‘The Efficacy of Minimum Unit Pricing, Fiscal and other Pricing Public Policies for Alcohol’

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This report was commissioned from CJP Consultants Limited by the Department of Health. It sets out the issues relating to hazardous and harmful consumption of alcohol in Ireland. It looks at the international experience and policy response; and makes recommendations about how the problems caused by hazardous alcohol consumption can and should be tackled in Ireland.
MAIN POINTS

- There is some evidence that there are modest health benefits from low alcohol consumption. However, there is compelling evidence, built up over many decades of research, that alcohol mostly causes harm. The quantity of harm is proportional to the amount of alcohol consumed.

- The societal costs of existing levels of alcohol consumption in Ireland far outweigh the employment, trade and tax benefits.

- There is strong international evidence to suggest that reduced consumption of alcohol reduces societal harms.

- The most powerful weapon to reduce consumption is to increase price.

- Excise taxes per unit of alcohol, is an effective way to get alcohol prices up. The fiscal consequences of such measures are usually positive.

- But even this measure is not without problems, not least of which is that it enables retailers to ‘give away’ alcohol, should they so choose.

- Minimum prices and/or below cost selling bans are also policy options. Inflation indexation of duties is often called for, as are tax rises to prevent alcohol affordability rising with incomes.

- Minimum price legislation might violate EU competition law, but the Scottish Court has convincingly argued that it does not. This has been appealed by the alcohol industry. We believe that a policy of MUP in Ireland would not violate EU Competition Law and would prove very beneficial as a public health measure.

- This is one reason, apparently, why the UK (in England and Wales) has opted for a below cost selling ban. However, the UK Government has not rejected outright the use of MUP; it remains a policy under consideration but it will not be taken forward at present.

- Cross border selling and smuggling is a real issue. Data on the impact are scarce.

- Fraud is also an issue: again data are (naturally) scarce.

- Employment consequences of price and tax reform are likely to be small.

- The growing gap between on and off-licence alcohol prices is stark. It explains at least part of why drinking patterns are shifting so radically. If
there is a health and/or social benefit from encouraging people to drink in licenced premises rather than at home, then measures need to be adopted that will close this gap.

- The increased purchasing of alcohol in the off-trade is having a detrimental impact on the pub trade. The pub is a safer and more controlled environment for alcohol consumption. Any policy that would tilt the balance back towards the on-trade would be desirable from both a social and health perspective.

- The beneficial effects of pricing and taxation policies are likely to be maximised only as part of a much broader alcohol strategy.

- Saskatchewan’s decision to set minimum prices for alcohol content has been very successful in reducing harmful consumption of alcohol. It was politically unpopular when it was first taken ten years ago. After the extensions and price rises on 1 April 2010, total annual per capita consumption fell by 3.5% at the same time as the value of the alcohol sold increased by 4.3% per capita; the public was drinking less, but spending more. It was calculated that a 10% increase in minimum price across all beverages was associated with an 8.4% reduction in total consumption.

- The Centre of Addiction Research of British Columbia (BC) looked at the implementation in BC of minimum alcohol prices. They found that a 10% increase in minimum price reduces consumption of spirits by 6.8%, wine by 8.9%, coolers and cider by 13.9%, beer by 1.5% and all alcoholic drinks combined by 3.4%. This research in British Columbia represents the first empirical verification that minimum price policies reduce alcohol consumption at the population level.

**POLICY OPTIONS AND RECOMMENDATIONS**
After a thorough examination of the theoretical literature and its associated evidence base the reader is left with a singular impression: harmful alcohol consumption has to fall.

The debate then starts over how best to achieve this: a broad strategy that encompasses pricing, education, availability, advertising and other factors is always recommended. But pricing gives the biggest bang for the buck: if we can do one thing only out of all the policy choices, then get the price of alcohol up.

How best to achieve this? Again, there is near unanimity on this: put excise taxes up. This first-best choice immediately runs into the practical problem of below cost selling: retailers can virtually give alcohol away, so the effects of higher taxation can, to an extent, be mitigated by the behaviour of some retailers. Furthermore, increasing excise duty across the board would not be as effective in targeting harmful and hazardous drinkers. It would penalize the on-trade and the off-trade indiscriminately, whereas it seems that the problem with cheap alcohol arises in the off-trade. It may not be necessary to make higher price alcohol more expensive than it is. It is not an aim to make it cost prohibitive for all drinkers. More generally, in Ireland and the UK, pricing at the retail level over the past decade has led to a stark and growing gap between the price of alcohol purchased either on or off-licence. It has become very cheap to drink at home relative to the pub or restaurant. The lack of an external social setting may have contributed to problem drinking. The pub is also a more controlled and safer environment.

The policy instruments available are volumetric pricing (minimum prices per unit of alcohol), bans on below cost selling, setting a floor price equal to excise duties plus VAT (a particular type of below cost ban) and other fiscal/excise measures. The experience of other countries points to a number of strong conclusions:

1. Do something. The health costs of alcohol consumption are large and growing, almost to the point where it is as big a problem as tobacco.

2. Do more than one thing: there is a menu of policy choices. There are benefits and risks associated with each choice. Sometimes it seems there is a tendency in policy making circles to imagine that only one lever at a time should be pulled.

3. Minimum unit pricing should be a key part of reform. The risk here is that government revenues fall with reduced alcohol consumption. We think this effect is likely to be small. But this risk can be mitigated by a dual policy: minimum unit pricing and higher excise taxes. This can be done, if desired, to achieve tax revenue neutrality. Or it can be part of a revenue raising package.

4. A simple ban on below cost selling has clearly been attractive to the UK government. It is a blunt instrument that, with alcohol, seems to be
a unique experiment. It is a free gift to retailers’ profit margins. A special tax levied on the industry to capture potential ‘supernormal profits’ is a possibility, but this would be a cumbersome policy that would likely be very difficult to administer and would not find favour with tax collection agencies. The likely effects on consumption and health are somewhat unknown. If it is to be tried it would seem better to combine it with other measures, such as the ones we recommend, above.

5. Other countries have been slow to reform. This is just politics; it is linked to the power, in some cases, of the alcohol industry. Sometimes it seems to be simple inertia in the face of uncertainty: the long run effects of radical tax reform are never fully foreseeable.

6. Other measures could include the inflation indexing of excise duties, minimum drinks prices, policies particularly targeted at problem drinkers and bans on promotions such as 2-for-1 and happy hours. All of these have benefits but should be thought of as secondary to the main options, above and, if they are to be tried, should only be part of a wider package.

7. As a public health policy, any measures that would succeed in reducing the harmful consumption of alcohol should be considered very carefully. In the short term there is an obvious risk that reduced alcohol consumption would undermine employment in the alcohol industry and undermine tax revenues. We do not believe that either of these effects would be significant and in the longer-term would be totally surpassed by the positive economic, financial and social effects of a reduction in harmful and hazardous consumption of alcohol.

8. A Minimum Unit Price looks like the best policy option, but would need to be accompanied by other measures to make it most effective in switching consumption from high alcohol content drinks to lower content alcoholic drinks, and in reducing harmful and hazardous consumption by drinkers who are most at risk.

9. A Minimum Pricing Order would inevitably be challenged in the courts, as was the case in Scotland. Indeed, that judgment is subject to appeal. The Court of Session in Scotland rejected the appeals on the basis that none of the challenges to the MUP measure were well founded. In its judgment it stated that alternative measures such as excise duty increases, would be less effective in achieving the legitimate aims which the minimum pricing measures pursue. Furthermore it observed that there is literature and oral evidence that excise duty rises might not be passed on (or not passed on in full) to consumers. The potential problem does not arise under minimum pricing'.
EXECUTIVE SUMMARY

Several themes are common across countries. To a greater (mostly) or lesser extent, policy is based on evidence. There is a common evidence base in the academic literature where many of the most recent and most thorough studies look at international data sources (where ‘international’ in practice mostly means English speaking countries). There are, of course, many country specific studies. Data depth, breadth and quality do vary across countries. The academic literature is extensive and goes back many years. Statistical and methodological issues common to research of this kind are problematic but the accumulated evidence is such that reasonably robust conclusions can nevertheless be drawn.

‘There is indisputable evidence that the price of alcohol matters. If the price of alcohol goes up, alcohol-related harm goes down. Younger drinkers are affected by price and heavy drinkers are more affected than light drinkers.’ (WHO, 2009).1

These conclusions of the World Health Organisation are based on research conducted over many years: there is accumulated evidence that unambiguously supports these (and other) findings. As we will see, researchers around the world consistently arrive at qualitatively similar results. Anyone used to the robust debates often sparked by statistical and econometric enquiries in other disciplines (such as economics) cannot fail to be struck by the consistency of the findings of alcohol researchers.

Policy initiatives differ across countries but there are common threads. Governments typically partner with various stakeholders to review the evidence, explore options, commission research and undertake often extensive (and sometimes prolonged) consultation exercises. Polices towards alcohol have, as a result, sometimes changed. In many cases, the changes have not been as far reaching, or indeed occurred as quickly, as many national reports and studies have advocated; health lobbies have often been disappointed. The Alcohol industry appears to lobby well. Nevertheless, the trend towards policies that incentivise ‘responsible’ drinking is clear. This is a process rather than a discrete event, not unlike the one that has been under way for the fast five decades since the health consequences of smoking first received attention.

The definition of responsible drinking varies across countries and is not the focus of this report. We are interested in policies, evidence and experience of pricing and taxation measures that produce the desired outcome of less drinking amongst high risk groups. At a societal level that almost certainly means less drinking, as well as a compositional shift towards low-strength products.
We are also interested in the economic consequences of alcohol tax reform. There, the literature is far less extensive, as we shall note at several points in this report. Researchers in this area are typically convinced by the accumulated evidence and are therefore focused on the best or most efficient ways to get alcohol prices up; the best ways to target problem drinkers; the best ways to get alcohol harm down. It is also true that disentangling the short and long run economic effects of alcohol reform is not easy. In the first instance, there isn’t that much actual reform to study; the data just are not there. Second, the most likely long run economic and employment consequences are believed by some researchers to be marginal.

Employment, for example, is likely to be unchanged in aggregate, although there may well be some compositional shifts between the alcohol industry and elsewhere. Arguably, exports are a priority in the Irish case and these should not be affected by domestic tax and price reform, so the associated output and employment consequences could be negligible, even in the short run. We review the economic evidence, where it exists.

The evidence base around Cross Border Shopping is also scarce. Where there are estimates available, it does suggest that there is an issue, but one that can only ultimately be served by tax harmonisation, something that looks a long way off in Europe. Not surprisingly; estimates of the amount of fraud (illegal imports and unlicenced domestic production) is also thin on the ground. As taxes rise, the incentive for all these activities also rises, although precise quantification is extremely problematic. A rare estimate by the WHO has suggested that Fraud costs the EU around 8% of alcohol excise duties.

The economic consequences will depend on the type of reform adopted and its quantum. We suspect that one of the reasons why there is relatively little focus in the literature on the output, jobs, cross border, fraud and fiscal consequences is that they are thought either to be minimal (or even positive, in the case of tax revenues when excise duties are raised) or will be swamped by the elimination of just some of the social costs of alcohol.

Saskatchewan’s decision to set minimum prices for alcohol content has been very successful in reducing harmful consumption of alcohol. It was politically unpopular when it was first taken ten years ago. It was calculated that a 10% increase in minimum price across all beverages was associated with an 8.4% reduction in total consumption. The Centre of Addiction Research of British Columbia (BC) looked at the implementation in BC of minimum alcohol prices. They found that a 10% increase in minimum price reduces consumption of spirits by 6.8%, wine by 8.9%, coolers and cider by 13.9%, beer by 1.5% and all alcoholic drinks combined by 3.4%. 
ECONOMICS OF ALCOHOL

Research often begins with attempts to estimate price and income elasticities. For example, a rule of thumb based on many different studies is that when alcohol prices rise by 10%, demand falls by 5% (a price elasticity of -0.5). Gallet\(^2\) (2007) conducted a meta-analysis of 132 studies and found a median price elasticity for all beverage types of -0.52 in the short term and -0.82 in the long term. Some further discussion of elasticities is to be found later in this report.

