

Thinking About Alcohol Policy

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Abstract: A liberal, economic perspective for thinking about alcohol policy is provided based on market failure ideas. Apart from avoiding paternalism, the liberal approach provides efficient regulatory policies for most alcohol consumers. The approach emphasizes information, self-control and externality motivations for policy. Proposals to levy volumetric taxes based on alcohol content, rather than value, face limitations when there are possibilities for substituting other intoxicants. There are also equity issues when it is mainly the poor who have inelastic demands for alcohol and who purchase low-value, high-alcohol content beverages. For consumers with alcohol dependencies a policy mix that also emphasizes the role of cues and self-control is suggested.

Introduction

This paper examines policy interventions in alcoholic drink markets. The perspective rejects paternalism which opposes drinking alcohol because of its claimed high gross costs. On the contrary, the liberal approach supposes that alcohol yields consumption benefits in terms of its taste and effects, as well as costs, and that society's objective is to maximize the excess of *all* benefits from alcohol over *all* costs. Consuming alcohol is, for the most part, assumed to be a social, recreational activity - one way of dealing with the pressures of the day and a social lubricant that enhances the enjoyment of life. The presumption is that, for most people, using alcohol is an informed, rational choice. In most cases this choice has relatively harmless implications for the consumer but, even if substantial harm is caused, that is not in itself a necessary indication that use of alcohol should be restricted. The presumption is that *usually* individuals are generally the best judges of their own welfare. Thus, provided the potential for harm is recognized by users, and the costs of such harms are borne by users themselves and assessed rationally by comparing benefits obtained to costs at the margin, restrictions are redundant. In short, the analysis starts from the presumption that alcohol consumption provides net benefits to *most* adults who drink based on informed individual choices.

Moreover, alcohol is a drug that, for adults, is both legal to consume and socially acceptable. It is also consumed by a significant proportion of the population in diverse settings.

The analysis does recognize that alcohol consumption has important costs, particularly when consumed at high levels or when consumed in a risky setting. Alcohol consumption can have seriously harmful physical and mental health effects

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and can lead to anti-social and even dangerous behaviour such as drink-driving and violence, particularly within the family unit. These costs become important to an economic liberal when they are not borne by the individual alcohol consumer or when there are associated issues of information failure or failure of self-control.

There are numerous government policies devised to regulate and restrict the terms under which alcohol is purchased and consumed. This paper provides a framework where such restrictions can be assessed in a consistent setting. Medical and non-economic approaches are examined first and then reasons for intervening discussed. Information, self-control and externality policies are discussed before conclusions and final remarks are drawn.

Medical and Non-Economic Approaches to Policy

Much of the community's focus on alcohol consumption looks at the adverse health and neuro-psychiatric consequences of drinking alcohol. This is the gross 'cost of illness' approach to estimating the costs of alcohol consumption: see Godfrey (2004). There is concern with the health costs of excessive drinking either when this occurs on a regular basis or episodically and with alcoholic dependence. There is also concern with social problems associated with drinking, in the workplace and in the home, with violent crime and intentional cause of injury associated with drinking and with drinking on inappropriate occasions such as immediately prior to driving a vehicle. Particular interest is directed towards youth drinking: see e.g. RACP (2005), WHO (2004).

This approach is valuable for articulating health and other cost implications of alcohol consumption and is often used to support dramatic headlines that point to the costly consequences of drinking alcohol. But this recognition does not help much in designing policy. To what *extent* should alcohol consumption be restricted? What are the costs, in terms of foregone benefits, of restricting consumption?

That drinking alcohol can constitute risky behavior does not in itself suggest much about the desirability of drinking or the extent to which it should be restricted. Policy analysis involves assessing the costs and benefits of alcohol consumption and making an evaluation of the case for restrictions based on these. The question is how to *value* the costs and benefits. Economics does this by assigning monetary values to the costs and benefits individual consumers experience through alcohol consumption as well as any costs and benefits that spillover to society as externalities because of this consumption. Policy analysis then seeks regulations and interventions which maximize the difference between social benefits and costs.

