Strengthening the evidence for volumetric taxation of alcohol

Summary of research

The health and economic impacts of alternative alcohol taxation regimes in Australia

Introduction

International reviews have consistently found that alcohol taxation, as a means of increasing the price of alcohol, is one of the most effective policy interventions to reduce levels of alcohol consumption and related problems including deaths, crime and traffic accidents.[1]

Even small increases in the price of alcohol can have a significant impact on consumption and harm.[2] Despite its reported effectiveness, taxation as a strategy to reduce alcohol-related harm has been under-utilised in Australia: the Federal Treasury's recent review of Australia's tax system (the 'Henry Review') concluded that "if alcohol taxes are to be effective in reducing social harm, the taxation of beer, wine and spirits needs to be reformed".[3]

The National Alliance for Action on Alcohol (NAAA) has recommended a number of principles for alcohol taxation reform in Australia, including that the approach to taxation should be volumetric (i.e. varied according to a product's alcohol content) and that changes to taxation should not be designed to decrease the price of alcohol (except low alcohol products).

This report was designed to inform taxation reform by strengthening the evidence for volumetric taxation of alcohol in Australia. Economic and epidemiological modelling was performed on a range of taxation scenarios to examine their impacts on alcohol consumption, taxation revenue, disability-adjusted life years (DALYs) averted and healthcare costs. Other issues investigated include:

- the types of alcohol products associated with increased risk of harm
- minimum price setting for alcohol products
- hypothecation of alcohol-related taxation revenue.

Method

Thirteen taxation scenarios were modelled, using approaches including universal taxation (a single rate applying to all beverage types), exponential tax increases according to alcohol content and two-tiered approaches that tax spirits and ready-to-drink beverages ('alcopops') differently to other alcoholic beverages.

The methodology used to model the taxation scenarios was based on the framework developed for the ACE-Alcohol project,[4] and used both Australian and international data.

Results

All scenarios modelled were shown to have the potential to save money and be more effective in reducing alcohol-related harm than current Australian taxation policy (Table A).

In terms of potential health benefits, applying a universal tax rate to alcoholic beverages equivalent to a 10 per cent increase in the current excise applicable to spirits and alcopops* (Scenario 3) appears to be the best of the options modelled. Overall alcohol consumption would decrease by 10.6 per cent, resulting in 220,000 DALYs averted. The cost of implementing this scenario ($22 million) is only a fraction of the savings achieved ($3.2 billion annually).

Furthermore, under this scenario, taxation revenue is estimated to increase by $4.27 billion annually. This scenario, however, does not address the inefficiencies of the current system – it merely increases the tax on each beverage – and is not consistent with NAAA principles of alcohol taxation reform.

The most effective scenario that is consistent with NAAA principles is a two-tiered tax system. The first tier applies a tax rate on alcoholic beverages (except spirits and alcopops) that increases exponentially by 10 per cent for every percent increase in alcohol content above 3.2 per cent. The second tier maintains the current excise on spirits and alcopops* (Scenario 11). Overall alcohol consumption was shown to decrease by 3 per cent, resulting in 140,000 DALYs averted. The alcohol-related disease and injury prevented in this scenario would save the health system $2 billion a year, and annual taxation revenue would increase by $2.78 billion.

The results for two other scenarios are also worth noting. Scenario 1 – applying a universal tax rate on alcoholic beverages equal to the current rate applicable to high-strength beer sold offsite (i.e. through bottle shops and supermarkets)* – is the model recommended in the Henry review.[3] However, this scenario does not conform to NAAA principles given the substantial reductions in the price of spirits and alcopops.

Scenario 13 involves a removal of the current Wine Equalisation Tax (WET) and applying the current excise rate for low-strength offsite beer to the beverages currently subject to the WET. This scenario would reduce overall alcohol consumption by 1.3 per cent, avert 59,000 DALYs, save the health system $820 million annually and increase taxation revenue by $1.3 billion per year. Although this scenario may not be readily accepted by the wine industry, other accompanying taxation reform may create an incentive for industry members to manufacture products with a lower alcohol content.

