

Submission to Parliamentary Joint Committee on Law Enforcement Inquiry into Illicit Tobacco

Sinclair Davidson

An injudicious tax offers a great temptation to smuggling. ... The law, contrary to all the ordinary principles of justice, first creates the temptation, and then punishes those who yield to it; and it commonly enhances the punishment, too, in proportion to the very circumstance which ought certainly to alleviate it, the temptation to commit the crime.

Adam Smith, Wealth of Nations, 1776.

An Institutional Theory of Tobacco Control

In a series of papers Andrei Shleifer (and various co-authors) has developed an institutional theory that posits (efficient) regulation as emerging from societal trade-offs between the costs of private disorder, and the costs of government dictatorship. “Disorder” relates to the ability of private individuals to inflict harm on others, while “Dictatorship” relates to the ability of government and its bureaucrats to inflict harm on citizens. Behavioural responses to government intervention should also be classified as “Dictatorship” costs.

Depending on the relative costs of disorder and dictatorship different regulatory approaches are more or less appropriate in different circumstances, for different industries, and for different goods and services. What is important to recognise is that government has a role to play in reducing private disorder when private solutions are unavailable, or too costly; subject, of course, to not imposing too high dictatorship costs itself.

This institutional model of regulation, following in the “new comparative economics” literature (see Djankov et al 2003), develops the notion of an “Institutional Possibility Frontier” that maps the various trade-offs in any set of institutions (which could be regulations or policies) aimed at social control in pursuit of some socially desirable end. These socially desirable ends could include, for example, Business Regulation to address negative externalities (Shleifer 2005), Productivity reform (Davidson 2013), Environmental Policy (Davidson 2014), Media Regulation (Berg and Davidson 2015), or Innovation Policy (Davidson and Potts 2015, 2016). In this submission I apply the same model to Tobacco Control.

The Djankov et al model frames social losses due to state expropriation and private expropriation on the x and y axes of Figure 1 below, and with four institutional orderings for social control (private orderings, independent judges, regulatory state, state ownership) mapped along the Institutional Possibilities Frontier (IPF). The position and shape of the IPF is given by the levels of “civic capital” in the relevant society and the relative transactions and governance costs of the various institutions. A 45-degree line represents points of total loss minimization and the equilibrium tangency with the IPF therefore represents an “efficient” institutional solution.

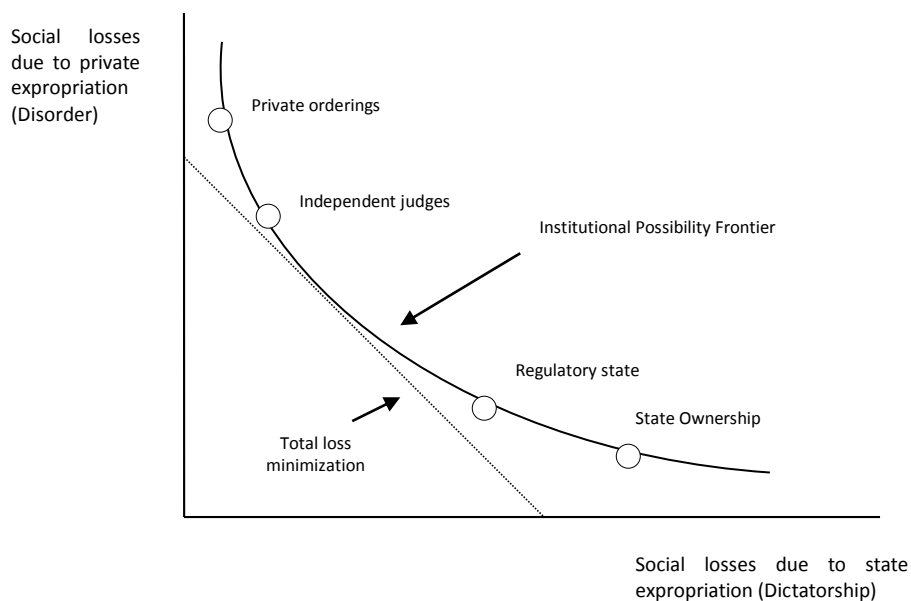


Figure 1. Institutional Possibilities (source Djankov et al 2003)

Recognising that there are no costless solutions to societal problems or social control is the main feature of this model. It forces analysts to think carefully about the various trade-offs and opportunity costs that any institution of social control imposes. This model makes it very clear that there is no such thing as a perfect or costless institutional form, and that any institution represents some set of compromises between the risks of private expropriation (net of private benefits) and the risks of state expropriation (also net of possible benefits).

In figure 2 I apply the model to Tobacco Control.