Free market exchange by rational private consumers will maximize this difference between social benefits and costs if there are no external costs or benefits. Rational individuals then choose to consume whatever maximizes their welfare and advances society's welfare. If there is a net external cost, however, free market exchange will not achieve this maximization since rational consumers, in making their choices, consider only the private costs they face. A restriction to reduce consumption to the point where net social benefits are maximized then makes sense provided that the cost of the policy restriction is less than the net benefits lost by not employing it. This establishes a case for policy activism with respect to alcohol consumption. Moreover,

looking at things in this way provides a conceptual and quantitative guide to the desired extent of the restriction.

From a liberal perspective, if consumers are aware of risks and costs of activities (whether they are drinking alcohol, smoking cigarettes, driving a car or bungy-jumping) there is no *a priori* case for restricting an activity unless there are net external costs. Simply identifying that costs and risks *are* associated with the consumption of alcohol does not suggest anything about the case for restrictions if one assumes that individuals are best equipped to make the choices that drive their welfare. Focusing on gross costs alone suggests only extreme, prohibitive policies.

The hypothesis that people make their consumption choices rationally on the basis of good information can be questioned. Indeed, some people have self-control problems in relation to alcohol consumption. Others may fail to identify harmful consequences of alcohol consumption. In part these are arguments for using policy to provide people with access to better information and to improve their decision-making skills. New policies are proposed to cover such situations.

Rationale for Intervention

There are three main market imperfections that create a case for restricting alcohol consumption. A fourth motivation for policy, paternalism, is a real-politic reason.

1. Information. Efficiency in market exchange requires that the purchaser of a product understands the characteristics of that product. With respect to alcohol, an issue is whether consumers understand that ethyl alcohol is a neurotoxin - it destroys brain cells – with few health benefits, see Fillmore et al. (2006). It is also unclear whether consumers understand fully the genetic and neurobiological bases for alcohol self-control problems.

The information difficulties are compounded by private sector advertising and promotion of alcohol which links consumption to sporting and social prowess. There is evidence that such advertising has significant effects on consumption, particularly among adolescents where standard motivations for risk-taking, novelty-seeking and peer-pressure driven behaviour increase the probability of experimenting with alcohol: Saffer and Dave (2003).

Finally, there might be particular age, ethnic or socio-economic groups in the community that have poorer information than other groups.

The failure to provide good information about the negative consequences of drinking alcohol is a market failure since information is a public good. Markets will develop to promote alcohol consumption since this benefits particular commercial interests but there are no such private incentives to provide information that presents the negative consequences of consumption.

On the other hand, there is evidence that some young people *overestimate* some risks associated with alcohol consumption – particularly the risks of becoming an alcoholic. This overestimation leads to *less* drinking than would occur were the risks accurately perceived: Lundborg and Lindgren (2002). The same result has been observed with

respect to smoking. Some smokers overestimate the adverse health consequences of smoking: see Viscusi (2002). To the extent that this is true, public information campaigns that seek to encourage *accurate* perceptions of health costs should counter-intuitively be oriented towards calming people's fears of the consequences of drinking and smoking rather than attempting to heighten their awareness of health risks.

2. Self-control issues. Alcohol consumption can be addictive and people may have problems controlling or curtailing their consumption. There are high levels of at-risk alcohol consumption in the community with ABS (2006) estimating that 13.4 per cent of the adult population drinks at 'risky' levels. Moreover, evidence from AIHW (2006) shows that people make efforts and expend resources to control alcohol consumption with 37 per cent of clients seeking treatment for drug dependency seeing alcohol as their primary drug of concern.

Self-control problems can be triggered by impulsive behavior. Those who have persistent problems controlling their consumption may have demands reignited by advertising and other cues.

There are particular issues of self-control among the young who have high impulsiveness as well as among those who have particular genetic predispositions to drink.

