Title:

A MINIMUM UNIT PRICE FOR ALCOHOL

IA No: HO

Lead department or agency:

HOME OFFICE

Other departments or agencies:

DEPARTMENT OF HEALTH, HM TREASURY, HM REVENUE AND CUSTOMS

Impact Assessment (IA)

Date: 1 November 2012

Stage: Consultation

Source of intervention: Domestic

Type of measure: Primary legislation

Contact for enquiries:
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Summary: Intervention and Options

RPC Opinion: AMBER

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANCB on 2009 prices)	**In scope of One-In, One-Out?**	**Measure qualifies as**
£352m*	-£9.6m	£1.0m	Yes	IN

What is the problem under consideration? Why is government intervention necessary?

Alcohol misuse costs around £21 billion per year and is associated with a range of related harms. There is consistent evidence that limiting the availability of alcohol through an increase in price leads to a reduction in consumption, and in turn, reductions in alcohol related harm. Currently, there is no minimum price threshold in place that prevents retailers from selling alcohol at very low or heavily discounted prices. Government intervention, as set out in the Alcohol Strategy, would therefore set a minimum unit price (MUP) for alcohol and increase the price of alcohol sold at very low or heavily discounted prices.

What are the policy objectives and the intended effects?

The objective of minimum unit pricing is to reduce the consumption of alcohol by harmful and hazardous consumers in particular, whilst minimising the impact on responsible consumers. This will be achieved by increasing the price of alcohol sold at very low or heavily discounted prices. The intended effect is to reduce the harms associated with excessive consumption such as the number and associated costs of alcohol related crimes; alcohol related health problems, and deaths due to alcohol. Minimum unit pricing is a targeted policy and forms part of a comprehensive package of measures as set out in the Government's Alcohol Strategy.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

MUP is part of a comprehensive approach to tackle harmful drinking. It is taken on top of, not instead of, other regulatory and non regulatory measures to achieve the necessary impact. The level of impact will be determined by the MUP set out in legislation. The Government has recommended a price level of 45p per unit of alcohol and will consult on this level.

Option 1: Do nothing

Option 2: Introduce a minimum unit price for alcohol (preferred option). The Government is consulting on the basis of a recommended 45p minimum unit price. This Impact Assessment is therefore based on a price level of 45p per unit of alcohol.

*The NPV contains estimates based on two different models which are not directly comparable**.**

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** To be confirmed through consultation

Does implementation go beyond minimum EU requirements?			Yes		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	**Micro** Yes	**< 20** Yes	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)			**Traded:** N/A	**Non-traded:** N/A	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: Jeremy Browne MP Date: 11-11-12

Summary: Analysis & Evidence

Policy Option 2

Description:

45pMINIMUM UNIT PRICING FULL ECONOMIC ASSESSMENT

Price Base Year:	PV Base Year:	Time Period Years:	Net Benefit (Present Value (PV)) (£m)		
2014/15	2014/15	10	**Low:** 343	**High:** 361	**Best Estimate:** 352

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	2.9	1	200	1,730
High	16.6		201	1,740
Best Estimate	9.7		200	1,740

Description and scale of key monetised costs by 'main affected groups'

Transition costs – retailers will familiarise themselves with the policy and change prices to comply with the MUP- £9.6m. There will be an annual cost to the public sector for enforcement- £0.5m. Reduced revenue for the Exchequer from alcohol duty receipts - £200m per annum.

Other key non-monetised costs by 'main affected groups'

There could be material and stationery costs to business for re-pricing products on shelves and displays. There would be a cost to business as a result of lost alcohol sales as well as potential losses from restrictions placed on loss-leading pricing strategies. Whilst the impact on business revenue has been estimated, the change in business costs as a result of a change in consumption will have an impact on business profits which could not be quantified at this stage.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		1		
High				
Best Estimate			233	**2,090**

Description and scale of key monetised benefits by 'main affected groups'

Benefits to health bodies (through a reduction in hospital admissions and NHS costs) - £220m (average annual saving over 10 years). Benefits to society, for example to victims, the police and the criminal justice system (through a reduction in alcohol related crime) - £12.9m per annum. Please note that these benefits are not fully "cashable" and actual financial savings could be significantly lower.

Other key non-monetised benefits by 'main affected groups'

There may be a benefit to business if consumers substitute currently cheaper alcohol for more expensive alcohol. There may be a benefit to business if consumers switch their expenditure from alcohol to other goods. There is expected to be some benefit to the on-trade with consumers switching their consumption from off-trade to on-trade. As explained above, business profit cannot be quantified. There is expected to be benefits to business and society as a whole from a reduction in absenteeism and an increase in productivity.

Key assumptions/sensitivities/risks — **Discount rate (%)** 3.5

Consumption is expected to fall by 3.3%. There is a risk that consumers could maintain their current consumption levels to a greater degree than the evidence suggests thereby having a more limited effect on consumption. It is possible that lower strength products may be produced by the alcohol industry as these would retail more cheaply. This would reduce harmful levels of drinking and limit the loss of revenue to the alcohol industry.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: 1.0	**Benefits:**	**Net: -1.0**	Yes	IN

Evidence Base (for summary sheets)

A. Strategic Overview

A.1 Background

This consultation stage Impact Assessment assesses the introduction of a minimum unit price (MUP) for alcohol in England and Wales.

Coalition commitment

The Coalition Programme for Government committed to tackling the harmful use of alcohol.

The commitments were:

- Banning the sale of alcohol below cost price.
- Reviewing alcohol taxation and pricing to ensure it tackles binge drinking without unfairly penalising responsible consumers, pubs and important local industries.
- Overhauling the Licensing Act to give local authorities and the police much stronger powers to remove licences from, or refuse to grant licences to, any premises that are causing problems.
- Allowing councils and the police to shut down permanently any shop or bar found to be persistently selling alcohol to children.
- Doubling the maximum fine for under-age alcohol sales to £20,000.
- Permitting local councils to charge more for late-night licences to pay for additional policing.

The Government's Alcohol Strategy

On 23 March 2012 the Government launched its Alcohol Strategy which aims to radically reshape the approach to alcohol and reduce the number of people drinking to excess. The Alcohol Strategy is targeted at harmful and hazardous consumers and aims to limit the impact on responsible consumers. The Alcohol Strategy contains a commitment to introduce a MUP for alcohol and the Government will consult on a recommended price level.

The Government has previously introduced a range of measures with the aim of tackling the harms caused by excessive alcohol consumption. This includes significant reforms to the Licensing Act 2003 and work with industry through the Responsibility Deal. However, excessive alcohol consumption and unacceptable levels of crime and health harms remain an issue. Therefore, MUP will be introduced as part of a wider package of measures to target harmful drinking. It is taken on top of, not instead of, other measures including non-regulatory measures to achieve the necessary impact. These measures, as outlined in the Alcohol Strategy, include addressing alcohol advertising, piloting sobriety schemes, and continuing work with the industry through the Responsibility Deal to implement pledges to market, advertise and sell their products in a responsible way.

The Government considered a number of pricing policies throughout the development of the Alcohol Strategy including MUP and a ban on the sale of alcohol below Duty+VAT. The commitment to introduce a minimum unit price is taken in addition to, not instead of, the use of taxation. The Government has already take action to tackle the availability of heavily discounted alcohol through taxation including by raising alcohol duty by 2% above retail inflation (RPI) each year to 2014-15.

There are three main reasons for preferring MUP over using alcohol duties to achieve the same impact on alcohol prices:

1. MUP is a more targeted approach to address the problems of cheap alcohol; EU rules prevent alcohol duties being linked to their sale price. A rise in alcohol duty would affect all types of alcohol products, including the most expensive products. A MUP is intended to specifically target the sale of cheap alcohol products.

2. Alcohol duties alone could not bring about a system of minimum pricing as EU rules prevent wine and cider duties being directly linked to their alcohol content;
3. There is no requirement for retailers to pass through higher duties into prices, so higher duties will not automatically raise the price of cheap alcohol, and some evidence that in practice prices do not always rise to reflect higher duties.

It is therefore expected that MUP will be the most effective approach in terms of reducing the consumption of harmful and hazardous consumers in particular.

Impact of the wider Alcohol Strategy

It is important to note that there will be impacts (both costs and benefits) from the other policies arising from the Government's Alcohol Strategy but for the purpose of this pre-consultation assessment we are appraising MUP in isolation. Impact Assessments will be revised following public consultation to reflect the agreed and combined package of measures being taken forward.

Pre-consultation Impact Assessment

This is a pre-consultation Impact Assessment and is based on the best available evidence at the point of publication. We have set out within the Impact Assessment the areas where we hope to increase our evidence base through additional research and the consultation process. Impact estimates (both costs and benefits) therefore remain subject to change.

A.2 Groups Affected

Consumers
Consumers will be affected. The evidence in this Assessment suggests that consumers who drink alcohol at harmful[1] and hazardous[2] levels will be most affected by MUP. There is expected to be a limited impact on responsible consumers.

Off-trade alcohol retailers
The off-trade refers to premises that are only licensed to sell or supply alcohol for consumption off the premises. This would typically include large chain supermarkets, independent shops and off-licences. The off-trade are expected to be most affected by a requirement to sell all alcohol above the specified MUP as off-trade alcohol products retail more cheaply than alcohol sold in the on-trade.

On-trade alcohol retailers
The on-trade refers to premises licensed to sell or supply alcohol for consumption on the premises. This would include pubs, bars, nightclubs, hotels and restaurants. Alcoholic drinks sold in the on-trade are not typically expected to be affected by MUP as current average retail prices are sold above any MUP considered in this Assessment. In 2010, the average price per unit of alcohol in the on-trade was £1.34.[3] However, on-trade retailers that sell alcohol at very low or heavily discounted prices could be affected, for example, through promotions that result in heavily discounted alcohol. Evidence in this Assessment also suggests that the on-trade could benefit from a switch in consumption from the off-trade to the on-trade.