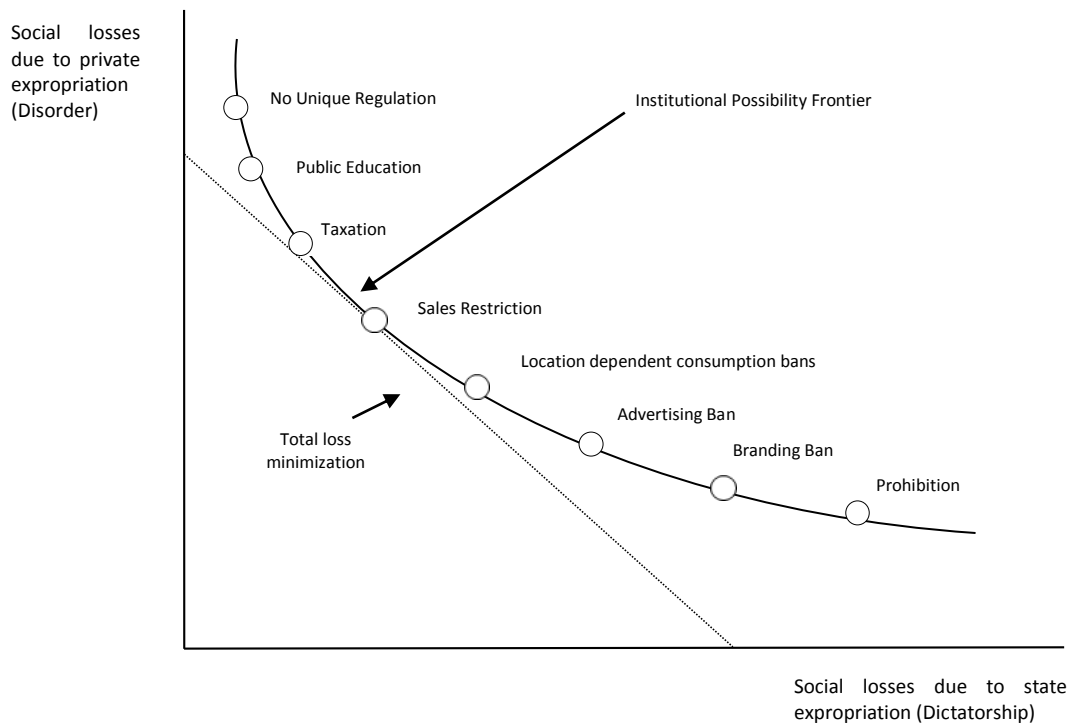


Figure 2: Institutional Possibilities of Tobacco Control

In the first instance we can imagine a situation where there is no unique tobacco control regulation. In this situation the manufacture and sale of tobacco products would simply be regulated as any other generic good or service in the economy. Given the externalities and internalities associated with tobacco consumption, the Disorder costs associated with this regulatory regime could be high. Tobacco consumption is associated with several medical conditions, including various cancers, heart disease, and emphysema. Consumers may suffer from information asymmetry either under-estimating the health risks of tobacco consumption generally, or under-estimating the probability of adverse health consequences for themselves. Furthermore some tobacco consumers may have very high discount rates and undervalue the future costs of their tobacco consumption relative to their current consumption. These considerations can be described as being internalities. Externalities occur when tobacco consumers impose costs of others through, for example, second-hand smoke. Given the potential for externalities and internalities associated with tobacco consumption a *prima facie* case can be made for government intervention. In the very first instance a government information campaign as to the dangers of tobacco consumption would very likely lower the disorder costs associated with tobacco consumption but would not increase the dictatorship costs associated with government intervention by very much.

Two forms of taxation need to be distinguished. In the first instance tobacco could (and should) be subject to Ramsey taxation. The so-called Ramsey Rule suggests that goods and services should be taxed in inverse proportion to their elasticity of demand. To the extent that tobacco products have a somewhat inelastic demand curve, they should be taxed at higher rates. This is a straight forward revenue raising exercise. Any use of taxation to discourage tobacco consumption would constitute a Pigouvian tax. This is the second form of taxation that we need to consider. While Pigouvian taxation may well raise substantial revenue, the objective of the tax involves social engineering. Here the government wishes to impose a different set of preferences on society than those the society has freely chosen. Here the costs of dictatorship start becoming large – not only in terms of foregone consumer utility but also in terms of behavioural responses to potentially excessive Pigouvian taxes. The most obvious example would be smuggling.

Up to this point, the Tobacco Control measures have been associated with low social costs of dictatorship. The provision of information is a public service and the use of the price mechanism to ration tobacco consumption does not necessarily involve the coercive powers of the state.

Sales restrictions would represent the first major use of coercive state power. Here the state would restrict the sale and consumption of tobacco products to, say, individuals over the age of 18, or restrict where and when tobacco products may be sold. To ensure compliance the state needs to engage in acts of surveillance and entrapment. While these measures may have the effect of reducing tobacco consumption amongst target groups (for example, underage smoking) it also may also reduce the profitability of tobacco products, divert law enforcement activity away from violent crime, and impose surveillance costs on law-abiding citizens.