3. Externalities. Alcohol consumption creates private costs for individuals and more general social costs for those who interact with alcohol consumers and the broader community. Drink-driving is *the* most serious cause of traffic accidents (see Phelps (1997, chapter 15)). In addition, violent behaviour by intoxicated persons is a serious issue in the broader community.

Other alcohol-linked externalities include fetal alcohol syndrome and the damages caused by a drinker to family members. In some situations economists ignore intra-family costs on the basis that family units are regarded as making mutual consumption decisions. This is clearly not the case with most alcohol consumption so family costs should be regarded as a third-party impact.

In addition, in countries like Australia with a publicly-funded national health scheme the medical costs of alcohol consumption are not just privately borne by the individual. Above-average medical costs will be met partly from the public purse providing a public interest case for restricting use of alcohol.

4. Paternalism. Finally, although it does not fit into the liberal, 'market failure' category of reasons for intervention in alcoholic beverage markets, it must be admitted that there are strong moral and emotional arguments against excessive alcohol consumption. Some would oppose certain levels of alcohol consumption *even if* well-informed consumers, without self-control problems, did bear all the costs of their consumption.

This could result in alcohol taxes being set above their externality-correcting levels to reduce alcohol consumption. It could also motivate public health campaigns to be launched to decrease alcohol consumption not because external costs are being generated but simply because reduced alcohol consumption is a social objective.

For policy design purposes such arguments do not help. They do not take one far in considering a rationale for policy. On the basis of paternalism, alcohol consumption is opposed because certain groups in the community – doctors, scientists, religious leaders - assess it to be undesirable. However, considering paternalism as an explicit motivation for policy might be a useful descriptive way of understanding actual government regulatory policies - perhaps inefficient policies - that do operate. On this basis policies can be assessed purely in terms of how well they restrict consumption.

Policy Interventions

Given ‘market-failure’ reasons for seeking to restrict alcohol consumption, what are the policy options for regulating alcohol use?

1. Information-related policies. The public sector may need to intervene to provide accurate information about the negative consequences of consuming alcohol and to restrict advertising that emphasizes the inaccurately optimistic positive consequences of consumption.

Accurate information on the negative consequences of alcohol consumption includes information on self-control issues and on genetic information that might suggest possible future problems for drinkers. Goldstein (2001, 113) argues ‘...children of alcoholics should be advised to never touch alcohol; certainly they should be taught the special hazards that alcohol holds for them – hazards not shared by their peers’. This is specifically relevant for potential problem drinkers.

A difficulty here is that there is disagreement about the health consequences of consuming alcohol. The debate over the possible health benefits of consuming alcohol for reducing heart disease is a case in point: see Fillmore (2006a). Apart from providing accurate information on health consequences there is also then a case for investing in the provision of improved knowledge on the health consequences of consumption. As mentioned, the case for warning people of health risks is weakened if people already exaggerate the risks. If particular at-risk groups or particular health concerns arise, then these should be targeted rather than general alcohol health warnings given.

Generally, information targeting youth should specifically address the risks of alcohol while information targeting problem drinkers needs to address both risks and issues of problem-recognition, denial and treatment options.

2. Self-control policies. The liberal model of alcohol use treats problem drinkers as a ‘nuisance’ minority. They are, however, a sizeable minority and excessive drinking *is* hazardous to health. In 2004, 15 per cent of male Australian adults drank at ‘risky’ levels and 12 per cent of females. Moreover levels of risky drinking have grown 50 per cent over the past 10 years. Alcohol is a significant cause of hospitalizations and the main cause of deaths on Australian roads (ABS (2006)).

For many of these heavy drinkers alcohol is not an ordinary consumer good and its consumption cannot be analysed using a standard static rational choice model. People become addicted to alcohol in an unconscious process that eventually takes over their

lives. These heavy drinkers are not ‘rational addicts’ (see Becker and Murphy (1988)). Indeed they often start drinking as adolescents when excessive consumption is linked to incomplete development of brain regions involved in the processes of executive control and motivation. There is greater consequent vulnerability to alcoholism among individuals who start using alcohol early in life.