Production supply chain: producers, manufacturers and wholesalers
Producers, manufacturers and wholesalers in the UK and internationally are expected to be affected due to a decrease in the sale of alcohol. This impact will depend on the quantity of alcohol produced by these companies that is sold below the specified MUP. The Government will be undertaking further work on producer impact throughout the consultation process.

Criminal Justice System and the NHS

[1] NHS harmful drinking is defined as when a person regularly drinks over more than double the NHS guidelines, i.e. more than 50 units weekly for men or more than 35 units weekly for women.

[2] NHS hazardous drinking is defined as when a person regularly drinks over the alcohol (NHS daily guidelines (equivalent to 21 units weekly for men and 14 units weekly for women).), but less than double the guidelines.

[3] Robinson M, Craig N, McCartney G, Beeston C 2011 op cit

Any reduction in alcohol-related harms, which includes health harms and crime harms, will benefit the NHS and Criminal Justice System.

Local Government
As is currently the case, enforcing authorities (licensing authorities, the police and Trading Standards) will ensure legal compliance with MUP and to take enforcement action against alcohol retailers that are found to be in breach of the condition.

UK Exchequer
A higher price for some alcoholic drinks is expected to lead to a fall in alcohol consumption. This will directly translate into falling alcohol duty receipts. At the same time, increased alcohol prices could potentially lead to higher VAT receipts if these products continue to be purchased at a higher price.

A.3 Consultation

Within Government
Cabinet Committee clearances were gained for the publication of the Alcohol Strategy in which MUP is a key proposal. These clearances include official and Ministerial level discussions with other Government departments, including the Department of Health, Department for Business, Innovation and Skills, Her Majesty's Treasury, HM Revenue and Customs, The Department for Culture, Media and Sport, and the Department for Communities and Local Government.

Public Consultation
This Impact Assessment has been created in advance of a public consultation developed with Government analysts from the Home Office, Department of Health, HM Revenue and Customs and HM Treasury.

Government officials have previously held discussions with local authorities and the alcohol industry to discuss various pricing options, including MUP, a ban on the sale of alcohol below Duty+VAT and taxation. To assist with the effective design of our consultation, officials will continue to hold discussions with representatives from the alcohol industry, licensing authorities, the police and health bodies. This is expected to be in the form of meetings and technical consultations.

B. Rationale

Background

The cost of alcohol misuse in England is estimated to be around **£21bn** per year made up of the following:[4]

- NHS costs, at about £3.5bn per year at 2009-10 costs[5]
- Alcohol-related crime, at £11bn per year at 2010-11 costs[6]
- Lost productivity due to alcohol, at about £7.3bn per year at 2009-10 costs (UK estimate).[7]

The impact of alcohol on health is a significant issue. Over the last ten years health harms have continued to grow. Alcohol-attributable deaths in England rose by 7%, from 14,000 in 2001 to 15,000 in 2010. In contrast, deaths from all causes in England fell by 7% over this period. Over the same period, alcohol-specific deaths[8] rose by 30%. The rate of liver deaths in the UK has nearly quadrupled over 40 years, a very different trend from most other European countries. Approximately 60% of people with liver disease in England have alcoholic liver disease, which

[4] This does not include any estimate for the economic costs of alcohol misuse to families and social networks.
[5] The Department of Health has updated the previous estimate of around £2.7bn at 2006-07 prices.
[6] The Home Office has recently updated the estimate of the cost of alcohol-related crime: £11 billion in 2010/11 prices. This figure includes the cost of general offences (like violent crime) that are alcohol-related, the cost to the Criminal Justice System of alcohol specific offences (like drink driving) and the cost of issuing Penalty Notices for Disorder. This estimate was arrived at using the same methodology as that which lay behind the widely quoted figure of £8-13 billion in 2006/07 prices. The previous estimate was presented as a range due to a methodological uncertainty, which has now been resolved. Further information is available on request from the Home Office.
[7] The Department of Health has updated the previous estimate of around £6.4bn at 2006-07 prices.
[8] Alcohol related deaths = from conditions wholly caused by alcohol.

accounts for 84% of liver deaths.[9] In addition, the rate of alcohol-related hospital admissions[10] has also continued to rise by an average of 4% each year over the eight years 2002-03 to 2010-11. Alcohol is now one the three biggest lifestyle risk factors for disease and death in the United Kingdom, after smoking and obesity.[11]

There is also a strong link between alcohol and crime, particularly violent crime. In 2010/11, there were around 930,000 (44%) violent incidents in England and Wales where the victim believed the offender to be under the influence of alcohol, this rose to 58% in instances of stranger violence.

Link between alcohol price and harm

No other country has yet implemented a minimum unit price for alcohol. There is, however, a range of evidence[12] that supports increasing the price of alcohol in order to reduce alcohol consumption and leading to reductions in alcohol harms, particularly with regard to health harms.[13] In addition, recent analysis of the effectiveness of 'social reference pricing' in a Canadian province found that a 10% increase in the minimum price of any given alcoholic product reduced its consumption by between 14.6% and 16.1%.[14]

The impact of a change in alcohol price specifically on alcohol-related crime and disorder has been less researched than the impact on health. However, a recent rapid evidence assessment by Sheffield University found that increases in alcohol price were associated with reductions in overall crime, violent crime, sexual assault and criminal damage/property offences.[15]

As part of the commitments contained in the Alcohol Strategy, the Government aims to reduce, in particular, the consumption of harmful[16] and hazardous[17]consumers. There is evidence to suggest that pricing policies have a similar or stronger effect for the identified at-risk groups (young people under 18, young adult binge drinkers, and harmful consumers) and may thus be especially suitable for reducing overall harms in these groups.[18] Price elasticities used in the Sheffield University model are consistent with the international evidence base on alcohol and price interventions. Based on these, the Sheffield model findings are that the heaviest consumers (those drinking regularly more than twice the NHS guidelines) reduce their consumption most in response to a MUP focused on raising the price of the cheapest drinks.[19]

Availability and consumption of alcohol

[9] Government's written evidence on the Health Select Committee's Enquiry into the Alcohol Strategy 2012.

[10] Alcohol-related admissions are defined in the Public Health Outcomes Framework by reference to admissions where the primary diagnostic code is for an alcohol-related condition.

[11] Government Response to the House of Commons Science and Technology Committee Report of Session 2010–12: Alcohol Guidelines http://www.official-documents.gov.uk/document/cm83/8329/8329.pdf

[12] The range of available evidence that demonstrates a link between price and a reduction in consumption consists of the following studies and reports: the ScHARR report and model, Stockwell, T., Christopher Auld, M., Zhao, J. and Martin, J. (2012) Does minimum pricing reduce consumption? The experience of a Canadian province, Alcohol in the European Union; World Health Organisation *and* Meier, P. (2008); Independent review of the effects of alcohol pricing and promotion. Department of Health, Booth, A., Meier, P., Shapland, J., Wong, R. and Paisley, S. (2010); Alcohol pricing and criminal harm: a rapid evidence assessment of the published research literature. Home Office. The assessment included a study of alcohol pricing and criminal harm from 20 papers reporting 17 studies conducted in the US, Sweden, Denmark, Finland, Australia and the UK.

[13] For example: Anderson, P. Moller, L. and Galea, G. (2012). Alcohol in the European Union. Consumption, harms and policy approaches. World Health Organisation *and* Meier, P. (2008). Independent review of the effects of alcohol pricing and promotion. Department of Health.

[14] Stockwell, T., Christopher Auld, M., Zhao, J. and Martin, J. (2012) Does minimum pricing reduce consumption? The experience of a Canadian province. (2012) Addiction. 107. 912-920.

[15] Booth, A., Meier, P., Shapland, J., Wong, R. and Paisley, S. (2010). Alcohol pricing and criminal harm: a rapid evidence assessment of the published research literature. Home Office. The assessment included a study of alcohol pricing and criminal harm from 20 papers reporting 17 studies conducted in the US, Sweden, Denmark, Finland, Australia and the UK.

[16] NHS harmful drinking is defined as when a person regularly drinks over more than double the NHS guidelines, i.e. more than 50 units weekly for men or more than 35 units weekly for women.

[17] NHS hazardous drinking is defined as when a person regularly drinks over the alcohol (NHS daily guidelines (equivalent to 21 units weekly for men and 14 units weekly for women).), but less than double the guidelines.

[18] Meier, P. (2008). Independent review of the effects of alcohol pricing and promotion. Department of Health. http://www.shef.ac.uk/polopoly_fs/1.95617!/file/PartA.pdf

[19] ScHARR Nice Report 2009, 'Modelling to assess the effectiveness and cost-effectiveness of public health related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield Alcohol Policy Model version 2.0' http://www.nice.org.uk/nicemedia/live/11828/45668/45668.pdf

A study by the Competition Commission in 2008 found that 6 out of 7 major supermarkets sold alcohol 'below cost'.[20] The study found that 'below cost' selling took place at 11.9% on average below cost price for all goods which resulted in retailers selling 220.2m litres of below cost alcohol during that same year.[21] The study found that increases in below cost selling took place during events of significance, such as the football World Cup.

