

TAXING HARM:

MODERNISING ALCOHOL EXCISE DUTIES

Alcohol 'is an article of human consumption which has
a legitimate use accompanied by dangerous possibilities'
The Report of the Royal Commission on Licensing 1946

A report commissioned by the Alcohol Advisory Council
The views in this report are the author's and may not be those of ALAC

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SOME PRELIMINARIES

1. In order to distinguish between a beverage containing alcohol, and absolute alcohol, the latter is called 'ethanol' throughout this report.
2. However, following the standard convention, the measure of the ethanol content in a drink is 'absolute alcohol by volume' or 'aabv'.
3. Aabv is usually measured as a% of the total volume. 'Proof', a term not used in this report, is double that%.
4. Unless otherwise stated, all prices, values and duties are measured GST inclusive.
5. No part of this report is intended to refer to tobacco consumption or the policies towards it. Tobacco has a quite different incidence of harm from alcohol.
6. Paragraphs which begin with an asterisk (*) are more technical and can be skipped by the general reader.

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EXECUTIVE SUMMARY

Since 1989 the broad policy toward alcohol has been based upon the notion that much of its consumption is like the consumption of other products, so a well informed adult makes informed decisions as to the quantity to be consumed and the circumstances in which the consumption can take place. However, some consumption is potentially harmful, and there is a necessity of public intervention to minimise the harm. Regrettably, those interventions can also inhibit non-harmful drinking. Public policy therefore has to trade-off harm reduction with a reduction of moderate consumption.

The instruments of public policy to intervene have been based upon such statutes as the Sale of Liquor Act, the Alcohol Advisory Council Act and parts of omnibus acts such as the Health Act, Police Offences Act and the Transport Act. More recently they have been coordinated and prioritised via the *National Alcohol Strategy*.

Yet these measures need to be complemented by greater attention to the role of prices in the decision to consume liquor. Of course it has been long realised that excise taxes increase the relative price of alcohol and thereby reduce the purchases and consumption of alcohol. But there has been little attempt to coordinate them with the *National Alcohol Strategy* and its concern with harm. Insofar as there is a policy view of their purpose they remain primarily revenue raising, although their special status is justified because of the impact of the alcohol-related harm on the government's fiscal position.

This report proposes that in future the primary purpose of excise duties on alcohol should be as part of the harm minimisation strategy. Setting the levels of duties still requires attention to the impact on the government's fiscal position, but the philosophy behind the excise duty and the way it is implemented is altered if a harm perspective is adopted.

Adopting a harm approach to alcohol excise duties can reduce potentially harmful consumption, especially that of teenagers and heavy drinkers (but not particularly by chronic drinkers, except that the measures may inhibit heavy drinkers becoming chronic drinkers over time). But it cannot eliminate all harm. Effective harm minimisation involves other interventions. Those other interventions are likely to work more effectively if the excise duty strategy is supporting them.

Brian Easton,
November 2002.

The following summarises and consolidates the recommendations in the text, although not in the text order of presentation.

Principles

1. The National Drug Policy includes the policy objective of ‘the minimis[ation] of harm caused by alcohol use to both individuals and the community’ where harm is defined as ‘all adverse effects or outcomes, including harm to health as well as detrimental effects on social and family relationships, loss of actual or potential enjoyment or livelihood, and economic or financial costs’.
2. The report recommends that the specific taxes and levies on alcohol be levied with the primary purpose of reducing alcohol misuse and the consequent harm.
3. A secondary purpose, which assists in setting its appropriate level, is that the taxation should enable the government to recover some or all of the expenditure outlays and revenue losses caused by alcohol harm.

The Effects of Excise Duties: How the Market Can Help Reduce Harm

4. The effect of (an increase in) the excise duty or levy is to increase the price of the alcohol on which it is levied.
5. The effect of an increase in the price of alcohol is a reduction in alcohol consumption to some extent. The extent varies by type of drinker, by drinking situation, and possibly by the quantity drunk in each situation.
6. The biggest reductions in harm from rising alcohol prices are likely to arise from
 - reduced teenage consumption
 - inhibiting moderate and heavy drinkers from becoming very heavy drinkers and
 - reduced additional drinking in a session.
7. The strongest economic reasons for extra regulation of the alcohol market (including the imposition of excise duty) are
 - externalities and the need to relate market prices to social costs
 - the semi-rational or irrational behaviour of teenagers learning to drink, and of heavy drinkers and addicts (although the latter group may not be particularly susceptible to price signals) and possibly
 - inhibiting moderate and heavy drinkers becoming very heavy drinkers and addicts.

8. Excise duties based on ethanol are probably mildly regressive, that is they probably impose proportionally more on the poor than the rich. However the biggest redistributive effect of excise duties is the transferring of spending power from heavy drinkers to moderate drinkers and non-drinkers. This transfer is in the opposite direction to the social costs that heavy drinkers impose on others. Thus the main fiscal effect of excise duties on alcohol is to offset the redistributive impact of the social costs of alcohol misuse – that is to reverse (in part) the transfer of social costs that heavy drinkers impose on moderate drinkers and non-drinkers.

9. Higher prices for alcohol impact on different consumers in different ways. The evidence suggests that moderate drinkers are not greatly affected, heavy drinkers may cut back their drinking by 1% for every 1% rise in price, and chronic drinkers are almost completely unaffected on average. Teenagers reduce their drinking in the face of higher prices, and it seems likely that there is less drinking in extended drinking sessions as the price rises. Higher prices may also inhibit moderate drinkers from becoming heavy drinkers and heavy drinkers from becoming chronic drinkers.

10. In a modern market economy, market prices coordinate the decisions of producers and consumers. To do this effectively, the prices should relate to social costs.

11. While many people are offended by excessive drinking, which in economic terms may classify it as a ‘demerit’ good, this may not be a compelling reason for raising alcohol prices.

12. While there is some irrationality (or quasi-irrationality) among some alcohol consumers and on some occasions, it is not evident that price policies are particularly helpful in reducing harm from this course. Insofar as irrationality is a problem, other interventions need to be pursued. The report notes however, that teenagers who are being socialised into moderate drinking need special attention.

13. Alcohol is one of a handful of products where the costs of production do not roughly reflect the overall costs to society of consumption. The excess social costs are substantial. The most comprehensive estimate suggests that alcohol misuse reduces effective GDP by 4%, may well reduce the effective size of the unmeasured (informal) economy by a similar amount, and has also reduced the welfare of New Zealanders via additional mortality and morbidity by 2% and the population of New Zealand by 0.8%.

14. The excess social costs may be thought of as the economists’ equivalent of harm, in which case the objective of alcohol policy in economic terms is to reduce social costs. Reducing the gap between the prices on which individuals base their alcohol consumption decisions and the social cost to the economy will reduce harm, because individuals are less likely to partake of potentially harmful consumption.

15. It is not practical to require the alcohol consumer to pay an appropriate insurance for the social costs they may incur with each drink, since the payment would vary markedly by the personal characteristics of the consumer, the drinking situation, and the number of drinks recently consumed. Excise duty is an imperfect practical alternative to the ideal. It will not eliminate all potentially harmful consumption.

16. While the idealised insurance system would generate exactly enough revenue to cover the excess social costs, that rule does not apply for an across the board levy. There is even an argument that the levy should generate more than the excess costs, because it should be struck at the level reflecting the most harmful drinking on the margin rather than the average drinking which is less harmful.

17. While a lift in alcohol excise duty will raise prices for all drinkers, many will be better off insofar as the resulting tax revenue will be recycled back. Under some assumptions, over 70% of adults will be better off as a result of this recycling (and also from reductions in harm). However, because heavy drinking is concentrated in a small part of the population these drinkers will be made worse off as a result. On the other hand heavy drinking is the main source of harm, and so the heavy drinkers would be paying for a greater share of the harm they generate.

New Issues

18. Among the new issues facing strategies to reduce alcohol harm are new beverages, and new legislation which liberalises access and attitudes to alcohol. Excise duties probably can do little to assist with any potential harm these may generate, but it is noted that while in principle ALAC has some of the relevant interventions to meet these challenges (and that of rising teenage drinking) it has not had an increase in its funding relative to inflation since 1991.

19. A major new issue is the rising incidence of teenage drinking over the last decade, and the clear evidence that much of it is potentially harmful. Teenagers are sensitive to higher prices. Higher excise duties would reduce their potentially harmful consumption while they learn to drink like mature adults. (The report also notes that there is also considerable heavy drinking by adults in their early 20s, which would also be reduced by higher excise duties.)

20. A second new development is the introduction of new beverages, for which the cost of ethanol is exceptionally cheap. The report describes light spirits for which the price of a 1.125 litre bottle is as low as \$7.95. (If they were selling ethanol at the same market price, a dozen 330ml cans of beer would cost \$6.33, a 750ml bottle of wine would cost \$2.76, or a 1.125 litre bottle of spirits would cost \$12.85.) The cheapness of light spirits arises from the low excise duty on spirits below 23% aabv, an anomaly in the levying regime. There are two reasons for

this: first, the duty is imposed on the basis that the liquor has 18% aabv (although the actual aabv is 23%) and second because of the low cost of production.

21. Indicative figures suggest that revenue from excise duty on alcohol does not even cover the costs incurred by the public health sector in dealing with alcohol harm, and may cover only a fifth to a quarter of gross fiscal costs.

22. It is recommended that government agencies be required to estimate regularly the costs they incur dealing with alcohol harm.

The Proposed Excise Duty Regime

23. An excise duty on alcohol can contribute to reducing harm from alcohol misuse by raising the minimum price of alcohol, thus reducing consumption by teenagers and heavy drinkers, and inhibiting the creep of moderate drinkers into heavy drinkers and to chronic drinkers. However, ideally the excise should not impact on moderate drinking that is not potentially harmful. In practice this impact cannot be eliminated but it can be moderated by choice of the duty regime.

24. The most effective excise duty with the purpose to reduce harm is likely to be one which is levied on ethanol (the quantity of absolute alcohol), and is particularly concerned with the minimum price of alcohol. A particular merit of this levy regime is that it impacts relatively less on high value (relative to ethanol content) drinks.

25. A strategy that focuses on the minimum price of ethanol requires regular collection of pricing data. Statistics New Zealand should be commissioned to collect the data, as a part of its regular price collection programme.

26. It is possible that the excise duty on ethanol could be supplemented by duties based on containers, concentration, or on any other chemical identified as harmful. However, not enough is known about these to justify any positive recommendation.

27. A strategy based on ethanol content would not normally need to differentiate between types of beverage. However, the difficulties of assessing the ethanol content of wine require a modification to the general principle and, as explained in paragraph 29, there is a case for a differential between spirits and the rest to minimise the impact of the excise on moderate drinking.

28. Very low alcohol beverages should be exempted from excise duty on the basis that their consumption causes little harm (as well as reducing compliance costs). Subject to their not being able to be cheaply distilled back to a higher level of ethanol concentration (which would

undermine the tax base and could add to harm) it is recommended that beverages with an aabv below 2.5% be exempt. (The 2.5% comes from the definition of low alcohol beverages used by the Australian and New Zealand Food Authority Regulations.)

29. As far as is practicable, ethanol should be levied on actual content, and the excise rate should not be based on duty bands. Where duty bands have to be used, the within band rate should be set at the top of the band in order to avoid suppliers avoiding actual taxation on ethanol content.

30. Bulk wines should be taxed at the actual ethanol content or, where that is impractical, at the top of the band. High value wines (say, above \$12 a litre for production costs plus GST) would be taxed at a set rate independent of their alcohol content which is currently \$21.096 a litre. Similar principles should apply to fortified wines and liqueurs.

31. Distilled spirits (especially light spirits) can be produced at a considerably lower cost than other forms of alcohol. In order to maintain realistic minimum levels for the price of alcohol, either the base excise duty rate for all alcohol has to be raised, or a differential between spirits needs to be introduced. This report recommends the latter option. The recommended differential is lower than the current differential of \$17.32 for full spirits and would result in a reduction in their prices, but it would raise the price of light spirits.

32. The application of the rates based on the principles in this report (including raising the excise threshold, lowering the excise duty on spirits, increasing it on light spirits, and a better application of the existing rates) will not alter revenue by much. The proposals are essentially a rebalancing exercise, to reduce harm.