Relatively little formal work exists that addresses the purely economic consequences of alcohol tax reform. Simple narratives do suggest that employment in the alcohol industry, for example, falls when taxes rise. But the World Health Organisation, and some other researchers (Baumberg, 2006)\(^3\) argue that this is too simplistic. “In the long run, the evidence suggests that the effect of alcohol policy on employment would be zero” (WHO, 2009) (Essentially because less money spent on alcohol will still be spent elsewhere.) Equally, there is little formal work on the long run fiscal consequences of tax reform, one exception being IFS\(^4\), 2012, who suggest they are likely to be small. Beyond simple ‘ready-reckoner’ estimates there is a dearth of evidence when it comes to Government finances. Again, we suspect that this is because most researchers assume that higher taxes will lead to a positive outcome for the Government and the societal savings via reduced healthcare, crime and other costs are so well identified, if indirect.

In terms of pure theory, a small number of economic studies have tried to complement the orthodox approach (as discussed below) with a research strategy that appeals to ‘consumer sovereignty’. For example, Cnossen\(^5\), 2006, sees ‘a rational, fully informed consumer should be allowed to drink whatever and as much as he likes as long as he does not bother other people’. Such a perspective can be traced back through various economists to the writings of John Stuart Mill when, in 1869, he wrote his famous essay on paternalism ‘On Liberty’. The upshot of this line of thinking is that alcohol excise taxes should compensate for the ‘externality’ of societal harm. Although work in this area is noticeable by its absence, it would seem uncontroversial to suggest that for most, if not all, countries alcohol taxation does not meet this definition of optimality. At this stage of the discussion we could delve further into the economics of optimal taxation but this would be beyond the remit of this study.
LITERATURE REVIEW

CANADA

Policy Practice and Evidence in Canada

The Canadian literature – and associated policy response – is extensive. Considerable resources have been devoted to the issues at both the Federal and Provincial/Territorial level. Great care has been taken to understand the nature of the problem and to propose robust, evidence-based policy responses. Nevertheless, as in other jurisdictions, the strength and weaknesses of the evidence base are both obvious and widely acknowledged. The research effort is far from complete and is an on-going project. Data limitations and unresolved issues around scientific methodology are always going to be part of a debate of this nature.

Canadian Background

In August 1988, legislation was passed in Parliament, with support from all parties, which led to the creation of the Canadian Centre on Substance Abuse (CCSA). This was the ‘national focus’ of Canada’s Drug Strategy which itself was launched in 1987. Canada’s approach to alcohol was nested, in large part, within this drug strategy.

Canada views the issues associated with alcohol abuse as part of a wider problem and, therefore, involves a broad strategic response. For the purposes of this report we are concerned solely with policy, practice and evidence with regard to alcohol. In practice, the CCSA has to a considerable extent itself prioritised alcohol abuse. Indeed, it’s ‘mission statement’ reads ‘CCSA has a legislated mandate to provide national leadership and evidence-informed analysis and advice to mobilise collaborative efforts to reduce alcohol and other drug related harm’. There are no doubt many drivers of the focus on alcohol; not least must be the finding, common across most jurisdictions where evidence is available, that the societal costs of alcohol abuse far exceed the costs of the use of illegal drugs and is only slightly less than the costs of tobacco consumption. The most recent data for Canada suggest that tobacco comprises 42.7% of societal costs, alcohol 36.6% and illegal drugs 20.7%. (Those total costs were estimated at C$ 14.6bn, C$ 463 per capita, at 2002 prices) We suspect that this quite fundamental research finding is somewhat underappreciated in some other jurisdictions.

In 2005, Canada embarked on a series of cross-country consultations as part of the National Framework for Action to Reduce the Harms Associated with Alcohol and Drugs and other Substances. Much prior data gathering, research and consultation (prompted in part by the prior launch in 2003 of a
new Federal drug strategy) led up to the creation of this National Framework, which itself had many different strands, the most relevant of which, for the purposes of this report, is the National Alcohol Strategy (NAS). ‘Partners and Stakeholders’ in this initiative include the CCSA, the Brewers Association of Canada, Health Canada (their equivalent of the Irish Department of Health) and MADD Canada (a lobby group with a focus on drink driving).

The NAS culminated in a major report published in 2007 ‘Reducing Alcohol-Related Harm in Canada: Toward a Culture of Moderation’. Nested within this report is a set of recommendations that refer to the availability of alcohol (which is where pricing and taxation policies are discussed). It should be stressed that the report embraces health promotion, prevention and education, health impacts and treatment and safer communities, as well as alcohol availability: this is important because the effectiveness of pricing and taxation initiatives are almost certainly best maximised as part of a broader strategy.

The report contained 41 recommendations, 16 of which relate to availability, 3 of which refer to pricing and taxation. (It is worth noting that many of the recommendations are essentially calls for further research to explore identified knowledge gaps). The recommendations on pricing were as follows:

1. Adopt minimum retail social-reference prices for alcohol and index these prices, at least annually, to the Consumer Price Index (CPI). A competent body should review alcohol pricing throughout Canada, at least annually, and publish a report recommending increases where prices are not keeping pace with inflation.

2. Create incentives, whether through tax or price adjustments, to promote the production and marketing of lower alcohol content beers and coolers, with the overall goal of reducing the volume of absolute alcohol consumed per capita in Canada.

3. Move towards alcohol volumetric pricing (based on the volume of ethyl alcohol in alcohol products) within each beverage class.

Subsequently, a new advisory committee (the National Alcohol Strategy Advisory Committee, NASAC) was established in 2008 with the aim of implementing, monitoring and evaluating the 41 recommendations of the 2007 NAS report. The ‘availability’ subset of recommendations saw a focus on pricing and taxation, culminating in three new reports published late last year under the heading Alcohol Price Policy in Canada.

The self-described aim of these latest reports is ‘to provide context and evidence to support the price policy recommendations contained in the National Alcohol Strategy’. Clearly not all of the recommendations of the 2007
report have been fully implemented. But context is needed here: there has been at least partial implementation across Canada (see below).

The 2012 pricing study reiterates and refines the earlier recommendations. It now describes them as ‘principles’:

1. Inflation indexing.

2. Base prices (including minimum prices) on alcohol content to incentivise a switch from high to low strength products.

3. Minimum prices to remove inexpensive products.

The Canadian Evidence Base

The evidence base cited in the Canadian literature is also, in part at least, often cited in other jurisdictions. It can be summarised as follows.

1. Simple economics: other things being equal, alcohol consumption is inversely related to price. Decades of research support this conclusion: one of the most commonly cited studies, itself a ‘meta study’ is that of Wagenaar, Salois & Komro, 2009, which looked at 112 previous studies of alcohol tax or price effects, containing 1003 estimates of the tax/price-consumption relationship. A Meta study of this type is motivated in part by the need to mitigate the statistical and other methodological problems that can often affect the results of any one individual study. If similar results are obtained using different data sets and/or different methodologies there is, provided certain conditions are met, reason to believe that those results are reasonably robust.

2. Different studies produce different results for the sensitivity - the elasticity - of alcohol demand to its price. The results can be very different, at least in terms of size of the effect, but the bulk of the evidence is consistent on the sign: if price goes up, demand falls. The results - the size - vary across countries, time periods and type of alcohol being studied, but the direction of the effect is, for the most part, always negative. Data are supportive of both intuition and economic theory.

3. The conclusions of Wagenaar et al are worth quoting: “A large literature establishes that beverage alcohol prices and taxes are related inversely to drinking. Effects are large compared to other prevention policies and programs. Public policies that raise prices of alcohol are an effective means to reduce drinking”.


4. The data are also consistent with the proposition that those who spend the most on alcohol are affected - and respond - the most by/to price changes. Regular drinkers are a principal target of price policy interventions.

5. When light drinkers observe that they are being unfairly penalised because of the actions of problem drinkers, it is possible to argue that they benefit, indirectly, from the reduced societal costs of problem drinking. The evidence base for this proposition is not extensive, but does seem logical: if the societal costs are large, as they seem to be, everyone benefits when they are reduced.

6. Recent research\textsuperscript{10,11,12,13} suggests that ‘efficiency’ of policy means that risky drinkers can be successfully targeted using appropriate price policies. There is international evidence that suggests risky drinkers are price sensitive and tend to buy lower priced products. But the Canadian data suggest that only roughly half of the societal costs of alcohol will be so targeted. Policy also has to target those moderate drinkers who ‘occasionally’ drink in risky ways. The Canadian response to this is embodied in the recommendation of complementary policies of indexation and minimum prices. The latter targets problem drinkers, the former targets the whole population of drinkers. Indexation has been adopted, in 2010, by the provincial government of Ontario.

7. Another Canadian body, the Centre of Addiction Research of British Columbia (BC) looked at the implementation in BC of minimum alcohol prices. They found that a 10% increase in minimum price reduces consumption of spirits by 6.8%, wine by 8.9%, coolers and cider by 13.9%, beer by 1.5% and all alcoholic drinks combined by 3.4%. “this research represents the first empirical verification that minimum price policies reduce alcohol consumption at the population level”\textsuperscript{8}.

8. The Province of Saskatchewan is interesting in a number of regards, in terms of both the actions it has taken and the time it took to implement them. As the World Health Organisation has stressed\textsuperscript{14}, Saskatchewan’s decision to set minimum prices for alcohol content was politically unpopular when it was first taken ten years ago. “After the extensions and price rises on 1 April 2010, total annual per capita consumption fell by 3.5% at the same time as the value of the alcohol sold increased by 4.3% per capita; the public was drinking less, but spending more. It was calculated that a 10% increase in minimum price across all beverages was associated with an 8.4% reduction in total consumption.”
9. In terms of the evidence of actual alcohol related harm, research\(^8\) cited by the Canadians includes studies from various countries that suggest alcohol price increases can reduce disease, road accidents, sexually transmitted diseases, and suicides, domestic and other violence and work-place accidents.

10. Data on who (by sex and age) drinks what are extensive. But less so in Canada. The Canadians draw on data from the US and UK to illustrate the possible/probable harm being done by different patterns of alcohol consumption. The data are suggestive, for example, of the need to reduce the availability of cheap alcohol to young males. This is one of many areas that see calls for further research.

11. There is Canadian evidence that suggests most drinkers cannot actually tell the difference between low and high strength beers. The Canadians refer to the success of Australian initiatives in the 1980s to incentivise the production and consumption of low to mid-strength beer. While sales volumes are unchanged, per capita alcohol consumption can fall. Such policies, it is asserted (not quite proved) produce ‘win-win….options that simultaneously meets the goals of public finance, public health and public safety’\(^8\).

**Summary of the Canadian Experience**

As with many other countries, Canada’s attempts to limit alcohol consumption can be traced back to the 19th century, if not before. Those early attempts were largely the efforts of various Temperance movements. There are certainly links between those early efforts and more modern attempts to encourage either abstinence or responsible drinking. Those recent efforts really began a quarter of a century ago, have involved a broad collaboration between government (at both Federal and Provincial levels), NGOs, health lobbies, academics and the drinks industry itself. Most of the initiatives related to pricing of alcohol have come at the provincial level. The coordinated response that began in the 1980s has elicited change but not as much as most of the various stakeholders have asked for; this is still an on-going project. The reasons for the less than instantaneous implementation of the various (and repeated) recommendations can only be a matter of conjecture. Radical change always takes time, vested interests do obviously exist and the fiscal consequences of lower alcohol consumption are often hard to predict in advance. It is worth noting that the Canadian experience has been drawn upon in many other countries.
The current state of play with regard to pricing is described in the following table, itself derived from materials presented in the recent reports outlined above.

Table 1: Pricing Policies in Canada

<table>
<thead>
<tr>
<th>Province</th>
<th>Minimum Prices?</th>
<th>Adjusted for Alcohol content?</th>
<th>Indexed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>In govt. stores only (~55%)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Alberta</td>
<td>On-sales only</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Sask.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ontario</td>
<td>Yes</td>
<td>Partial</td>
<td>Yes</td>
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<tr>
<td>Quebec</td>
<td>Beer only</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>New B.</td>
<td>Partial</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

So, from the perspective of the authors of the NAS and its stakeholders, there is demonstrable progress but with some way still left to travel. As we have stated, this is a process.
AUSTRALIA

Background

Many researchers acknowledge the significant role that alcohol plays in Australia. For example, a recent major survey\textsuperscript{15,16} of pricing and taxation options begins with words “Alcohol has played an integral role in the social and cultural fabric of Australian society since the early days of colonialisation”. Analysts have estimated the social cost of alcohol abuse to amount to A$ 15.3 bn in 2004-05. Cross country comparisons of these kinds of statistics need to be handled with care, but this suggests higher per capita social costs in Australia compared to Canada.