Having first restricted who may consume tobacco products and where and when they might be sold, the state then restricts where tobacco products may be consumed. It is somewhat ironic that the state has chosen to ban the consumption of tobacco products in private locations before banning the consumption of tobacco products in public locations. Tobacco product consumption has been banned in workplaces, private restaurants, clubs, pubs and the like under the guise that these institutions are “public places” despite the fact that they are very often private property. The abrogation of private property constitutes a massive incursion of state power into the economy. The state has also began to ban the consumption of tobacco products on public property (where it does have ownership – but long after banning the consumption of tobacco products in private property). Again the social costs of compliance, surveillance, entrapment, and re-allocation of law enforcement activities constitute major costs.

Having restricted the Who, When, and Where of tobacco consumption, the state then restricts How tobacco products are marketed through advertising bans. These bans range from bans on advertising in particular media, to bans on advertising of sporting events, to point of display bans, and so on. The costs here include restricting the universe of potential sponsors for major events. While major sporting events continue to receive sponsorship from the alcohol, fast food, and gambling industries, it is also the case that many smaller sporting events are unable to garner sponsorship from either these industries or the tobacco industry. This policy restricts the livelihoods of the advertising industry, restricts the quantum of sponsorship dollars in the economy and imposes compliance, surveillance, entrapment costs on the economy.

Having restricted advertising, bans on branding are an obvious next step. In the first instance naming rights could be limited. Words such as “Light” or “Extra Smooth” or “Low Tar” could be prohibited. In addition a standardised packaging policy could be adopted. In Australia this policy is known as “Plain Packaging”. Dictatorship costs here are very high – this is an abrogation of private property. To the

extent that private property rights are perceived to become insecure the resultant loss of investment flows into the economy could be substantial.

Finally there is prohibition. Prohibition can take many forms. For example, the Australian government does not allow the cultivation of tobacco within Australia. Extant tobacco production licences were bought out and no new licences will be issued. The cost here is the loss of economic activity, the potential for permanent job losses in rural areas, the loss of manufacturing capacity and employment, and so on. Alternatively, specific types of tobacco product could be prohibited. In Australia, for example, nicotine fluid for e-cigarettes is banned for sale. In other jurisdictions there are proposals for the prohibition of menthol flavoured tobacco products. Of course, the public health lobby would like to see all tobacco products being prohibited.

Prohibition is associated with a range of costs and adverse consequences. Meadowcroft (2008) has summarised those costs and consequences as follows:

- Prohibition places markets into the hands of criminal enterprises.
- Prohibition increases the risks of already risky activities.
- Prohibition criminalises people who would not otherwise be criminals.
- Prohibition diverts law enforcement resources away from conduct that harms third parties.
- Prohibition increases public ignorance.
- Organised interest groups are crucial to the introduction of prohibitions.
- Prohibition almost never works and is almost always counterproductive.

When it comes to tobacco products every element of the marketing mix (product, price, place, promote) is very highly regulated by the state. All of these regulations impose varying degrees of dictatorship costs upon tobacco product consumers, tobacco product producers, tobacco product retailers, and the general community. The question of interest is whether these (dictatorship) costs are worth incurring to reduce or eliminate the (disorder) costs associated with tobacco consumption.

The Over-Enforcement of Tobacco Control

In a world of perfect compliance, actions taken by the state to reduce or even complete prohibit tobacco consumption would be entirely successful. In a world where there is somewhat less than perfect compliance there are behavioural responses to state action that undermine those actions. For example, tobacco consumers may substitute to other products that may be associated with a different range of social costs, or consumers may continue to consume tobacco product but source these products on the illicit market. While yet other tobacco consumers may simply continue to consume tobacco.

The success of tobacco control policies must be evaluated by the efficacy of those policies subject to the social costs the policies impose. Looking at the Australian experience it would be very easy to conclude that tobacco control policy has been very successful. Scollo and Winstanley (2015) report that Australian per capita tobacco consumption has been in decline since the 1960s (figure 2.10.2). There can be little doubt that greater public awareness of the health risks associated with tobacco consumption and tobacco excise taxation has led to a decline in tobacco consumption. It is not clear, however, whether any of the other tobacco control measures adopted in more recent years has had any impact on tobacco consumption. Figure 3 (below) has been released by the Australian Department

of Health showing the prevalence of tobacco consumption (smoking) since 1990 with the dates of various tobacco control measures included in a time line.¹