Moreover, there is a suggestion that, more generally, those with difficulties making rational choices *at any age* tend to be alcohol abusers. Those who abuse alcohol have a higher incidence of mental disorders (depression, anxiety, ADHD and schizophrenia) than the general population and use alcohol and other drugs to self-medicate (Koob and Moal (2006, Chapter 5)).

There are also genetic influences on propensities to consume alcohol which may underlie personality traits such as impulsivity, risk-taking and stress responsivity that drive excessive consumption. Family and twin epidemiological studies suggest heritability of vulnerability to addictive diseases of 30-60 per cent (Kreek et al (2005)).

Like other addictive drugs (opioids, stimulants, nicotine, marijuana) and natural rewards (food, sex, water) alcohol produces euphoria by activating pleasure centres in the brain. Like these other drugs alcohol releases dopamine in the brain where pleasure centres have evolved to ensure survival but which get ‘hijacked’ by alcohol. The euphoria induced by alcohol, particularly if enhanced by a genetic predisposition, encourages repeat use. Over time however alcohol disrupts these reward circuits and can produce withdrawal and craving if consumption ceases. Such negative reinforcements alternate with positive reinforcement to drive a cycle of addiction that becomes etched into brain structures. This etching reinforces pursuit of alcohol consumption, as a surrogate for survival-related behaviour, by dominating attention and decision-making.

Problem drinkers drink too much through time and face difficulties limiting the number of drinks they consume during particular drinking episodes with the first drink leading to uncontrolled drinking. Moreover, these compulsions to use can be long-term. Cues associated with alcohol (people, places, an alcohol advertisement) can trigger intense cravings among the alcohol-addicted which can trigger relapse into use even after a protracted abstinence.

A consumer in this cue-driven situation makes consumption decisions with only limited rationality and foresight. Policies for improving self-control include helping to demonstrate that alcoholism can be a consequence of recurrent drinking. There can also be provision of means for individuals to improve their self-control by promoting personal rules or heuristics that consumers can use to control their drinking behavior. In particular, since problems with alcohol consumption primarily stem from excessive consumption, personal rules relating to the number of ‘standard drinks’ one consumes per week, numbers of alcohol-free days that should be pursued per week or, in some cases, pursuit of total abstinence is useful. These are information policy issues.

Self-control can also be improved by supply restrictions. For example, by limiting the availability of alcohol outlets, trading hours and by limiting the promotion of

advertising that might trigger cues to drink. Such policies also increase the non-price ‘user costs’ of consumption that impact on all consumers.

Supply control measures on numbers of alcohol outlets and on opening hours will limit external costs of alcohol consumption: see Donnelly et al (2006) and, by limiting cues, promote the ability of individuals to control their drinking. By keeping away from cues and knowing that, beyond a certain time, drinking is impossible, people with self-control problems can formulate personal rules which limit drinking.

Restrictions on advertising will help curb drinking among abstaining problem drinkers subject to cues. Indeed, as with smoking, there is a case for limiting cues in the media that elicit consumption.

For age groups particularly prone to excessive alcohol consumption because of self-control problems there can be a case for consumption bans. Minimum age laws and restrictions of alcohol availability to particular ethnicities, such as Australian aborigines, are candidate policies. Aboriginal people are mainly alcohol abstinent but those who do drink typically consume over 13 standard drinks per episode (ABS (1994)) and hence comprise a prominent ‘at risk’ group of drinkers.

With respect to drink-driving issues the installation of ignition interlock devices can be understood as a technique improving the judgment and self-control of drinkers in their ability to safely drive after consuming alcohol (ICADTS (2002)).