There has also been a 45% increase in purchasing alcoholic drinks for consumption in the home, from 527ml per person per week in 1992 to 762ml in 2010. In contrast, the overall volume of alcoholic drinks purchased for consumption **outside** the home decreased by 44% from 733ml per person per week in 2001/02 to 413ml in 2010.[22]

There is a growing body of evidence linking 'pre-loading' to alcohol-related harm, particularly alcohol-related crime and disorder. Two recent small scale studies provide some indication of the scale and impact of pre-loading. Two thirds (66%) of 17-30 year olds arrested in a city in England claimed to have pre-loaded before a night out, with the majority (83%) buying alcohol from a supermarket, in advance, in preparation for pre-loading.[23] A further study found that pre-loaders were two and half times more likely to be involved in violence than other consumers.[24]

MUP is intended to curb practices such as 'pre-loading' and help to reduce crime and disorder in or around the on-trade without unfairly penalising responsible on trade businesses where there is a controlled and heavily regulated licensing environment. MUP is also intended to help tackle the health harms associated with binge drinking[25].

Affordability of alcohol

In the UK, prices of alcoholic drinks, as measured by the alcohol price index, have increased more than the retail price index since 1980 (an arbitrarily chosen base year).[26]

Between 1980 and 2011 the price of alcohol increased by 24% more than retail prices generally. However, real households' disposable income per adult increased by 79% over the same period. Using the most recently available data, alcohol in 2011 was 45% more affordable than it was in 1980, highlighting the overall trend of increasing affordability over the period (see Graph 1 in Annex 2). It is important to note that this does not take into account the change in affordability of other products.

C. Objectives

The policy objective is to reduce the availability of alcohol and reduce the consumption of harmful and hazardous consumers in particular. It is intended that this will reduce the harms associated with alcohol misuse.

D. Options

At this stage, the Government has not committed to a MUP level. This Assessment will evaluate the costs and benefits associated with a recommended price level of 45p per unit of alcohol. This price level has been selected as the Government's modelling suggests this price level will be proportionate and effective in reducing consumption whilst minimising the impact on responsible drinkers.[27]

[20] Data obtained from the 2008 Competition Commission report. http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/538_5_6.pdf
[21] Figures are taken from the Nielsen sales price data for 2008.
[22] Family Food Module of Living Costs and Food Survey (LCFS) 2010. Defra/ONS
[23] Barton, A. and Husk, K. (forthcoming) Controlling pre-loaders: alcohol related violence in an English night time economy. Drugs and Alcohol Today.
[24] Hughes, K., Anderson, Z., Morleo, M. and Bellis, M.A. (2008) 'Alcohol, nightlife and violence: the relative contribution of drinking before and during nights out to negative health and criminal justice outcomes', Addiction, 103 (1), pp 60-5.
[25] Binge drinking, as defined by the NHS, is drinking lots of alcohol in a short space of time or drinking to get drunk.
[26] Statistics on Alcohol: England, 2012. Health and Social Care Information Centre.
[27] As estimated by ScHARR

Option 1 is to make no changes (do nothing). This is the no change option. Doing nothing will enable alcohol retailers to continue selling alcohol sold at very low or heavily discounted prices and will prevent crime and health benefits to society through a reduction in alcohol consumption.

Option 2 is to introduce a minimum unit price for alcohol at a recommended price of 45p per unit (preferred option). The Government committed to introduce a minimum unit price on 23 March 2012. In this Assessment we have analysed the impact of a 45p minimum unit price on consumption, business revenue and alcohol related harms.

E. Appraisal (Costs and Benefits)

GENERAL ASSUMPTIONS & DATA

The ScHARR model

In 2008 the University of Sheffield's School of Health and Related Research (ScHARR) developed a model (hereafter referred to as "the ScHARR model") for assessing the impact of alcohol pricing policies on alcohol consumption and health, crime and employment outcomes. The model is used by the Department of Health and is regarded as the best model currently available for assessing the impact of MUP. The Scottish Government has also used this model in their assessment of the impact of a 50p minimum unit price in Scotland.

For this Assessment, the Government has used version 2 of the ScHARR model. This is the most up to date ScHARR model currently available. The Government acknowledges that there are a number of limitations of the model, including the inability to assess the impact of beer and cider separately, and the use of 2008 baseline data. The University of Sheffield are currently in the process of updating their model to version 3. The plan for this includes separating beer and cider categories, re-estimating the responsiveness of demand to price changes (price elasticities) and adding the capability to analyse effects on income groups as well as the current analyses for male/female consumers across 9 age different age bands. Data and evidence from model version 3 is not currently available and there is no guarantee that the Government will have access to version 3 of the model within the time scale for this consultation. However, if version 3 does become available in time for the final Impact Assessment, the Government will seek to use this updated model and the estimated impacts of a MUP are therefore likely to change.

The estimates from the ScHARR model presented in this document are lower than those published in the original ScHARR report.[28] This is due to a simple adjustment that has been made to ensure consistency between the level of the MUP and the price data it is applied to. For example, a 45p MUP at the point of implementation would have a much larger effect in relation to 2008 prices (as used in the ScHARR model) than in relation to 2014 prices (the proposed year of implementation in England and Wales).[29] Baseline consumption figures for individual drink types have also been updated using Nielsen and CGA 2011 sales data. As a result, the estimated overall percentage change in consumption differs from that generated directly by the model output.

Exchequer impacts

HM Revenue & Customs have provided the estimate of the Exchequer impact using their existing alcohol model (hereafter "the HMRC model"). This model is designed for assessing the impact of a range of alcohol policies on the demand for duty-paid alcohol and the resulting excise duty receipts[30]. The HMRC model has been used to assess the Exchequer effect because this will ensure that the cost is comparable to the other alcohol duty rate changes.

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[28] http://www.shef.ac.uk/scharr/sections/ph/research/alpol/research/sapm and http://www.scotland.gov.uk/Topics/Health/Services/Alcohol/minimum-pricing/Impact-Assessment

[29] To estimate what a MUP in 2014 would have been in 2008, RPI indices were used for 2008-11 and forecast inflation figures were used for 2012-2014. For RPI indices see: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-260874 and for forecast inflation figures see: http://www.hm-treasury.gov.uk/d/201209forcomp.pdf

[30] The HMRC model is a UK wide model and so to assess the consumption effect of MUP in England and Wales they assumed that Scottish consumption represents 10% of the total consumption, which is inline with census statistics on population density.

This modelling is not directly comparable to the ScHARR modelling as it uses different underlying data, different elasticities, and a different modelling structure to estimate the impact on consumption.[31] This is a result of the need to use the best available, and most appropriate, model and data available. A more detailed explanation of the differences in the models can be found in Annex 2. Details of both methodologies are available publicly.[32] As explained above, the Government aims to align these models as far as possible in its final stage Impact Assessment through the ScHARR 3 model.

Modelling Inflation

The impacts of a MUP are highly sensitive to the level at which it is set, and also the way in which it is adjusted over time. In this appraisal, the level of MUP set (i.e. 45p) is assumed to remain constant over time in nominal terms. The final policy design is likely to include indexing to account for inflation. However, the details of this will be explored during the public consultation and discussions with the alcohol industry and other Government departments. Figures in the final stage Impact Assessment are therefore likely to change to reflect the final policy details.

Geographic Coverage

Please note that because the ScHARR model only applies to England, all health and crime impacts in this Assessment are based on policy implementation in England only. However, any MUP legislation will apply to both England and Wales. Therefore all figures presented here are likely to be slight underestimates.

Implementation

All impacts in this Assessment are based on implementation of the MUP policy in **2014/15.**

OPTION 1 – Do nothing

The 'do nothing' option is provided as a baseline for comparison with the potential impacts of a MUP. There would be no impact on current alcohol consumption or alcohol-related harms which have been estimated to cost **£21bn** per year to society.[33] Doing nothing would still permit retailers to sell heavily discounted alcohol with no benefits to crime and health harms. It is important to note that in reality we would expect there to be reductions in alcohol-related harms from the other policies arising from the 2012 Alcohol Strategy but for the purposes of this assessment we are appraising the minimum unit price in isolation.

OPTION 2 – Introduce a minimum unit price for alcohol at a recommended price of 45p per unit of alcohol

Estimated minimum prices of popular products

For the purposes of this Assessment a 'unit' of alcohol is defined as 10 millilitres of pure alcohol (ethanol)[34]. The number of units in a particular alcohol beverage will therefore depend on the volume of that product and its alcoholic strength (ABV).[35] Please see Table 15 for a list of sample products that would be affected by a MUP of 45p per unit.

Costs

Costs (1): Cost to Individuals

Consumption effect

[31] Elasticities measure the responsiveness of demand to a change in price.

[32] http://www.shef.ac.uk/scharr/sections/ph/research/alpol/research/sapm and http://www.hmrc.gov.uk/research/alcohol-consumption-uk.pdf

[33] As per Government Alcohol Strategy 2012, in current prices.

[34] The Drinkaware website provide a useful calculator which enables visitors to determine the number of units in a variety of drinks: http://www.drinkaware.co.uk/tips-and-tools/drink-diary/?gclid=CIvNhannorACFVMetAod7SpHYg

[35] ABV = Alcohol by Volume

Table 1. Percentage change in consumption as a result of a 45p MUP[36]

	Beer	Wine	Spirits	RTDs	Total
Off-trade	-14.1%	0.8%	-7.8%	0.2%	**-6.6%**
On-trade	4.0%	0.2%	0.8%	0.4%	**3.0%**
Overall					**-3.3%**

The ScHARR model estimates a significant shift from the off-trade to the on-trade. This is due to the cross-price elasticities which estimate the responsiveness of demand for other goods as a result of a change in price for one good.[37] An increase in price for one good can lead to an increase in demand for another if they are substitutes. In this instance, an increase in the price of off-trade goods has led to an increase in demand for on-trade goods.

It is important to note that the change in consumption from the ScHARR modelling represents a change in the number of alcohol units consumed, not alcohol products. Therefore, if a consumer were to switch from low-strength to high-strength alcohol products, even if they were to drink a lower total volume of products, they may actually increase the number of units consumed.