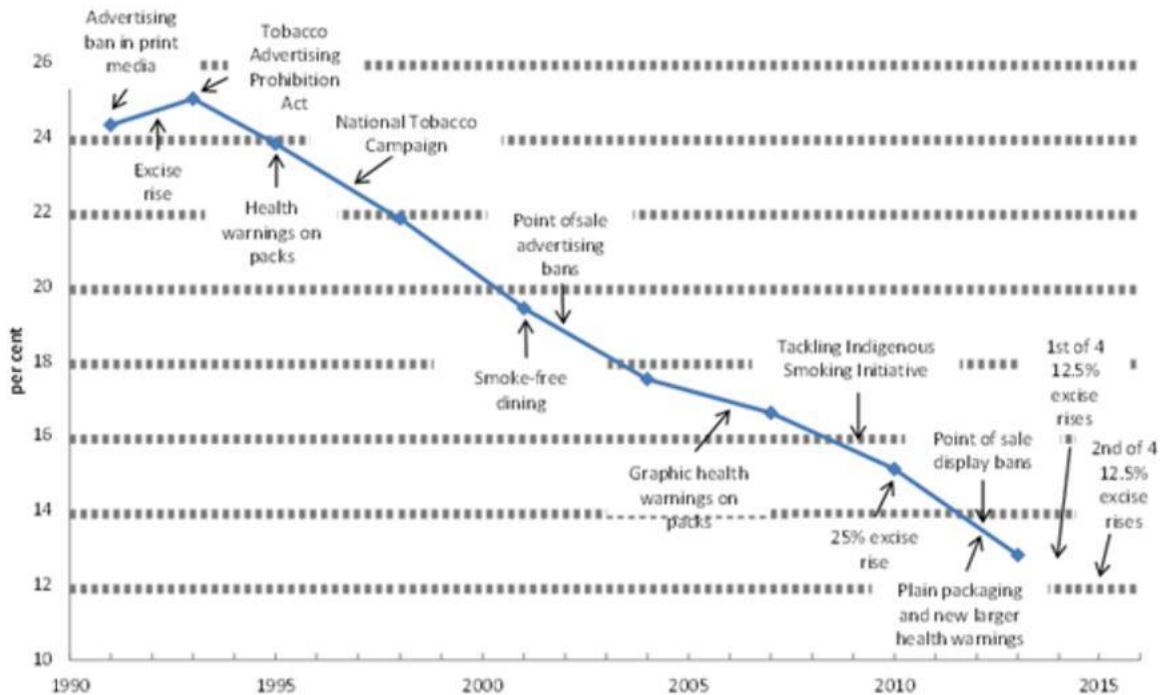


Figure 3: Smoking prevalence rates for 14 years or older and key tobacco control measures implemented in Australia since 1990

(Source: Australian Government: Department of Health, Tobacco key facts and figures)

The tobacco control measures introduced over the past 25 years have not had any noticeable impact on the long-term decline in the prevalence of tobacco consumption. To be fair to the public health lobby, they argue that each new tobacco control measure is part of a portfolio of policies designed to inhibit and prohibit tobacco consumption.

The issue with adopting such an approach, however, is that each individual tobacco control policy is associated with costs of its own that need to be weighed up against the decline in disorder costs associated with tobacco consumption. Not only might new tobacco control measures prove to be not effective but over-zealous application of existing tobacco control measures may result in additional social costs.

It is very likely, for example, that tobacco excise in Australia is too high.

The Australia's Future Tax System Report (Henry Review) made three recommendations about tobacco excise.²

- Existing rates of tobacco excise should be substantially increased;
- Tobacco excise should be indexed to wages and not the consumer price index;

¹ <http://www.health.gov.au/internet/main/publishing.nsf/Content/tobacco-kff>

² Henry Review, pg. 451.

- There should be no tobacco duty-free allowance for international travellers entering Australia.

All three of these recommendations have been adopted.

The Henry Review posited two arguments why tobacco excise should be increased. First it compared Australian tobacco excise rates to a sample of OECD economies. Second it adapted a formal model developed by Gruber and Köszegi (2001) to estimate “optimal” Australian excise rates for tobacco.

The Henry Review indicated “Australian taxes on tobacco products are low, as a proportion of the retail price, *compared with other OECD countries*” (emphasis added).³ Similarly, Scollo and Winstanley (2015, figure 13.2.4.) shows Australian tobacco excise in comparison to “comparable English-speaking and European countries”. Both the Henry Review and Scollo and Winstanley (2015) are able to show that Australia has a low level of tobacco excise by cherry-picking the comparator economies – the OECD are known to have high-tax regimes and are known to have higher levels of consumption tax compared to Australia.

Comparing Australia to a cherry-picked group of high tax economies is likely to distort an understanding of tobacco excise. To provide a more comprehensive picture, I captured data from the Tobacco Atlas on excise, and cigarette price per pack in US\$.⁴ The Tobacco Atlas shows comparative data for a packet of Marlboro (or equivalent) cigarettes. The data are graphed in figures 4 and 5.