Official concerns have been expressed about a “binge drinking epidemic”\textsuperscript{17} with the Australian government calling one of its drinking awareness websites www.drinkingnightmare.gov.au.

The literature\textsuperscript{18-24} within Australia and across different countries often refers to the same baseline studies and surveys. There is an accumulated evidence base around two key propositions. The data strongly suggest a direct link between reduced alcohol consumption, and alcohol prices and taxes; reduced alcohol consumption leads directly to reduced associated harms.

There are many similarities between the Canadian and Australian experiences (as there are overlaps across many other jurisdictions). Various academics, research institutes, consumer groups, the alcohol industry and Federal and Local governments have all contributed to a large and growing literature. While we have not spent time on the ground in either Canada or Australia, our impression from our desk based research is that the debate in Australia has been a noisy one, if not actually more fractious than the Canadian discussion. As with Canada, it seems, on one level at least, that a reasonable consensus has emerged from a broad cross section of stakeholders (with the unsurprising exception of parts of the alcohol industry) but progress in implementing the various recommended reforms has, on the whole, been slower. There is, however, a slightly nuanced, alternative view on this seeming consensus.

Australia’s alcohol priorities have been laid out by the National Preventative Health Task Force\textsuperscript{25}. The recommendations of this group, made in 2009, echo similar findings in other countries, not least in Canada, as discussed above. The focus should be on alcohol availability, taxation and pricing, drink-driving, treatment services, drinking contexts, regulation of advertising and education.

In an interesting - and unique - study, Fogerty and Chapman\textsuperscript{24} start from the basic proposition that ‘…significant reform has not occurred. News media
coverage of these priorities has not reported public health experts as in agreement and Government has not acted upon the legislative recommendations made’. This study is marked out from the usual more formal statistical reviews and reports: it asks experts their opinions. The insights gained from this exercise are fascinating and potentially very useful. We explore them in greater depth below.

A parallel set of recommendations on alcohol taxation is nested within the broad 2008 Henry review\textsuperscript{26} of Australia’s tax system. This report concluded that “all alcoholic beverages should be taxed on volumetric basis, which, over time, should converge to a single rate, with a low-alcohol threshold introduced for all products”. Volumetric, or unit, pricing is the nearest thing we have found in the literature that amounts to a consensus: almost all stakeholders agree that it is the most effective way to reduce consumption and harm. Notwithstanding this consensus, volumetric pricing is not without controversy. For example, ‘tiering’ attracts much analysis and disagreement. Tiering involves different minimum unit alcohol prices for different strength drinks with the aim of switching consumption away from high to low alcohol-by-volume drinks. It is also claimed that tiering could target specific groups of problem drinkers, although the evidence for this is thin and the policy has not, to our knowledge, been tried anywhere. The Henry proposals on volumetric pricing were rejected by the Australian government, mostly because of concerns about the possible consequences for the domestic wine industry (tiering would raise the price of wine relative to most other major drinks groups).

Two important Australian agencies have also proposed volumetric pricing, the National Preventative Health Taskforce\textsuperscript{27} (NPHT) and the National Alliance for Action on Alcohol\textsuperscript{28} (NAAA); the NAAA is an umbrella body for over 50 leading Australian health organisations. Both agencies also argue for tiered pricing. The most common reason for tiering is that there are concerns that simple volumetric pricing could lead to a switch in consumption patterns towards higher strength products. This is partly due to the complexities of the Australian tax system which currently levies very low taxes, relatively at least, on low priced wine. Volumetric taxation, it is feared, could lead to rising relative prices of cheap wine and low-strength beers.\textsuperscript{29} But these concerns should not detract from the universality of the calls for volumetric pricing and, not least the international and Australia-specific research that has concluded that the health benefits from volumetric pricing are considerable.

What are typically called alcohols in Britain and Ireland are (formally) called RTDs (ready-to-drink) in Australia. These have attracted specific taxation measures to try and curb associated binge drinking, particularly amongst younger people.
At this stage we hope we have outlined the complexity of the Australian alcohol tax system; it is worth noting that the Henry review called it “incoherent”. The President of the Public health association of Australia has labelled it “a dog’s breakfast”\(^\text{30}\).

**Table 2 : Australian Public Health Organisation & Industry Recommendations**

<table>
<thead>
<tr>
<th>Body</th>
<th>Volumetric taxation</th>
<th>Increase tax rate</th>
<th>Trend real price increase</th>
<th>Floor price</th>
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<td>Henry review</td>
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<td>NAAA</td>
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<td>NPHT</td>
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<td>DSICA*</td>
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</table>

*Distilled Spirits Industry Council Australia

As noted, relatively little policy action has resulted from all of these different studies, reports and recommendations “…the government rejected the volumetric tax proposal, citing a wine glut and possible industry restructuring. Likewise\(^\text{31}\), the government opted to only note recommendations regarding setting a minimum price for alcohol and restricting advertising through legislation, without committing to introduce the proposals\(^\text{24}\).”

The Fogarty & Chapman\(^\text{24}\) study mentioned above is essentially a recent attempt to understand why things have developed in this way and tries to suggest a way forward for those still seeking to reform Australia’s alcohol tax system. This qualitative - but nevertheless quite systematic - study is, in a sense, an exercise in realpolitik with some important insights. Its broad conclusions/insights can be summarised as follows.
1. Any one policy change is likely to have small effects. Proposals are best thought of as a package. Serious reform can only come about this way. “Taxation is the most cost effective, but taxation doesn't work in isolation”.

2. The three policy areas universally deemed to be crucial were
   a. price
   b. availability
   c. marketing (but see 4, below)

3. Real world policy constraints have to be acknowledged: by all means prioritise but be ‘opportunistic’ - do what you can when you can.

4. The positive effects of taxation reform are real and uncontroversial. Policy proposals in this area are firmly evidence based. This cannot be said, at least as strongly, when it comes to advertising reforms.

5. Volumetric pricing is universally acknowledged to be the most effective reform, usually in a tiered fashion (again, tiering did not meet with universal agreement).

6. The adoption of minimum prices is the next best reform, either alongside volumetric pricing or instead of it: this latter option is pure realpolitik, mentioned by those who think it politically difficult for the government to introduce another ‘big tax’.

We hope we have conveyed the sense of disappointment that the various stakeholders have demonstrated since the rash of reports published over the last few years have largely failed to alter policies. If anything, this disappointment has encouraged some agencies to redouble their efforts. For example, the Foundation for Alcohol research and Education (FARE) recently criticised the Government for ignoring the Henry Review (“...and the seven government reviews before it”) and commissioned Marsden Jacob Associates (MJA), a consultancy, to produce a major cost benefit analysis of alcohol taxation reform. The MJA report is interesting: it is very recent and its methodology is relatively unusual in that it attempts a comprehensive cost benefit analysis from a proper economic perspective. It is an explicit attempt to extend the preliminary analysis presented in the Henry Report; the authors suggest that it is the first such cost benefit analysis of Australian alcohol taxation and policy. The MJA study’s main conclusions are:
1. The ‘harms to others’ (a minimal definition of the costs of alcohol abuse) amount to A$15 bn per annum.

2. Abolition of the Wine Equalisation Tax (an ad valorem tax that is an embedded part of the system) and replace it with volumetric tax

3. Higher tax revenues should be given back to consumers via a reduction in other (inefficient) taxes

4. Two model simulations were performed
   a. WET abolished, A$29.05 new tax per litre of alcohol, all other excise duties unchanged: net public benefit of A$230m
   b. WET abolished, A$29.05 new tax per litre of alcohol, all excise duties other than wine increased by 50%: net public benefit of A$250m

5. Minimum prices are viewed very negatively: the authors see these as a gift to producers and/or retailer’s profit margins. ‘The option of minimum prices is highly regressive.’

6. The modelling is done under conservative assumptions; ‘realistic’ estimates of the benefits are probably higher

7. The model is not country specific: the authors claim general applicability across the UK and elsewhere.

While the MJA report is the most comprehensive we have seen, there have been other responses of a similar absence of reform. For example, the Alcohol Education and Rehabilitation Foundation (AER) commissioned the Allen Consulting Group to model three alternatives to the current system. Qualitatively the conclusions and results are similar to the MJA study: reform of the tax system based on volumetric pricing reduces harmful drinking (and in the case of this study, unlike the MJA report, raises tax revenues).

Australia has produced research and evidence consistent with the experience of other countries. The conclusions are the same: if the price of alcohol is raised, consumption and harm will fall. There is debate over the best way to raise prices but a broad consensus is agreed over some form of volumetric pricing. Minimum price advocates acknowledge the implicit free gift to alcohol retail profits but point to the mixed evidence on pass-through of tax changes: volumetric pricing without minimum retail prices could, theoretically, still allow retailers to give alcohol away, or at least sell below cost, as part of a loss-leading strategy. Most stakeholders also agree that pricing and taxation should form part of an overall strategy designed to reduce alcohol consumption. Nevertheless, higher alcohol prices are likely to be the most important component of such a strategy.
EUROPE

The World Health Organisation (2005) estimates that harmful drinking is responsible for 10.8% of the disease burden across the EU. Adding up the health care, lost output and criminal justice system costs led Anderson and Baumberg (AB, 2006) to conclude that alcohol costs the EU €125 bn a year, four times the total collection of alcohol excise duties.35

The AB, 2006 study was written on behalf of the UK’s Institute of Alcohol Studies and was prepared under a contract with the European Commission, who requested and paid for the report. In terms of breadth and depth (and also, at 446 pages, length) it is probably the most comprehensive study of alcohol in a European context. It is, in part, an exhaustive survey of a massive literature base. In AB’s words, their report ‘is an expert synthesis of published reviews, systematic reviews, meta-analyses and individual papers, as well as an analysis of data made available by the European Commission and the World Health Organisation’.

The pricing and taxation options considered by AB reach familiar conclusions. They estimate that a 10% rise in EU alcohol prices would prevent over 9,000 deaths occurring in the following year. Approximately €13bn of additional tax revenues would result. AB reflect on this in a number of ways, not least by looking at the paradox involved in calling for higher alcohol taxes while at the same time observing significant production subsidies via the Common Agricultural Policy (worth around €1.5bn per annum to alcohol producers).

AB conclude:

Minimum tax rates for all alcoholic beverages should be increased in line with inflation, should be at least proportional to the alcoholic content of all beverages and should at least cover the external costs of alcohol as determined by an agreed and standardised methodology. Member states should retain the flexibility to use taxes to deal with specific problems that may arise with specific alcoholic beverages, such as those that prove to be appealing to young people.

The pan-European approach to alcohol policy has, unsurprisingly, been led by the European Commission. Many of the reports and studies submitted to the commission, like the AB analysis (many of which have been at the request of the Commission) have studied and reached orthodox and consistent conclusions about pricing and taxation (as well as comprehensively covering many or all of the non-price and taxation aspects). Clearly, this is a sensitive area for the Commission: alcohol pricing and taxation are, for the most part, the responsibility of national governments. The EU has set minimum excise rates but this amounts to the limit of its policy reach in this area. It is worth noting that the minimum excise duty on wine is 0%: along with the other
minimum excise duties this was first set in 1992. The Commission has tried to revisit these rates but has not, for the most part, been successful. It has, for example, tried but failed to inflation index excise duties. Harmonisation of excise duties has also been a long standing goal of the EU (not least because cross-border shopping represents an obvious problem when taxes vary). The 1992 minimum duties were the result of efforts that can be traced back to the 1970s; full harmonisation has yet to take place. Hence much of the Commission’s extensive work is focused on non-tax and price policies.

One controversial area has been minimum or social reference prices. As discussed above, the debate in countries like Australia has focused on the free gift to retailers’ profit margins that is explicit in any move to set minimum prices. In Europe, similar concerns have been evident but there has tended to be a greater focus on competition law. There is some concern that minimum prices could violate European law, but the ruling by the Scottish Court has ruled that this is not the case.

Precedent, some claim, has been set by the Commission and European Court of Justice which ruled that minimum prices for cigarettes (in Austria and Ireland) were contrary to competition law. The European Court of Justice (ECJ) case of Commission v Ireland found that the pricing policy operated by Ireland for tobacco products was capable of undermining competition by preventing producers/importers from taking advantage of lower cost prices so as to offer more attractive retail selling prices and, therefore, was not compatible with EU law.