Finally, treatment options emerge as a way of addressing excessive use. A substantial literature shows that local GPs can be effective in providing early interventions to caution people concerning alcohol problems (Johansson (2002)). Promoting a variety of behavioural and cognitive therapies makes sense as do traditional routes to controlling use such as *Alcoholics Anonymous*. Given that there are social costs associated with alcoholism there is a case for publicly-subsidising the costs of such services on the basis of effectiveness.

For problem drinkers treatment options include pharmacotherapies using drugs such as naltrexone (Volpicelli et al. (1992)). Naltrexone reduces recurrent daily drinking, diminishes alcohol-induced cravings and even reduces alcohol cravings after a priming drink of alcohol. It therefore limits the tendency of alcoholics to lose control once they begin to drink. Again given the external social costs of alcoholism there is a case for subsidies.

3. Externality policies. Economists focus on externalities as a primary source of social costs in relation to any form of substance abuse. The most standard economic prescription is to levy a tax which internalizes these external costs.

Externalities such as drink-driving-induced accidents cannot be dealt with by a simple tax directed toward alcohol consumption since the externality here stems from the combined activities of drinking and driving. Moreover, the probability of an accident, given a certain level of alcohol consumption, falls with age: see Phelps (1997, p. 516). A driver aged 20+ who has had six standard drinks and then drives has 12-times the chance of a fatal crash than a similarly-aged sober driver. For a driver aged 16-19 the risk increases to 100-times that of a similarly-aged driver. Inevitably, highway patrols

and booze buses detect drink-driving with alcohol-involved driving then being penalized rather than by employing taxes on alcohol consumption. It makes sense to impose stringent restrictions on alcohol consumption by young drivers.

Generally it is only if alcohol-related externalities are related to the overall level of a population's alcohol consumption (the 'populational health' view, see Young (1998, p.115)) that simple uniform tax policies make sense. The theory is now described.

In **Figure 1** the market demand for alcohol q litres is illustrated along with the private marginal costs of consuming different amounts of alcohol. The demand curve also measures the marginal benefits from alcohol consumption. The private marginal cost curve $c(q)$ includes the internalized private health costs, the costs of traffic accidents borne by the drinker, alcohol purchase costs, and so on. The social marginal costs of consumption are also illustrated. These comprise both the private marginal costs borne by consumers and the external social costs generated, including the health and the traffic accident costs borne by the community as well as the cost (in dollars) of violence and anti-social behaviour to others. As drawn there are no external benefits associated with alcohol consumption at low consumption levels but external marginal costs are low. As market consumption increases, external costs rise at an increasing rate. With a free market without taxes consumers will consume to the point where their private marginal benefits equal their private marginal costs. They thus consume q_2 and pay price p_2 . Because social costs exceed marginal benefits over the range q_1 to q_2 , this consumption imposes net social costs or *deadweight losses (DWLs)* to the community equal to the dollar value of the area ABC.

The standard economic prescription to remove these costs is to levy a Pigovian tax t which raises the price of alcohol consumption to p_1 and leaves alcohol consumption where marginal private benefits equal marginal social costs at q_1 .

Determining the size of this tax depends on assessing the scale of the unpaid-for social costs and how these are linked to consumption at the margin. It also depends on the elasticity of demand of consuming alcohol. The more responsive demand is to the tax the smaller the tax can be. Selvanathan et al. (2004) provide elasticity estimates of -0.3, -0.4 and -1.3 for Australian beer, wine and spirit consumption respectively. For alcoholic beverages as a whole the estimated elasticity is -0.6 suggesting that a 10 per cent increase in price would cause a 6 per cent reduction in consumption.

Clearly, if the social costs are related to the alcohol content of drinks the tax should be designed to reflect this. It should be a *volumetric* tax related to the alcohol content of particular types of alcoholic beverage and not an *ad valorem* excise levied on the *value* of alcoholic products sold. Light beer in Australia is already taxed at a lower rate than full-alcohol-strength beer in accord with volumetric principles (Commonwealth of Australia (2005, chapter 5)).