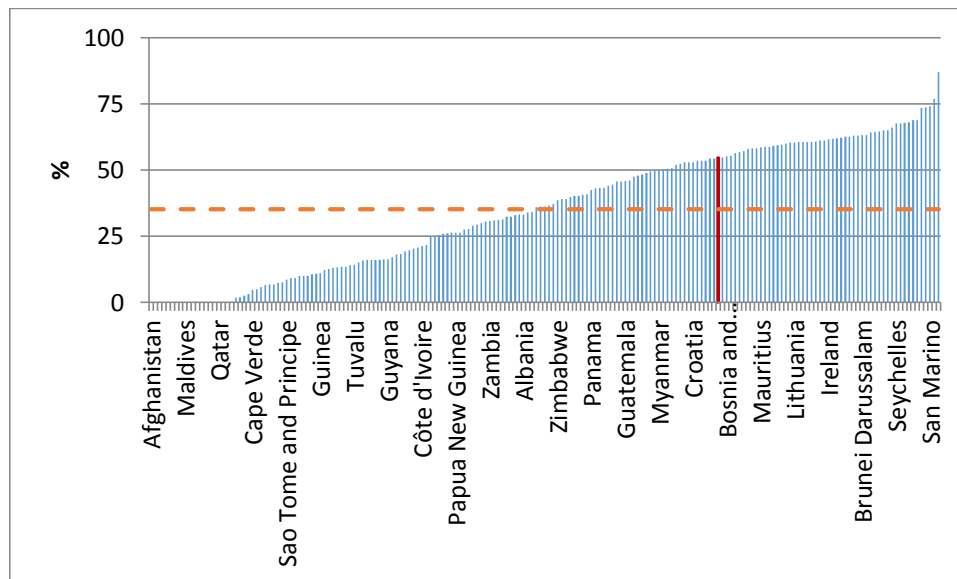


Figure 4: Excise tax as per cent of Cigarette Price

Figure 4 shows excise as a percentage of cigarette prices – Australia is shown as the red column and the global average is shown as the broken line. The data are for 2011 and include 187 economies. As can be seen Australian excise (54.7%) is well above the global average (35.3%) – Australian excise is almost at the global 75th percentile (57.05%). Since then Australian excise has increased and now comprises 60 per cent of the price.

³ Henry Review, pg. 448.

⁴ M. Eriksen, J. Mackay, and H. Ross, 2012, *The Tobacco Atlas*, Fourth Ed. Atlanta, GA: American Cancer Society; New York, NY: World Lung Foundation. Unfortunately the latest edition of *The Tobacco Atlas* does not have easily assessable data.

Figure 5 shows cigarette price per pack in US\$ in 2011. Australia is shown as the red column and the global average is shown as the broken line. The data includes 147 economies. Australia had the second most expensive cigarettes in the world after Norway. At US\$12.14 Australian cigarettes were well above the global average of US\$3.41 and well above the 75th percentile of US\$4.36. As those figures indicate the average price of cigarettes is upwardly biased. The median price is only US\$2.50.

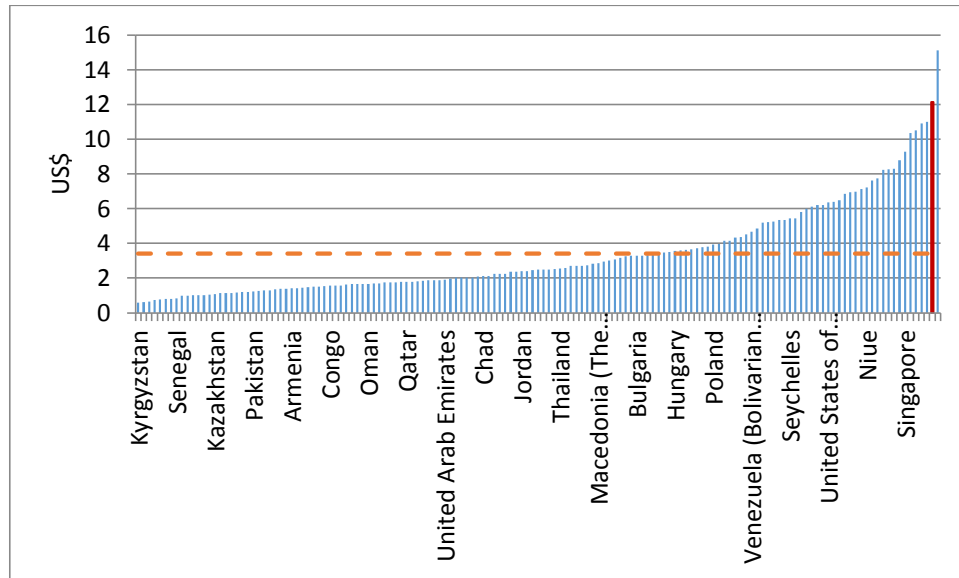


Figure 5: Cigarette price per pack in US\$

The notion that Australian cigarettes are cheap and that Australian excise is low is simply not correct. By global standards Australian excise is high and cigarette prices are high by global standards. What this analysis does suggest, however, is that given Australian policy settings that tobacco smuggling is very likely to be highly profitable – that individuals can make higher profits selling illicit tobacco in Australia than they could selling licit tobacco in other parts of the world.