The Scottish High Court judgment referred to this given that the petitioners (Scottish Whiskery Association, etc) relied on it in their challenge to MUP: “The recent tobacco cases (Commission v France, Commission v Austria, and Commission v Ireland) are not authority for the petitioners’ primary proposition. The issue in each case was whether the national provisions were contrary to Article 9(1) of Council Directive 95/59/EC. The court held that Article 36 TFEU provided no defence to the breach of Article 9(1) of the Directive. Article 36 could be relied upon only to justify a contravention of Article 34 or 35. It could not be relied upon to justify breaches of other provisions. There was no scope for it to justify breach of a provision such as Article 9(1) (which dealt with a matter in relation to which there had been harmonization)“.

This suggests that the Irish ECJ Tobacco case held that Irish legislation imposing a minimum cigarette price was unlawful. This is because the ECJ Irish tobacco case was based on a specific directive concerning excise duties on tobacco which provided that the maximum retail price was to be set by manufacturers. The ECJ’s objection then was not to the interference with the free movement of goods but that the Irish system
undermined "the freedom of producers and importers to determine their maximum retail price, guaranteed by the second paragraph of Article 9(1) of Directive 95/59".

Interestingly, one of the judgements of the ECJ ruled that while public health considerations were clearly important, they could be achieved via taxation, rather than minimum prices. The UK has nevertheless recently flirted with the idea of minimum prices for alcohol products (see below).

If the EU has been unable to make progress on tax raising and harmonisation, many of the reports that it has commissioned continue to make recommendations. For example, a (relatively) recent RAND (2009) study draws familiar conclusions and makes equally familiar recommendations:

1. The RAND report explores the ‘...extensive evidence, built over decades of scientific research, that alcohol taxation can be an effective policy measure to curb harmful and hazardous alcohol consumption’.

2. The real value of alcohol taxation has fallen in many member states.

3. Alcohol excise duty rates should rise by at least the level of inflation and incomes.

4. Cross border shopping is a real problem. Ideally, taxes have to converge from the bottom up.

5. Significant EU-wide tax increases are politically unlikely.

6. Competition concerns lead to a preference for a ban on below cost selling (although the long term consequences of such a move for alcohol have not been studied in any great depth).

Europe is mostly a story about the impasse between the Commission and member states, between what the Commission would like to do, given the evidence, and what it is able to do, given that taxation powers lie, for the most part, with member states - who have displayed a marked reluctance to do very much.
THE UNITED KINGDOM

Government and other interested parties in the UK have, to a considerable extent, followed a parallel path taken in other countries such as Canada and Australia. While there are some differences of approach, method and data, the similarities are striking. There is, for example, a very large literature dealing with the data on alcohol consumption and the associated harms. According to the National Statistics Office, there were 8,748 alcohol related deaths in the UK in 2011, twice as many as were recorded in the early 1990s (although there is a suggestion that the number of fatalities may have broadly stabilised over the past few years).

Scotland has legislated for a minimum unit price on alcohol but this is now subject to both domestic and overseas legal challenge. This seems to have affected policy elsewhere in the UK (see below).

Of the numerous studies and reports that we analysed, a noteworthy piece of research is the 2010 RAND37 ‘Preliminary assessment of the economic impacts of alcohol pricing policy in the UK’, commissioned by the UK Home Office.

As we noted in our assessment of the Australian evidence and research base, economic assessments of different alcohol taxation systems are comparatively thin on the ground. The UK RAND researchers also note that ‘literature on the economic impacts of the different alcohol pricing policies remains surprisingly scarce, despite the passionate debate about the potential winners and losers from these measures. Furthermore, the complexity of the alcohol supply-chain and the long-run implications of the pricing policies are inadequately researched and there are therefore many uncertainties regarding effects in the longer-term’. The UK RAND study is also particularly relevant to our research in that it is one of the very few pieces of research that takes an in-depth look at our three main areas of interest: taxation, minimum pricing and below cost selling. The main findings of the report are relatively straightforward:

1. The evidence base associated with minimum pricing is ‘considerably smaller’ than the one associated with taxation. What evidence there is suggests that minimum pricing can be effective, particularly as it tends to target young, hazardous and other harmful drinkers. There is not enough research into the longer run consequences of minimum pricing and the impact (or unintended consequences), if any, on things like tobacco or cannabis consumption.

2. The available literature on below cost selling is even smaller than that associated with minimum pricing. Researchers have tended to focus on the effects of price promotions (things like two-for-one) rather than below cost
selling per se (such promotions increase consumption, particularly binge drinking and associated harms).

3. Taxation has been extensively studied. The evidence is reasonably unambiguous: consumption falls and, generally, government revenue is raised, subject to the size of the tax increase and the price elasticity of demand. It is extremely difficult to establish the ‘optimum’ level of taxation: the literature is largely silent on the empirical estimation of this.

Another recent UK based study that is relevant to our analysis was produced by the Institute for Fiscal Studies earlier this year (IFS, 2013)\(^{38}\). This study, like many of its peers, was in large part a response to the current government’s attempt to build on the efforts of previous administrations to curb alcohol abuse. The IFS concluded:

1. Because heavy drinkers tend to buy cheaper and stronger alcohol, policy should be directed to raising the price of that type of alcohol.

2. Heavy drinkers do not typically avail of quantity based special offers (proposed by the Government, already implemented in Scotland). Banning these kinds of promotions is not a well-targeted policy.

3. It would be better to target strong alcohol rather than cheap alcohol.

4. Higher excise taxes as in (3) would result in higher tax revenues. Minimum unit prices enhance retail profit margins and would lead to falls in government revenue

5. A volumetric target of 45p per unit of alcohol would reduce tax revenue by approximately £290m and raise industry income by around £840m.

6. The IFS proposes a reform of excise taxes which essentially corresponds to the tiered volumetric approach (they do not use this terminology) discussed above in our analysis of the Australian approach. Their ‘illustration’ suggests a tax schedule starting at 20p per unit of alcohol for wines and spirits for the first 1% of ABV and 7.1p for other alcohol. Both rates increase by 0.6p per unit for each 1% increase in ABV. This is an illustration - they acknowledge it may not be ‘optimal’: further research is required on this.

7. Lower income households that consume relatively large quantities of stronger alcohol would be hardest hit by this policy. The extra £980m in tax revenues could, if desired, be used to mitigate some of the consequences of this.

In summary, the IFS come out strongly on the side of those researchers and policymakers in Australia that advocate for a tiered volumetric approach.
As mentioned above, there have been several policy initiatives in the UK, not least in Scotland. Specifically, the Westminster Government proposed to follow its Scottish counterpart and to introduce, amongst other things, minimum unit pricing and a ban on certain types of promotional discounts. A period of consultation has just concluded, with the Government announcing last month that:

1. England and Wales will not introduce a minimum unit price for alcohol. It is a policy that ‘will remain under consideration......[but] we do not yet have enough concrete evidence that its introduction would be effective in reducing harms associated with problem drinking.

2. England and Wales will not ban ‘multi-buy’ promotions.

3. England and Wales will ban the sale of alcohol below the level of excise duty plus VAT.

Not surprisingly perhaps, health lobbies greeted these developments with grave dismay, while they were welcomed by industry groups. The Government did cite on-going legal challenges to the recent Scottish decision to impose unit pricing; the Scotch Whiskey Association chose the occasion of the Westminster Government’s latest decision to remind us that they still think the Scottish minimum pricing breaches competition law.

The UK Government has not rejected outright the use of MUP: it remains a policy under consideration, but it will not be taken forward at present.

Our assessment of the global evidence base leaves us slightly mystified as to why the UK chose to go this route.
THE IRISH CONTEXT

Introduction

Alcohol plays a very important and complex role in Irish life and in Irish society. It is widely used for purposes of enjoyment and sociability, and the alcohol industry does make a very significant contribution to the Irish economy through employment, to the Exchequer finances, and it is a key part of the Irish tourism offering. However, it also has many negative effects. Under-age drinking is a significant problem and this early addiction to alcohol results in many short and longer-term problems for those who consume to excess. In addition to the direct effects of alcohol, there are also many negative externalities associated with excessive consumption.

In a key report published by the Department of Health in 2012 the negative impacts of alcohol are laid out very clearly. Alcohol is estimated to have been responsible for at least 88 deaths every month in 2008; 1 in 4 deaths in young men is estimated to be due to alcohol; it is estimated to be a contributory factor in half of all suicides and in deliberate self-harm; it increases the risk of more than 60 medical conditions; it results in more than 2,000 beds being occupied every night in Irish acute hospitals and over one-quarter of injuries presenting to emergency departments; it accounts for over half of attendances at specialized addiction treatment clinics; it is associated with harm to the baby and is a significant factor in unplanned pregnancies; it is a significant contributor to domestic violence and crime; and it undermines worker productivity in the economy.

The OECD estimates that adults over the age of 15 in Ireland consumed 11.9 litres of alcohol per capita in 2010, which is the 7th highest in the EU-27 and is almost twice as much as the lowest consuming country, Italy. Between 1980 and 2010, consumption per capita in Ireland grew by 24 %, compared to an average decline of 15 % in the EU-27.

Clearly, Ireland has a serious problem with alcohol consumption and all possible policy options should be explored in order to address the problem. Although the alcohol industry makes a significant economic contribution to Ireland’s economy, this is far outweighed by the direct and indirect costs that excessive consumption of alcohol imposes on the Irish economy and society.
Alcohol Sales & Pricing in Ireland

The Irish alcoholic beverages market has undergone a significant structural change over the past decade. Expenditure on alcohol (off-trade and on-trade) peaked at €7.2 billion in 2007. It then weakened in line with the sharp deterioration in domestic economic conditions. In addition to this economic related decline in expenditure on alcohol, the pattern of consumption has also changed significantly, with a significant switch from pub sales to the off-trade sector. The off-trade sector is comprised of specialist off-licenses and mixed trade outlets, which are defined as retail outlets that combine a mix of food, grocery, petrol, or other products with alcohol sales.

The switch from on-trade to off-trade consumption of alcohol is being driven by many factors and has many consequences, most of which are not desirable. Strict drink driving laws, the smoking ban in pubs and the price of alcohol in pubs, are generally regarded as the three contributory factors impacting negatively on pub sales. On the other hand, alcohol is much cheaper and more convenient in the off-trade sector, and is particularly favoured by young drinkers.

Table 3 examines the trend in overall consumer expenditure on goods and services and the trend in expenditure on Alcohol Beverages between 2000 and 2012 in current price terms. The peak in overall consumer expenditure occurred in 2008 at €94.16 billion and the peak in expenditure on Alcoholic Beverages occurred in 2007 at €7.23 billion. Between 2007 and 2010, overall consumer expenditure declined by 11.2 % and expenditure on Alcohol Beverages (including pub sales) declined by 13.5 % over the same period. Expenditure on Alcoholic Beverages subsequently increased, with an increase of 1.6 % between 2010 and 2012. Expenditure on Alcoholic Beverages accounted for 9.6 % of total consumer expenditure in 2000, but this declined significantly to 7.4 % in 2008. It has subsequently increased to 7.7 %.

Detailed data on the breakdown of expenditure on Alcoholic Beverages between the on-trade and the off-trade are not publicly available. However, it is clear that there has been a marked growth in alcohol consumption in the home. It is estimated that between 2000 and 2006, the value of alcohol consumed in the home increased by around 104 %, while over the same period the value of alcohol consumed in licensed premises increased by just 14.8 %. In 2000, the value of alcohol consumed in the home is estimated to have accounted for 13.9 % of total alcohol consumed – this had jumped to 22.4 % by 2012. In volume terms, alcohol consumed in the home is likely to be closer to 50% of the total.
Table 3: Consumption of Personal Income on Alcohol

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</thead>
<tbody>
<tr>
<td>ALCOHOLIC BEVERAGES (INC PUBS) €m</td>
<td>4,996</td>
<td>6,376</td>
<td>6,803</td>
<td>7,230</td>
<td>6,966</td>
<td>6,326</td>
<td>6,253</td>
<td>6,277</td>
<td>6,355</td>
</tr>
<tr>
<td>% OF TOTAL CONSUMER SPENDING</td>
<td>9.6%</td>
<td>8.3%</td>
<td>8.1%</td>
<td>7.8%</td>
<td>7.4%</td>
<td>7.6%</td>
<td>7.6%</td>
<td>7.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td>TOTAL CONSUMPTION</td>
<td>51,957</td>
<td>76,850</td>
<td>84,160</td>
<td>92,603</td>
<td>94,162</td>
<td>83,294</td>
<td>82,200</td>
<td>82,380</td>
<td>82,634</td>
</tr>
</tbody>
</table>

Source: ‘National Income & Expenditure 2012’, CSO.

