat-not-burn products compared to conventional cigarettes. The authors find that heat-not-burn products deliver up to 83 percent of the nicotine of cigarettes with at least a 62 percent reduction in toxicants and a 75 percent reduction in particulates.

Heat-not-burn products are becoming increasingly used in some countries. Tabuchi (2017)[24] estimates a 3.6 percent prevalence rate for iQos and a 4.7 percent prevalence rate for heat-not-burn products overall, as measured in January-February 2017. PMI claims that iQos has a 15.5 percent share of the tobacco products market[25].

Over a similar time period, Brose et al. (2018)[26] find that less than nine percent of the population in Great Britain were aware of heat-not-burn products and less than two percent of the population had tried them.

Attempting to forecast which alternative nicotine delivery systems will supplant smoking is difficult. Instead of attempting to pick winners, the Government should de-regulate the provision of health information and weight any applicable excise according to the estimated risk of the product.

RISK WEIGHTED EXCISE

The principal justifications for excise are the health risks associated with smoking. Either health risks are not taken into account by the consumer (an 'internality') or they fall on a third party (an 'externality'). In either world, tobacco products are overconsumed in the absence of corrective taxation.

However, internalities and externalities are finitely sized. Taxes need to be tightly calibrated to match the size of any market failure. Imposing taxes larger than required to correct for the market failure unnecessarily punishes users.

The size of internalities and externalities are in part determined by the health risks associated with product use: the size of any health risks determines the size of any costs imposed on the consumer or third parties from use.

Logically then, tobacco excise should be scaled according to product risk. Applying an equal rate of excise will cause reduced harm products to be over-taxed.

Risk adjusting excise rates could provide financial relief to households with smokers and provide public health benefits in the form of lower rates of cancer and other illnesses.

Nicotine is addictive, and is what makes quitting smoking difficult, but is not the primary cause of smoking related disease.

Royal College of Physicians[27] explains that the main culprit is smoke and, if nicotine could be delivered effectively and acceptably to smokers without smoke, most if not all of the harm of smoking could probably be avoided.

Traditionally, governments have imposed excise taxes on tobacco in order to encourage people to quit smoking and receive the associated health benefits. However, high rates of tobacco excise can wreak havoc on families' budgets and encourage the creation of black markets for tobacco and criminal activity.

Further, experts are now focusing on the ability of excise taxes to induce behavioural change in remaining smokers in the population.

The implication: excise increases are likely to be less effective as the absolute rate of excise increases i.e. excise increases may face diminishing marginal elasticity of demand.

Policies that shift smokers to alternative nicotine products could reduce smoking rates and support public health objectives.

Risk weighting tobacco excise would have two important effects on market outcomes.

Firstly, consumers who would like to quit smoking, but are still addicted to nicotine, would now face lower prices for reduced-harm tobacco products, like snus and heat-not-burn. Coupling a financial incentive to quit with reliable nicotine intake is a good motivation to quit smoking.

Secondly, producers now face incentives to develop new low risk products with lower prices to capture market share, enabled by lower rates of excise. If excise scales with risk, producers also face incentives to lower the risk of existing products even further.

These effects may also be able to break through risk misperceptions among consumers. Even if consumers find it difficult to calibrate risk, if consumers are at least aware that lower risk products face lower rates of excise, then price differentials may be able to convey risk characteristics to consumers.

However, it would be more desirable for the Government to enact regulatory change to allow producers and retailers to market products on the basis of their objective risk characteristics.

Reduced harm products currently fall under the Smoke Free Environments Act 1990 which prevents producers from providing consumers with information on the health benefits of even vastly less harmful products.

Providing consumers with objective health information relating to alternative nicotine delivery systems could be a powerful tool in encouraging them to quit smoking.

In absence of that information, consumers may assume there are only very minor health benefits of moving to reduced-harm products and choose to continue smoking.

Alternative nictoine products are often criticised for being financially out-of-reach for low income households who smoke at disproportionately.

Weighting excise according to risk could substantially improve the access of reduced harm products for consumers by reducing prices. The market for reduced harm products is also becoming more competitive and producers are responding by reducing prices.

Weighting excise according to the health risks of a product is likely to be difficult. The excise regime may need to take into account varying relative risks for a variety of illnesses and health outcomes and then apply a weighting-parameter (calculated as a function of those risks) to the rate of tobacco excise.

Alternatively, officials could recommend that the excise regime is simply categorised into ‘classes’ of harm that are subjected to different rates on the basis of available evidence. In fact, there are a variety of systems for evaluating evidence and then implementing excise differentiation. Crucially, the Government should accept in principle that excise should be varied where possible for different levels of risk.

CONCLUSION

While New Zealanders pay the highest rate of excise in the world when adjusted for average incomes, it still seems unlikely that New Zealand will reach the 2025 SmokeFree targets. Forecasts show that even 20 percent annual increases in tobacco excise will only reach the five percent prevalence threshold by 2034 - nine years after the target.