Turning our attention to the second component of the Henry Review’s argument, it quickly becomes clear the Gruber and Köszegi (2001) replication does not entirely support the Henry Review’s assertion that tobacco excise should be “substantially increased”.

The Gruber and Köszegi model examines the extent to which smokers value the present over the future, and the extent to which smokers can be described as being “sophisticated” or “naïve”. Sophisticated smokers understand that their future selves might wish to quit smoking and act consistently with that objective, while naïve smokers under-estimate the preferences of their future selves. The Henry Review provides a calibration of the Gruber and Köszegi model for Australian conditions. The table is adapted from the Henry Review and shows the estimated “optimal” tax per cigarette stick – the actual tax per cigarette stick at that time was 0.258 (i.e. 25.8c).

	←Value present		Value future →		
Strength of current period preference	0.60	0.65	0.70	0.75	0.80
Sophisticated smokers	0.31	0.27	0.22	0.18	0.14
Naïve smokers	0.47	0.41	0.35	0.29	0.23

Table 1: Gruber and Köszegi calibrations for Australia
(Source: Adapted from the Henry Review, pg. 453, Table E6-1)

In order to justify a “substantial increase” in tobacco excise, the Henry Review must then have demonstrated that Australian smokers are both naïve and also have very high discount rates i.e. must value the present substantially over the future. The problem is that under the parameter estimates that the Henry Review produced even naïve smokers value the future and not the present (i.e. they are not being irrational by consuming tobacco in the present – in plain language there is no information market failure to justify government intervention). Realising the difficulty of this position, the Henry Review then proceeded to undermine confidence in the model itself. When the model did not support the desired policy recommendation the Henry Review abandoned the model and simply recommended an excise increase anyway.

The important point to note is that there is no scientific basis to argue that tobacco excise should be substantially increased – merely the anti-tobacco prejudice of the Review itself. It is clear from the Henry Review that the view was taken that tobacco excise should be set above the revenue maximising level of taxation.⁵

An important consequence is that tobacco taxes should be set to reduce the costs that smokers impose on themselves and others, not to raise as much revenue as possible. Tobacco taxes can raise significant amounts of revenue but this is only a by-product of their primary purpose.

At face value this statement might be interpreted as the Henry Review suggesting that the Ramsey Rule be abandoned in favour of Pigouvian taxation. But the Henry Review makes no detailed analysis of the social costs of tobacco consumption – merely listing the adverse consequences of tobacco consumptions and concluding that excise should rise. While the Henry Review uses the language of economic policy and makes Pigouvian arguments the underlying instinct is not Pigouvian. Pigouvian analysis suggests that taxes and subsidies be employed to align social costs with private costs and social benefits with public benefits. The Henry Review indicates, however, that the social costs of tobacco consumption are low compared to the private costs:⁶

Spillover costs need to be taken into account but are small compared with the costs borne by smokers themselves.

The primary basis for government intervention then is not Ramsey Rule taxation (revenue maximisation) or Pigouvian (social cost minimisation) but rather paternalistic. The Henry Review wishes to substitute its own anti-tobacco consumption preferences for the preferences held by a significant minority of the Australian population. There are substantial dictatorship costs associated with preference substitution. Non-compliance and disobedience on the part of the population will result in the imposition of massive costs.

Unfortunately the Henry Review – rather than provide a careful analysis of these costs – simply waves away the potential problems associated with its recommendations. For example:⁷

It is, however, unlikely that any feasible increase in taxation would see an increase in illegal supply sufficient to undermine the effectiveness of the existing taxation arrangements.

⁵ Henry Review, pg. 446.

⁶ Henry Review, pg. 452.

⁷ Henry Review, pg. 454.

Given that the Henry Review had a very narrow understanding of the extent of Australian tobacco excise – believing it to be low – it is unsurprising that it would make recommendations so far removed from economic reality. I want to emphasise that the Henry Review recommendation were *not* based on any serious economic analysis – indeed, the Henry Review repudiated the Gruber and Köszegi model – but rather is predicated on paternalism. Elsewhere the Henry Review is indifferent to economic considerations of its policy recommendations – and indifferent to the revenue consequences too.⁸

But there are some taxes that the government wants you to avoid — for example, you can minimise alcohol tax or tobacco excise by drinking less or quitting smoking. Sometimes the government even helps you to do this. For example, government subsidies to help people quit smoking help people avoid tax. Here, the health of Australians is more important than the tax they pay.

The Consequences of Excessive Tobacco Excise

There are, at least, three adverse consequences of an excessively high tobacco excise.

1. By emphasising the Pigouvian aspects of taxation over the Ramsey Rule the Federal government is voluntarily foregoing taxation revenue.
2. By establishing market conditions that promote illicit tobacco consumption the Federal government promotes smuggling of tobacco products, encourages criminality generally, and involuntarily foregoes taxation revenue.
3. By artificially increasing tobacco prices and price increases the Federal government builds in increased public spending by linking budget programs to the Consumer Price Index.