Recent Trends in Retail Sales

The retail sales series covers bar sales, but not alcohol sales in the off-trade. Figure 1 show the trend in overall retail sales in both value and volume terms between 2005 and 2012.

Figure 1: Retail Sales in the Bar Sector

Source: CSO Database Direct

Between the peak of retail spending in 2007 and 2012 overall retail sales declined by 24.2% in value terms and by 19.4 % in volume terms. Bar sales over the same period declined by 30.5 % in value terms and by 32.7 % in volume terms. Bar sales as measured by the CSO include sales of food, soft
drinks and alcoholic beverages for consumption on the premises, and any off-license sales in the pub. Anecdotal evidence from the bar trade indicates clearly that the key weakness has been in sales of alcoholic beverages.

**Recent Trends In Alcoholic Beverage Prices**

Over the past decade there has been a significant divergence in the price trend of alcoholic beverages sold in the on-trade and the off-trade. Off-license alcoholic beverage prices have increased by just 0.2 % over the period from 2003 to 2013, while the price of alcoholic beverage sold in licensed premises has been significantly greater.

**Table 4: Price Trends**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>% CHANGE JAN 2003-JULY 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OFF-LICENSE</strong></td>
<td></td>
</tr>
<tr>
<td>Alcoholic Beverages</td>
<td>+0.2%</td>
</tr>
<tr>
<td>- Spirits</td>
<td>+0.3%</td>
</tr>
<tr>
<td>- Wine</td>
<td>+5.3%</td>
</tr>
<tr>
<td>- Beer</td>
<td>-5.5%</td>
</tr>
<tr>
<td><strong>LICENSED PREMISES</strong></td>
<td></td>
</tr>
<tr>
<td>All Products</td>
<td>+24.3%</td>
</tr>
<tr>
<td>- Soft Drinks &amp; Mineral Water</td>
<td>+25.6%</td>
</tr>
<tr>
<td>- Spirits</td>
<td>+23.0%</td>
</tr>
<tr>
<td>- Wine</td>
<td>+19.1%</td>
</tr>
<tr>
<td>- Beer</td>
<td>+25.6%</td>
</tr>
<tr>
<td>CPI</td>
<td>+38.7%</td>
</tr>
</tbody>
</table>

Source: CSO, Detailed CPI Indices
Figure 2: Alcoholic Beverage Price Trends

Source: CSO, Database Direct

Figure 2 highlights the diverging trends in alcoholic beverage prices sold in the on-trade and the off-trade. Significant price compression has occurred in the off-trade, which highlights a very serious issue from a social and a public health perspective. The pub traditionally plays an important social and economic function in Irish life and in Irish society. The rise of the off-license trade at the expense of the licensed trade is having serious consequences – young people are increasingly consuming alcohol purchased cheaply in the off-trade and fewer people are consuming alcohol in the relatively controlled pub environment.

One of the significant factors that have given rise to the marked price divergence between the on-trade and the off-trade has been the abolition of the ban on below invoice price selling in 2006.

The Groceries Order

The original Groceries Order was introduced in 1956 in order to attempt to abolish the practice of resale price maintenance. This practice occurred where suppliers set prices and keep them artificially high. The Order was amended in 1980 to ban below cost advertising, and again in 1987. The 1987 amendment created the Restrictive Practices Order, which made below invoice selling and ‘hello money’ illegal on some grocery goods for human consumption. The Order covered ‘grocery goods for human consumption
(excluding fresh fruit, fresh vegetables, fresh and frozen meat, fresh fish and frozen fish which has undergone no processing other than freezing with or without the addition of preservatives) and intoxicating liquors not for consumption on the premises, and such household necessaries (other than foodstuffs) as are ordinarily sold in grocery shops, and includes grocery goods designated as ‘own label’, ‘generic’ or other similar description”.

The main purpose of the 1987 Restrictive Practices (Groceries) Order was to ban below invoice price selling with the objective of reducing the concentration in the retail industry and preventing predatory pricing.

In March 2006, the Order was abolished by the Minister for Enterprise Trade and employment. It was abolished on the basis that it had kept the price of the vast majority of grocery products in Ireland at an artificially high level by allowing suppliers to specify minimum prices below which products cannot be sold.

When the order was abolished it was argued by its opponents that it would result in significantly lower prices for the consumer. The evidence following the abolition of the Order did not vindicate these arguments.

Table 5 shows the change in price of goods previously subject to the Groceries Order and goods not subjected to it over two time periods – the first being the two-year period following its abolition and the second period covers from its abolition to December 2010, when the CSO ceased publishing this particular dataset.

<table>
<thead>
<tr>
<th></th>
<th>MARCH 2006-MARCH 2008</th>
<th>MARCH 2006-DECEMBER 2010</th>
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<tbody>
<tr>
<td>Groceries Order Items</td>
<td>+8.0%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Non-Groceries Order Items</td>
<td>+6.1%</td>
<td>-6.8%</td>
</tr>
<tr>
<td>Alcoholic Beverages Off-License</td>
<td>-0.2%</td>
<td>-10.4%</td>
</tr>
<tr>
<td>Licensed Premises</td>
<td>+8.6%</td>
<td>+9.4%</td>
</tr>
<tr>
<td>Overall Consumer Prices</td>
<td>+10.4%</td>
<td>+5.6%</td>
</tr>
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Source: CSO
Between March 2006 and March 2008:

1. Overall consumer prices in the economy increased by 10.4 %

2. The price of items previously covered by the Groceries Order increased by 8 %;

3. The price of items not covered by the Groceries Order increased by 6.1 %; and

4. The price of alcoholic beverages sold in off-licenses declined by 0.2 %.

Between March 2006 and December 2010:

5. Overall consumer prices in the economy increased by 5.6 %;

6. The price of items previously covered by the Groceries Order declined by 0.2 %;

7. The price of items not covered by the Groceries Order declined by 6.8 %; and

8. The price of alcoholic beverages sold in off-licenses declined by 10.4 %.

The abolition of the Groceries Order in March 2006 did not give rise to the expected bonanza for consumers, as its opponents had suggested. Instead, following the abolition of the Order it is clear that the key impact in terms of price declines was seen in the price of alcohol sold in off-licenses. From a social and public health perspective, it is difficult to argue that this was a desirable outcome. It is a clear case of the law of unintended consequences. Those unintended consequences have included below cost selling of alcohol, growth in the trend of out of pub drinking, and an escalation of the youth drinking culture.
TAX REVENUES FROM ALCOHOL

Alcoholic beverages are taxed in two ways in Ireland – excise duties and VAT.

The Excise Duty is a specific tax, where the tax is an amount of money per unit volume of the good. In the case of alcohol, the excise tax is an absolute amount of money per unit of alcohol contained in the alcoholic beverage. Specifically, it is generally expressed as an excise duty per hectolitre of pure alcohol (HPLA).

The structure of alcohol excise taxes is governed by an EU Directive which specifies that the tax base for wine and cider should be the volume of liquid, whereas the tax base for spirits and beer is the alcohol content.

On the other hand VAT is an ad valorem tax that is applied as a percentage of the selling value or price. A VAT rate of 23% currently applies to alcohol products in Ireland.

The Excise Duty is applied at the same level regardless of whether the alcoholic beverage is sold in the on-trade or the off-trade. On the other hand the VAT rate is applied to the value/price of the product. VAT is charged on the excise amount, meaning that a VAT increase causes price to rise by the excise and a further 23% of the excise increase.

The sale of alcoholic products represents a significant source of revenue for the Exchequer. Table 6 shows the tax take from alcoholic beverages broken down into VAT and Excise duty between 2002 and 2012.

Table 6: Tax Revenues Collected from Alcoholic Beverages

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<tbody>
<tr>
<td>VAT</td>
<td>897</td>
<td>931</td>
<td>986</td>
<td>1,022</td>
<td>1,073</td>
<td>1,122</td>
<td>1,089</td>
<td>1,074</td>
<td>1,011</td>
<td>1,014</td>
<td>1,097*</td>
</tr>
<tr>
<td>Excise</td>
<td>958</td>
<td>989</td>
<td>773</td>
<td>1,038</td>
<td>1,077</td>
<td>1,131</td>
<td>1,070</td>
<td>968</td>
<td>826</td>
<td>830</td>
<td>846</td>
</tr>
<tr>
<td>Total</td>
<td>1,855</td>
<td>1,920</td>
<td>1,759</td>
<td>2,060</td>
<td>2,150</td>
<td>2,253</td>
<td>2,159</td>
<td>2,042</td>
<td>1,937</td>
<td>1,844</td>
<td>1,943</td>
</tr>
</tbody>
</table>

Source: Revenue Commissioners (*2012 VAT figure is provisional)
The total tax take from alcoholic beverages peaked at €2.25 billion in 2007 and declined by 18.2% to €1.84 billion in 2011. It increased by 5.4% in 2012 to reach €1.94 billion.

Alcohol related taxes accounted for 5.3% of total Exchequer tax revenues in 2012. This stood at 6.3% in 2002, but had declined to a low of 4.7% in 2006.

In Ireland there are a range of different Excise Duties applying to different alcoholic products. The Excise Duty payable in general increases with the alcoholic content of the beverage.

The following are some of the Excise duties applying in Ireland:
For Intermediate Products: Still products exceeding 18% are taxed at a rate of €537.81 per hl, and still products not exceeding 15% are taxed at a lower rate of €370.64 per hl. Sparkling intermediate products are taxed at a higher rate of €741.28 per hl.

For Other Fermented Beverages: Cider and Perry – still and sparkling not exceeding 2.8% volume are taxed at a rate of €40.08 per hl. Still Cider and Perry exceeding 8.5% volume are taxed at a higher rate of €262.92 per hl. Sparkling Cider and Perry exceeding 8.5% volume are taxed at a higher rate of €525.85 per hl.

Wine: Still and Sparkling Wine not exceeding 5.5% volume is taxed at a rate of €123.51 per hl of product. Still wine at 11% volume is taxed at a rate of €370.64 per hl. Still wine exceeding 15% volume is taxed at a rate of €537.81 per hl of product. Sparkling wine exceeding 5.5% volume is taxed at a rate of €741.27.

Beer: An excise rate of €9.56 per hl % of alcohol in the beer is applicable to beer exceeding 1.2% volume but not exceeding 2.8% volume. Beer exceeding 0.5% volume but not exceeding 1.2% volume is zero rated. Beer at 5% volume is taxed at €95.65 per hl.

Table 7 outlines selected excise duty rates in a number of EU countries. Of the 14 countries considered, Ireland has the third highest duty for Spirits, the highest for Wine, the second highest for Intermediate Products and the fourth highest for Beer.
### Table 7: Comparative Excise Duty Rates

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>SPIRITS (€ per HLPA)</th>
<th>STILL WINE (€ Per HL 11%)</th>
<th>INTERMEDIATE PRODUCTS (€ per HL at 18% Vol)</th>
<th>BEER (€ per HL at 5% Vol)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1,000</td>
<td>0</td>
<td>406</td>
<td>500</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,962</td>
<td>480</td>
<td>617</td>
<td>428</td>
</tr>
<tr>
<td>Finland</td>
<td>4,340</td>
<td>2,836</td>
<td>3,472</td>
<td>2,990</td>
</tr>
<tr>
<td>France</td>
<td>1,689</td>
<td>33</td>
<td>1,018</td>
<td>720</td>
</tr>
<tr>
<td>Germany</td>
<td>1,303</td>
<td>0</td>
<td>850</td>
<td>197</td>
</tr>
<tr>
<td>Greece</td>
<td>2,550</td>
<td>0</td>
<td>590</td>
<td>650</td>
</tr>
<tr>
<td>Ireland</td>
<td>3,685</td>
<td>3,369</td>
<td>2,988</td>
<td>1,913</td>
</tr>
<tr>
<td>Italy</td>
<td>800</td>
<td>0</td>
<td>381</td>
<td>588</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1,041</td>
<td>0</td>
<td>372</td>
<td>198</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1,594</td>
<td>760</td>
<td>784</td>
<td>718</td>
</tr>
<tr>
<td>Portugal</td>
<td>1,192</td>
<td>0</td>
<td>363</td>
<td>373</td>
</tr>
<tr>
<td>Spain</td>
<td>830</td>
<td>0</td>
<td>309</td>
<td>199</td>
</tr>
<tr>
<td>Sweden</td>
<td>5,918</td>
<td>2,315</td>
<td>2,962</td>
<td>1,959</td>
</tr>
<tr>
<td>UK *</td>
<td>3,535</td>
<td>3,037</td>
<td>2,475</td>
<td>2,395</td>
</tr>
</tbody>
</table>

Source: Spirits Europe, May 2013. *Exchange Rate 0.7983

Figure 5 compares the price of alcohol calculated on a Purchasing Power Parity (PPP) basis by Eurostat for a range of countries in Europe. Ireland is the third most expensive country and is 62% higher than the EU-27 average. Ireland is 13.3% more expensive than the UK.
The price differential with the UK is very significant given that a land border is shared with Northern Ireland, and sea and air access to Great Britain is very strong. This gives rise to serious concerns about the potential for cross-border purchasing of cheaper alcohol, which could negate the public health objective of alcohol pricing measures, and undermine tax revenues from alcohol.