This economic approach to regulation does *not* focus on the gross costs of consumption, GC. Thus it does not focus on the total medical, road accident costs and so on that can be attributed to alcohol consumption. In the figure these would be represented as the area $0q_2BE$. Nor does it focus solely on the non-internalized net costs less benefits (NC) of alcohol use, the medical or road accident costs not borne by alcohol consumers less consumption benefits as given by the area ECB. Instead,

the economic approach recognizes that alcohol consumption yields benefits to consumers given by the area under the demand curve. The approach seeks to enforce a tax-inclusive price and alcohol consumption that maximizes the net social advantage, here the value of the benefits consumers derive from alcohol consumption less *all* the costs consumers impose irrespective of whether they are internalized or not.

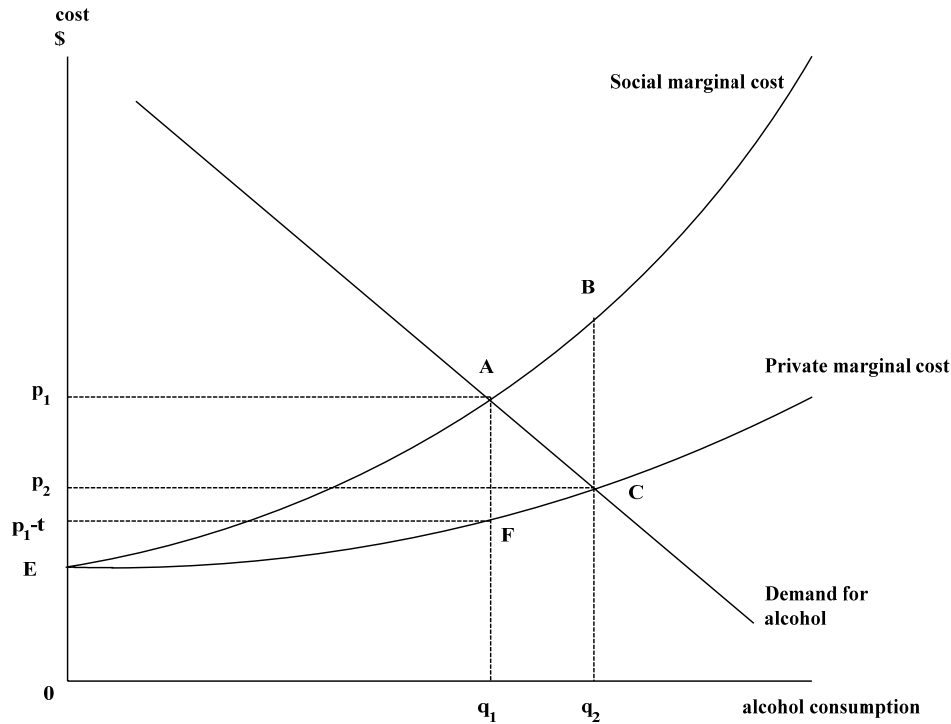


Figure 1: External costs of alcohol consumption

Indeed $DWLs \ll NC \ll GC$ where \ll means ‘is much less than’. Thus setting a tax t eliminates society’s deadweight losses and reduces, but does not eliminate, net and gross costs of consumption.

Note that optimal tax revenues, tq_1 , exceed the value of the non-internalized social costs EAF because social marginal costs increase strongly as levels of consumption increase. Therefore evidence showing that alcohol consumers pay more taxes than they impose in external costs does *not* support the conclusion that taxes are ‘too high’ as commonly suggested by the hotels and beverage industry. It is only if non-internalized marginal external costs were constant, so that the private and social marginal cost curves were parallel, that tax revenues should coincide with unpaid external costs. This is unrealistic since social damages are, most plausibly, strongly increasing in alcohol consumption. Thus *taxes should ideally exceed damages*.