In sum, by promoting paternalism over Pigouvian intervention the federal government imposes dictatorship costs that may be greater than the foregone social costs generated by tobacco consumption.

I discuss each of these consequences in turn.

The Henry Review identified just ten taxes which contributed 90 per cent of all taxation revenue to all levels of Australian government (state and federal). Tobacco excise was the ninth single largest source of taxation revenue in Australia. As such the well-being of the federal budget is highly dependent on revenue from tobacco consumption. Not only is tobacco excise a large source of revenue to the federal government, it is a growing source of revenue; in 2007-08 tobacco excise as a percentage of federal government receipts made up 1.83% of government receipts, this financial year it is budgeted to make up 2.3% of government receipts while next year it is forecast to contribute 2.4% to federal government receipts. By levying taxation at above the revenue maximising rate, the federal government is voluntarily sacrificing revenue without necessarily reducing any of the social costs of tobacco consumption. According to KPMG reports into *Illicit Tobacco in Australia* foregone revenue has increased from \$893 million in 2012 to \$1.4 billion in 2014. That latter figure represents some 16% of budgeted tobacco excise in 2014-15. Foregone excise revenue is growing faster than budgeted excise revenue.

Furthermore by maintaining very high prices for tobacco products the federal government promotes smuggling through enhanced profitability to the procurement and sale of illicit tobacco products. As

⁸ Henry Review, pg. 320.

increased excise drives tobacco prices above market equilibrium prices, so consumers will reduce their consumption (even to zero, in some instances) while other consumers will simply pay the higher price. Other consumers will source tobacco products from criminals who avoid paying the excise and GST on the tobacco products. Whether or not criminals earn an economic profit depends upon the risks that their criminal enterprise incurs. As with the introduction of any price floor the higher prices will induce an increased supply of tobacco – given that the profit margins on taxpaying tobacco producers remains unchanged but the profit margins of non-taxpaying producers increases, it is very likely that the increased supply of tobacco products will originate from non-taxpaying producers (criminals). The irony here is that if all the criminals did was to meet tobacco product demand at a price then there would be no cost to the economy from their behaviour. (As I explain below foregone revenue is a transfer not a cost). Criminal enterprise, however, tends to be diversified. In addition, illicit tobacco products may be substandard. Consumers have no rights when buying substandard products from illegal suppliers.

It is important to understand that foregone taxation revenue is not a cost to the Australian economy. The foregone excise revenue is a transfer from the Australian government to criminals. To the extent that the marginal dollar of Australian government revenue is spent on welfare and the marginal dollar accruing to criminals may be spent on meeting consumer demands for cheaper tobacco products, overall welfare in the Australian economy may be enhanced by this transfer. The actual cost to the Australian economy is further criminality through the use of violence to enforce contracts or gain market share or the sale of unregulated and sub-standard products to consumers. The re-allocation of law enforcement resources towards smuggling and away from other law enforcement activities may also impose costs on the community. Ultimately criminality is itself a “gateway” activity to further criminality that may not enhance consumer satisfaction (at lower prices) and so enhance welfare within the economy overall.

Since 1983 tobacco excise has been indexed to the consumer price index (CPI) and automatically increased twice every year in February and August. In the 2013 – 14 budget the government announced that from 2014 tobacco excise will be indexed to average weekly ordinary time earnings (AWOTE) beginning in March 2014. An unexamined consequence of the interaction between tobacco excise and CPI is that there is a policy induced positive feedback loop between tobacco pricing and the official measure of the price level. It is public policy to maintain and even increase the real price of tobacco and to ensure the price of tobacco products rises faster than the overall CPI. At the same time, given the construction of the CPI, that policy induced price increase is then captured within the CPI itself. In other words, the CPI increases because the price of tobacco has increased, which then turn leads to further increases in the CPI.

Conclusions

There is no costless intervention in the economy – even when private action is associated with private and social costs. Criminality and widespread disregard for the law are costs of dictatorship and are especially associated with over-enforcement of laws. The disorder costs associated with tobacco control are most likely related to information costs and inter-temporal preferences. Individuals may under-estimate the health costs associated with tobacco consumption and in future wish they had never consumed tobacco. The most obvious mechanism to control such instances is public information and some level of Pigouvian taxation. As the Henry Review indicated, in 2010 Australia probably had high levels of Pigouvian taxation given tobacco consumers characteristics and preferences. Those levels of taxation have increased since then. It is unsurprising that criminals may meet market demand when legal producers are being crowded out by public policy.

Fundamentally having legal suppliers of goods and services is preferable in public policy terms to having illegal suppliers. They are regulated, pay taxes, pay dividends, and produce high quality goods and services compared to illegal suppliers. Legal suppliers also create investment opportunities that allow Australian investors to earn dividends and generally share in the profits of their activities. Legal suppliers are also likely to conduct their business using legal methods and do not resort to violence when enforcing contracts or maintaining market share. Public policy that crowds out legal production, and the sale of legal goods and services undermines civil society. It also reallocates law enforcement activity away from the containment of other sources of social disorder.