33. The base level for excise duty is a political judgement to be made through the parliamentary process. That it is a political judgement suggests the need for a wide public debate on the appropriate excise duty rate. An important consideration in setting the base rate is the extent to which the total excise duty should contribute to gross fiscal costs of alcohol harm.

34. However, it would be understandable if the government decided to recover a high proportion of the fiscal costs generated by alcohol misuse by a higher excise duty rate. At the same time that would reduce alcohol harm, while the additional revenue could be recycled for priority fiscal purposes.

35. To assist the public discussion an example is given on page 13 below of the impact if the excise duty were increased. The report explores an increase of \$6 a litre of ethanol (exclusive of GST), which would be about the amount required for the excise levy to cover the public health costs generated by alcohol misuse. The additional revenue would be about \$120m a year.

Hypothecation

36. The report does not recommend further hypothecation, that is the practice of tying revenue from taxation to a particular spending program. This is under consideration by the government at the moment (in regard to a health levy), and the issue may be revisited after the decision is made. The report does, however, look at some existing hypothecation.

37. The Accident Compensation Corporation (ACC) already levies various activities to fund its programme. ACC should be invited to consider whether it should place a levy on ethanol thereby reducing its other levies.

38. It is recommended that ALAC receive an increase in its levy revenue to enable it to more vigorously contribute to a reduction in harm from teenage drinking. As far as possible, the levy should be on ethanol content in parallel to the excise duty.

Miscellaneous

39. Until there is evidence of home production causing significant harm it is unnecessary to impose excise or other special duties on it.

40. The international practice where alcohol is not included in the de minimus (where the duties and indirect taxes in imported goods for personal use are exempt from a levy up to \$50) should be followed (as it is for tobacco). Whether the duty exemption for trans-Tasman travellers is consistent with Closer Economic Relations between Australia and New Zealand should be reviewed.

41. There is a need for a continuation of a vigorous host responsibility programme for businesses that supply their staff with free liquor, given that any price restraint to harmful drinking does not apply.

42. GST should continue to be levied on excise duty to simplify compliance costs. As a general rule the statements about excise duty should be explicit whether they include or exclude GST.

43. The regular adjustment of excise duties to changes in consumer prices should be continued (and the practice applied to spirits if the new lower rate is introduced). However, every three to five years the levels should be reviewed for the effect of economic, fiscal, and social changes other than inflation, with particular attention to the minimum cost of ethanol.

44. The voluntary labelling regime needs to review the information displayed about alcohol content (including on websites and in advertisements). Businesses may choose to include excise duty information on the label if they wish.

45. While there is a case for on-licence sales to be excised at a lower rate than off-licence sales, there seems no practical way to do this.

46. Litter, waste and recycling issues need to be addressed as part of a comprehensive programme for all litter, waste and recycling, rather than specifically for alcohol.

Summary

47. The main argument of this report is that excise duties on alcohol should have the primary purpose of reducing harm, but that also entails contributing to the gross fiscal costs the harm generates.

48. In the course of this report, the application of the principles has resulted in some recommendations for changes to the excise system. The main changes are summarised in the following table. The last column indicates the impact were the government to require the revenue from the excise duty on alcohol to cover the full costs to the public health system caused by alcohol misuse.

SUMMARY OF RECOMMENDATIONS ON EXCISE DUTIES

	Price change as a result of rebalancing and reducing harm	Further price change if duty increased by \$6 a litre of ethanol.
Beer Low alcohol (2% aabv) Other (4% aabv)	12c a 330ml can <u>lower</u> No change	No change 9c a 330ml can <u>higher</u>
Wine Bulk (13% aabv) High price	71c a litre <u>higher</u> No change	88c a litre <u>higher</u> 66c a 750ml bottle <u>higher</u>
Spirits Light (23% aabv) Full (37.2% aabv)	\$5.22 a 1125ml bottle <u>higher</u> \$1.83 a 1125ml bottle <u>lower</u>	\$1.75 a 1125ml bottle <u>higher</u> \$2.83 a 1125ml bottle <u>higher</u>

Note: The changes are the GST inclusive excise duty impact only. Suppliers may also change their margins in response.

PART 1: THE POLICY FRAMEWORK FOR REGULATING ALCOHOL

Sale of Liquor Industry Act 1989

The current policy framework for the regulation of the consumption of alcoholic beverages begins with the Sale of Liquor Act 1989. Section 4, the Object of Act, states in sub-section (1) that

‘the object of this Act is to establish a reasonable system of control over the sale and supply of liquor to the public with *the aim of contributing to the reduction of liquor abuse, so far as that can be achieved by legislative mean.*’ (Italics added)

Sub section (2) requires

‘the Licensing Authority, every District Licensing Agency, and any Court hearing any appeal against any decision of the Licensing Authority, shall exercise its jurisdiction, powers, and discretions under this Act in the manner that is most likely to promote the object of this Act.’

The notion that the purpose of the licensing system was solely concerned with reductions in the abuse of liquor was pioneering in international terms and a major break from past legislation, which had been concerned with reducing and restricting all liquor consumption. In future the industry would be regulated by the ordinary commercial laws of the land, other than where it was possible to reduce liquor abuse. Moreover, the objective was clearly to reduce abuse, not liquor consumption as a whole.

Alcohol Advisory Council Act

The Alcohol Advisory Council Amendment Act 2000 amended the principal Act with a new section 7 which established the primary objective of Council:

‘The primary objective of the Council is the *encouragement and promotion of moderation in the use of liquor, the reduction and discouragement of the misuse of liquor, and the minimisation of the personal, social, and economic harm resulting from the misuse of liquor.*’ (Italics added)

This represents a reformulation and extension of the objective in the Sale of Liquor Act, in which reduction in liquor abuse is replaced by a more detailed expression that covers the promotion of moderate use of liquor, the reduction of the misuse, and the minimisation of harm from the misuse of liquor.

The objective is amended from the original statute, by replacing the term ‘evils’ with harm, reflecting in part the change in attitudes to alcohol consumption, from a more judgmental approach to one which judges outcomes by their impact on society.

Nowadays this lengthy expression is simplified to ‘reductions in (or minimisation of) harm from liquor misuse’. This ‘harm’ phrase will be used throughout this report to cover the longer phrase from the objective of the Alcohol Advisory Council Act, and the phrase in the Sale of Liquor Act.

National Drug Policy 1996

The notion of ‘harm’ as being at core of alcohol policy is set down in the *National Drug Policy Part 1: Tobacco and Alcohol* published in 1996.

The stated policy goal in regard to alcohol is:

‘To minimise harm caused by alcohol use to both individuals and the community.’

Where

‘Harm’ includes all adverse effects or outcomes, including harm to health as well as detrimental effects on social and family relationships, loss of actual or potential enjoyment or livelihood, and economic or financial costs.’

The document identifies the five principles underpinning this goal as

- efficiency
- equity
- use of both harm prevention and harm reduction strategies
- upholding individual rights where these do not unreasonably impinge on the rights of others
- ensuring the needs of Maori are addressed by enabling development of specific strategies acceptable to Maori.

The priority for the reduction of alcohol harm over the period following the release of the document were set out as

‘To reduce hazardous and excessive consumption of alcohol, and the associated injury violence and other harm, particularly on roads, in the workplace, in and around drinking environments, and at home.’

where the following desired outcomes are identified

- increase in the proportion of the population who do not exceed maximum responsible drinking levels
- reduction in the prevalence of binge drinking and other harmful drinking patterns among young people, including young Maori and young Pacific Islands people
- reduction in the rate of road crashes involving drivers who have consumed alcohol beyond prescribed blood alcohol content levels
- reduction in the rate of alcohol-related crimes, including criminal assaults and public order offences.

The policy document mentions the following ‘types of interventions’

- health promotion
- legislation and regulation
- enforcement
- treatment
- research.

The document does not mention taxation on alcohol as a means of reducing harm.

The National Alcohol Strategy 2000-2003

The National Alcohol Strategy 2000-2003 affirms the 1996 *National Drug Policy* and sets some outcomes as follows

PRIORITY: To enable New Zealanders to increase control over and improve their health by limiting the harms and hazards of alcohol use.

Outcome 1: Government staff and agencies

General acceptance by government staff of harm minimisation as an effective approach to reducing alcohol-related harm; and ongoing co-operation and collaboration amongst agencies involved in alcohol issues.

Outcome 2: Community involvement

Increased involvement of the community and particular subgroups within the community in reducing alcohol-related harm.

Outcome 3: School policies and education

More effective school policies and education in the school setting about healthy attitudes and practices to alcohol use.

Outcome 4: Workplace injury and productivity

Reduction in injury and loss of productivity in the workplace, linked to the use of alcohol.

Outcome 5: Treatment

Improved range, quality and accessibility of treatment options for people with alcohol problems.

Outcome 6: Expertise of health workers

Improved expertise of health workers in the alcohol field

PRIORITY: To reduce the hazardous and excessive consumption of alcohol, and the associated injury, violence and other harm, particularly on the roads, in the workplace, in and around drinking environments, and at home.

Outcome 1: Responsible drinking levels

Increase in the proportion of the population who do not exceed maximum responsible drinking levels.

Outcome 2: Alcohol and pregnancy

Reduction in the prevalence of drinking amongst pregnant women and women planning pregnancy.

Outcome 3: Drinking and young people

Reduction in the prevalence of binge drinking and other harmful drinking patterns among young people, including young Maori and young Pacific peoples.

Outcome 4: Alcohol and road crashes

Reduction in the rate of road crashes involving drivers who have consumed alcohol beyond prescribed blood alcohol content levels.

Outcome 5: Maori, alcohol and road crashes

Reduction in the rate of Maori death and injury caused by alcohol-related motor vehicle crashes.

Outcome 6: Alcohol-related crimes

Reduction in the rate of alcohol-related crimes, including criminal assaults and public order offences.

Outcome 7: Alcohol-related drownings and injuries

Reduction in the rate of alcohol-related drownings and alcohol-related injuries.

The Policy Framework Context

In the last 13 years, public policy on alcohol has moved to a focus on the reduction and minimisation of harm as the reason for interventions. This accepts that the consumption of alcohol need not be harmful, and the policy aim is to reduce consumption only insofar as it is potentially harmful. Obviously there will be occasions when a particular intervention may not be successful, because either it fails to eliminate all the harmful consumption on which it is targeted, or it may eliminate some consumption that is not harmful. The task has been to design interventions that are successful as often as possible. In the past the policy was to reduce or restrict all alcohol consumption, as if all consumption were potentially harmful, and had little offsetting benefit. Since 1989 that approach has been rejected.

However the new policy framework does not specifically include taxation on alcohol. As Part 2, demonstrates that alcohol excise duties are not thought of as primarily, or even marginally, as a part of the harm reduction strategy. Indeed there is considerable uncertainty as to the role of the excise duty, other than as means of raising revenue, possibly to cover the fiscal costs caused by harmful drinking. Part 3 shows that excise duties can be used to reduce alcohol misuse and hence the harm it generates.

The harm caused by alcohol misuse, not only to the public fiscal position but also privately to New Zealanders including often those who are not the drinkers, is considerable. This report is written from the perspective that the excise duties on alcohol are one of the available effective policy instruments for reducing harm.

Indeed it would be logical to set the primary purpose of excise duty as reducing alcohol misuse and the resulting harm. A secondary purpose, which helps set the appropriate level of duty, is for the government to recover some or all of the expenditure outlays and revenue losses caused by alcohol harm. Thus the special taxation and levies on alcohol should be a part of the nation's harm reduction strategy.

PART 2: THE TAXATION OF ALCOHOL

The Early History of Taxation on Alcohol

In 1839, the British Colonial Secretary, Lord Normandy, confidently advised putative Governor Hobson: 'Duties on the import of tobacco, spirits, wines and sugar, will probably supersede the necessity for other taxation ...' (McLintock 1958:90). Ordinance No.3 of 1841 imposed duties starting from 9d. a pound for unmanufactured tobacco, and 4s. a gallon for spirits (beer was not initially taxed). There was a brief period from 28 September 1844 to 8 April 1845 in which the duties were repealed, but since then excise duties on the imports of tobacco and alcohol, and later on their domestic manufacture, have been an ongoing part of New Zealand's fiscal practice (Taxation Review Committee 1967:63).