Empirically the social costs of alcohol consumption must be computed net of any external benefits. People who die from alcohol consumption create a social benefit in terms of reduced costs of aged care and reduced costs of treating other diseases that would have impacted on mortality if alcohol consumption was curtailed. If there are external benefits from the ability of alcohol to catalyze social interactions and which help in creating social capital these too should be netted out.

There are several reservations concerning this standard tax prescription.

(i) The approach is designed to optimize the *overall* social advantage but will have different effects on different community groups. The taxes levied are inevitably uniform taxes – they do not vary by consumer. If a minority of alcohol consumers had very inelastic demands because of self-control issues then their consumption might need to be exposed to very high taxes if it is to be curtailed. Such taxes would impose heavy DWLs on those who consume at moderate levels but who do not impose significant social costs. Setting lower taxes, however, to cater for those imposing low social costs, leaves the behaviour of those who impose large social costs largely unchanged while significantly reducing their real incomes. If high alcohol consumers are socially disadvantaged this is a problem in itself. While gainers from efficiently taxing alcohol can, in principle, compensate losers, this compensation is difficult to engineer in practice.

Such distributional issues constrain policy. Indeed some argue that ‘a tax on alcohol would reduce consumption indiscriminately...and therefore reduce the satisfaction experienced by millions of sensible drinkers without necessarily reducing the harm caused by a few excessive drinkers’ (Littlefield (1986, p. 274)).

To be more specific the 2004 *National Drug Strategy Household Survey* (AIHW (2005)) suggest that 74 per cent of Australians aged 14 years+ consumed alcohol in quantities considered a ‘low risk’ to health but paid hefty alcohol taxes. Only 10 per cent of the population consumed alcohol in a way considered ‘risky’ or ‘high risk’ to health in the long term¹.

High taxes may encourage the decision to quit entirely but, given an alcoholic’s compulsion to not stop at one drink, will not markedly reduce the intensity of drinking during particular consumption episodes. In their favour on the other hand high taxes will have major effects in restricting alcohol consumption among adolescents (Saffer and Dave (2003)).

The question of whether low levels of drinking are harmful – or even beneficial - is controversial. In assessing workforce costs Pidd et al. (2006) used self-reported measures of alcohol-related absenteeism to estimate 2.7 million work days were lost due to alcohol use in 2001, costing \$437 million. Self-reported measures of illness or injury absenteeism to determine absenteeism attributable to alcohol use resulted in an estimate of 7.4 million work days lost, costing \$1.2 billion. Low-risk drinkers and infrequent or occasional risky and high-risk drinkers accounted for 49–66 per cent of alcohol-related absenteeism. The cost of alcohol-related absenteeism is far greater than previously reported and the high incidence of costs by low-risk drinkers and those who infrequently drink heavily was unexpected.

One approach to addressing concerns that external costs are concentrated among a narrow group of high consumption users is *to levy moderate taxes but to penalize intensively the socially costly actions that are associated with high alcohol*

¹ For males, consumption of up to 28 standard drinks per week is considered ‘Low risk’, 29-42 per week ‘Risky’, and 43 or more per week ‘High risk’. For females, consumption of up to 14 standard drinks per week was ‘Low risk’, 15 to 28 per week ‘Risky’, and 29 or more per week ‘High risk’.

*consumption*². Drink-driving and alcohol-related assault should be intensively penalized as activities in themselves. Thus the drunk who walks home from the pub and ‘sleeps it off’ is not taxed prohibitively. If the same drunk drives home or assaults a family member then stringent penalties obtain. Alcohol taxes in this event capture non-extreme social costs while particular laws seek to capture externality costs.

(ii) Using volumetric taxes to penalize low-value, high-alcohol products creates incentives for unfavourable substitutions towards other intoxicants and drugs. A widespread intoxicant in aboriginal communities is petrol-sniffing so there might be incentives to shift towards this if low-cost high-alcohol beverages become more expensive. This is a ‘second-best’ constraint on the tax that reflects the fact that substitute intoxicants cannot readily be taxed.