**Figure 5: Comparative Price Level Indices for Alcoholic Beverages**

Source: Eurostat 99/2013, June 2013
AFFORDABILITY OF ALCOHOLIC BEVERAGES IN IRELAND

There is a considerable body of international research showing that consumption of alcohol is sensitive to its price. There is an inverse relationship between price and consumption – if price rises, consumption will tend to fall, and if price falls consumption will tend to rise. So in many senses alcohol behaves like a normal good, but it differs in significant ways also. For example, alcohol tends to be an addictive good that if drank excessively can have detrimental effects on the health and behavior of the person consuming the alcohol, but it can also have significant negative externalities attaching. A negative externality occurs when the consumption of an item creates costs for others who are not party to the consumption in question. Such externalities could include road traffic accidents, domestic violence, pressure on the health service, and many other negative effects on broader society.

Much of the research on the consumption of alcohol tends to focus on the impact of price changes on consumption. However, there is a body of research which has also examined the impact of changes in income on the consumption of alcohol. Rabinovich et al\textsuperscript{36} developed an alcohol affordability index, which was later applied with some amendments by Carragher and Chalmers\textsuperscript{15} to the Australian situation.

Alcohol affordability seeks to measure people’s ability to buy alcohol, which is a function of price and disposable income. The affordability index developed by Rabinovich et al is calculated by measuring the ratio of a real disposable income index to an index presenting the relative price of alcohol. The index of the relative price of alcohol is calculated by measuring the ratio between the broad Consumer Price Index (CPI) and the trend in alcohol prices.

Using this methodology, Rabinovich et al showed that since 1996, alcohol has become more affordable across the EU countries examined, apart from Italy. The analysis shows that across the EU, 84 % of the increase in alcohol affordability was driven by increases in disposable income, and 16 % was driven by changes in alcohol prices. This is due to the fact that while incomes went up considerably across the EU, the relative price of alcoholic beverages has remained relatively stable, or fallen at a lower rate than the income increases. The conclusion reached is that there is a positive relationship between alcohol affordability and alcohol consumption in the EU. They showed that in the short run there is an elasticity of demand of 0.22 and in the long run 0.32. This means that for every 1% increase in affordability, in the long-run there is an increase of 0.32 % in consumption.

The policy conclusion reached by the authors is that with studies such as theirs and others showing that ‘the price and affordability of alcohol do impact
on levels of harmful and hazardous alcohol consumption and that policy makers should consider measures affecting the price of alcohol, and therefore its affordability, to help reduce alcohol related harms’.

CJP Economic Consultants derived an affordability index for Ireland based on the model developed by Rabinovich et al. We used the CPI, the CSO’s alcohol price index and real personal disposable income derived from the CSO’s National Income & Expenditure Accounts.

**Figure 6: Alcohol Affordability Index for Ireland**

The analysis for Ireland shows that between 1995 and 2007 the affordability index increased by 102 %. This was driven by an increase of 111.2 % in real disposable incomes, while alcohol prices increased by marginally more than the CPI. Since 2008, affordability has fallen by 11.1 %, due to a decline of just over 10 % in real disposable incomes, while alcohol prices declined modestly relative to the CPI.

It is clear that affordability has been an important driver of the growth in alcohol consumption in Ireland.
CROSS BORDER ISSUES

Fiscal harmonization was an important element of the development of the Single European Market, whose main aim was to create a market with as few internal barriers to trade as possible. As part of the process there was a significant relaxation of limits on personal imports of excisable goods by domestic consumers which gave rise to a significant increase in cross-border shopping, which in turn created considerable uncertainty across the EU for excise duties collected from alcohol and tobacco sales in particular.

Excise duty rates are not harmonized across the EU. Council Directive 92/83/EEC instructs member states on how to define the products and product categories to be taxed, and outlines the principles of how to set the excise duty rates for these products. Council Directive 92/84 EEC sets out a minimum excise duty rate for distilled spirits, beer and intermediate products. No minimum rate is set for wine and fermented beverages other than wine and beer. The minimum rates are binding on the products to which they apply, but member states are free to set their excise duty rates above the minimum level. The aim of these minimum tax rates was to avoid cross-border shopping between high and low-tax countries driving tax rates down towards the rates applying in the lowest-tax countries. Such a development would have had serious consequences for tax revenues. Above the minimum rate, significant variations in tax rates have developed.42

Rabinovich et al.37 conducted three case studies on cross border shopping for alcohol for personal use following the reduction in controls on imports for personal use. They looked at UK-France, Finland-Estonia, and Sweden-Denmark-Germany. In all of these cases significant differentials in alcohol taxation and in the price of alcohol existed. These differentials when combined with the relaxation of personal controls resulted in a significant increase in cross-border alcohol purchases. The increase in cross border shopping had a significant impact on the tax base of the countries concerned, but significantly, increased cross-border shopping also led to a significant increase in consumption of alcohol in the receiving countries. The authors concluded that not only did consumers change the location of their alcohol purchases; they also increased their total alcohol consumption. However, in Sweden and Finland in particular, and to a lesser extent in the other countries studied, consumption levelled off or even dropped off somewhat once consumers adjusted to the availability of cheap alcohol in neighbouring countries. The authors also provided evidence of a relationship between the reduction of controls on imports for personal use and alcohol-related harms in the countries examined.

The three aforementioned case studies related to countries sharing sea borders, but clearly the issue is even greater for countries that share land
borders. For Ireland, the land border with Northern Ireland is clearly a very significant issue.

Beatty et al° investigated household purchasing behavior in response to differing alcohol and tobacco taxes near an international border, using Norway as a case study. They found that large tax differentials near borders induce economically important tax avoidance behavior that may limit a government’s ability to raise revenue and potentially undermine the pursuit of important health and social policy goals. They found that revenues from highly taxed goods increase as distance from the border increases, reaching zero after about 2 ½ hours travel time. They showed a pattern of tax avoidance behavior through cross-border shopping on the part of an important number of Norwegian households resulting in significant loss of revenue for the government and possible increased health risk due to higher consumption of beer and tobacco products. They also found ‘cautious evidence ‘that households near the border exhibit higher levels of the kinds of externalities these taxes were designed to prevent.

Beatty et al conclude that the geography of a jurisdiction will influence the effectiveness of consumption or sin taxes. Within a given jurisdiction, uniform consumption taxes may create large regional differences – the further away from a border that households are, the more tax on a per unit basis they will pay compare to households near the border. They suggest that this creates the scope for international agreements, such as a minimum tax on alcohol and tobacco, to mitigate the problem. However, the fact remains that the impact of high taxes will be far less effective near a border with a jurisdiction with much lower tax rates.

In any consideration of the taxation of alcoholic beverages in Ireland, issues relating to the impact that differential tax treatment of items such as tobacco and alcohol can have on cross-border shopping are obviously very important. The fear that any further widening of the tax differentials between the UK and Ireland could lead to a further diversion of sales and tax revenues to Northern Ireland in particular is a very real one. In the past we have periodically seen significant numbers of shoppers from Ireland going to Northern Ireland to purchase items ranging from food to alcoholic beverages, to electrical equipment and clothing. This trend is driven by factors such as the exchange rate between sterling and the euro, and the relative price differential on both sides of the border, which can in part be attributed to tax differentials. Distance from the border is also a very important consideration, with those who live closest to the border likely to shop in Northern Ireland to a much greater extent than those living further from it.
Not enough research has been conducted on the issue of cross-border shopping in Ireland, but it clearly is a significant issue for businesses and tax authorities on both sides of the border.

Cross border trade picked up dramatically in the run up to Christmas 2008 and this continued into 2009. This prompted the Office of the Revenue Commissioners and the Central Statistics Office (CSO)\(^44\) to conduct some research into the impact of the developments in 2008. The report published estimated that in 2008, the value of cross border shopping was in the range of €350 million to €550 million, up from between €210 million and €340 million in 2007. The resultant loss to the Irish Exchequer from these excursions north is estimated to be between €58 million and €90 million in VAT and excise duties, and between €15 million and €24 million in corporation tax receipts. These estimates do not take account of the income tax losses as a result of the displaced workers in the retail sector in the Republic of Ireland. The report also predicted that there would be a further increase of between €100 million and €150 million in cross border shopping in 2009.

It is clear that the creation of the Single European Market has enabled consumers on both sides of the border to adjust spending patterns quickly in response to any changes in the price differentials between the two regions. Four factors were identified by the 2009 report as being the main drivers of price differentials. These factors are business costs, taxes, profit margins and currency exchange rates. The exchange rate factor is particularly important. During 2008, the euro appreciated in value from £0.74 to £0.96, which represents an appreciation of almost 30 % in the value of the euro.

It is important to note that while important, the creation of the Single European Market was not the only factor. The issue of cross-border shopping pre-dated the creation of the single market, as evidenced for example by a study of cross-border shopping carried out by the ESRI\(^45\) in 1988 which estimated that the value of cross border shopping was between IR£150 million and IR£250 million in 1986.

There is a lack of quantifiable data and research on the issue of cross border shopping in Ireland. Apart from the aforementioned study carried out by the Office of the Revenue Commissioners and the CSO, not much is available. In 2010, the CSO\(^46\) estimated that total household expenditure on shopping in Northern Ireland in the twelve months to the second quarter of 2010 was €418 million. The equivalent figure for the previous twelve month period was estimated at €435 million. The CSO’s survey also suggested that 44 % of households bought alcohol on the shopping trips to Northern Ireland. In a price study conducted by the Revenue Commissioners in 2010\(^47\), all alcohol prices in the Republic of Ireland were more expensive than in Northern
Ireland. Stout was 19 % more expensive; wine was 12.4 % more expensive; lager was 37 % more expensive; and whiskey was 16.2 % more expensive.

It is clear that in any consideration of the tax treatment of alcoholic beverages in Ireland, the issue of cross border shopping is a reasonably important consideration. However, it is also clear that sharp exchange rate movements tend to have the greatest influence on trends in cross border shopping, but tax differentials are also significant where the incidence of the tax falls on the consumer rather than the producer or the retailer.

The Commission on Taxation recommended that the policy approach determining the level of excise duty applicable to alcohol products should take account of factors such as health outcome, public order issues, cross-border trade and other societal issues.

It is not possible to predict how sterling will behave against the euro in the future, and it would not be prudent to base a public health policy on possible future exchange rate movements. Alcohol is causing significant societal and economic problems in Ireland and all options to reduce alcohol consumption must be considered. This could cause some problems with cross border shopping, particularly for retailers of alcohol in the border region, but that should not deter from such an important health issue.

It would be very desirable if health and tax authorities on both sides of the border worked together to address this very important health issue. This is happening. The Irish Department of Health is working closely with its counterpart in Northern Ireland on alcohol issues. Following the outcomes of a consultation in Northern Ireland and the publication of the report of the National Substance Misuse Strategy in the Republic, both jurisdictions are seeking to develop the evidence base on the impact of a minimum unit price for alcohol in Northern Ireland and the Republic. Therefore, a health impact assessment is being commissioned in conjunction with Northern Ireland as part of the process of developing a legislative basis for minimum unit pricing. The health impact assessment will study the impact of different minimum prices on a range of areas such as health, crime and likely economic impact.
POLICY OPTIONS IN IRELAND

In a key report published by a steering group organized the Department of Health in 2012 the negative impacts of alcohol are laid out very clearly. Alcohol is estimated to have been responsible for at least 88 deaths every month in 2008; 1 in 4 deaths in young men is estimated to be due to alcohol; it is estimated to be a contributory factor in half of all suicides and in deliberate self-harm; it increases the risk of more than 60 medical conditions; it results in more than 2,000 beds being occupied every night in Irish acute hospitals and over one-quarter of injuries presenting to emergency departments; it accounts for over half of attendances at specialized addiction treatment clinics; it is associated with harm to the baby and is a significant factor in unplanned pregnancies; it is a significant contributor to domestic violence and crime; and it undermines worker productivity in the economy.