Table 1 shows that the beer category (which includes cider) will be most affected by a MUP of 45p. The situation is reversed for wine because of cross-substitution from other drinks to wine, particularly wine sold in the on-trade. The overall effects are that consumption is expected to fall at 45p. However, this masks a greater fall in off-trade consumption and a small rise in on-trade consumption.

As highlighted above, the ScHARR model does not provide the breakdown between beer and cider. The consumption effect on cider is likely to be higher than for other drink types. This can be attributed partly to the higher relative price change of cider brought about by a MUP and partly due to "drink prevalence"[38] on cider which is relatively small compared to other drink types. Published modelling work undertaken by HMRC suggests that the drink prevalence on cider is one of the lowest of all drink types. Similarly a Mintel report on market intelligence published in December 2010 indicates a quite flexible consumption for cider given that only 56% of people who drank cider in the past year said that they would do so again.

However, Table 9 (see Annex 2) reveals that some fraction of all product markets are likely to be affected as the majority of each product are most commonly sold in the 30-45p range. It is important to note that the prices shown in Table 9 are from 2008 and are therefore likely to be higher by 2014 due to inflation. It is also possible that producers could replace affected cheaper alcohol products with premium alcohol products.

As mentioned previously, these consumption estimates and the subsequent impacts on expenditure, crime and health, are likely to change following improvements to the modelling ahead of the final stage Impact Assessment. This will particularly be the case if we are able to provide a more detailed breakdown of the impact on beer and cider.

There is clear evidence to suggest that MUP will reduce the consumption of harmful and hazardous consumers.[39] It is important to note that MUP has not yet been implemented in any other country and so consumer response is uncertain. The closest comparable policy is social reference pricing in Canada with initial analysis suggesting that consumption has reduced.[40]

Cost to consumers

Government modelling anticipates the consumption effects outlined in Table 1. But these aggregate effects mask the fact that different consumer groups are likely to respond in different

[36] Baseline consumption in the ScHARR model has been updated using Nielsen and CGA 2011 sales data on the volume of alcohol purchased per person per product type. See Annex 3

[37] See p.77-78 in the ScHARR report for the ScHARR elasticities. http://www.gserve.nice.org.uk/nicemedia/live/11828/46443/46443.pdf

[38] Drink prevalence is defined as the number of alcohol types consumed over household size. http://www.hmrc.gov.uk/research/alcohol-consumption-uk.pdf

[39] See ScHARR NICE Report

[40] Social reference pricing sets a minimum price per product type rather than the volume and strength of a product (as with MUP).

ways. For instance, some may reduce their consumption, others may pay more to maintain their consumption, and others still may switch their consumption to different alcohol products. See Table 2 for the breakdown between consumer types.

MUP is expected to affect consumers across a range of ages and income groups, but will mostly affect harmful and hazardous consumers (See Table 2).[41] Evidence from the University of Sheffield indicates that population groups specifically affected by a MUP included the older population, the unemployed and individuals with lower levels of education, social class and income.[42]

Table 2: % change in consumption from the ScHARR model[43]

45p MUP

%change		England Total	11-18s[44]	Hazardous 18-24	Moderate All ages	Hazardous All ages	Harmful All ages
Off-trade	Beer	-14.1%	-15.8%	-12.5%	-5.9%	-12.7%	-18.1%
	Wine	0.8%	0.9%	-0.3%	-1.0%	1.7%	0.9%
	Spirit	-7.8%	-10.7%	-5.3%	-4.5%	-7.4%	-10.4%
	RTD	0.2%	0.1%	0.2%	0.3%	0.2%	0.1%
	Overall	**-6.6%**	**-10.5%**	**-6.9%**	**-3.4%**	**-5.0%**	**-9.7%**
On-trade	Beer	4.0%	1.0%	4.1%	2.4%	4.4%	5.0%
	Wine	0.2%	0.2%	0.5%	0.0%	0.5%	0.4%
	Spirit	0.8%	0.1%	1.0%	0.7%	0.8%	1.2%
	RTD	0.4%	0.1%	0.4%	0.5%	0.3%	0.4%
	Overall	**3.0%**	**0.6%**	**2.8%**	**1.6%**	**3.3%**	**4.4%**
Total		**-3.3%**	**-2.8%**	**-1.4%**	**-1.2%**	**-2.2%**	**-5.9%**

Table 3: Overall increase in consumer expenditure[45]

MUP	Moderate drinkers		Hazardous drinkers		Harmful drinkers	
	Change in mean annual consumption per drinker– all beverages (%)	Change in spend per drinker per annum (£)	Change in mean annual consumption per drinker– all beverages (%)	Change in spend per drinker per annum (£)	Change in mean annual consumption per drinker – all beverages (%)	Change in spend per drinker per annum (£)
45p	-1.2	+7	-2.2	+49	-5.9	+118

Table 3 above shows the expected impact on consumer expenditure. The average moderate drinker is likely to spend £7 more per year, compared to £49 and £118 for hazardous and harmful drinkers respectively.

The ScHARR model, as it is based on survey data, underestimates baseline consumption.[46] To address this, the baseline consumption was adjusted using Nielsen and CGA 2011 sales data which contains estimates of the number of units purchased per person and the average price per

[41] Harmful drinking is defined, by Government, as regularly drinking >50 units per week for men or >35 units for women.

[42] Interventions on Control of Alcohol Price, Promotion and Availability for Prevention of Alcohol Use Disorders in Adults and Young People, ScHARR Public Health Collaborating Centre, http://www.nice.org.uk/nicemedia/live/13001/49001/49001.pdf

[43] Baseline consumption has been updated using Nielsen and CGA 2011 Data on the volume of alcohol purchased per person per product type. See Annex 3.

[44] The ScHARR model is based on survey data therefore would not take into account the legality of under 18s consuming alcohol.

[45] Figures are rounded to the nearest pound.

[46] See ScHARR NICE Report. This should not affect the impact on crime and health as the evidence linking consumption and harms (and therefore underlying the risk functions) is itself based on consumption data from surveys (and therefore understated).

unit. It was then possible to estimate the impact on consumers' expenditure using the ScHARR estimate of the change in consumption and increase in price per unit whilst adjusting the baseline consumption and average price per unit using the Nielsen and CGA 2012 estimates. The overall expenditure was uprated by forecast inflation to 2014 prices.

By raising the minimum price of alcohol there will be a loss in aggregate consumer surplus[47]. With an accompanying rise in producer surplus (consumers pay more, retailers earn more), the net effect is apparently zero. However, economic theory holds that the imposition of a minimum price *above* that set naturally by the market leads to the loss of some transactions that would have taken place before. This is known as deadweight loss. It implies that the imposition of a MUP will lead to a decrease in net social welfare.

Harmful and hazardous consumers

A systematic review by *Booth et al* (2008) reported that there is some evidence that harmful consumers tend to show a preference for cheaper alcoholic drinks.[48] This is also partially validated by ScHARR who suggest that harmful consumers have a higher response to price changes with larger absolute consumption changes in comparison to responsible consumers[49]. This assumption is based on EFS[50] data which, according to ScHARR, shows that harmful consumers are most likely to purchase the types of alcoholic products that are expected to be affected by a MUP policy.[51]

The review by Booth et al also reported that there is some evidence that young people and binge drinkers (as well as harmful drinkers) tend to show a preference for cheaper alcoholic drinks. The current ScHARR modelling suggests that MUP will reduce the consumption of 11-18 year old drinkers but suggests that the impact on 18-24 year old hazardous consumers will be less.[52] The ScHARR model predicts that the young male hazardous drinkers heavily represented within this group have a strong preference for beer and for on-trade sector drinking. Minimum unit pricing that does not differentiate between on-trade and off-trade tends to affect on-trade prices only marginally and consequently is predicted to have a more limited impact on consumption amongst this group.[53]

This result is not entirely consistent with the evidence that young drinkers and hazardous drinkers have a preference for the cheaper drinks more likely to be affected by a MUP.[54] It is possible that this inconsistency is linked to the failure to split beer and cider consumption in the current ScHARR model. It is also possible that long term behavioural effects may differ from those estimated by the ScHARR model which is based on a relatively short time series of data. Nevertheless, the Government will consider further the consumer effect throughout the consultation process and will provide further clarity in the final stage Impact Assessment.

Responsible consumers

The impact on responsible consumers is expected to be significantly less than the impact on harmful and hazardous consumers. As detailed above, evidence suggests that harmful consumers are more likely to show a preference for cheaper drinks than responsible consumers.

Low income consumers

There is expected to be an impact on consumers from a range of income groups, including low income consumers and high income consumers. Evidence on the likely effect on low income

[47] Consumer surplus is the welfare gain obtained by consumers due to their ability to purchase a product for a price lower than the highest price they would be willing to pay.

[48] Booth, Meier, Stockwell, Sutton, Wilkinson, Wong, Brennan, O'Reilly, Purshouse & Taylor (2008)

[49] See ScHARR NICE Report.

[50] EFS = Expenditure and Food Survey

[51] See ScHARR NICE Report.