Normandy's promise that the revenue source would be sufficient proved unfounded. Admittedly in 1875/76 customs and excise duty made up 91.6% of tax revenue, but since then the proportion has been diminishing. In 2002/03 excise duties (including the GST levied them) on alcohol and tobacco are expected to contribute 3.5% of total tax revenue (with a further 1.9% coming from customs duty). The decline is not so dramatic relative to total output. Customs and excise duties (including on some other products) were about 4.1% of GNP in 1875/76, while alcohol and tobacco taxation is expected to be about 1.4% of GNP this year. What Normandy underestimated were the revenue demands of future governments.

The decision to tax spirits, tobacco and sugar was initially a matter of administrative convenience. All excise duties generate the possibility of smuggling and illicit production, but these products were reasonably easy to identify, and there were a few key production or transit points at which the duty needed be levied. (The spread of vineyards makes this latter point less forceful in regard to wine.)

A second feature which made alcoholic beverages (and tobacco) attractive for excise duty was their 'price inelastic' demand, that is the quantity purchased is not very sensitive ('insensitive') to a change in price. This is an issue considered in detail in Part 3, but the practical point was that if the taxes on an inelastic product increased, there is little change in its consumption, and so the gain from an increase in tax revenue is significant. (In contrast, an increase in taxation on a highly price elastic product may result in a loss of tax revenue if consumers switch to other lower taxed products.) In effect, almost all the indirect tax on a price inelastic product is passed on to the consumer, and the producer is hardly suffering. On the other hand, in practice no product's demand is perfectly price inelastic, so the producer carries some of the burden of the tax. (Additionally there are the compliance costs borne by the producer.)

A factor which later made alcohol (and tobacco) attractive for taxation was that its consumption was thought to be indulgent, if not downright evil. Hence the practice of labelling excises duties on them as 'sin taxes'. As the 1991 Ernst & Young report for the Tobacco Institute put it:

It is also noteworthy that tagged taxes are often justified, or at least implicitly 'sold' on subjective pseudo moral grounds. Thus for cultural reasons that are not well understood, certain acts or the consumption of certain substances, are widely considered to be a 'bad' even when their consequences fall largely on those who choose to participate. (1991:9)

Economists recognise a phenomenon where a product is deemed a ‘demerit good’, whose consumption should be discouraged. As the above statement indicates, the justification for why a good is a demerit (or merit) one is not easily identified by economic analysis.

A demerit good is not the same as a good which produces negative externalities which, as discussed below, involves the private consumption incurring costs to others which the consumer does not pay. Where the net benefit to consumers is negative, such goods are sometimes called ‘bads’.

On the other hand, the view that alcohol was an ordinary consumer good characterised by dangerous possibilities – the view taken in this report – was articulated officially as early as the Royal Commission on Licensing in 1946. The title page of this report quotes that alcohol ‘is an article of human consumption which has a legitimate use accompanied by dangerous possibilities’ (1946:21).

The 1958 Budget and its Aftermath

The notion of taxing less acceptable products was evident in the 1958 budget, when the government, needing to reduce the fiscal deficit, hiked taxes on alcohol and tobacco (and motor spirits). At the time the public saw the ‘Black’ budget as a betrayal of the promises prior to the 1957 and the punishing of the working man's pleasure in his ‘beer and baccy’, by a 30% rise in the price of alcoholic beverages and a 40% rise in the price of tobacco. So dramatic were these hikes that they perceptibly cut consumption despite each product's price inelasticity of demand (Easton 1967).

The public justifications given for choosing these hikes were surprisingly thin. The budget speech simply said there was a need for fiscal action and baldly announced the additional impositions. In the subsequent customs and excise duty bill debate it was argued that even after the increases the duty rates would be lower than in the ‘Old Country’ (Prime Minister Walter Nash) and Australia (Phil Holloway, Minister of Industries and Commerce). The Ministry of Finance, Arnold Nordmeyer, quoted Alan Danks of the University of Canterbury that ‘we are smoking and drinking too cheaply for the times’. Nash hesitantly suggested ‘as for spirits, I do not know whether there are advocates on that side or this side of the House for more to be drunk’. Reading this debate today suggests the opposition was easily scoring points against the government (New Zealand Parliamentary Debates 1958:291-295).

The politically traumatic experience of the 1958 budget meant that subsequent governments were loathe to raise taxes on alcohol. For instance, the 1967 Report of the Taxation Review hardly discusses excise duties, proposing they be retained, and concluding rather lamely that it recognised

‘that excise duties are regressive [i.e. impose more heavily on the poor] in their effect but in the nature of the commodities taxed, their importance in general to the revenue and the acceptability of excise in the public mind we do not consider that the mere fact of regression in this sector of the tax field is of itself sufficient reason for any change, provided the tax system as a whole is progressive.’ (1967:372)

Presumably ‘acceptability of excise in the public mind’ is a reference to the excised products being thought of as demerit goods.

The 1970s

Alcohol duties were not raised significantly until 1997, although tobacco duties were hiked in 1967, and again in 1970, and 1976. The October 1970 *Economic Statement* said

‘Of all the products at present subject to indirect taxation, it is clear that cigarettes and tobacco can be subjected to additional tax without harming in any way the general welfare of the community. In fact it is increasingly argued that discouraging the consumption of these commodities is likely to make a positive contribution to our general health.’ (p.12)

This may be the earliest fiscal reference to using taxation to improve health by inhibiting consumption. There was no mention of alcohol. It is unclear why the two were treated differently. The 1976 announcement contains no justification for the tobacco excise hikes, but this time duties were raised on spirits as well.

Holding the duty rates at the same nominal level was becoming increasingly difficult to justify in the 1970s, as inflation galloped along at double digit rates, and specific duties experienced a kind of negative fiscal drag. The real value of the excise duty was diminishing, which reduced the real value of government revenue, and the real price that made the licit drug use cheaper.

A coalition evolved of those who wanted the government to control and reduce its deficit, and those who wanted the government to control and reduce the use of licit drugs (or perhaps merely punish the drug users). They may have had quite different objectives, but a common policy prescription for both groups was to raise the excise duties.

Probably the 1970 tobacco duty hike was the first reluctant recognition of the harm tobacco could cause, and in the 1979 budget there was some linkage of specific taxes to inflation via the imposition of specific sales taxes. However it is the 1977 budget speech that signalled an apparent change in policy. The first paragraph of the section titled ‘Duty on Alcohol and Tobacco’ says

‘The Government is concerned at the high level of public expenditure caused directly by the consumption of tobacco and alcohol. The adverse effects on health of smoking and drinking have been well publicised. Alcohol is also a major cause of many road accidents. The cost of providing health care and treatment in public hospitals and elsewhere for those affected is very high.’ (1977 budget speech p.41)

Having set the new higher duty rates the section concludes that the additional revenue ‘will help sustain the high level on health, including the extension of community health services’ (*Economic Statement* 1977:42). Thus a new principle has been introduced. While the duties remained primarily for revenue raising purposes a justification is now in terms of the costs that the activities impose on the public. Some of the increase in revenue went directly to particular health promotion and treatment programmes. However this ‘tagging’ of some tax revenue for particular purposes did not last.

At the end of the 1970s the purposes of special taxes on alcohol (and tobacco) were

1. They were relatively easy to levy, with relatively low compliance costs compared with many other products.
2. They were levied on products that were price inelastic so a hike in taxation increased revenue.

3. The tax revenue would contribute to the costs of the health system (and, possibly, the spending of other government agencies) incurred as a result of their consumption.
4. Insofar as the higher taxes raised prices and reduced consumption, that would also contribute to population health.

Lurking in some of the public's mind was the notion that alcohol was a demerit good whose consumption should be discouraged. However the notion is not explicit in the later policy statements. As time went on it probably played a decreasing role in the policy debate and in the public mind. But there remained the recognition that the consumption of alcohol could be a 'bad' insofar as it caused negative externalities (or harm), the point captured in 3 above (and possibly 4).

The Establishment and Development of ALAC

There is no history of ALAC, the Alcohol Advisory Council of New Zealand (Kaunihere Whakatūpato Waipiro o Aotearoa), formerly the Alcoholic Liquor Advisory Council. The following is constructed from its *Annual Reports*, and does not purport to be comprehensive, but sets a background in this report.

The Council was founded in March 1977 under the Alcoholic Liquor Advisory Council Act 1976, as a result of a recommendation of the 1975 Royal Commission into the Sale of Liquor. It was charged with encouraging and promoting moderation in the use of liquor, discouraging and reducing its misuse, and minimising the personal, social and economic evils resulting from the misuse of liquor. In 2000 the statute was amended to replace 'evils' with 'harm'.

In its 2000-2005 business plan, ALAC's activities are grouped under the following output classes:

Maori Whānau

- Community Support
- Information and Research on Effective Interventions

Pacific People

- Community Support
- Information and Research

Young People

- Social Marketing Campaign
- Monitoring and Identifying Effective Intervention

Supply and Provision

- Improve Effectiveness of the Sale of Liquor Act
- Social Marketing

Early Intervention

- Resource and Promotion
- Self-assist Support
- Advocacy Support
- Regional Services
- Conference and Travel Grants
- Treatment and Travel Grants
- Generic Research

Until 1993 ALAC also funded treatment, but that is now a Ministry of Health (District Health Board) responsibility, and ALAC confines itself to education and training of those involved with treatment and research into innovative treatments.

When the Council was established the funds from an Hotel Investment Account were transferred to it. The levy on liquor, as provided for by the Act, contributes about 95% of its funding.

The levy is set each year by order in council. The nominal rates were last changed in 1995 and are currently (excluding GST)

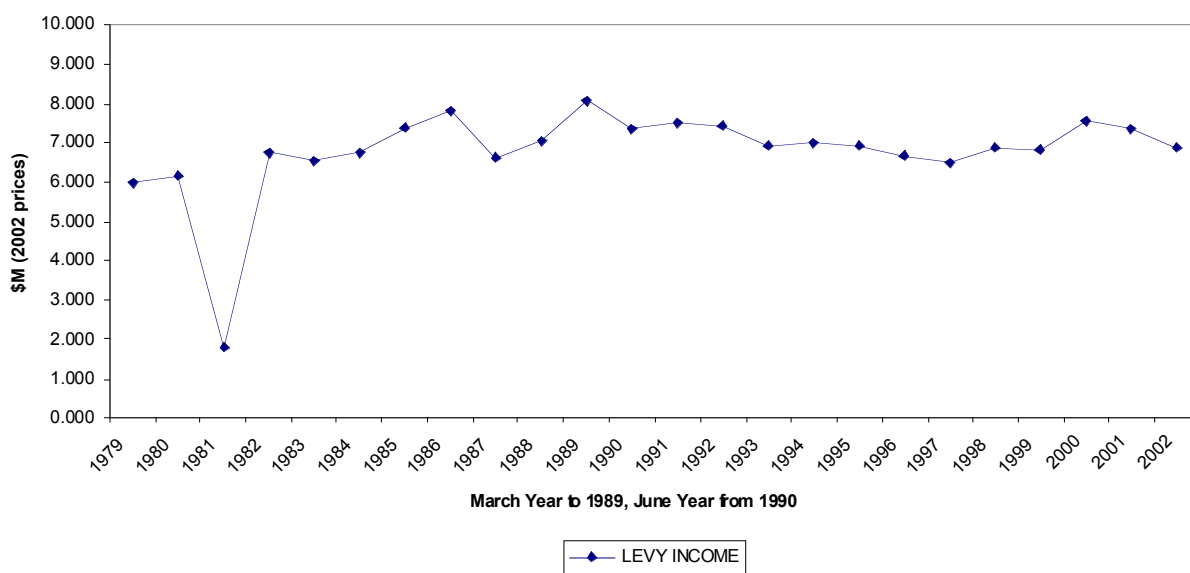
Beer	.86c/litre
Spirits greater than 23% alcohol by volume	28.42c/litre of alcohol
Spirits less than 23% alcohol by volume	5.21c/litre
Fortified wine	5.21c/litre
Unfortified wine	3.19c/litre

which are equivalent to the same rate as spirits if each category is treated as having ethanol by volume as follows

Beer	3.0% aabv
Unfortified Wine	11.2% aabv
Fortified Wine	18.3% aabv
Spirits less than 23% alcohol by volume	18.3% aabv

The implicit beer aabv is surprisingly low, especially as little is produced at 3% aabv, while harmful beer drinking is a constant concern of ALAC. It could be argued that the implicit assumed light spirits rate is too low too. In compliance terms it would be simpler to use exactly

ALAC LEVY REVENUE



the same categories as for excise duties, or better still to levy wherever possible on the same basis as excise duties.