Whether taxes on alcohol will make people substitute towards alternative drugs depends on whether alcohol and the drug are substitutes (Cameron et al. (2001) suggest cannabis and alcohol are substitutes) or whether they are complements. Williams et al. (2004) suggest alcohol and cannabis are complements so increasing the price of alcohol will reduce cannabis consumption.

Attempts to efficiently tax alcohol-induced social costs require that close-substitute intoxicants be also efficiently taxed or regulated. Policy design generally must account for such cross-market interactions.

(iii) Measures of consumer gain from alcohol consumption given by the area under a demand curve are exaggerated if there are self-control problems. These can be dealt with by adjusting downward benefit measures to account for compulsive consumption: the technique is used for gambling addictions in Productivity Commission (1999, chapter 5).

Finally, apart from implementation difficulties some have argued that there is a case for dedicating a proportion of alcohol taxes, by hypothecation, to targeted alcohol treatment and information programs (RACP (2005)). The motivation is presumably that such revenues reflect the extent of social costs that alcohol creates. This is not true with the social costs we have assumed which rise more than proportionately to total community consumption – here revenues will inevitably exceed non-internalized costs. The reasoning behind hypothecation is unsound anyway since the investment in such programs depends on their effectiveness not only the damages alcohol inflicts. To take an extreme case if such programs had low effectiveness then little should be allocated even if alcohol’s social costs are large. The function of taxes on alcohol is primarily to signal the correct social costs alcohol consumers are imposing at the margin. Their revenue-yielding function is secondary.

Conclusions and Final Remarks.

The economic approach to the costs of alcohol use focuses on the external costs of consuming alcohol, not gross costs. The approach recognizes that alcohol provides benefits to consumers and supposes that costs of consuming alcohol that are borne by consumers themselves are irrelevant from society’s viewpoint, at least for non-

² I thank Sam Ward for this suggestion.

compulsive consumers. The economic approach to alcohol policy is based on the utilitarian precept that alcohol consumers should bear the full costs of their consumption and, given this that society should maximize net social benefits from consumption.

An advantage of this approach is that it implies a clear guide to policy design with secure utilitarian foundations. Information should be provided to consumers so they correctly assess the costs and benefits of alcohol consumption including, genetic information and the self-control problems that can develop with alcohol consumption. Self-control difficulties themselves can be addressed with appropriate policies for treating such difficulties and by adjusting measures of the benefits from alcohol consumption. With such adjustments alcohol pricing forces the price of alcohol towards its full social cost (Godfrey (2004)).

Despite the strong theoretical reasons for adopting the economic approach it has, in fact, only rather seldom been applied. The main studies are for the United States (Manning et al. (1989), Pogue & Sgontz (1989), Heien & Pittman (1993)) and New Zealand (Barker (2002)). Anderson and Braumberg (2006, p. 68-69), in reviewing these studies, comment on the difficulties of implementing them given the problems of defining what are external costs and particularly in recognizing the private component of health costs in a country with a public health system:

‘...externality studies ...evidently omit any consideration of the broad range of costs borne by the individual drinker, and are more useful when conducted alongside rather than in place of more common social cost studies. This is particularly true given two contentious results of the assumptions in many externality studies – first, that any harm within the household (such as to the drinker’s partner, or children) is counted as a private cost; and second, that drinkers are both fully rational and fully informed of the risks when they decide to drink’.

This is a political criticism that rejects the liberal ethic underlying the economic approach. The claim that harm within the family needs to be included as a private cost is rejected in the present paper as families don’t make drinking decisions, individuals do. The second point suggests that a group of non-drinkers can better judge what a consumer wishes to consume than the consumer themselves. This may sometimes be so but not always and policies can be designed which address the needs of problem drinkers while meeting liberal political precepts and standards of economic efficiency for most drinkers. To a liberal, the criticism is a questionable *overall* basis for public policy.

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