Figure 7: Alcohol Consumption 15+ Years (2010 – Litres per Capita)

<table>
<thead>
<tr>
<th>Country</th>
<th>Litres per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxembourg</td>
<td>15.3</td>
</tr>
<tr>
<td>Latvia</td>
<td>13.2</td>
</tr>
<tr>
<td>Romania</td>
<td>12.7</td>
</tr>
<tr>
<td>Lithuania</td>
<td>12.6</td>
</tr>
<tr>
<td>Austria</td>
<td>12.2</td>
</tr>
<tr>
<td>France</td>
<td>12</td>
</tr>
<tr>
<td>Ireland</td>
<td>11.9</td>
</tr>
<tr>
<td>Germany</td>
<td>11.7</td>
</tr>
<tr>
<td>Hungary</td>
<td>11.5</td>
</tr>
<tr>
<td>Spain</td>
<td>11.4</td>
</tr>
<tr>
<td>Portugal</td>
<td>11.4</td>
</tr>
<tr>
<td>Estonia</td>
<td>11.4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>11.4</td>
</tr>
<tr>
<td>Belgium</td>
<td>10.8</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>10.7</td>
</tr>
<tr>
<td>EU-27</td>
<td>10.7</td>
</tr>
<tr>
<td>Slovenia</td>
<td>10.3</td>
</tr>
<tr>
<td>Denmark</td>
<td>10.3</td>
</tr>
<tr>
<td>UK</td>
<td>10.2</td>
</tr>
<tr>
<td>Poland</td>
<td>10.1</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>10</td>
</tr>
<tr>
<td>Finland</td>
<td>9.7</td>
</tr>
<tr>
<td>Netherlands</td>
<td>9.4</td>
</tr>
<tr>
<td>Cyprus</td>
<td>8.4</td>
</tr>
<tr>
<td>Greece</td>
<td>8.2</td>
</tr>
<tr>
<td>Malta</td>
<td>7.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>7.3</td>
</tr>
<tr>
<td>Italy</td>
<td>6.9</td>
</tr>
</tbody>
</table>

The OECD estimates that adults over the age of 15 in Ireland consumed 11.9 litres of alcohol per capita in 2010, which is the 7th highest in the EU-27 and is almost twice as much as the lowest consuming country, Italy (Figure 7). Between 1980 and 2010, consumption per capita in Ireland grew by 24%, compared to an average decline of 15% in the EU-27.

The Department of Health steering group sought to estimate the cost of alcohol abuse in Ireland in its 2012 report.

It estimates the costs as follows:

☐ Alcohol related illness cost the healthcare system €1.2 billion in 2007. This is comprised of €500 million in the acute hospital sector; €574 million in GP and allied health services, and €104 million in mental health services;

☐ Alcohol related crime cost an estimated €1.19 billion in 2007;

☐ The cost of lost economic output due to alcohol was estimated to be €527 million in 2007. This is comprised of €330 million lost productivity due to alcohol-related work absences, and €197 million due to alcohol-related injuries; and

☐ Alcohol-related road accidents are estimated to have cost an estimated €530 million in 2007.

In total alcohol-related problems are estimated to have cost Ireland €3.4 billion in 2007. This is the estimated monetary calculation of the cost of alcohol abuse, but there are many other costs that cannot be quantified in monetary terms, but are still very significant.

Apart from the costs of alcohol abuse, it is also important to recognize that the alcohol industry does make a very significant contribution to the Irish economy. In a report carried out for the Drinks Industry Group of Ireland (DIGI), Foley estimated that in 2009 the drinks industry made the following contribution to the Irish economy:

- Personal expenditure on beverages was €7.185 billion in 2009;
- Manufacturing in the drinks industry had a turnover of €2.95 billion in 2008 and €1 billion in exports;
- Drink manufacturers employed 4,263 people and expenditure on materials for further processing and energy totaled €1.1 billion;
- In 2009 the retail segment of the drinks' market was comprised of approximately 9,067 full on-licenses, 1,170 spirits off-licenses and 3,705 wine off-licenses;
- The on-trade provided 43,629 full-time job equivalents, and the off-license sector provided approximately 2,850 full-time job equivalents; and

- The alcohol manufacturing and retail industry contributed €2 billion in tax revenues to the Exchequer.

It is clear in Ireland and elsewhere that the positive economic contribution of the alcohol industry is far outweighed by the negative direct and indirect effects of excessive consumption of alcohol. The National Substance Abuse Steering Group (2012) identified a number of actions that could be used to deal with the significant harm caused by alcohol use and misuse. The recommendations included:

- Increase the price of alcohol so that it becomes less affordable;
- Introduce a legislative basis for minimum pricing, along with a ‘social responsibility’ levy on the drinks industry;
- Commence Section 9 (structural separation of alcohol from other products in supermarkets) of the Intoxicating Liquor Act 2008;
- Introduce legislation and statutory codes to provide for a 9 p.m. watershed for alcohol advertising on TV and radio, and other controls on advertising;
- Phase out drinks industry sponsorship of sport and other large public events by 2016;
- Develop a system to monitor the enforcement of the provisions of the intoxicating liquor legislation;
- Establish a Clinical Directorate to develop the clinical and organizational governance framework to underpin treatment and rehabilitation services; and
- Develop early intervention guidelines for alcohol and substance use across all relevant sectors of the health and social care system.

These recommendations are intended to achieve five key objectives:

1. Reduce the supply of cheap alcohol;
2. Control the availability of alcohol;
3. Prevent the sale of alcohol to minors;
4. Restrict alcohol marketing and sponsorship; and
5. Reduce drink-driving.
The authors of this report were specifically asked to consider the pricing issue, under 4 alternatives:

1. Minimum Unit Pricing (MUP);
2. The reintroduction of a ban on below cost selling;
3. Making the sales price of alcohol cover at least VAT plus excise; and
4. Excise/Fiscal Measures.

The starting premise for this analysis is that the key way to curb alcohol consumption is to make it more expensive and less available. Numerous studies have been conducted to measure the price elasticity of alcohol, and while findings different for different drinks and for different jurisdictions, alcohol is a relatively inelastic consumer product. The average price elasticity of demand is around \(-0.5\), which means that a 10 \% increase in the price of alcohol will typically lead to a 5 \% decline in consumption. The reason why alcohol is not more price sensitive is because it has certain addictive qualities and is also used socially.

A pricing policy typically seeks to influence the price of alcohol with the intention of reducing consumption and minimizing alcohol-related damage.

There are a number of different ways of increasing the price at which alcohol can be sold.

**Minimum Unit Pricing (MUP)**

Minimum Unit Pricing (MUP) is a policy that sets a statutory floor price per gram of alcohol, and alcohol could not be sold below that price. Such a measure would be primarily aimed at tackling the very low cost at which alcohol is sold in the off-trade sector, particularly supermarkets. The more units of alcohol a drink contains, the stronger it is and therefore the more expensive it is.

MUP is not that common around the world, but is used in several Canadian provinces, at least partially. It has been widely recommended elsewhere (Australia, for example) but has yet to be adopted.

The key advantage of MUP is that it is a targeted method that should ensure that products that are strong in alcohol are sold at a realistic or sensible price.

The reality is that this policy would increase the price of drinks such as own-brand spirits, high-strength beers and white cider, which have high alcohol content, but tend to be sold very cheaply in supermarkets and the off-license trade.
There is considerable evidence to suggest that heavy drinkers or problem drinkers tend to buy cheaper alcohol and stronger alcohol than more moderate drinkers. See for example Institute for Fiscal Studies (2013)\(^4\). A policy aimed at raising the price of stronger alcohol will target those more likely to harm themselves or others, such as young adults and problem drinkers. The IFS study concludes that a minimum unit price is well targeted at increasing the relative price of cheap alcohol, but is much less well targeted at increasing the relative price of strong alcohol products. The IFS study suggests that MUP will reduce government revenues from alcohol taxes, and will lead to substantial windfall gains for alcohol retailers and manufacturers. The authors highlight the risk that these windfall gains could be used to fund activities that mitigate the effects of the policy, such as increased advertising or other promotional activities. On the other hand reformed excise taxes would increase government revenues.

Hunt et al\(^50\) cite a lack of research on the impact of minimum unit prices in the Canadian provinces where it applies, but they cite strong evidence supporting the use of pricing policies in general to curb harmful consumption of alcohol. They believe that the most relevant point about minimum pricing as a tool to curb harmful drinking is that harmful drinkers tend to choose the cheapest drinks, suggesting the importance of minimum as well as average alcohol prices.

Brennan et al\(^51\) examined the effect of different minimum prices on retailer revenue, on VAT and excise duty revenue, and in population expenditure on alcohol. Their analysis suggests that with price increases: spending is estimated to increase; changes in spending affect mostly harmful drinkers, with hazardous drinkers somewhat affected, and moderate drinkers least affected; annual retail sales value is estimated to increase; and effects on tax and excise duty are estimated to be relatively small.

The Scottish Parliament has developed a system of Minimum Unit Pricing, under an Act of Parliament; Scottish Parliament – the Alcohol (Minimum Pricing) (Scotland) Act 2012. This Act amended the Licensing Scotland Act 205. The amendments make provision for a minimum price per unit of alcohol, which in effect will prohibit the sale of alcohol on licensed premises at a price below its minimum price.

The formula for calculating the minimum price is MPU x S x V x 100. (Minimum Price per Unit x Strength of Alcohol x Volume in Litres x 100). As an example, if the minimum price per unit of alcohol is set at 50p; the strength of the alcohol is 14%; the volume is 75 cl; the minimum price at which that alcohol could be sold is £5.25 (£0.50 x 14% x 0.75 x 100).
The Act was challenged in the Scottish courts by alcohol groups on the basis that it is in breach of the Act of Union; it is outside the legislative competence of the Scottish Parliament to modify the relevant articles of law as they relate to the freedom of trade; and it is incompatible with EU law on free trade.

The claim of incompatibility with EU law is based on three arguments; minimum pricing is said to contravene Article 34 TFEU; it is said to be incompatible with the common organisation of the market relating to wine and certain other alcohol products; and it is said to be in breach of Article 6(2) of Regulation (EC) 111/2008 relating to spirits.

The Court of Session rejected the appeal and Lord Doherty stated that ‘none of the challenges to the minimum pricing measures is well founded’.

The judgment was detailed but reached some very pertinent conclusions:

- The provisions of the Act and proposed Order ‘do not restrict or seek to restrict the freedom of trade of, nor do they give any preference in trading conditions to, traders in either Scotland or England’.

- ‘The reduction of alcohol consumption generally, and reduction of consumption by hazardous and harmful drinkers in particular, are both legitimate aims’.

- ‘The initiative has been conceived and developed as a health initiative and that it enjoys prodigious support from health professionals and health agencies, and that there is not the slightest suggestion that it is a disguised restriction on trade’.

- Alternative measures such as excise duty increases, would be less effective in achieving the legitimate aims which the minimum pricing measures pursue;

- ‘There is literature and oral evidence that excise duty rises might not be passed on (or not passed on in full) to consumers. The potential problem does not arise under minimum pricing’;

- ‘There is objective justification supporting the proportionality of the Act and the proposed minimum price’.

The judgment of the Scottish Court provides some very interesting insights into the issues surrounding MUP as a policy initiative. These insights should guide debate on the issue in Ireland. Paragraphs 36, 38 and 54 are quoted directly to illustrate the key points:

[36] ‘The aims of the measures were legitimate. An important aim - probably the more important one - was to target harmful and hazardous
drinkers and reduce their consumption. The other aim was an overall reduction in consumption. The means of attaining both aims was by increasing the price of alcohol which was cheap relative to its strength. There was evidence which supported the view that harmful and hazardous drinkers tended to purchase disproportionate amounts of such alcohol, and that that applied no matter the income level of the drinker. There was also evidence that increasing the price of such alcohol using minimum unit pricing would be likely to lead to reductions in the consumption levels of such drinkers. There would also be likely to be a reduction in consumption levels across the population as a whole.’