In the 2001/02 year the levy generated revenue of \$6.4m (including GST). The annual revenue throughout the 1990s ranged between \$6.4m and \$7.6m (in 2001/02 consumer prices), as additional consumption offset the price rises of the period. That the revenue has been broadly the same despite changing drinking circumstances will be discussed later.

The ALAC levy is unusual but not unique. Perhaps the best parallel is a research association that levies itself to pursue the collective interests of the industry. In the case of ALAC the 'industry' might also be thought of as including the consumers, so the usual arrangement for imposing an industry-wide levy (by a majority vote of its members) is inapplicable. Other examples of industry specific levies are those the ACC raises to fund its activities, and the roading tax used by Transit New Zealand to maintain and extend the roading network.

The ALAC levy also reflects the traditional parliamentary practice of leaving liquor policy to a conscience vote. The effect of levy funding is to create a cooperative bipartisan approach to the task of reducing harm from liquor misuse.

The statutory independence of ALAC was last reviewed by parliament in 2000 as a part of amending the act. Given there has been no significant change of circumstance since, there does not seem to be a case for relitigating the existence of the ALAC levy, although its structure and level need to be reviewed as discussed below.

The 1980s

The 1980s were a period of major fiscal reform, which impacted on the taxation of alcohol. Among the important changes was that taxation on wine was switched in 1986 from a sales tax based on value to an excise duty based on alcohol content. A significant effect of this change is that, for the same total revenue, the price of expensive wines would fall and the price of cheap wines rise.

When GST was introduced in 1987 it was imposed upon excise duties probably for administrative convenience, but it does mean that care has to be taken in reporting excise duty with or without GST.

There were also social changes that were affecting the drinking environment. The Sale of Liquor Act was reformed in 1989, the effect of which was to increase markedly the number of outlets, and hence access to liquor. New products were marketed to meet the increasingly varied demands of society. This reinforced the need to categorise beverages by something other than a name since 'flavoured alcohol beverages' might have a very similar ethanol content per unit volume to 'beer'.

Report on the Review on Excise Duties of Alcoholic Beverages and Tobacco Products (The Sullivan Report)

Responding to these changes, a review of excise duties on alcohol (and tobacco products) was commissioned in December 1987, and reported in June 1988.

The Sullivan report did not mention harm but identified three possible objectives of excise tax

- to collect revenue
- to recover social costs
- to discourage consumption.

Its conclusion was:

‘... the principal reason for the continued existence of excise duties on alcoholic beverages ... is the substantial revenue raised by high levels of tax on goods with comparatively low elasticity of demand.

... Evidence produced to us was to the effect that light to moderate consumption can be beneficial and give some protection against heart disease. A minority of consumers give rise to the problems of alcohol abuse. We are not persuaded that a policy similar to that recommended for tobacco is appropriate. The patterns of consumption for each product, wine, beer and spirits differ. Price elasticities vary between these products making a uniform policy fall unevenly on the industries producing these beverages.

In the general principles of taxation for all these products we consider revenue is the prime objective. Recovery of social costs incurred by their use and discouragement of consumption can be secondary to that objective but they should however be considered in imposing an excise regime. Excise tax of its own can only be one of a number of measures in a Government policy in respect of public health.’
(Excise Duties Review Committee 1988:8)

It examined five options for levying the excise on alcohol, concluding in favour of ‘a small number of categories be created within each type of product and a range of rates having regard to the alcohol content of each type of beverage namely beer, wine (or wine based drinks) and spirits (or spirit based drinks)’.

The report discounted a uniform rate based on ethanol for all beverages, apparently because it would have changed the pricing relativities too greatly (especially the substantial lowering of the price of spirits). The practice in the past of taxing spirits at a greater rate than other forms of alcohol probably reflected a view that they were drunk by richer people, and so that the higher spirits levy contributed to a more progressive tax system – i.e. one in which the rich contributed proportionally more than the poor. Other indirect taxes were often targeted with a similar purpose. The tax reforms of the 1980s aimed to eliminate attempts to have progression in the indirect tax system, because it was not very effective and involved high compliance costs. Instead the income tax and benefit system was intended to provide such progression that was thought desirable. The higher excise duty on the spirits may be the last remnant of the old strategy.

The Excise Duties Review Committee also considered a proposal for a minimum price of alcohol, but rejected it because it thought that would involve price controls. (Excise Duties Review Committee 1988:13)

The 1989 Budget Reform

The Sullivan Report was implemented in spirit if not in detail in the 1989 budget. The section on Excise Duty on Alcoholic Beverages reads

‘This is another area of unnecessary complexity and controversy. In the 1984 Budget the Government indicated its intention to move ‘towards a more uniform approach to the taxation of beverages on the basis of alcohol content’. In 1987 the then Minister of Customs established a committee under Sir Desmond Sullivan to review excise duties on alcohol and tobacco. The Sullivan Committee reported in June last year, but the Government was unable to respond to the Committee’s recommendations before last year’s Budget. The Committee’s recommendations have now been fully considered.

The basic case for heavier taxation on alcohol and on tobacco lies in the social costs of their consumption. In the case at least of alcohol this is somewhat arbitrary, since everyone faces the higher taxes on alcohol but most drink only in moderation. Nevertheless the Government believes that the social harm that can be caused by excessive consumption of alcohol justifies the collection of a separate tax related to the alcohol content of alcoholic beverages.

As from tonight the excise duty on alcoholic beverages will be related directly to alcohol content, so that similar products with similar strengths of alcohol will be taxed to the same extent. Only two rates of excise duty [exclusive of GST] will apply:

- On beer and wine, \$15 per litre of alcohol
- On spirits, \$30 per litre of alcohol

At the same time the Government is anxious to provide the industry with greater certainty in relation to the future taxation of alcohol. Too often in the past taxes on alcohol and tobacco have been used at the last minute to accommodate the Government's fiscal needs. This has made it difficult for these industries to forecast consumption and plan accordingly. It is therefore proposed that in future the rate of excise on beer and wine will be adjusted every six months in accordance with movements in the consumers price index. The first such adjustment will be made on 1 December this year. There will be no automatic adjustment to the excise duty on spirits in recognition of its already higher rate.’ (Excise Duties Review Committee 1989:20)

In effect, the Sullivan recommendations were accepted with only two categories, above and below 24% of alcohol by volume. The budget remark that the excise duty rate on the lower rate would be increased with inflation, but the higher rate would not, suggests that in the long run the government’s intention was eventually there would be a uniform rate based on ethanol content.

The Current Excise Tax Regime

The 1989 framework is largely in place today, so rather than detail the rates in 1989, the current excise duties are set down. The rates given here are GST exclusive, and apply from May 2002:

less than 1.15% aabv:	<i>no excise duty</i>
1.15% aabv - 2.5% aabv:	<i>\$1.639c per litre of beverage</i>
2.5% aabv - 6.0% aabv:	<i>\$21.096 per litre of ethanol</i>
6.0% aabv - 9.0% aabv:	<i>\$1.6876 per litre of beverage</i>
9.0% aabv - 14.0% aabv:	<i>\$2.1096 per litre of beverage</i>
14.0% aabv - 23.0% aabv:	<i>\$3.6918 per litre of beverage</i>
more than 23.0% aabv:	<i>\$38.422 per litre of ethanol</i>

What at first seems to be a complicated system can be simplified as follows:

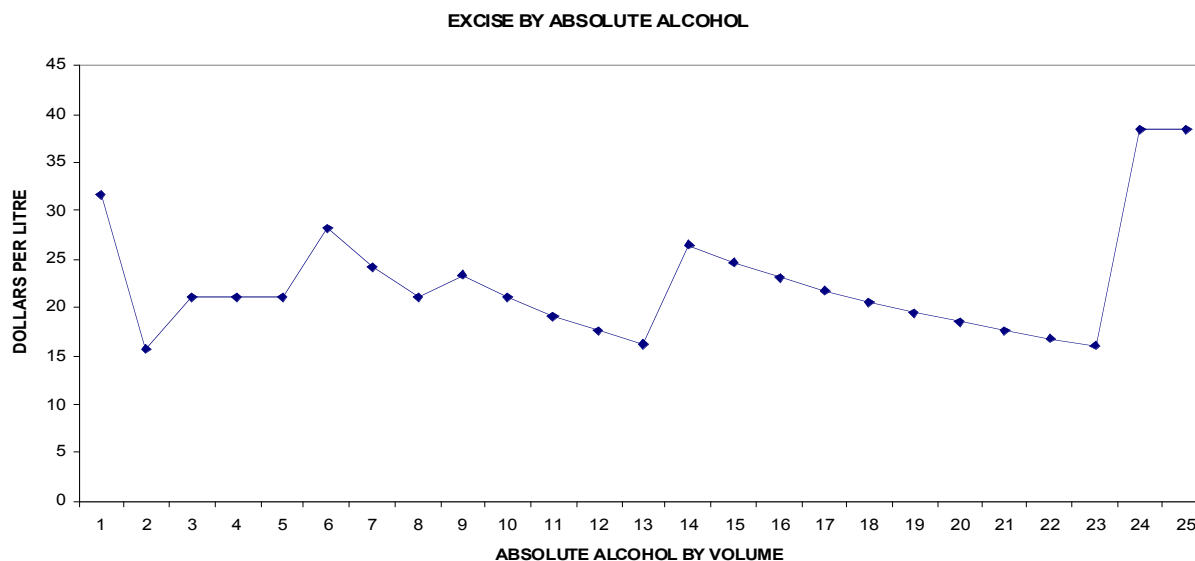
- Above 23% by volume of ethanol the rate is given by \$38.422 per litre of ethanol.
- Below 24% by volume (down to a threshold of 1.15%) the rate is given by \$21.096 per litre of ethanol.

However to simplify the administration of the regime, the lower range is divided into five sub-ranges which are taxed on the basis of \$21.096 per litre of ethanol at a point somewhere in the range, except for the second to bottom range in which the rate is set in ethanol terms.

The internal points chosen for each range appear to be:

range % aabv	point at which \$21.06/litre of ethanol excise applies
1.15 to 2.5	1.5%
2.5 to 6	whole range
6 to 9	8.0%
9 to 14	10.0%
14 to 23	18.0%

The effect, as the accompanying graph shows, is that beverages with higher ethanol in each range



are taxed at a lower rate per unit of ethanol than beverages in the same range but with lower unit ethanol. For instance a 1.125 litre bottle of 23% aabv is taxed as if it is 18.0% aabv alcohol, so the excise duty per unit of ethanol is only 78% of the set rate of \$21.096 (i.e. \$16.510). In effect, every fourth drink is tax free in comparison with a purchase at 18.0% aabv.

The Treasury View: 1991

It is not proposed to review every contribution to the alcohol taxation debate since 1989. Two major New Zealand contributions are considered here. In 1991 the Treasury provided a six page report with nine appendices in a response to the incoming Minister's request for a review of alcohol and tobacco taxation.

The Treasury report, the last policy framework report to a Minister, argued that GST is the most efficient revenue raising indirect tax instrument, but acknowledges two reasons why there may be a case for separate taxation alcohol

the private cost of alcohol use is less than the social cost (i.e. taking account of the cost to others) thereby encouraging irresponsible drug use – the 'user charge' argument and

- some individuals need to be protected from making drug use choices that are not in their own best interests – the 'irrational consumer' argument.

Both these arguments are considered below, but to put them in a future context. The divergence between private and social cost emphasises cost recovery and the Treasury account hardly mentions the signalling function of price. Its 'irrational consumer' argument tends to ignore that much irrationality occurs not by consumer all the time but as a part of the consumption cycle, and no mention is made of the issue of young drinkers (for the report was written before the epidemic of youth drinking became evident).

Compared with this report, the Treasury report tends to idealise the alternatives rather than argue that taxation is one of a number of policy instruments which contribute to reducing harm from alcohol misuse, and that each does so imperfectly.

The Treasury was troubled by the different excise duty rate for spirits from other beverages. It saw it as historic, and was unable to offer any justification for it, other than history and not abruptly disrupting past relativities. It sees the best strategy as holding duty on spirits constant while the excise duty on the remainder rose with inflation, until they attain the same rate.