[52] Ibid.,

[53] Meier, Purshouse and Brennan, 'Policy options for alcohol price regulation: the importance of modelling population heterogeneity', ScHARR Report, 2009

[54] Meier, P. (2008). Independent review of the effects of alcohol pricing and promotion. Department of Health. http://www.shef.ac.uk/polopoly_fs/1.95617!/file/PartA.pdf

consumers is mixed. Analysis by the Institute for Fiscal Studies (IFS) suggests that cheap alcohol is not only bought by those who are poorest but by those across the income distribution[55]. This conclusion is supported by analysis on 2010 expenditure and food data, which showed that low income households are less likely to purchase off-sales alcohol at all.[56]

On the other hand, further research carried out by the University of Sheffield suggests that, even though off-trade alcohol sales are most likely to be affected by a MUP, reduced consumption is higher for low income consumers than high income consumers. This is potentially due to low income consumers tending to purchase low priced alcohol which are mostly affected by a MUP. [57]

Based on this premise, analysis suggests that the lowest decile might experience the highest impact as a proportion of total expenditure or of income[58]. However, for other deciles there is no strong trend across the income and expenditure distributions. As with all income groups, it would be the heaviest regular consumers in the lowest decile who would feel the financial impact most. The Government intends to undertake further work to assess the impact on low income consumers following the public consultation.

Effect on inflation

There are likely to be inflationary impacts from a MUP at any level. The estimates below are based on the weight of off-trade alcohol in the Consumer Price Index (CPI). These are expressed as percentage point contributions to the headline rate of CPI inflation.

Table 4: Average price change affect on inflation (2014/15)

The inflation impacts provided below by HM Treasury are calculated solely on the basis of the change in the overall off trade price change estimated by the HMRC model.

Option	Overall Off Trade Price Change	Implied impact on CPI inflation
45p	9.3%	+0.2ppt

Implementation of a minimum unit price at any level will increase prices and therefore inflation. As shown in Table 4 the impact of a 45p MUP is estimated to be a +0.2ppts, based on the weight of off-trade alcohol sold in the Consumer Prices Index. There are a number of uncertainties about these estimates, as there are likely to be further offsetting effects on inflation if the prices of more expensive alcohols are increased to maintain differentials with cheaper alcohol; and/or if retailers discount other products in the place of alcohol. To place the size of the estimated impact on inflation in context, the OBR estimated that the January 2011 increase in the standard rate of VAT increased CPI inflation by +1.0ppt.

The impacts shown will affect the headline rate of CPI inflation for 12 months, after which the impact drops out of the annual comparison. The effect on the price level is, however, permanent. The latest OBR forecast (in March 2012) shows inflation continuing to fall back in 2012 and returning to the 2 per cent target by the start of 2013. It is important to note that for the purposes of this assessment we have assumed that the MUP will be implemented in 2014/15.

Higher inflation itself (if anticipated) does not necessarily affect social welfare so no costs have been assigned to inflation impacts. The cost to individuals of higher prices has been covered elsewhere in this section.

Costs (2): Business Costs

[55] There is a lack of survey data containing both information on households' alcohol expenditure as well as the prices they pay per product. IFS analysis is based on market research, when modelling 45p MUP in 2007.

[56] Ludbrook, Prof A (2010) Purchasing patterns for low price off sales alcohol: evidence from the Expenditure and Food Survey; SHAAP

[57] Initial analysis completed so far for ScHARR model version 3. Work is ongoing on this version of the model.

[58] The distributional impacts have been calculated using HMT's model of consumption by household income.

Transition costs to off-trade and on-trade retailers

Familiarisation of MUP policy: off-trade and on-trade retailers

Alcohol retailers will need to ensure that all products on the premises are sold above the specified MUP. However, due to typically higher prices in the on-trade, it is expected that only off-trade retailers will need to re-price products, amend bar codes, and change prices on shelves, shop displays and websites. Based on initial discussions with a small number of retailers, it has been assumed that it could take up to **one hour** for each retailer to familiarise themselves with the MUP policy. (See Table 12 in Annex 2 for costs).

Total estimated familiarisation costs: £1.12m-£2.24m

Non-monetised transition costs

There will also be material and stationery costs to alcohol retailers when amending the prices on shop shelves, menus and promotional displays. This cost has not been quantified in this pre-consultation Impact Assessment as further work is required on the cost of materials/stationary chosen by retailers. This will be considered further throughout the consultation process. However, as detailed above, we would only expect off-trade retailers to re-price products on shelves and websites.

Off-trade implementation costs

Implementation costs are not expected to be as significant for stores with Head Office support as such stores have the ability to cross-check prices right across their regional stores and update via centralised pricing systems. However, based on consultation with a small number of retailers who do not use centralised pricing systems, it is estimated that this could take up to a one-off period of **8 hours** per independent retailer. However, we will explore this time period further throughout the consultation process.

There are currently 132,400 off-trade alcohol retailers in England and Wales (this includes on-trade retailers that are also licensed to sell alcohol for consumption off the premises). 27,341 of these are micro-business, 28,808 are small businesses and 29,289 are medium businesses[59]. We therefore assume that the remaining 46,962 are large businesses.

There is no available data that details what proportion of retailers use central pricing systems. However, we assume that large retailers and medium retailers are most likely to use central pricing systems and that micro and small businesses are least likely. We therefore expect that the largest implementation burden will fall on the 56,149 micro and small off-trade retailers (although there will be a proportion of these businesses that use centralised pricing systems). It is also important to note that the scale of impact will depend on the size of actual premises and the number of affected alcohol products in stock. This data is not currently available.

For the purposes of this Assessment we have provided a range of scenarios for the cost of implementation but have not made separate assumptions based on the size of the business due to the degree of uncertainty around the number of retailers that have a central pricing system. (See Table 13 in Annex 2 for costs)

Total estimated off-trade implementation costs: £1.77m-£14.1m

Annual costs to business

Annual impact on profits

Business' profits are made up of total revenue minus total costs. We have not estimated the impact on business profit as this is also dependant on the unit costs of the alcohol products sold. Whilst total costs will fall for the alcohol products for which volumes have fallen, total costs will increase

[59] Data is obtained from UK Business: Activity, Size and Location – 2010 which contains data from a snapshot of the Inter Departmental Business Register (IDBR) taken on 22 March 2010

with production of the substitute goods for which demand has increased. If the cost of these products is larger than the cost of the products they have substituted (because they are typically sold at a higher price), then the net change in cost is likely to be greater than zero. In the absence of information to allow us to say whether this increase in cost is likely to outweigh, offset or fall short of the increase in revenue, the impact of MUP on business profits remains uncertain. We intend to use the consultation process to investigate the likely effects on costs and will be working with HMRC to provide estimates of lost profit for the final Impact Assessment.

The primary effect of the policy is that all businesses would have to change the prices of alcohol sold to ensure they comply with the MUP. The effect on business revenue brought about by changes in consumer behaviour is a secondary effect and therefore not in scope for OIOO. See Table 14 in Annex 2 for business revenue impacts.

Alcohol producers

According to HMRC data, there are approximately 900 brewers, 110 distillers and 250 wine and cider producers in the UK. This is a total of approximately 1,260 alcohol producers in the UK[60] that could be affected by MUP. At this stage, the number of EU producers and international producers that import alcohol into England and Wales is unknown.

There is expected to be an impact on international producers whose alcoholic products are imported into England and Wales, particularly for those international producers that produce low cost alcohol. It is not possible to quantify the impact on international producers at this stage as we do not know the price distribution of domestic vs. imported products. Further work will be carried out to consider the impact of MUP on international producers and producers from developing countries.

Government modelling suggests an overall decrease in demand due to the introduction of a MUP. This would therefore lead to a decrease in sale volumes and therefore a drop in the demand faced by producers of alcohol. There are various 'second round' effects that may result from shifts in strategy by retailers and producers. For instance, it is possible that the introduction of MUP could incentivise producers to produce lower strength alcohol products as these would retail more cheaply. Alternatively, products not affected by MUP could be increased in price in order to maintain a price differential for brand identity purposes. Such second round effects cannot be accurately predicted and are not considered in detail in this Assessment. Consultation responses may inform future modelling in this area.

The 'first round' impact on producers is implicitly counted elsewhere. If retailers or wholesalers choose to reduce any lost revenue by lowering their costs through making smaller stock orders, they are effectively 'passing on' the loss to producers. The overall loss would remain unchanged.

Impact on Wholesalers

Wholesalers may be affected by a decrease in the sale of alcohol sold in retail stores. The reduction in sales will vary across alcohol types. For example, a reduction in sales of certain products could result in retailers removing that product from shelves or increasing the price of that product. Removal of affected products from shelves will impact on wholesalers as a 'second round' effect.

As for producers, the 'first round' impact for wholesales is implicitly counted elsewhere. If retailers choose to reduce any lost revenue by lowering their costs through making smaller stock orders to wholesalers, they are effectively 'passing on' the loss to wholesalers. The overall loss would remain unchanged.

Costs (3): Public sector

Transition costs to the public sector

[60] Data provided by HMRC

The Government would produce guidance for both alcohol retailers and local authorities prior to the introduction of a MUP.

Licensing authorities would be likely to inform local alcohol retailers of the new legislation, although they would not be legally required to do so. They would have a number of options of how to do this and so direct costs are difficult to estimate. The cost of communicating previous changes has been estimated at £500 per authority. We assume this cost to be the same for communicating MUP as the method of communication is likely to be the same for communicating new policies. An estimated £500 per authority, of which there are 349, gives a total cost of **£174k**. The best estimate for future transition costs (using the previous figure as a high cost and calculating the mid point between that and a zero cost) would therefore be **£87.0k.** We have used a best cost as there may be licensing authorities that decide not to inform retailers of the MUP policy.

Enforcement authorities (licensing authorities, the police and Trading Standards) would also need to familiarise themselves with the MUP. Based on initial discussions with a small number of enforcement authorities we estimate that it will take between 0.5 to 1 hours for enforcement authorities to familiarise themselves with the policy, at a best estimated cost of **£21.1k:**

Table 5: Cost of familiarisation for the Public Sector[61]

Enforcement Sector	Number of authorities	High cost	Best cost	Low cost
Licensing Authorities	349	£14.2k	£10.7k	£7.10k
Police	43	£2.84k	£2.13k	£1.42k
Trading Standards	204	£11.1k	£8.35k	£5.57k
TOTALS	**596**	**£28.2k**	**£21.2k**	**£14.1k**

Based on both sets of transition costs (familiarisation and informing retailers), the best estimate of the total transition cost to the public sector is **£108k** (based on a range of £14.0k to £202k).