Table A: Summary results for 13 alcohol taxation scenarios

Scenario	Mean DALYs averted	Cost offsets ($million)	Net costs ($million)	Quantity consumed ('000s litres)	Change in quantity consumed (from base case)	Total tax collected ($million)	Change in total tax collected (from base case)
Base case				2,862	0%	$8,576	0%
Scenario 1	18,000 (14,000 – 21,000)	-$250 (-$370 to -$150)	-$230 (-$350 to -$130)	2,810	-0.6%	$8,933	4.2%
Scenario 2	180,000 (150,000 – 220,000)	-$2,600 (-$3,800 to -$1,700)	-$2,600 (-$3,700 to -$1,600)	2,583	-8.6%	$12,195	42.2%
Scenario 3	220,000 (180,000 – 270,000)	-$3,200 (-$4,600 to $2,000)	-$3,100 (-$4,600 to -$2,000)	2,528	-10.6%	$12,848	49.8%
Scenario 4	54,000 (44,000 – 65,000)	-$760 (-$1100 to -$490)	-$740 (-$1,100 to -$470)	2,795	-1.1%	$9,703	13.2%
Scenario 5	33,000 (27,000 – 40,000)	-$470 (-$700 to -$300)	-$450 (-$670 to -$270)	2,812	-0.5%	$9,138	6.6%
Scenario 6	65,000 (53,000 – 78,000)	-$920 (-$1,300 to -$590)	-$900 (-$1,300 to $570)	2,800	-0.9%	$9,578	11.7%
Scenario 7	110,000 (87,000 – 130,000)	-$1,500 (-$2,200 to -$960)	-$1,500 ($2,100 to $940)	2,786	-1.4%	$9,951	16.0%
Scenario 8	83,000 (68,000 – 99,000)	-$1,200 (-$1,700 to -$750)	-$1,200 (-$1,700 to -$730)	2,778	-1.7%	$10,272	19.8%
Scenario 9	100,000 (85,000 – 120,000)	-$1,500 (-$2,100 to $940)	-$1,500 (-$2,100 to -$920)	2,763	-2.2%	$10,558	23.1%
Scenario 10	120,000 (98,000 – 140,000)	-$1,700 (-$2,500 to -$1,100)	-$1,700 (-$2,500 to -$1,000)	2,752	-2.6%	$10,859	26.6%
Scenario 11	140,000 (110,000 – 170,000)	-$2,000 (-$2,900 to $1,200)	-$2,000 (-$2,900 to -$1,200)	2,742	-3.0%	$11,354	32.4%
Scenario 12	9,900 (7,300 – 13,000)	-$140 (-$220 to $77)	-$120 (-$200 to -$55)	2,921	3.4%	$8,576	0%
Scenario 13	59,000 (48,000 – 71,000)	-$840 (-$1,200 to -$530)	-$820 (-$1,200 to -$510)	2,790	-1.3%	$9,899	15.4%

Other considerations

A link between beverage type and harm?

A review of literature investigating the degrees of harm associated with consumption of different alcoholic beverage types suggests that drinking spirits or beer may be associated with an increased risk of harm, while light to moderate wine consumption may have a protective effect. However, because of methodological limitations, variations in study design and disparities in the evidence, further investigation is required to reach a more definite conclusion.

Minimum pricing for alcoholic beverages

While volumetric taxation would provide a basis for a minimum price for alcohol, alcohol could still be sold below cost or given away, and the transition to a new taxation regime might result in a lower price for some products.[3] Regulating the minimum price of alcohol (i.e. setting a 'floor price' for a standard alcoholic drink) may therefore be an important augmentation to a new volumetric taxation regime.

Such a policy is likely to have a larger impact within the offsite alcohol sector where alcohol products are generally cheaper, and affect cheap, high-strength alcohol products more than more expensive, low-strength alcohol products. Minimum pricing may therefore better target risky consumption of alcohol than 'across the board' increases in taxation.

While extensive research is currently taking place in the UK, more research is needed to explore the potential impact of minimum pricing within the Australian context.

Hypothecation

Hypothecation is the dedication of revenue from a specific tax for a specific expenditure purpose. Hypothecated taxes for health are often levies on products that are harmful to health (e.g. tobacco and alcohol) that can provide funds for health spending and programs that discourage health-damaging behaviour. Victoria implemented the world's first tax hypothecated for health in 1987, legislating for a 5 per cent levy on tobacco products. These funds were used to fund VicHealth, an independent health promotion foundation.

While adjustments to the current alcohol taxation regime could be cost-effective in terms of reducing the burden of alcohol-related harm, a significantly greater health gain could be achieved if an optimal 'package' of interventions was implemented, including licensing controls, drink driving campaigns, treatment for alcohol dependence and other elements.[5] The cost of such a package is estimated at nearly $71 million, equivalent to a levy of 1.25 per cent on current alcohol excise taxation receipts. A 5 per cent levy would be equivalent to $285 million per annum, and would fund the implementation of a broader range of interventions.

Regulating the minimum price of alcohol is likely to have a larger impact on cheap, high-strength alcohol products.

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Recommendations

This report supports the taxation of alcohol products according to alcohol content (volumetric taxation). In particular, it recommends:

- **A two-tiered tax system**

  A system that taxes spirits and alcopops at the current rate but applies a tax on other alcoholic beverages that increases exponentially with alcohol content could avert up to 140,000 DALYs, reduce health system costs and increase taxation revenue.

- **Removal of the wine equalisation tax**

  Removing the WET could reduce overall alcohol consumption, improve health and increase taxation revenue.

- **Minimum pricing for alcoholic beverages**

  The Australian government should set a minimum price per standard of alcoholic drink. This is likely to have a targeted impact on risky drinking habits, but further research is required to quantify this impact.

- **Further research**

  Further research should be commissioned to evaluate the relationship between alcohol-related harm and beverage type. To date the evidence base is mixed and lacks methodological consistency.

- **Hypothecation of alcohol excise tax revenues**

  Funds collected from the sale of alcoholic beverages should be used to fund alcohol control programs, health programs or for other dedicated purposes.

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* With a duty-free threshold of 1.15 per cent applicable to all beverages except spirits.