The report concludes that

- there is a case for specific taxation of alcohol primarily in terms of recovering user costs, but that the best level of these taxes is difficult to judge
- the specific excise regime, coupled with some form of indexation arrangement, is the most appropriate system for the taxation of alcohol
- there should be a goal of uniform alcohol taxation. (Treasury 1991:6)

The Tax Review 2001

The most recent ‘official’ report on alcohol taxation, the Tax Review 2001, is a deeply troubling one, not so much because of its conclusions, but because of the quality of the analysis used to derive them.

The origins of the problem may arise from the Committee’s desire to force all taxes to conform to a particular vision of taxation – a vision which only permits GST to be an acceptable form of indirect taxation. Any alternative (or more comprehensive) role of taxation – one that allows other purposes than the narrow ones the Committee set down – was rejected. Some of the arguments to suppress any challenge were valid, but some were unconvincing (and sometimes even absurd), with the consequence that the analysis sometimes lost its rigour.

Alcohol excise is only a small part of the tax system raising about 7% of the total, and the Committee may not have had much time to think about it systematically. Moreover, its discussion on the alcohol excise was usually in conjunction with special duties on tobacco, gambling, and (sometimes) transport fuels, and the Committee seemed largely unaware that each raises issues peculiar to itself. Thus the Committee often used tobacco or gambling to illustrate some general proposition about all duties. Very often the parallel does not work for alcohol.

The ignorance of the report on a number of matters can be extraordinary. For instance the *Issues Report* remarks that the Committee ‘strongly support educational programs informing users of the risks of ... drinking ... and assistance targeting at helping problem drinkers ... to overcome their problems. These are typical responses to public health issues’. (From ‘ideas and questions we would like you to consider’). These are but two out of a variety of strategies in comprehensive health promotion frameworks, such as the Ottawa Charter, Health Belief Model, and the Stages of Change model.

The report goes on to ask ‘What makes exclusive reliance on these approaches inappropriate for these problems?’. The obvious answer is because exclusive reliance is not sufficiently effective, which is the reason why the modern approach has moved to a wider range of policy instruments, including taxation. Some knowledge of the discipline of public health would not have left the Committee looking so naive.

The Tax Review produced two reports. The *Issues Report* was a public consultation document, which was widely criticised. The response in the *Final Report* is less strident, although the policy conclusions are not markedly different, and they usually draw upon arguments in the *Issues Report*.

Here follows the parts of the *Final Report* relevant to alcohol, with a commentary.

‘Introduction

3.78 Excises and duties are imposed on four categories of spending: alcoholic beverages, tobacco, gaming and petrol. These taxes raise around \$2.8 billion (after adjustment for matching customs duty and induced GST).

3.79 As noted in Chapter One, excises and gaming duties represent the only major revenue raising taxes not reformed over the past 20 years. The area lacks firm policy foundations. In consequence, anomalies and inconsistencies abound.’

As reported earlier, alcohol excise was reformed in the 1980s, culminating in the new regime set in place in 1989.

‘3.80 Our Issues Paper observed that existing excises and duties are difficult to defend on conventional tax policy criteria of efficiency and equity. At current rates, many appear to be associated with very high levels of marginal excess burden (deadweight costs of the last dollar of revenue)’.

In the case of alcohol excise the evidence for ‘high levels of marginal excess burden’ is based on a single example of spirits as follows

‘Box 2.1 (of *Issues Report*) For spirits, if the [price] elasticity is 1.2, and the excise is 50% of the tax inclusive price, marginal excess burden would be 150% of net revenue raised’.

No justification is given for the choice of an elasticity of 1.2. Even more troubling is that the formula used in this illustration and the entire text is either wrong or misleading, for it ignores that insofar as a tax raises prices and reduces consumption, the consumer does not switch the expenditure elsewhere. In effect it assumes that the consumer saves the reduced expenditure, whereas a far more realistic assumption is they switch to spending on some other product which incurs GST at 12.5% or, perhaps even more likely, they switch to another form of alcohol and incur both GST and excise duty. The marginal excess burdens on the various assumptions of alternative spending are as follows (also using a 0.8 elasticity to give an indication of sensitivity of this assumption):

Marginal Excess Burdens Under Various Assumptions

<u>Alternative spending</u>	<u>1.2 elasticity</u>	<u>.8 elasticity</u>
None (savings)	150%	11%
GST only taxed goods	111%	10%
Wine	88%	8%
Beer	51%	6%

Given the sensitivity of the calculations to the various assumptions, the claim that the marginal excess burdens are ‘very high’ is at best unproven.

‘3.81 Available evidence suggests that these taxes are highly horizontally inequitable and, in some cases, highly regressive. The alcohol excise ... taxes are expected to have a disproportionately severe impact on the minority of individuals (and their families) experiencing drinking ... problems’.

The ‘available evidence’ amounts to the following:

‘Box 2.2 (of *Issues Report*) - Around 87% of adults consume alcohol and drinkers on average pay \$225 p.a. each in alcohol excise.
 - 50% of drinkers pay around 90% of excise, on average \$400 p.a. each.
 - the top 10% of drinkers - around 260,000 individuals - on average pay \$1100 p.a. in alcohol excise’.

with the following commentary:

‘2.133 (of *Issues Report*) Box 2.2 suggests that many New Zealanders of modest means will pay as much or more indirect tax via alcohol and tobacco excise and gaming duties as they pay in GST levied on all of their spending’.

This is of course not all the available evidence, some of which is discussed later in the report. Moreover it is far from compelling. Consider the claim that some people pay more excise duty than GST. It is not clear what calculations the Committee had in mind, but noting that 8.7% of adults pay on average \$1100 p.a. in alcohol excise (including GST levied on the excise?), which suggests they have a drinks bill of around \$5500 a year. Now if they also pay \$1100 p.a. in GST (including that on the alcohol) that represents a total annual spending of \$8800, which means that they are spending \$3300 on non-alcohol goods and services. Undoubtedly there are chronic heavy drinkers for whom that is true, but it is stretching the normal English language to describe that number as ‘many’. Obviously the figures can be fiddled around with, but the Committee’s statement seems an extravagant conjecture, rather than a piece of careful analysis.

The argument that ‘alcohol excise ... taxes are expected to have a disproportionately severe impact on the minority of individuals (and their families) experiencing drinking ... problems’ could be applied to other products. For instance heavy purchasers of medical supplies might use a parallel one to argue that GST should be abandoned on their medical purchases.

The Committee is unreflective about how its arguments might apply in other circumstances. Consider the following sentiment from the *Issues Report*. ‘In the same way, these levels of tax horizontal discrimination raise serious problems in judging the adequacy of benefit levels. Are benefits inadequate for the many beneficiaries who ... drink ... ? Or are they excessive for those who do not?’. However this argument applies to every difference in expenditure patterns of beneficiaries. For instance some beneficiaries eat more than others. Apparently there is a ‘horizontal’ discrimination as a result of GST on food.

‘3.82 The large revenue-raising role played by these taxes is difficult to defend now that GST provides a broadly-based, more efficient, and far more transparent alternative.’

But the purpose of the excise may not only be revenue-raising.

(The transparency problem could be easily overcome if it were considered a major problem, by mandating the excise levy in each purchase. However, one wonders how many people today think about the GST levy when they make a purchase.)

‘3.83 By comparison, excises and duties are levied in ways that have no policy rationale consistent with generally accepted tax policy frameworks.’

The Tax Review sets itself as determining what is ‘generally accepted’. For instance there are very few jurisdictions that do not make a levy on alcohol. Every one seems out of step except the Committee.

‘3.85 We have been unable to discover why spirits are taxed at rates, per volume of alcohol, almost twice that of other alcoholic beverages. (Ameliorated for some, by the availability of duty-free shopping – said to represent over 25% of dutiable spirits consumption.)’

What seems to be a minor point in the *Issues Report* (para 2.149) suddenly becomes prominent in this one. Since there is an explanation in the 1991 Treasury review (and it is hinted in the 1989 budget and the Sullivan report) the Committee does not seem to have been particularly diligent in its discovery process.

‘Submissions

3.88 Some submissions strongly favoured excise taxation on the grounds that spending on alcohol ... could be classified as discretionary or luxury items. We note that many other categories of spending have that characteristic.’

Using the indirect tax system as a redistributive mechanism was almost entirely abandoned in the 1980s.

‘3.89 Many submissions thought that tax policy should be used to encourage healthier lifestyles (without identifying the levels of taxation implied by this approach). Some submitters dissented from this view.

3.90 A number of submissions were received from health sector organisations. Though these submissions make reference to externalities, we believe that the 'health policy' approach to taxation and the framework adopted by the Review are irreconcilable,

3.91 The views of the Ministry of Health were broadly representative of health sector groups.

3.92 The Ministry argued that excises on alcohol and tobacco could be ‘seen as a way for external costs to be met by the creators of those costs. Most importantly however, they are part of an integrated strategy with a ‘demerit good’ objective to reduce the underlying causes of a number of health problems’.

3.94 Our Issues Paper asked why, if excess health costs are to be selectively recovered from ... drinkers, savings in other areas of social spending such as New Zealand Superannuation should not also be taken into account. (The question finds support in a recent survey that notes that: ‘There has been a spirited economic debate about the optimal Pigouvian taxes on smoking and to a lesser extent drinking. The issue is particularly difficult because it is not even clear whether these goods have negative external costs.’ ... See Cutler, David M, “Health Care and the Public Sector”, March 2001. pp.11-12 forthcoming in Handbook of Public Economics, North Holland.) Submissions did not address this question.’

The last issue is not a major one for alcohol misuse, since many of its resulting deaths occur at a young age, and there is a substantial loss of production and contribution to revenue as a result. While it is unnecessary to pursue the point here, we mention that first year economics does discriminate between a resource use (like additional health expenses) and a transfer (like superannuation).

‘3.95 While the Ministry recognised that “It is sometimes argued that consumers of ... alcohol products make rational choices based on perceived benefits and costs,” it noted that “cognitive dissonance and dependence may prevent rational decision making” and that “consumers are not always aware of the risks due to biased media images.”

3.96 Importantly, the Ministry believes that: “Beneficial effects from ... consumption of alcohol are only at low levels of consumption.

3.97 Consistently with the health policy approach, the Ministry of Health asked the Review to advocate that “Current ... alcohol excise taxes ... be at least retained at their current levels (and that) periodic investigation of the value and appropriateness of increases in excise be made”, while informing the Review that “the Ministry believes that increases in excise taxes – especially tobacco products and high alcohol products – will be appropriate in the future.

3.98 The health policy approach differs markedly from the efficient pricing approach to corrective taxation. The latter sees merit, under appropriate conditions, in taxes that 'correct' market pricing for carefully measured external effects. By contrast, the health policy approach seeks regular and substantial tax increases, since these can always be relied upon to deliver additional health benefits through the further suppression of consumption.’

As we shall see, the Tax Review dismisses these arguments too quickly, although perhaps the Ministry of Health does not put them in their strongest form. (The case for raising excise taxes, other than for inflation, is harder to make.)

It is unclear whether the Tax Review has withdrawn one of its most extraordinary contributions,

‘Analysis and recommendations

3.99 We endorse the conclusion of our Issues Paper that the present levels of excises cannot be justified on tax efficiency or tax equity grounds.’

Although, as we have seen, the case was not a robust one.

‘3.100 From the standpoint of our policy framework, this suggests that the case for the excises must rest on the notion that they correct market mis-pricing.

3.101 As noted in our Issues Paper, we do not consider that the compensatory correction of incentives created by health system pricing (or other forms of social spending) provides a robust tax policy framework. (The Ministry of Health did see bounds to a regime of life-style modification, noting that, although “in principle taxation can be used to support public health by making healthy products, activities and services cheaper and unhealthy products, activities and services more expensive” there are natural limits to this policy, since “it is not possible to categorise all products, activities or services as wholly healthy or unhealthy.” Ministry of Health, Paper for Tax Review, August 2001.)

3.103 In the case of alcohol, the question turns on the most appropriate form of intervention. While external harm can be identified (for example, in alcohol-related third-party road trauma and public disorder), targeted instruments are available (and are being successfully used) to address these problems. The relevant tax policy question must be: what additional contribution can then be made by excise taxes, which, because they apply uniformly to all units consumed, suppress beneficial as well as harmful consumption.’

As we shall see, this is an empirical question, which requires some judgement. However, the Tax Review acknowledges that a case exists for taxation being used to bring into line the purchase price with social costs.