Ongoing costs to the public sector

Enforcement

If a retailer is found to be in breach of the MUP policy (i.e. selling alcohol below the specified MUP) enforcement action may be taken against it. This could result in a licence review, revocation of a licence, closure or even a fine and/or imprisonment.

We would expect the majority of retailers to adhere to the MUP legislation from the outset, but enforcing authorities will need to undertake enforcement action against any retailers who are selling alcohol products below the specified MUP level.

The time taken to enforce MUP will vary depending on the size of the premises, the number of alcohol products in stock and the number of licence reviews that lead to enforcement action. Furthermore, the higher the MUP price level the wider range of products will be affected leading to an increased likelihood of enforcement activity. There is expected to be an increased risk of enforcement in the off-trade. However, at this stage it is not known which enforcing authority will be responsible for enforcing MUP between the off-trade and on-trade. Consultation and discussion with local authorities and the police is required in order to determine which enforcing authority will take lead responsibility for enforcing MUP and what the expected impact of this would be. Therefore, the estimated cost of enforcement in this Assessment could be higher or lower in the final stage Impact Assessment.

[61] These estimations have been calculated on the basis of an average number of 3 staff per authority and a range of 0.5 to 1 hours per officer for policy familiarisation. It uses the average hourly wage for a licensing authority officer (£13.60), a police officer (£22.01) and a trading standards officer (£18.19), multiplied by the estimated time to enforce the policy. The 'best cost' has been estimated by taking a mid point between the low cost and high cost. See Table 17 for full average hourly salary breakdown. All figures have been up-rated by 21% for non-labour costs.

For the purposes of this consultation stage Assessment we have assumed that one local government officer (either a licensing officer, police officer or Trading Standards officer) will be responsible for enforcing MUP (mostly in the off-trade). The time taken to enforce MUP is based on a small number of discussions with enforcement authorities and will require further discussion and consideration for the final stage Impact Assessment.

It is important to note that these costs are likely to be "opportunity" in nature in that the extra enforcement time will displace other work rather than require additional resources to be hired. Estimates will be improved following the consultation process. In addition, a key benefit of the policy is a safer night time economy, which could lead to a reduction in associated enforcement costs.

Estimated enforcement activity based on one local Government officer per week: 1 - 3 hours

Initial estimated on-going cost of enforcement: £0.2m-0.7m per year[62]

Impact on the Exchequer

HM Revenue & Customs have provided the estimate of the exchequer impact using their existing alcohol model (hereafter "the HMRC model"). This model is designed for assessing the impact of a range of alcohol policies on the demand for duty-paid alcohol and the resulting excise duty receipts[63]. The HMRC model has been used to assess the exchequer effect because this will ensure that the cost is comparable to the other alcohol duty rate changes.

The impact on the Exchequer concentrates on the reduced revenue from alcohol duty receipts resulting from a fall in alcohol consumption. HMRC model the impacts of increased prices in the off-trade using a set of price elasticities of demand covering five different drink categories (spirits, cider, beer, wine and RTDs) sold in the off-trade as well as in the on-trade. This allows HMRC to cover a wide range of consumer 'switching' effects.

It is important to note that the impact of a MUP modelled by HMRC is not comparable to the impact modelled by the ScHARR. Table 11 in Annex 2 shows the estimated consumption effects from the HMRC model – overall consumption falls by 3.5%, compared to a 3.3% fall in the ScHARR model. This is due to the use of different price elasticities as well as different underlying price data and a different modelling structure. (See General Assumptions section and Annex 3 for detailed explanation.)

A 45p MUP is expected to decrease receipts by approximately **£200 million in year one**.

The Exchequer impact does not include the affect on Corporation Tax receipts as it is assumed that this will be negligible. This assumption will be re-assessed as part of the consultation process. It is important to note that additional costs to the Exchequer may arise depending on the effect of MUP on non UK duty paid consumption and the size of alcohol tax gap as well as any potential impact on Corporation Tax receipts.

Typically, lost tax revenue is not counted for the purpose of impact assessment because it is simply transferred to consumers or producers and there is no net change in social welfare. But in this case the loss in revenue from alcohol duty receipts reflects a net decrease in economic activity[64]. It is therefore a pure economic loss and is counted as a cost of the policy.

It is feasible that consumption could shift to other sectors of the economy and that other tax receipts could therefore increase. However, such second round Exchequer effects are considered to be outside the scope of this appraisal.

[62] These estimations use the average hourly wage for a local government administrative occupation (£13.60) multiplied by the estimated time to enforce the policy. The 'best cost' has been estimated by taking a mid point between the low cost and high cost. See Table 17 for full average hourly salary breakdown. All figures have been up-rated by 21% for non-labour costs.

[63] The HMRC model is a UK wide model and so to assess the consumption effect of MUP in England and Wales they assumed that Scottish consumption represents 10% of the total consumption, which is inline with census statistics on population density.

[64] This may alternatively be described as an increase in the 'deadweight loss' associated with reduced alcohol consumption

For the purposes of this assessment we have assumed that the loss in revenue for the Exchequer in year one is representative for the whole 10 year NPV period. We will be developing on this further throughout the consultation period.

Benefits

The following benefits are expected to accrue to local Government, central Government and society through a reduction in the numbers and costs associated with alcohol related crime and health problems. It is important to note that these benefits are not entirely cashable savings but also reflect where resources can be reallocated and put to alternative use. There are a number of uncertainties surrounding the modelling and a more detailed explanation can be found in Annex 3.

Crime benefits

The ScHARR model estimates the potential reduction in alcohol related crimes.[65] Alcohol-related crimes include sexual offences, assault and criminal damage. The benefits to crime happen immediately from year one with no time-lag.

The costs of crime are calculated by using the Home Office cost of crime estimates and measure the cost to society of crime (through the cost to victim services, health services, the cost of lost output, the cost of stolen and damaged property and the costs to the police and the criminal justice system).[66] The ScHARR model has removed the human and emotional cost component from the unit costs and instead represented it in quality adjusted life years (QALYs). A crime related QALY is valued at £81,000.[67]

Table 6 shows that for a 45p MUP, modelling estimates that approximately 5,240 crimes could be prevented per year at a benefit of £12.9m per year.

The extent to which reductions in such costs are "cashable" is constrained by the indivisibility of some elements, capacity limits, regional constraints, quality constraints amongst other factors. As such the actual financial savings could be significantly lower.

Table 6- Reduction in alcohol related crimes per annum (from years 1 to 10) for England only

Crime impacts (p.a.)	Crimes	Cost of Crime to Society (£m)
45p	-5,240	-12.9

Health benefits

The modelling for MUP predicts that a MUP of 45p will lead to 4,630 fewer alcohol related hospital admissions in the first year. 10 years after the policy has been implemented, it is estimated that 24,600 admissions will be prevented annually. The full effects of the model take ten years to work through as there is a time lag between changes in alcohol consumption and chronic health harms.

A reduction in alcohol related hospital admissions covers a wide range of alcohol related conditions including alcoholic liver disease, heart disease, cancers, poisoning, falls and injuries, assault and road traffic accidents.[68]

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[65] This analysis is based on calculated 'Alcohol Attributable Fractions' (AAF) using the Offending Crime and Justice Survey (OCJS) which asks offenders whether they committed an offence due to alcohol.

[66] Based on Brand and Price (2000) and Dubourg et al (2005) unit costs of crime. The ScHARR model uses unit costs in 2003 prices therefore are underestimates of the potential savings from any reductions in crime. These have been uprated using the GDP deflator from 2006/07-2014/15 http://www.hm-treasury.gov.uk/data_gdp_index.htm

[67] This is based on: Carthy, T., Chilton, S., Covey, J., Hopkins, L., Jones-Lee, M., Loomes, G., Pidgeon, N., & Spencer, A. 1999. The Contingent Valuation of Safety and the Safety of Contingent Valuation Part 2: The CV/SG 'chained' approach. Journal of Risk and Uncertainty 17, 187-213. QALYs are discounted by 1.5%.

[68] Health harm reductions are mostly likely to relate to chronic diseases rather than acute conditions such as injuries. This is because much of the alcohol-attributable health harm occurs in middle or older age groups who are at greater risk of developing these conditions.

The direct health cost component comprises the health care costs of treating alcohol-related conditions.[69] Gains in health-related quality adjusted life years (QALYs) show the increase in the number of life years in good health as a result of reductions in mortality and morbidity from alcohol-related conditions. A health related QALY is valued at £60,000 in accordance with Department of Health methods.[70]

The extent to which reductions in such costs are "cashable" is constrained by the indivisibility of some elements.

Table 7- Reduction in alcohol related health harms per annum (year 1 and year 10) for England only for a 45p MUP[71]

Health impacts (p.a.)	Deaths	Hospital admissions	Health care costs (£m)	QALYS	QALYs (£60k per QALY) (£m)
Year 1	-115	-4,630	-21.3	928	56
Year 10	-714	-24,600	-82.0	5,320	319

Employment benefits

The costs of lost productivity due to alcohol misuse are substantial – the Government estimates these costs in total at £7.3bn per year in 2009-10[72] and that alcohol-related sickness absence accounts for 7-11% of all sickness absence. Reductions in alcohol-related harm may therefore benefit businesses if levels of sickness absence decrease. For alcohol-related unemployment, a range of estimates of impact exists, as the team that developed the ScHARR model noted[73]. It is technically difficult to investigate this area, as allowance has to be made for three possible effects:

- unemployment causes some heavy drinking,
- some unobservable individual factor such as low education may cause people both to be unemployed and to drink heavily,
- heavy drinking may cause unemployment.