Putting aside the failure of tobacco excise to deliver the Smokefree 2025 target, significant tobacco excise increases have imposed financial damage on vulnerable communities and increased crime. The Government should be looking at alternative policy pathways to reducing the rate of smoking prevalence.

Adjusting tax and regulatory policy for reduced-harm products could be an effective alternative.

Consumers lack good information on the estimated harm of alternative products. Quitting smoking and moving to a reduced harm product is less likely if the consumer perceives any change in health risks to be ambiguous. The Government should allow producers and retailers to provide objective information on the nature of any health risks associated with alternative products like e-cigarettes, snus, and heat-not-burn tobacco.

Additionally, tobacco products should be taxed according to their risk. The purpose of tobacco excise is to reduce consumption in light of health risks to the consumer or any third parties. If alternative products impose fewer and smaller risks then those products should be subject to a reduced rate of excise.

Adjusting rates of excise (and therefore price) according to risk would provide a financial incentive for smokers to quit and for producers to innovate new and existing products to become safer.

There will be a variety of perspectives on risk weighting of tobacco excise and the exact regime to use. A risk categorisation approach is likely to be simplest, where products are placed into different classes according to their approximate relative health risks.

Adopting a continuous system, where dozens of different products face different excise rates would be likely to have high compliance costs.

While more research is required to determine the exact health risks of alternative nicotine delivery systems, there is evidence that alternative products could deliver reduced harm.

The Government is not well placed to determine the future market success of reduced harm products. While Snus has been succesful in Sweden, it has struggled to take off in other countries. Heat-not-burn is performing relatively succesfully in Japan, but has only just entered other markets. E-cigarettes are not new to the market but have only just become technically legal in New Zealand.

Intervening to favour some products over others is unlikely to be successful. Taking a hands-off evidence-based approach is likely the best policy pathway.

Sources:

[1]https://www.stuff.co.nz/national/104205997/the-amount-allocated-to-treaty-settlements-is-tiny-compared-with-other-government-spending

[2]https://www.budget.govt.nz/budget/pdfs/estimates/v8/est18-v8-maodev.pdf

[3]https://minhealthnz.shinyapps.io/nz-health-survey-2017-18-annual-data-explorer/

[4]http://archive.stats.govt.nz/browse_for_stats/people_and_communities/maori/maori-population-article-2015.aspx

[5]https://www.newsroom.co.nz/2018/05/15/109531/government-addicted-to-17-million-in-cigarette-revenue?preview=1

[6]Van der Deen, Wilson, and Blakely (2016) A continuation of 10% annual tobacco tax increases until 2020: Modelling results for smoking prevalence by sex and ethnicity.

[7]Grace, Kivell, Laugesen (2015) Predicting decreases in smoking with a cigarette purchase task: evidence from an excise tax rise in New Zealand.

[8]See the review of income effects on price elasticities in the presence of sugar taxes in The Bitter Truth: Why Sugar Taxes Don't Work, a report published by the New Zealand Taxpayers' Union in 2018.

[9]https://hapai.co.nz/content/disappointed-by-confusing-advocacy

[10]WHO Tobacco Excise Data, available at http://www.who.int/tobacco/global_report/2017/appendix-ix/en/

[11]OECD Average Incomes Data, available at https://data.oecd.org/earnwage/average-wages.htm

[12]Quarterly CPI Data available at https://www.stats.govt.nz/news/cigarettes-spark-inflation-for-most-household-

[13]September 2018 Quarter excise revenue data, available at https://treasury.govt.nz/publications/month-end/financial-statements-government-new-zealand-three-months-ended-30-september-2018

[14]Public Health England (2015) E-cigarettes: an evidence update, available at https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update

[15]ibid

[16]Ramström et al. (2016) Patterns of Smoking and Snus Use in Sweden: Implications for Public Health

[17]Leon et al. (2016) Smokeless tobacco use in Sweden and other 17 European countries

[18]Lee (2013)The effect on health of switching from cigarettes to snus - a review.

[19] Roth et al. (2005) Health risks of smoking compared to Swedish snus.

[20]Mallock et al. (2018) Levels of selected analytes in the emissions of "heat not burn" tobacco products that are relevant to assess human health risks.

[21] Li et al. (2018) Chemical Analysis and Simulated Pyrolysis of Tobacco Heating System 2.2 Compared to Conventional Cigarettes.

[22] Pieper et al. (2018) ”Heat not burn” tobacco devices as new tobacco industry products: health risks

[23] Simonavicius et al. (2018) Heat-not-burn tobacco products: a systematic literature review.

[24] Tabuchi (2017) Heat-not-burn tobacco product use in Japan: its prevalence, predictors and perceived symptoms from exposure to secondhand heat-not-burn tobacco aerosol

[25]https://www.reuters.com/article/us-pmi-japan/philip-morris-aims-to-revive-japan-sales-with-cheaper-heat-not-burn-tobacco-idUSKCN1MX06E

[26]Brose et al. (2018) Awareness and Use of ‘Heat-not-burn’ Tobacco Products in Great Britain

[27]Royal College of Physicians (2016) Nicotine without smoke: Tobacco harm reduction

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