The statement that ‘targeted instruments are available (and are being successfully used) to address these problems’, is optimistic. A casual reading of the sentence might give the impression the Committee thought the latter. But the *Issues Report* said ‘However, not all “external” harm has been eliminated. The Land Transport Safety Authority claims that in 1999, in addition to themselves and their own passengers, “drunk drivers were responsible for killing 18 other drivers, passengers, cyclists and pedestrians”.’ What would have happened to harm had the excise been eliminated is not considered.

‘3.104 Since we would abstract from health system costs (which we do not believe provide a robust basis for corrective indirect tax policy), we believe that the levels of alcohol excise that could be justified on externality grounds are likely to be well below those currently applied in New Zealand.’

The Tax Review provides very little empirical evidence to underpin its judgement.

‘3.105 On tax policy grounds, we have a strong preference for the transparent approach to taxation exemplified by GST, which makes tax burdens independent of how New Zealanders choose to spend their money.

3.106 In our view, the current excise and duty regime cannot readily be justified on conventional tax policy grounds. As a matter of tax principle the general revenue component of these taxes should be replaced by an increase in GST. At a minimum, the many anomalies in this area of the tax system should be subject to further review.’

In summary, an excise duty on alcohol does not conform to the Tax Review’s narrow account of the purpose of taxation, and reject it. To do so it ignores the fact that there may be other purposes of taxation, and idealise the situation that would occur were the excise to be abolished.

There have been some attempts to estimate the elasticities by drinker type. There are not a lot of studies, but the following conclusions seem not unreasonable

- Low to moderate drinkers have low elasticities (say averaging 0.5), which means they do not change consumption a lot if the price rises
- Moderate to heavy drinkers have higher elasticities (around 1.0) which means they cut back on their expenditure on alcohol as the price rises
- Chronic drinkers have very low elasticities (near zero), suggesting that they make no change to the quantities they drink when there is a price rise (presumably cutting back on other expenditure, or borrowing or stealing) (Manning, Blumberg & Mouton 1995).

This seems commonsense, but there are some time dimensions that need to be teased out. For instance the drinker status is measured in terms of a period of a week or month. A low to moderate drinker may be more price sensitive to additional drinks in a session (this may apply, even as discussed below, when their judgement is impaired by the drinking) if they are being bought one after another, and the purchaser's inebriation does not cause a loss of judgement. In such cases session purchases may be more price elastic than the total purchases in a year (Cook, & Tauchen 1982; Chaloupka & Wechsler 1995; Sutton & Godfrey 1995).

Life-time alcohol consumption may also be more price sensitive, insofar as the reduction in outlays of moderate to heavy drinkers means they are less likely to become heavy to chronic drinkers in later years.

These estimates are averages, and there will be considerable variation by drinkers within each group. In particular, wherever cases of above average price sensitivity has been mentioned, there must also be other cases of below average sensitivity.

One other pertinent finding is that the young (teenagers) are more price sensitive than adults. This presumably reflects the different income experiences they have, and also that they are learning to drink, forming habits which may be important through the rest of their life (Coate & Grossman 1987; Cook & Moore 2001; Grossman, 1989; Grossman, Chaloupka, Saffer & Laixuthai 1993; Chaloupka & Wechsler 1995, 1996; Laixuthai & Chaloupka 1993; Sutton & Godfrey 1995; Godfrey 1997).

The above studies examine the impact of price on alcohol consumption. There are also a few studies – data is very hard to obtain – which examine the impact of prices on measures of direct abuse. They suggest that higher prices may reduce death (Sloan, Reilly & Schenzler 1994) industrial injuries (Ohsfeldt & Morrissey 1997), motor vehicle accidents (Chaloupka, Saffer & Grossman 1993; Dee 1999; Dee & Evans 2001; Mast, Benson & Rasmussen 1999; Ruhm 1996; Saffer & Grossman 1987) sexually transmitted diseases (Chesson, Harrison & Kessler 2000), Violence (Cook & Moore 1993; Grossman & Markowitz 2001; Markowitz 2000; Markowitz &

unsatisfactoriness of the estimates is evident in that five of the six cross-elasticity are estimated to be the wrong sign so that, for instance, a 1% rise in the price of beer reduces purchases of wine by about 2% and purchases of spirits by about 2.5%.

4. For those transactions/commodities where there is a major difference between the private transaction price and social cost the first policy step is to see whether market conditions can be arranged to bring the two more closely together
5. Where that is not possible (or completely possible), and where the difference remains large, an excise duty may be imposed to bring the market price in line with social prices
6. However compliance and equity issues need also to be considered.

As well as to address the issue of the large difference between the private cost of production and the social cost of consumption of alcohol ('externalities'), consideration has to be given to the case for intervention because of demerit behaviour and irrational decision-making.

Demerit Behaviour

Some may judge that some behaviour is offensive and should be repressed. The view that drinking is offensive was once widely held, but is almost certainly no longer. However, drunkenness – especially public or aggressive drunkenness – would probably be deemed by many to be sufficiently offensive to be judged demerit behaviour.

But in a liberal society, while others may deem some behaviour of citizens unacceptable, the general principle is to resist intervening to deal with them, except in extreme cases. Whether drunkenness – or what kind of drunkenness – is sufficiently extreme is for others to judge.

If a particular behaviour or product deemed to be a demerit one, then it would have to be treated as a part of the social cost. Even so it may be better dealt with by public education or restriction.

Externalities and Social Costs

The public health framework's notion of 'harm' has to be translated into an appropriate fiscal notion. In fact it corresponds very closely to the notion of 'net social cost'.

The notion of social cost is a complicated one where there is drug abuse, and the reader is referred to the report of the International Working Party on the Evaluation of Drug Abuse. (Single *et al* 2001). What is important is that for some transactions, the costs to society of their consequences may exceed (significantly) the private price paid in the transaction.

Some of these costs are borne by the government in additional spending by the health or justice or social welfare system or by a loss of fiscal revenue. Additionally, the state may be incurring costs – using resources – for the various policies it pursues to minimise harm. Of the total costs some are borne by others as when they incur additional spending or – and in the case of alcohol substantially – from collateral injury and death to innocent parties, or where they incur time and resources attending to a drinker's needs. Some are borne by businesses in terms of losses of productivity or by other workers when the lower productivity of one worker gets shifted into lower wages for all the workers. Some are borne by the drinker themselves insofar as they did not take them into consideration when they made the purchase or consumption decisions.

The excess social costs are substantial. The most comprehensive estimate suggests that alcohol misuse reduces effective GDP by 4%, may well reduce the effective size of the unmeasured (informal) economy by a similar amount, and has also reduced the welfare of New Zealanders via additional mortality and morbidity by 2% and the population of New Zealand by 0.8% (Easton 1997).

SOCIAL COSTS OF ALCOHOL MISUSE (1990)

	\$m
<i>Intangible</i>	
Effect of population mortality	6,000
Effect of population morbidity	7,200
<i>Tangible</i>	
Reduced production from mortality	600
Reduced production from morbidity	1,200
Additional resources from consumption	900
Additional resources from not have to treat induced diseases and other consequences	750
<u>Less</u>	
Benefits from consumption	- 540
Total Costs From Alcohol Misuse	16,110
<i>Intangible Costs</i>	
Total	13,200
%age of total human capital	2.0%
<i>Tangible Costs</i>	
Total	2,910
%age of GDP	4.0%
<i>Population Decrease</i>	0.8%

Source: Easton (1997)

This estimate is for 1990 and there is no subsequent comprehensive update (although there are some studies of some components). It is to be hoped that the proportions are lower, reflecting the success of the harm minimisation policies. The study did not include law and order costs, as there were no studies available at the time.

One important feature of the social costs of alcohol that these figures do not show is when they occurred. Overseas research suggests that over 70% occur within a year of the drinking incident (in contrast to tobacco where many of the gains from eliminating smoking are decades away) (Single 2001). This means effective harm reduction policies have relatively high returns.

We might equate harm with the difference between the costs that the drinker takes into account (the private decision costs) and the total social costs. This is sometimes called 'net social costs'. Thus the aim of the public policy framework in economic terms is to reduce and minimise net social costs.

(One issue is what costs are private costs. Typically, drinkers pay the production and distribution costs of any consumption. But to what extent do they take into consideration any consequential hangover or the diminution of the welfare of their spouse and children when they arrive home exceedingly drunk and potentially violent?)

In practice the net social costs associated with alcohol are uncertain before consumption. Numerous drinkers drive safely home, although driving drunk significantly elevates the probability they will have a serious accident. Do drinkers make good judgements about these probabilities? There are two separate decisions here. The first is whether they make good judgements before they drink, the second is whether they make them after? A faulty decision during the first instance may be attributed to ignorance, the second is a kind of irrationality discussed below.

The idealised rational world might go like this. At the time of purchase (or consumption) the individual drinker would be required to purchase insurance which would be actuarially accurate in terms of the probable net social costs the consumption would incur. No doubt it would differ between individuals, but it would also have to differ in terms of drinking situations and the amount of alcohol already consumed. Thus a purchase in a restaurant where the host is not permitted to serve drunks would have a lower insurance payment than an off-licence purchase that has no control over the degree of drinking. The payment would be higher – markedly higher – for later drinks than earlier ones. (The insurance outlay required on the first drink may even be zero.)

It is not possible to implement the idealised insurance scheme in any practical way. This thought experiment illustrates an important principle. The difference between the private decision cost and the total social cost varies by person, by situation and by quantity consumed.

The closest that practice could get to the idealised insurance for each drink might be the same insurance levy on each quantity consumed. Which is the effect of an excise duty. But as close as it is, it is a long way from the ideal.

The averaging that the excise duty does relative to the idealised insurance option raises the question as to what should be the level of the duty. The insurance levy would cover a set of defined costs, and the total revenue from the levy would recover those costs. This suggests that the excise duty should recover costs. However there are two caveats to this conclusion.

First, it is not obvious what the costs should cover. Is the insurance levied on the last drink or at a point after which the drunk gets into the car? If the latter, perhaps the levy should be on cars rather than on the alcohol.

Second, note how the idealised insurance levy rises with increasing consumption in a drinking session. This rising net social cost means the marginal insurance levy is higher than the average levy.

* It is a standard conclusion in economics that the relevant indicator is the marginal cost, and not the average cost. In practice the difference between the two is usually not great, so that using average cost as an indicator does not result in a major distortion from the optimal policy.

However there appears that there would be substantial differences between this idealised insurance levy for different drinks consumed in a session (a difference probably considerably greater than between people or circumstances). Thus the economic advice is not to levy at average cost but marginal cost, which would result in more revenue than the actual net social costs caused by alcohol. This report does not go through the detailed economic argument (of why set levies at marginal rather than average costs). The point here is that however costs are defined, there is a case for a levy that recovers more than the total costs incurred by alcohol misuse. *

*It could be argued – although recent research has moderated and even disputed the conclusion – that some alcohol consumption benefits to health, and these should be included in the calculations insofar as they reduce health sector outlays, and improve mortality and morbidity. Of course the task is to reduce alcohol misuse and in principle any policies should not impact on alcohol use that does not result in harm. However sometimes the harm reduction policies – no matter how carefully designed – will impact on harmless consumption, and even beneficial consumption. An excise duty regime can never be sufficiently targeted not to have these unfortunate side effects. However there is some evidence that moderate drinking is not very influenced by the higher prices which an excise duty would generate. *

*But should the benefits from alcohol consumption be included in the social costs' calculation? Even if they were that would not change the marginal cost of drinking (that is the idealised insurance levy on the last drink of a session) which is beyond the beneficial drinking range. Therefore the inclusion or exclusion of the beneficial effects of alcohol consumption in the aggregate social costs will not change the ideal excise duty (equal to the marginal cost of drinking). It will increase or reduce the ratio between the duty level and the average social costs. The report returns to this issue when it considers what should be the appropriate duty level. However it should be noted that the social benefits from alcohol consumption, while measurable, are not large in comparison to the social costs. *

In summary the excise duty might be thought of as a clumsy means of converting production and distribution costs into social costs of alcohol consumption – of reducing the externalities, the harm. It is imperfect, but it will lead to greater harm reduction (or – as an economist is wont to say – ‘allocative efficiency’) in exactly the manner the market policy framework predicts, by signalling to consumers to reduce harmful consumption. Doing this also adds to the integrity of the market system, and consumers’ confidence that the prices they pay generally reflect social costs.

As we shall see some of the recycling of the resulting revenue back to moderate drinkers offsets the imperfection of the excise duty. Conversely not having an excise duty signals and subsidises heavy drinkers to practise harmful consumption.