Reduced alcohol consumption is expected to lead to employment benefits in the form of increased productivity and reduced absenteeism. We have not included an assessment of the employment benefits but, during the consultation period, we will explore whether it is possible to do so in any future impact assessments.

Benefit to business

As explained in the Costs section, business' profits are made up of total revenue minus total costs. As we currently have no information on the likely effect of the policy on costs, we cannot estimate the impact on net profits. Table 14 in Annex 2 shows the estimated business revenue impacts from a MUP in the first year of implementation.

Benefit to on-trade

ScHARR modelling suggests there could be an increase in the overall on-trade consumption of 3.0% for a 45p MUP (see Table 2). It is possible that MUP could lead to an increase in profit for the on-trade as consumers switch products in response to the increase in prices for the off-trade.

[69] These have been uprated to 2014/15 prices using the NHS 'Pay and Prices' Index until 2010/11 and the GDP deflator from 2011/12- 2014/15 http://www.hm-treasury.gov.uk/data_gdp_index.htm

[70] The Home Office calculation of total benefits from reductions in alcohol-related health harms differs from the standard methodology the Department of Health (DH) uses. Whilst this analysis only monetises the QALYs directly attributable to the policy, DH typically assume that any savings in direct health costs will be reinvested and produce one additional QALY for every £25,000 saved, at a benefit of £60,000 per QALY.

[71] See Table 18 in Annex for full breakdown of annual savings from reduced alcohol related health harms. Whilst the NPV for direct health cost savings has a 3.5% discount rate applied, QALYs are discounted by 1.5% as per standard Dept. of Health practice.

[72] 'The Prime Minister's Strategy Unit, Alcohol Harm Reduction Project, Interim Analytical Report, 2004; updated by internal Department of Health analysis, 2012.'

[73] Purshouse R et al. (2009). Modelling to assess the effectiveness and cost–effectiveness of public health related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield Alcohol Policy Model version 2.0. Report to the NICE Public Health Programme Development Group. Sheffield, University of Sheffield, School of Health and Related Research (ScHARR).

Table 14 shows that a MUP of 45p could lead to an increase in revenue of £649m for the off-trade and £392m for the on-trade in the first year of implementation. As explained earlier, the impact on profits cannot be estimated as we do not know the change in costs for business. Therefore no figures have been included in the cost-benefit analysis.

Benefit to alcohol industry as a whole

Table 14 shows that a MUP of 45p is estimated to result in increased revenue to the alcohol industry as a whole mainly due to the increase in prices of alcohol in the off-trade and a possible increase in consumption in the on-trade.

An increased revenue to the alcohol industry will return to the wider economy in a variety of ways, for example, wages and salaries to industry employees, profits to individual and institutional shareholders, including pension funds, and potential price reductions on other goods where retailers have been using alcohol as a loss-leader. The ScHARR modelling does not include this dynamic analysis of the full effects of re-distribution through the economic system.[74]

As explained earlier, due to the uncertainty surrounding business costs and profit margins, we do not know what the effect on business profit will be as a result of the policy. Therefore we have not included the potential costs or benefits to business profit in the overall cost-benefit analysis. We intend to use the consultation process to investigate the likely effects on costs in order to appropriately assess the impact on business' profits for the final Impact Assessment.

NET EFFECT

The monetised costs are:

- £2.9-£16.6m from transition costs to licensing authorities and business for familiarisation with the policy and to business for amending prices, with a best estimate of £9.7m.
- £200m annual costs, which includes the cost to the Exchequer and the cost of enforcement.

Totalling £200m per year and £1,740m over ten years, discounted.

The monetised benefits are:

- £12.9m per year from crime savings to society.
- £220m per year on average from health savings to society.

Totalling £233m per year and £2,090m over ten years, discounted.

It is important to note that the estimated costs and benefits are not directly comparable due to the use of two different models for this Assessment.

The net effect is £352m. It is important to note that this figure is subject to considerable uncertainty given the inclusion of Exchequer costs modelled on a very different basis to health, crime and business impacts

OIOO NET EFFECT

The cost to business from familiarisation of the policy and implementation of the MUP is in scope under One in One Out (OIOO).

The monetised costs are:

- £2.9-£16.4m for transition costs of familiarisation with the policy and amending prices, with a best estimate of £9.6m.

F. Risks

[74] See page 64 of the ScHARR NICE Report.

OPTION 2 – Introduce a minimum unit price for alcohol

MUP could have unintended consequences as there is uncertainty around how the alcohol industry and consumers might respond.

Modelling of a MUP

The modelling used to estimate the impacts of a MUP is the best available, but nevertheless estimating the effect of this policy is very difficult and subject to considerable uncertainty. During the consultation period it is intended that the modelling will be updated and therefore the impacts are likely to change.

A lower than expected impact on alcohol consumption, crime and health.

Consumers may respond by continuing to purchase alcohol at higher prices, thereby having a more limited impact on consumption levels than is intended. The MUP legislation will be subject to review and the Government will consider the impact of MUP on consumption, crime and health. However previous models and studies have shown a clear link between price and reduced alcohol consumption. The link between the price of alcohol and alcohol consumption in relation to crime is less well researched then for health. In particular the link between reduced consumption of some types of alcoholic drinks (especially cider) bought from the off-trade, and reduced alcohol-related crime is not well-evidenced.

Impact on retailers

If consumers continue to purchase alcohol at a higher retail price then this would lead to an increase in revenue to the alcohol industry as a whole. However, this will depend on the MUP level and may vary between the on-trade and off-trade. There is a risk that this revenue could be re-invested in strategies to promote alcohol consumption, for example advertising. The Alcohol Strategy states the Government's intention to work with the alcohol industry to use any additional revenue to provide better value to customers in other areas.

Price increases across a wider range of alcohol products

Retailers and producers might increase the prices of branded products in order to maintain price differentiation between cheaper products and premium products. Therefore, there is a risk that a wider range of products will be affected by MUP and not just alcohol sold at very low or heavily discounted prices as initially intended.

Removal of affected products from the market

It is possible that retailers will remove some of the most affected products from the market rather than increase the retail price. This would result in less alcohol being produced on the market with subsequent effects on producers, manufacturers, wholesalers and consumers. It is also possible that producers will produce lower strength alcohol products as these would retail more cheaply. However, this impact would strengthen the Government's aim to reduce alcohol consumption and resulting harms. This issue will be discussed with the alcohol industry.

EU and international impacts

We will consider whether a particular MUP level has implications for producers of cheaper alcohol products in Member States and internationally. The Government is in discussions with the EU Commission and will consider any potential implications for EU (and international) competition.

UK wide pricing regimes

Other parts of the UK are currently taking forward, or considering, alcohol pricing policies. For example, the Scottish Government has passed primary legislation to introduce a MUP but, at the time of producing this Assessment, has not yet commenced the legislation. The Northern Ireland Executive is also considering MUP. It is therefore possible that the UK Government could set a different price level in England and Wales to the rest of the UK. The UK Government is currently in discussions with the relevant Governments and will consider this issue carefully throughout the policy development process.

Cross-border alcohol

If the MUP in England and Wales is set higher or lower than Scotland then there could be a risk of consumers purchasing alcohol from across the border in order to pay a cheaper price for the same product. However, we do not expect this to be a significant issue as the costs associated with travelling across borders from the main centres of population in Scotland could outweigh the benefits of purchasing the cheaper product (unless a consumer resides exceptionally close to the England/Scotland border). Potential increases in price differentials with retailers across the English Channel might also reinforce existing motivations for legitimate cross-border shopping. These issues will be considered further through the consultation process.

There is also a possible risk of increased imports of alcohol from other EU states, both through legal routes and illegal, such as by smuggling but there is little evidence to substantiate this.

Increase in the production of illegally produced alcohol

If the MUP is set at a significant level this could lead to increased levels of smuggling, illicit production and 'bootlegging' of alcohol. This could have an impact on the criminal justice system. However, there is no evidence to suggest that this would be the case. Illicit production would also involve duty fraud and this issue will be discussed with HMRC and local authorities to assess the potential levels of increased risk and consider actions to mitigate as part of HMRC's strategy to counter duty fraud.

G. Enforcement

Enforcement will be the responsibility of licensing authorities, the police and Trading Standards. These enforcement authorities are existing bodies that are already responsible for enforcing the licensing conditions of the Licensing Act 2003. The Government will discuss this issue further throughout the consultation process.

When enforcing this policy, enforcement authorities will need to check product prices against the MUP and would only expect to do so when there has been a representation to the enforcing authority which suggests that premises may be in breach of their licence conditions. We expect that enforcement officers will only choose to check alcohol products that are considered to be very low cost and random sample products if necessary.

The Government will provide statutory guidance[75] to licensing authorities on the implementation of MUP. This will cover enforcement. The Government would also run a number of technical consultations with local authorities to ensure that any potential burdens are reduced.

H. Summary and Recommendations

The table below outlines the costs and benefits of the proposed changes.

[75] Statutory guidance issued under section 182 of the Licensing Act 2003.

Table H.1 Costs and Benefits		
Option	**Costs**	**Benefits**
2.	Costs to alcohol retailers for familiarisation of the policy and re-pricing where required. Cost to enforcing authorities for familiarisation of policy and enforcing when required. Cost to the Exchequer from lost duty revenue. 45p MUP: £1,740m (PV over 10 years)	Benefits to society from a reduction in alcohol-related crime, health problems and deaths. 45p MUP: £2,090m (PV over 10 years)
Not quantified	Reduction in alcohol consumption resulting in decreased revenue for some businesses. Cost to some consumers who may choose to purchase alcohol at higher retail prices.	There may be a benefit to on-trade retailers if consumers switch their consumption from off-trade to on-trade. There could be a benefit to the alcohol industry as a whole if consumers switch to more expensive products. Employment benefits due to reduced absenteeism and increased productivity.