(38) ‘Increasing excise duty across the board would not be as effective in targeting harmful and hazardous drinkers. It would penalise the on-trade and the off-trade indiscriminately, whereas it was clear that the problem with cheap alcohol arose in the off-trade. It was not necessary to make higher price alcohol more expensive than it was. The excise duty directives required the same rate to be applied to wines of different strengths and the same rate to be applied to ciders of different strengths. Wine of 8.5% strength had to be taxed at the same rate as wine of 15% strength. Cider of 1.2% strength had to be taxed at the same rate as cider of 8.5% strength. That was not conducive to targeting alcohol which was cheap relative to its strength’.

[54] ‘In my opinion it is clear that it is not an aim of the measures that alcohol consumption be eradicated. Nor is it an aim to make its cost prohibitive for all drinkers. The measures are intended to strike at alcohol misuse and overconsumption and to get people to build a healthy and sensible relationship with alcohol. The Parliament and the Ministers were aware that greater harm to health and life could be avoided if the minimum price was set higher than 50 pence per unit but the Ministers chose 50 pence per unit as the appropriate level. They were seeking to strike a reasonable balance between, on the one hand, public health and social benefits, and, on the other, intervention in the market’.

It is important to remember that MUP is not just hitting high strength alcohol alone; it would provide a price bases for all beers, particularly those that are sold cheaply and which are consumed by young drinkers in Ireland.

**Ban on Below Cost Selling**

Bans on below cost selling are used in a small number of EU countries, and relate mainly to groceries. As described earlier, Ireland had a ban on below cost selling on a range of items, but it was repealed in 2006. The removal of the order did not lead to a reduction in the price of most of the products
covered by the order, but did have a significant impact on the price at which alcoholic beverages were sold in off-licenses and supermarkets.

The main aim of a ban, as was the case in Ireland, is to prevent predatory pricing by large retailers in order to protect small retailers and small producers, and allow new entrants come in to the market. As Hunt et al point out, these bans typically do not set a minimum price for a product, but rather specify that a product cannot be sold at a price below the seller’s cost of doing business, or some proxy measure, such as below the cost of VAT plus excise duties, or the unit price invoiced by the supplier.

Serious concerns have been raised, not least in Ireland, about the health impact of below-cost sales and other price promotions and discounts in the marketing of alcohol. Given the relationship between price and consumption of alcohol that has been demonstrated in numerous studies, it is clear that below cost selling of alcohol does increase the consumption of alcohol and that a ban on such practices would impact on the consumption of alcohol in a positive way.

Considerable research has been conducted on the impact of price discounting and promotions on alcohol consumption. However, there is considerably less evidence on the impact of below cost selling. However, whether one considers promotions, special discounts or below cost selling, it is clear that if the price of alcohol comes down, consumption will increase and vice-versa. Brennan et al modelled the possible impacts of different restrictions on off-trade price promotions and discounting in the UK, and found that a total ban on discounting would lead to a 2.8 % decline in consumption of alcohol. Kuo et al conducted considerable research amongst US college students and concluded that the regulation of marketing practices such as low sale prices, promotions, and advertisements may be important strategies to reduce binge drinking on college campuses. Numerous other studies support this assertion in relation to alcohol sales to the general population.

In an Irish context, it is clear since the removal of the ban on below cost selling in 2006, supermarket retailers are engaging in loss-leader activity – they are charging prices for alcohol that are below cost in order to attract shoppers in, who will buy other products whose prices have not been reduced. They can afford to do this because alcohol is such a small proportion of overall turnover. From an alcohol consumption perspective and a health perspective, this is not a positive development. Lower price increases consumption, particularly for young people and problem drinkers.

A re-introduction of a ban on below-cost selling, like the Groceries’ Order, would not be the optimal policy, as it is very hard to define what the ‘minimum price’ or the ‘cost’ actually is.
Making the Sales Price Cover at Least VAT plus Excise

A variation of a reintroduction of a ban on below cost selling would be an order preventing the sale of alcohol at a price that does not cover the VAT and excise payable on the product. By varying VAT rates or excise duty it would be possible to push up the price of alcohol and thereby have an impact on consumption. This is to be tried in England and Wales, according to the latest policy statement from the UK Government. There is very little empirical evidence of what the effects of this are likely to be.

Excise / Fiscal Measures

Alcoholic drinks have a relatively low elasticity of demand, derived from the nature of the need that alcohol fulfils. In the context of economic efficiency therefore, high rates of tax can be justified on this product. Furthermore, the relatively low elasticity of demand makes high taxation of alcoholic beverages a major source of revenue for government.

The consumption of alcohol has negative externalities attaching – a negative externality occurs when the consumption of an item creates costs for others who are not parties to the transaction in question. Such negative externalities include road accidents, crime, pressure on the health service, and domestic violence. The market does not operate in a manner that allows those costs to be taken into account when consumption decisions are made, and so the level of consumption of such items is greater than what is socially optimal.

Despite the relatively low price elasticity of demand, taxation will still have some impact on consumption and will alleviate some of the negative externalities associated with alcohol consumption through reduced demand for the product.

Hunt et al (2010)\(^{50}\), show that alcohol excise taxes have been used around the world to discourage consumption, to shift consumption to alcohol products with lower alcohol by volume, and to raise government revenue. Excise duties on alcohol are contentious, as it is a regressive tax that is charged regardless of one’s ability to pay. The study conducted by Hunt et al concludes that ‘the balance of evidence on the effects of alcohol prices and of taxation clearly indicates that increases in taxation and prices are associated with decreases in alcohol consumption and harms’. They point out also that the research shows that the real price of alcohol must rise to achieve those objectives. In other words the increase in taxation must be greater than the overall increase in consumer prices in order to achieve the desire outcome. Their research also shows that because the amount of tax paid is directly related to the amount of alcohol consumed, increases in excise duties on alcohol will be paid disproportionately by those who consumer most alcohol. The overall impact of taxation however varies from country to country, depending on
social, economic and cultural conditions in the country, but in overall terms, taxation is an effective instrument for influencing the level of alcohol that is consumed.

Research also shows that increasing taxes alone may not achieve the desired outcome, because the incidence of the tax may fall on the manufacturer or the retailer, rather than the consumer. There is limited international research available on the extent to which tax increases influence the consumer price of alcohol, but they stress that an understanding of the pass-through rate from tax increases to prices is a key pre-condition to shedding light on how tax changes would affect consumers, producers, retailers and society as a whole. It is clear from the experience in Ireland that in the case of retail multiples in particular, tax increases are often absorbed at least in part by the retailer and not passed on to the consumer, thereby negating the health impact.

It has been suggested that excise and/or other taxation measures could be ‘tailored’ to address specific problems. The one area that seems to have been tried with Alcopops. These drinks, attractive to younger drinkers, have been targeted by policymakers in several countries. More generally, there are plenty of advocates who suggest that simply raising taxes is a blunt instrument that targets problem and non-problem drinkers alike. Hence, they argue, policies should be pointed at the specific target of problem drinkers. Apart from Alcopops, we have found no other significant policy measures have been adopted in this way.
ECONOMIC IMPACTS OF VARIOUS POLICY MEASURES FOR IRELAND

CJP Economic Consultants conducted an extensive literature review on the various policy options available and those that have been used in selected jurisdictions. As we have mentioned, the bulk of the international research has tended to focus on how best to reduce the consumption of alcohol, but a lot less research has been conducted on the impact the various policies have had on the overall economy; tax revenues; employment levels; the alcohol industry; cross-border trade and illegal activities. This lack of real research is probably related to the fact that much of the research has been conducted by health lobbyists rather than economists. Clearly however, these are factors that must be taken in to account in any policy formulation regarding the consumption of alcohol.

The literature review shows that in Canada there is an acceptance that public policies that raise the price of alcohol are an effective means of reducing alcohol consumption. A decade ago Saskatchewan set minimum prices for alcohol content and following the extensions and price rises in April 2010, total annual per capita consumption fell by 3.5 %, but the value of the alcohol sold increased by 4.3 % per capita. The broader economic consequences are thus likely to have been relatively minimal.

The OECD estimates that adults over the age of 15 in Ireland consumed 11.9 litres of alcohol per capita in 2010, which is the 7th highest in the EU-27 and is almost twice as much as the lowest consuming country, Italy. Between 1980 and 2010, consumption per capita in Ireland grew by 24 per cent, compared to an average decline of 15 per cent in the EU-27. A target of reducing this to the OECD average of 9.1 litres by 2020 would represent a very significant step in the right direction from a health perspective.

As highlighted in the international literature review, the effectiveness of pricing and taxation initiatives is almost certainly best maximized as part of a broader strategy. Such a broader strategy is outlined in the Steering Group Report on a National Substance Misuse Strategy (2012).

Minimum Unit Pricing is almost universally recommended by researchers in the field, but it is not without risks. Hence, such a policy would need to be supported by other policies to make it effective in achieving its objectives.

The authors of this report were asked to consider four alternative policy options - minimum unit pricing (MUP); the reintroduction of a ban on below cost selling; making the sales price of alcohol cover at least VAT plus excise; and Excise/Fiscal Measures.
The objective of the four proposed measures is to increase the price of alcohol and reduce the level of alcohol that is consumed. It would be very difficult to achieve this in a revenue neutral manner, but it seems certain that the savings made in reducing the negative externalities from excessive alcohol consumption would eventually far outweigh any revenue loss to the Exchequer from reduced consumption.

Furthermore, if structured properly the revenue losses could be minimized, as could the negative impact on employment in the alcohol industry and general economic activity.

A MUP regime should be structured to make high alcohol products more expensive and lower alcohol products relatively less expensive. A price, below which alcohol could not be sold, based on covering higher Excise and VAT would have a disproportionate impact on the off-trade, which is where the real problems are caused, and put the on-trade back in a relatively advantageous position.

The pub as an Irish institution has many advantages compared to the current trend of buying cheap alcohol in supermarkets and off licenses. The pub is a more controlled and regulated environment; it has strong social aspects; and is much more labour intensive than the off-trade. Policy should be designed to eliminate cheap below-cost sales of alcohol and loss-leader behavior by supermarkets.

Job losses would be minimized through such a balanced policy. The argument that jobs would be lost on the manufacturing side from reduced domestic consumption does not stand up to scrutiny. The growing craft beer industry offers an expensive product in any event and so its growth would not be affected. Furthermore, export markets are becoming an increasingly important part of domestic drink manufacturing.

Figure 8 shows the recent trend in exports of beverages and the general expectation is that this trend will continue. A DIGI report in 2012 suggested that the outlook for alcohol exports is very encouraging. The report showed that Ireland’s share of global exports of alcohol is 2.4 %, compared to 0.8 % global market share for all exports.

The importance of exports in an Irish context should be clear, particularly the export market for premium products. It should also be clear that domestic price and tax reform does not represent a threat to jobs or output of the exporting sector.
A policy of MUP would have a minimal impact on premium products. Rather it would primarily target those alcoholic beverages that are cheap relative to their alcoholic content.

While the evidence base for the economic consequences of alcohol tax reform is not extensive, what here is suggests that the consequences should be small in the short term and, provided the reforms are large enough, the positive societal effects will swamp any (probably small) jobs or other losses.
REFERENCES

7. http://www.ccsa.ca/Eng/Priorities/Alcohol/Pages/default.aspx
16. Reference 15, above, is drawn on extensively in our survey of the Australian experience and for many of the cited literature references


32. FARE (2012), Counting the Benefits of Alcohol Tax Reform.

33. Marsden Jacob Associates (2012) Bingeing, collateral damage and the benefits and costs of taxing alcohol rationally, report to the Foundation for Alcohol Research and Education, October.

34. Allen Consulting Group (2011), Alcohol Taxation Reform


42. Bringing it all Back Home: Alcohol Taxation and Cross-Border Shopping (1995), Institute for Fiscal Studies


44. The Implications of Cross-Border Shopping for the Irish Exchequer’, Office of the Revenue Commissioners &The CSO, Dublin, February 2009

46. Quarterly National Household Survey – Cross Border Shopping’, Quarter 2 2010, November 2010
47. General Excise Duties – Tobacco & Alcohol Products’, TSG 10/21
49. The Economic Contribution of the Drinks Industry, DIGI, 2010
50. Preliminary assessment of the economic impacts of alcohol pricing policy options in the UK’, Priscillia Hunt, Lila Rabinovich & Ben Baumberg, Rand Europe, June 2010
52. The Marketing of Alcohol to College Students! : The Role of Low Prices and Special Promotions’, American Journal of Preventative Medicine, 2003