Finally, reiterating a principal theme, an excise duty on alcohol cannot eliminate all harm. There remains a major role for other policy instruments. The more efficiently they are wielded the less harm, and the lower the necessary excise duty.

Irrational Behaviour

Even if social costs reflected private costs, the market coordinating mechanism would not work well if individuals were not to act in their own interests and interpret the price signals correctly. In the sort of liberal economies of which New Zealand is an example, it is generally assumed that individuals know their best interests – or that no other person or agency knows the individual’s interests better. There are a few exceptions – such as for those suffering some mental incapacity – which need not detain us, except to note even here there has been a tendency in recent decades to give greater weight to the incapacitated’s own assessment of their personal interests. Some circumstances that may be relevant for alcohol policy follow.

Young Drinkers

A widely accepted exception to the assumption of rationality and knowing one’s own best interests is that children may need more guidance than adults, although here again the child’s expression of their own interests has been given greater weight in recent decades.

Teenagers are in a transition between childhood and adulthood, and on some matters they are less ‘rational’ than others. Few teenagers – at the earlier stage anyway – are fully competent to handle liquor. They have to learn how it physiologically impacts on them at an age when their physiology is changing, and they have to learn to handle social situations which involve liquor when they are learning a complexity of social situations, often involving other teenagers as inexperienced as they are. Hence the tendency for some teenagers to drink more than they would if they were they rational – sometimes with dire (and irreversible) consequences for them.

The evidence points to teenagers being particularly sensitive to price changes. Thus a high price of liquor, which a high excise duty may generate, will discourage the teenagers from drinking to beyond the rational level they would were they fully informed adults. Because they are sensitive to prices, teenagers may gravitate to the cheapest sources of ethanol. Raising their price thus reduces teenage drinking – and harm.

Discouraging teenagers from excessive drinking is not unlike stopping a toddler from putting a hand into the fire. It may seem rational to them, but we know better, because we have more experience. In this case learning by doing may have serious consequences. Better to run a preventative strategy.

(The remarks in this subsection may also apply to some adults in their early 20s, where some of the heaviest drinking occurs.)

Addiction

The Mental Health Act provides that under certain circumstances a chronic drinker’s preferences can be overridden. One could go further and argue that those addicted to alcohol, but not yet reaching those circumstances, are also incapable of making good quality decisions. While there is considerable dispute about the meaning of addictive behaviour, addiction is probably not a major consideration for tax policy purposes, since addicts seem insensitive to increases in prices. Thus raising excise duties is unlikely to moderate the addict’s behaviour in a desirable direction (assuming there is agreement as to what that direction is).

Drunkenness:

Drunkenness as irrational behaviour may appear less problematic, given that the inebriated person may regret their actions after the event, despite being cautioned at the time. But would a higher price generate different behaviour, given there is now an onus on those selling liquor not to sell to a drunken person? It seems likely – systematic evidence is thin, but anecdote strong – today most drunkenness occurs following consumption of liquor that was purchased when the person was in a sober and rational state. While raising the price of liquor may inhibit the quantity purchased, the justification for doing so is not the irrationality of the decision (indeed the effectiveness of the policy depends on the person acting rationally). At issue is some notion of drunkenness as demerit behaviour.

Inhibiting Paths to Addiction

Over time, some moderate drinkers slip into regular heavy drinking, and heavy drinkers into chronic drinking without making a conscious decision to do so. To what extent this is ‘rational’ is a largely definitional question. Practically most involved eventually regret this transition. Arguably, the effect of excise duty is to inhibit this moving up the drinking chain to very heavy drinking and addiction. This sort of policy might be characterised by putting a fence along a cliff path. Some walkers may still fall over, but the fence reduces the number.

In summary, while a couple of cases of irrationality or quasi-irrationality have been identified, it is not obvious that raising prices through a higher excise duty would resolve the problems that irrationality creates. Other policy interventions may be far more effective.

The Distributional Impact of Excise Duties

It is common to look at the expenditure of households by household income. Reported alcohol expenditure appears to be (roughly) on average a constant proportion of total expenditure (e.g. Tax Review 2001). The implication is that households with 1% higher incomes also spend 1% more on alcoholic beverages. This suggests the incidence of the alcohol excise is neither regressive nor progressive, that is it neither particularly imposes on the poor nor upon the rich.²

Under the New Zealand regime in which excise duty is based upon ethanol, there is not an exact correspondence between spending on the beverage and spending on ethanol.³ It seems likely that increased incomes will generate a greater consumption of ethanol, but many consumers will upgrade the quality of the liquor as well. (A simple example would be the couple that stick to a bottle with a meal but chose a more expensive wine as their income rises.)

So the excise duty on alcohol is probably regressive – that is, it imposes proportionally more on the poor than the rich. But that is true for a lot of indirect taxes. That GST on food is regressive because the poor spend proportionally more on food, is not in itself a reason for exempting food

². There is a problem with the data in that the rate of under-reporting may differ by type or income of households. But even were the substantial under-reporting independent of household type and income there remains a serious error in the analysis.

³. The proposition would be true were the duty a sales tax in proportion to the production value of the drink.

Moreover, insofar as alcohol misuse causes externalities – social costs imposed on others – the redistributive effect is to impose on moderate and non-drinkers. Thus excise duties on alcohol partly offset the redistributive impact of social costs of alcohol misuse.

These trends are reinforced by the evidence that the age of first drinking seems to be lowering, although the surveys were not well designed to measure this. It seems that the earlier the age of onset of drinking the more likely the young person is to be involved in heavy drinking in the teenage years (Lynskey & Ferguson 1995; ALAC 2002).

While heavy drinking is associated with harm, it is more difficult to measure the actual harm that occurs. Typically the data is not collected by association with alcohol, so that it is difficult to draw rigorous conclusions.⁶

In summary there has been rising drinking among teenagers in the 1990s older teenagers appear to be at least as prone to heavy drinking as young adults and, because they are less experienced, they are likely to be in more harm generating situations.

Under the most favourable circumstances, the socialisation of the young into sensible drinking is bound to be difficult for most, and hazardous for some. As argued earlier this is not because they are 'irrational' but because the process of socialisation involves complex tasks in a context in which the body's physiology and the social environments are changing. It is compounded for this generation by their elders, who having grown up in a much more restrictive drinking environment are not always able to give the next generation the guidance and support which are normal in the socialisation process.

While almost every society with a liberal approach to liquor will have teenage drinking problems, New Zealand seems to be facing a rising one. There is a public awareness of the problem but there has been little additional public policy response. We shall see that there are some things the tax system can do, because teenage consumption is more sensitive to alcohol prices than adults and because some of the anomalies in the existing excise regime are particularly encouraging to heavy teenage drinking. However it would be inefficient to rely solely on changes to the tax system to meet this challenge.

The Responsibilities of ALAC

Undoubtedly, a major part of improving teenage drinking is educational – not only towards the teenagers themselves, but also towards their parents and other mentors and their suppliers. This education process needs to be a community effort, but ALAC has to take a leadership role.

It is therefore surprising that in a decade of rising teenage alcohol consumption and heavy drinking, the funding ALAC has not risen in real terms since 1993 (when its responsibilities for alcohol treatment were transferred to what are now DHBs). The increasing evidence of the teenage drinking problem, available since 1999, suggests that there is now a strong justification for additional funding to enable ALAC to increase its efforts among the teenagers and their mentors.

There may also be a case for changes in the regulatory environment of teenage drinking. This is outside the scope of this report, but it is to be noted that again ALAC has a leadership role which will also involve resources.

6. *Assessment of the Health Impacts of Lowering the Minimum Legal Age of Purchasing Alcohol in New Zealand* summarises what is available. (ALAC 2002)

This section has focussed on teenagers. There is a heavy drinking problem for those in their early and late 20s some of whom are still in the socialisation process (as indicated by the drop-off of heavy drinking in the late 20s). This too is also likely to be amenable to ALAC's programmes. Clearly these programmes need to be maintained and, where appropriate, intensified. It would be unacceptable for ALAC to have to cut back on effective policies which reduce harm from adult drinking because it has to transfer its scarce resources to deal with the rising teenage drinking problem.

The Price of Ethanol

While for many drinkers on most occasions the consumption of an alcoholic beverage involves more than the ethanol in the drink, there are some drinkers for whom the ethanol is the primary concern: in some cases it is the only concern. The most obvious group are the addicts – the chronic drinkers – but that is also true to some extent for heavy drinkers. Thus an important issue is the price of ethanol to the public, together with the costs of its production (including distribution).

TYPICAL AND MINIMUM COSTS OF ALCOHOL AND ETHANOL

Beverage		Container size (ml)	aabv	Price	Price of litre of ethanol	Assumed aabv for excise	Excise per litre (inc GST)	Selling price per litre after (inc GST)
Beer	typical	12 x 330	4%	\$11.95	\$75.44	4.0%	\$23.73	\$51.71
	minimum	12 x 440	4%	\$17.95	\$84.99	4.0%	\$23.73	\$61.26
FABs	typical	330	5%	\$2.95	\$178.79	5.0%	\$23.73	\$155.05
	minimum	340	5%	\$1.95	\$114.71	5.0%	\$23.73	\$90.97
Wine	typical	750	12%	\$12.95	\$143.89	10.0%	\$18.26	\$124.11
	minimum	(cask) 3000	12%	\$14.95	\$41.53	10.0%	\$18.26	\$21.75
Light Spirits	typical	1125	23%	\$12.99	\$50.20	18.0%	\$18.58	\$31.63
	minimum	1125	23%	\$7.95	\$30.72	18.0%	\$18.58	\$12.14
Spirits	typical	1125	37.2%	\$34.95	\$83.51	37.2%	\$38.42	\$40.29
	minimum	1125	37.2%	\$25.95	\$62.01	37.2%	\$38.42	\$18.78

The table is based upon data collected from liquor outlets around the central Wellington region or their published advertisements in September 2002. The survey is not a systematic one, and there may be lower price examples that were not identified.

Unfortunately it is not possible to project these figures into the past. Official data provides averages, not minimums, and it appears to have been collected only for beer, wine and spirits and not for the new beverages. Note the cheapest are discounted and may have been specials for a limited time. The discounts may vary by season and business cycle.

According to this survey, the cheapest source of ethanol was a 1125ml bottle of light spirits, at a price of \$30.72 a litre (or 31 cents a standard drink of 10ml of ethanol). If they were providing ethanol at the same price, a dozen 330ml cans of beer would cost \$6.33, a 750ml bottle of wine would cost \$2.76, or a 1.125 litre bottle of full spirits would cost \$12.85. The cheapness of light spirits arises because the excise duty was lowest at \$16.510 a litre (excluding GST) and the cost of production was lowest at \$12.65 a litre (including GST). Had the excise duty been levied on the actual aabv of 23% instead of 18.0%, a 1125ml bottle of light spirits would have cost at least \$8.93 instead of \$7.95, but still been the cheapest source at \$34.45 a litre of ethanol.⁷

The next cheapest source of ethanol by beverage type was a three litre cask of wine at \$41.53 a litre of ethanol, although had it been taxed at the actual rather than assumed aabv rate of 12% instead of 10%, the cask would have cost at least \$17.16 instead of \$14.95.

The other beverage types are all higher in terms of both cost of ethanol and production cost, although it may be noted that good quality full spirits are relatively cheap compared with the other types. It would also appear that the FABs are relatively expensive, even compared with beer (which probably indicates that their increasing share of that market reflects a consumer demand for sweeter drinks rather than low price of ethanol). However because they are so varied it is difficult to be sure the lowest price or typical price items have been identified.

The Fiscal Cost of Alcohol Misuse

The Treasury has suggested that the alcohol excise revenue should equal the fiscal cost (to the government) of alcohol misuse although it mentions only the cost to the health system (which is less than the revenue) (Treasury 1991). There is some logic confining cost recovery only to the social costs borne by the fiscal system. Excluding the costs directly borne by the individual drinker is perhaps understandable, but there are other costs borne by private businesses (such as private insurance) and by others (such as family members who suffer from violence from an inebriated member or those innocently subjected to casual damage) that cannot be recovered. Another social cost is to businesses that experience a loss of productivity because workers are suffering from the after effects of alcohol. Sometimes it is other workers who suffer, from a loss of wages from this lower productivity.