Any policy induced increase in criminal behaviour must be seen as a failure of public policy. This is especially the case where public policy facilitates the profitability of criminals through over-enforcement of tobacco control leading to legal business being crowded out of the market.

A Difference of Perspective

In this submission I have adopted an economic perspective on tobacco consumption as opposed to a public health perspective. The public health lobby view tobacco from a disease perspective. The World Health Organization, for example, talks about the “Global Tobacco Epidemic”. From this perspective it may be entirely sensible to wish to totally eliminate or eradicate tobacco consumption. This is a normative assessment – tobacco consumption is a very different “ailment” to, say, contracting small pox or polio. Unlike tobacco consumers disease victims do not voluntarily contract their diseases.

Economics strives to be a positive science that investigates human action and choice. It is only through a careful analysis of incentives, constraints, costs, and benefits that choices and decisions can be fully understood. Economics provides a coherent and consistent framework to investigate the totality of any policy choice or decision. It provides, in principle, for a full accounting of the costs and benefits under differing institutional frameworks of different choices and decisions.

From an economic perspective tobacco consumption is much like consuming any other good or service. There may be an informational asymmetry that results in market failure associated with the consumption of tobacco, but once that information asymmetry is overcome there is no further basis, in economic theory, for government intervention. The results produced by the Henry Review for Australia suggest there is no informational market failure associated with tobacco consumption in Australia.

This then lies at the heart of the confused policy analysis offered up by the Henry Review. It adopted the language of economics to recommend what is really a medical policy conclusion. In other words, the Henry Review worked back from a desired conclusion to fashion an argument that supported their preconceived conclusion. From an economic perspective public education and a carefully calibrated Pigouvian tax are the only policies required for tobacco control. At present excise tax rate are very likely to be well in excess of an “optimal” rate resulting in foregone revenue and excessive criminality. Any other tobacco control policies are likely to impose unnecessary costs on the economy and distract attention from the primary policies that are likely to be successful.

Bibliography

- Australia's future tax system (Henry Review), 2009, *Report to the Treasurer*, Part Two, available at www.taxreview.treasury.gov.au.
- Berg, C. and S. Davidson, 2015, *Media Regulation: A Critique of Finkelstein and Tiffen* Available at SSRN: <http://ssrn.com/abstract=2669271> or <http://dx.doi.org/10.2139/ssrn.2669271>
- Davidson, S. 2013. Productivity enhancing regulatory reform, In *Australia adjusting: Optimising national prosperity*, – the Committee for Economic Development of Australia.
- Davidson, S. 2014. Environmental protest: an economics of regulation approach, *Australian Environment Review*, 29(10): 283 – 286.
- Davidson, S. and J. Potts, 2015, *Social Costs and the Institutions of Innovation Policy*. Available at SSRN: <http://ssrn.com/abstract=2565574> or <http://dx.doi.org/10.2139/ssrn.2565574>
- Davidson, S. and J. Potts, 2016, *A New Institutional Approach to Innovation Policy*, *Australian Economic Review Policy Forum: Research and Innovation*, Forthcoming. Available at SSRN: <http://ssrn.com/abstract=2718791>
- Djankov, S., E. Glaeser, R. La Porta, F. Lopez de Silanes, and A. Shleifer, 2003, The new comparative economics, *Journal of Comparative Economics*, 31(4): 595-616.
- Eriksen, M., J. Mackay, and H. Ross, 2012, *The Tobacco Atlas*, Fourth Ed. Atlanta, GA: American Cancer Society; New York, NY: World Lung Foundation.
- Gruber, J. and B. Köszegi, 2001, Is Addiction “Rational”? Theory and Evidence, *The Quarterly Journal of Economics*, 116 (4): 1261-1303.
- KPMG, 2012, 2013, 2014, *Illicit Tobacco in Australia*.
- Meadowcroft, J. (ed), 2008, *Prohibitions*, Institute of Economic Affairs, Profile Books.
- Scollo, M. and M. Winstanley, 2015, *Tobacco in Australia: Facts and issues*. Melbourne: Cancer Council Victoria; 2015. Available from www.TobaccoInAustralia.org.au
- Shleifer, A. 2005, Understanding regulation, *European Financial Management*, 11: 439 – 451.

About the Author

Sinclair Davidson is Professor of Institutional Economics in the School of Economics, Finance and Marketing at RMIT University, and a Senior Research Fellow at the Institute of Public Affairs. He is a regular contributor to public debate. His opinion pieces have been published in *The Age*, *The Australian*, *Australian Financial Review*, *Daily Telegraph*, *Sydney Morning Herald*, and *Wall Street Journal Asia*. Sinclair has published in academic journals such as the *European Journal of Political Economy*, *Journal of Economic Behavior and Organization*, and the *Cato Journal*.