Perhaps the costs to private corporate agencies (including businesses and even workers via their unions) could be justified insofar as they give them an incentive to pursue measures that contribute to the harm minimisation, although in the past they have not vigorously taken up the challenge. Rather the costs have been passed on to all their customers.

It is harder to understand why the social costs to victims of alcohol misuse should be ignored in the public policy calculations. They have limited means of avoiding their burden, and yet the costs to them can be real and substantial. It would be unacceptable not to include their concerns in any harm reduction strategy. Perhaps the only justification is the difficulty – in our current state of knowledge – of measuring these costs. Some do spill into the fiscal system, as state welfare benefits.

⁷. In these calculations it is assumed that the excise duty does not add to the costs of production and distribution. In practice any duty adds to holding costs

The precise fiscal costs are not known with any great certainty. The 1997 study of the social costs of alcohol misuse identified that the government lost revenue from the mortality and morbidity and the costs to some government agencies using the available data, including in some cases estimates based on Australian studies. It found that while the excise duties on alcohol exceeded the estimated costs to the public health system of alcohol abuse once costs to other government agencies and the loss of direct taxation as a consequence of the mortality and morbidity are included, there was an excess fiscal cost amounting to 2.7% of government revenue (Easton 1997).

These estimates were based on the year to March 1990, and have not been updated (not least because they were dependent upon studies which have not been updated). There has been one major international development in the social cost studies area since 1997, which is likely to markedly modify these estimates. Hitherto it was thought impossible to estimate the social costs of crime and crime related expenditure (including policing courts and incarceration) from alcohol misuse. Because of co-dependency with illicit drugs this remains difficult, but recent work in Australia suggests that the figure is in the order of 0.5% of GDP, or around 1.5% of government spending. If this had been applied to New Zealand in the 1997 study, it is likely that the estimated fiscal cost excess – the costs to government in lost revenue and additional expenditure would have amounted to over 4% of government spending.

The new techniques that have made it possible to estimate the incidence of criminality due to alcohol could also be used to estimate the costs to the state of the victims of alcohol in such cases as those who end up on state welfare (including ACC). Thus even the 4% gap may be an underestimate.

It is not the task of this report to re-estimate the fiscal costs of alcohol misuse but it would be useful for fiscal management to know more than we do today. It would also make a contribution to reduction in harm, for if government agencies knew what alcohol misuse was costing them they would have an incentive to pursue policies to reduce it, or to pressure better placed government agencies to take appropriate measures. The following table updates the 1990 figures to today, modifying them with the new knowledge.

The Fiscal Impact of Alcohol Misuse: 2002/03

	\$m	
<u>As for Easton (1997)</u>		
Public health	655	(7.8% of public health budget)
Production losses	1165	(0.9% of GDP)
Other government spending costs	330	(0.8% of total government spending)
<u>Newly identified costs</u>		
Crime and related costs	240	(20% of the law and order vote?)
Social welfare spending	200	(10% of selected benefits?)
GROSS FISCAL COST	2150-2590	
Revenue from excise duty	510	(includes GST)

Sources and Notes The data comes from Easton (1997) and Treasury (1991). It must be emphasised that the resulting calculations only show orders of magnitude.

In summary, while the table suggests orders of magnitude only, excise revenue from ethanol appears to be only about a fifth and a quarter of gross fiscal cost: The excise revenue probably does not even cover public health costs due to alcohol misuse, unless the proportion has fallen dramatically from that identified in the 1997 study. The gap may be about \$145m including GST, and would require an increase in excise duty of around 28% or about \$6 a litre of ethanol.

The report returns to the issue of fiscal costs when the level of the base excise duty is considered below. This section concludes with the recommendation that the government direct each of its agencies to calculate the costs to it of alcohol misuse. For the significant ones it would be impractical to do so every year: re-estimation every three to five years would be sufficient.

There seems little justification for banding other than the lowering of compliance costs. Currently bands represent a loss of revenue to the government and may lower the minimum cost of alcohol. It is proposed that wherever possible, the excise duty should be levied on the basis of actual ethanol content. If bands are necessary, they should be as short as possible, and the excise duty rate for each band should be based on the ethanol content at the top of the band (not at some inner point). However products in a band should have the option of the duty being levied on the actual ethanol content of the product (rather than the rate at the top of the band) if this can be measured sufficiently precisely.

The Problem of Taxing Wine

It is claimed that it is not possible for wine producers to control precisely the ethanol content, and so it would be costly for them to measure the exact aabv for each batch. Consequentially, excise duty in the 9 to 14% range is levied as if the aabv is 10%, or at a rate of \$2.11 a litre, or \$1.58 a 750ml bottle of wine.

If the recommendations of the previous section were adopted, all wine would be taxed at the top of the band – probably at an aabv of 14%. This would increase the excise duty on a 750ml bottle of wine from the current \$1.58 to \$2.22 or 64 cents a bottle.

It seems likely that it is possible to measure cheaply the precise alcohol content of bulk wines (such as those in casks). Under the above recommendations they would have the option of measuring precisely their ethanol content and having their excise duty levied at the going rate (currently \$21.096 per litre of alcohol excluding GST).

For high value batch wines – say those which cost more than \$12 a litre before tax – where the compliance costs of measuring ethanol content are high there could be a special provision to duty them at a flat rate of, say, \$21.096 a litre as currently happens. The point is that high value wines are unlikely to be major sources of harm, which higher prices will reduce.

For the remaining wine – that is low price wine for which it is inefficient to measure the alcohol content precisely (and which currently retails at below \$10.60 a 750ml bottle) – the excise duty would be set at a higher rate for the top of the band (probably at $\$21.096 \times 0.14 = \2.95 a litre if the band top were 14% alcohol).⁸

Similar principles would apply to fortified wine and liqueurs.

The Higher Rate of Duty on Spirits and Light Spirits

A persistent question in the more analytic New Zealand literature is why there should be a higher rate of duty on ethanol where the beverage is 23% alcohol by volume. It appears to be the result of historical relativities, and the public policy aim is to eliminate it over time by holding the nominal rate on spirits constant, while the rate on the remainder increases over time with inflation.

⁸. The effect of this three-levy system would be no batch wines valued at between \$11.35 and \$12 a litre before excise.

The impacts of the higher excise duty after the rebalancing policies are illustrated in the following table.

Summary of Recommendations on Excise Duties

	Price change as a result of rebalancing and reducing harm	Further price change if duty increased by \$6 a litre of ethanol
Beer Low alcohol (2% aabv) Other (4% aabv)	12c a 330ml can lower No change	No change 9c a 330ml can higher
Wine Bulk (13% aabv) High price	71c a litre higher No change	88c a litre higher 66c a 750ml bottle higher
Spirits Light (23% aabv) Full (37.2% aabv)	\$5.22 a 1125ml bottle higher \$1.83 a 1125ml bottle lower	\$1.75 a 1125ml bottle higher \$2.83 a 1125ml bottle higher

Note: The changes are the GST inclusive excise duty impact only. Suppliers may also change their margins in response.

Hypothecation

Hypothecation is the practice of linking particular elements of public expenditure to specific taxes. It is often advocated by groups who see this as a means of funding some preferred policy development. It is as fiercely resisted by the Treasuries of the world for constitutional reasons and also because the hypothecated revenue is not properly assessed against competing programmes that are not in receipt of hypothecated revenue. The latter suggests merit in an approach in which all government expenditure programmes are based on hypothecation, but that a partial practice may well be inefficient.

Apparently the New Zealand government is considering the possibility of hypothecation in regard to health expenditure. Until a decision is made on the general issue, there is no point in making a recommendation on specific hypothecation proposals, except where they already exist.

In the interim, advocates of hypothecation for funding particular programmes may take comfort in knowing that the government has often proved responsive to funding new programmes that are effective when additional revenue becomes available after a tax hike. An informal hypothecation via this sort of linkage occurs much more frequently than formal hypothecation.

An ACC Levy?

ACC's current funding from levies on employment, motor vehicle ownership, and petrol. These are intended to reflect the costs the Corporation incurs. Since alcohol misuse is a source of accidents and costs to the Corporation, there may be a parallel case for a levy on ethanol (with a compensating reduction in the other levies). The Corporation already acknowledges that alcohol misuse is a concern to it and recently signed a memorandum of understanding with ALAC to undertake joint work on alcohol related injury prevention such as falls and drowning.

It is recommended that ACC consider whether it would be appropriate for it to fund its costs caused by alcohol misuse by a levy on ethanol. The exercise should include careful measurement of those costs. As well as the more equitable funding of its activities, an advantage of this levy may be to further focus the Corporation on its part in reducing alcohol misuse.

The ALAC Levy

As has already been discussed, the ALAC levy on ethanol has proved an appropriate and effective means of funding its activities. The levying process could be improved by making the setting more systematic on a three to five year horizon, rather than annually, following a review of the ALAC strategic plan for the period.

The lack of increase in the real revenue of ALAC over the 1990s is surprising, given the rising level of teenage drinking, and the associated harm. While the tax changes would reduce some of the excessive drinking, and a more vigorous enforcement of the law will also make a contribution, ultimately teenagers have to learn to drink as mature adults should, and that involves improving public understanding rather than repression from pricing and policing.

ALAC is charged with this improvement, and its strategic plan for 2002-2007 proposes a major increase in activities directed towards youth (and to the Maori and Pacific Island communities, which have relatively high proportions of young people). The implementation of this programme will involve additional funding, and therefore a higher levy (or another source of funding). Given the lack of real increase in funding over the 1990s, there seems a strong case for increasing the levy immediately as an offset to the rising teenage drinking.

It is probably efficient for taxation administration purposes that any ALAC levy is on ethanol content and conform to the same structure as excise duty. This would mean where the excise is levied according to ethanol content, so should be the ALAC levy at a uniform rate across all alcohol types (there being no case for a differential for spirits), and where the excise is levied according to volume, the proportional calculation apply to the ALAC levy. In particular, the practice of levying beer as if it averages 3% aabv needs to be replaced with one that reflects the ethanol content more accurately.

Miscellaneous Taxation Issues

Home Production

Currently home production of alcoholic beverages up to limits sufficient for home consumption is not dutied. This is usually justified in terms of compliance costs. Given that there is little evidence that this production is harmful, it is unnecessary to levy duty from the harm perspective either. However the situation needs to be kept under review, and were there evidence to the contrary, some measures (of which excise duty imposition is but one possibility) may be appropriate.

Home production always sets a restraint upon the effectiveness of excise duty in reducing consumption, since it is likely that as the rate is increased home production will increase.

Duty Free Allowances

Currently there is an international agreement that sets down the duty free allowances for travellers. It is not clear what policy objective is being pursued, but while New Zealand may want to alter the practice to make it more purposeful, it can only do this as a part of an international agreement. One place where that may be possible is in special trading relations such as that between Australia and New Zealand. However it may be necessary to first have some harmonisation between the two countries' alcohol policy objectives.

One border practice where New Zealand does not follow international practice is in regard to the *de minimus*, where the duties and indirect taxes on imported goods for personal use are exempt from a levy up to (in New Zealand's case) \$50. The New Zealand practice that is rare if not unique internationally is to include alcohol as an item for exemption. There is no obvious justification for this practice and it does not apply for tobacco products. The annual revenue loss might be as much as \$20m a year that could increase if the exemption became more widely known. It should be abolished.

Business Funded Alcohol

It appears a significant proportion of alcohol is funded by businesses. While such consumption is usually subject to the Fringe Benefit Tax, which provides an incentive for businesses to conserve the consumption, there is no price incentive on consumers to drink prudently. There is therefore a need to stress to businesses that they should make a particular effort to apply host responsibility rules.

GST

The legal situation is that GST excise duties are levied on excise duties. It would be no great matter to exempt them and gross up the excise duties so they were equal to the current level plus GST. However, the current procedure is simpler for the administration of GST.

Indexation for Consumer Inflation

Following the experiences of the 1970s and 1980s when the effective (real) rates of excise duties were reduced by high inflation, because of the need for a deliberate statutory change to increase their nominal levels, the lower excise rate is now increased automatically every six months in line with changes in inflation. This is a practical response that reduces legislative clutter and gives the industry some assurances of policy stability.

Even so, there is a need to review the base rate every three to five years, in line with developments in the supply and trends in harm. If it can be shown that harm has been reduced and that its fiscal costs have been reduced, there may be a good case for reducing the base rate. The results of the recommended monitoring of fiscal costs will contribute to the review.

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