The Government is recommending option 2 but acknowledges that many important factors need to be taken into consideration when determining the MUP price level. The Government's public consultation and subsequent technical consultations will assist the Government ensuring that the proposed price level is appropriate. In particular, consideration will need to be given to the potential impacts on consumption, crime and health as well the burdens on business, local authorities and consumers.

The analysis in this Assessment suggests that MUP is an effective tool for reducing alcohol consumption and is expected to reduce the number of alcohol related crimes and alcohol related health problems.

It is important to note that the estimated costs and benefits of a MUP cannot be directly compared due to the use of a different model to estimate the impact on the Exchequer.

Whilst taking into account the incomparability of the costs and benefits, it is the judgement of Government analysts that the costs of the policy would be outweighed by the health and crime benefits.

I. Implementation

The Government intends to introduce MUP via primary legislation as a new licensing condition of the Licensing Act 2003. Primary legislation will ensure that the policy receives full Parliamentary scrutiny and provides opportunity for interested parties to submit evidence. The implementation date is therefore subject to the necessary Parliamentary procedures.

The policy may be the subject of secondary legislation (an affirmative order) which might set out the MUP price level. This approach will provide the Government with a flexible mechanism to amend the price level if necessary (for example, to keep in line with RPI or CPI).

The delivery of MUP will be led by the Home Office with support from other Government departments including the Department of Health, Treasury, BIS and HMRC.

J. Monitoring and Evaluation

There is a Government duty to review all new policies. This duty is applicable after a minimum of five years and MUP will be subject to this review. The review will consider the impact that the policy

has had on consumption, alcohol related crimes (such as violent crime) and health problems. It will also try to measure any burdens on all groups that have been affected by the policy.

The Government will consider the review process throughout its consultation, for example, whether a review should take place in a shorter period of time or should be subject to a sunset clause. This will be updated in the final stage Impact Assessment.

The Government will conduct a review by analysing the latest available statistics and reports relating to the impact of MUP. This information could be obtained from the latest set of Nielsen sales data which provides information on the sale of alcohol in England and Wales and has formed the basis of this Assessment. Evidence will also be analysed from the Crime Survey for England and Wales, licensing statistics, hospital admissions data, and ongoing liaison with the police and the alcohol industry.

K. Feedback

In order to accurately assess the impact of MUP the Government will seek views from those who will be most affected by the policy. The Home Office will therefore seek feedback from the alcohol industry and its representatives, the police, licensing authorities, Trading Standards, alcohol consumers, health bodies, responsible authorities and other Government departments when considering the effectiveness of the legislation.

This will be achieved by regular meetings between those organisations affected and Government officials as well as technical consultation groups.

L. Specific Impact Tests

See Annex 1

Annex 1. Specific Impact Tests

Small Firms Impact Test

1. MUP is expected to apply to all alcohol retailers, including small businesses and micro-businesses and is therefore in the scope of One In One Out.

2. Small businesses are often defined in terms of employee numbers. If we use this definition, then the vast majority of licensed trade businesses are classified as 'small or micro businesses'. These businesses often rely on a pool of shift workers and only have a small base of full time management staff. The industry snapshot below attempts to estimate the proportion of small businesses selling alcohol in England and Wales.

Table 8: Number of affected small businesses in England and Wales[76]

Standard Industry Classification 2007	Description	Number with <10 employees in England and Wales (Micro)	Number with <20 employees in England and Wales (Small)	Number with <50 employees in England and Wales (Medium)
4711	Retail sale in non-specialised stores with food, beverages or tobacco predominating	23,056	24,354	24,803
4725	Retail sale of alcoholic and other beverages	4,285	4,454	4,486
5510	Hotels	4,284	5,616	6,814
5610	Restaurants	46,259	51,483	53,593
5630	Public Houses and bars	32,905	38,751	40,664
Total		**110,789**	**124,658**	**130,360**
Percentage of total		**84%**	**94%**	**98%**

3. The impact on small businesses will be driven by the MUP price level and consumers behavioural response.

4. There is no available data which can tell us whether small businesses tend to sell cheaper alcohol products on average compared to larger retailers. It is therefore difficult to estimate whether small businesses will be disproportionately affected by MUP. However, this issue can be explored in more detail with alcohol retailers throughout the consultation process.

5. All alcohol retailers will still need to ensure legal compliance by checking the price of all their alcohol products and re-pricing where necessary. The time spent calculating minimum unit prices will vary between each premises depending on the size of the premises and the number of products in stock.

6. Generally, franchise businesses and multi-stores are able to alter the price of products by updating their 'central point of sale' computers (centralised bar-coding systems). This updates the barcode prices on all products in the local stores. This means that these retailers do not necessarily have to change the price of products locally (although some store managers will have responsibility for changing prices in local stores during promotions and to clear end of line stock). Therefore, the burden on smaller businesses that have centralised bar-code pricing systems will be less than those businesses that do not operate using a central point of sale computer or barcode system.

[76] This table is based on date from UK Business: Activity, Size and Location – 2010 which contains data from a snapshot of the Inter Departmental Business Register (IDBR) taken on 22 March 2010. Table B3.1 provides a breakdown of the number of enterprises in the UK by Standard Industry Classification 2007 and number of employees. These numbers are scaled down to England and Wales using table B3.4 (regional distribution). These data also include those restaurants, hotels and shops which do not sell alcohol. This is likely to skew the results. In March 2010 there were 182,800 premises licences and club premises certificates with an authorisation to sell alcohol.

7. As detailed in this Assessment, the objective of MUP is to reduce consumption. The available evidence suggests that consumers are likely to respond by reducing their consumption. However, a MUP could lead to an increase in revenue to the alcohol industry, including small alcohol retailers and producers if consumers respond differently.

Alternative approaches

8. An alternative approach would be to exempt smaller business from the legislation. However, this approach is not recommended. In order for the policy to be effective, MUP will need to apply to all retailers, regardless of size. Exempting small businesses will undermine the policy because consumers could switch their custom to businesses that are permitted to sell alcohol below the MUP. Although this would be a benefit to small businesses, it would undermine the Government's aim to reduce alcohol consumption by creating a loophole. Moreover, it would constrain competition and impact on businesses that are not considered to be a small or micro business.

Consultation with small firms on reducing the burden of MUP

9. As an alternative to exemptions, we will consult with small firms on ways in which to reduce the potential burden on MUP.

10. Following initial discussions with a small number of retailers, it has been suggested that a lead in time of a few months prior to commencement of MUP would be beneficial to businesses. This would provide businesses with an adequate amount of time to check the prices of products, re-price if necessary, and revise promotional strategies. The Government intends to announce a commencement date as much in advance as possible, subject to the necessary Parliamentary procedures.

11. Businesses suggested that the Government could produce comprehensive guidance which would list the minimum prices of specific products. The Government is committed to reducing the burden on business and intends to provide comprehensive guidance and minimum price sheets in advance of the legislation commencing.

Competition Impact

The Government will consult with the alcohol industry as to how MUP will affect competition as it is uncertain as to how the industry may respond to MUP. We have based this initial impact based on the analysis in this Assessment and initial discussions with the alcohol industry. However, further discussions will be required. This will be explained further in the final stage Impact Assessment.

Will MUP;

1. **Directly limit the number or range of suppliers?**
   This policy is expected to only affect products that are sold below the specified MUP. All products sold above the specified MUP will not be directly affected (unless retailers decide to increase the price of premium products to ensure product differentiation). There could be a benefit to the alcohol industry as a whole if consumers continue to purchase affected products at the higher price. We will consider this impact throughout the consultation process.

2. **Indirectly limit the number or range of suppliers?**
   It is possible that wholesalers and producers will see a reduction in the volume of alcohol products being sold as a result of higher prices. This might result in wholesalers and producers removing those affected products from the market. This could impact on the range of wholesalers and producers. We do not expect retailers to be indirectly affected.

3. **Limit the ability of suppliers to compete?**
   MUP will create a price control that will influence the price of products that suppliers may charge. This will prevent retailers from competing below the specified MUP. This will be universal and is expected to affect all retailers. Therefore, retailers can continue to compete as long as the price

does not fall below the MUP. Suppliers may be limited in their ability to use loss-leading price strategies to encourage customers to purchase other goods but could apply loss-leading promotions to other products such as grocery items or soft drinks.

4. **Reduce suppliers' incentives to compete vigorously?**
   The MUP will apply to all product types but should only affect those products that are sold below the specified MUP. Currently, alcohol is an important product for competition between retailers, especially during periods of celebration such as Christmas, significant football events and national events such as the Olympics.

   At this stage, it is not clear what the overall effect on competition will be because price increases could create an incentive for retailers to promote alcohol as a result of a potential increase in revenue. This issue will be explored through consultation with the alcohol industry.

Social Impact

Health and Well-being

1. This Assessment suggests that MUP will have an impact on the health of alcohol consumers. Increasing the price of alcohol is expected to particularly reduce the consumption of harmful and hazardous consumers and lead to a reduction in alcohol related deaths, health harms such as liver disease, hospital admissions and its associated costs. This could particularly be the case for younger harmful consumers as a reduction in their consumption could prevent chronic alcohol related health conditions later in life.

Impact on low income households

2. IFS analysis suggests that cheap alcohol is not only bought by those who are poorest but by those across the income distribution[77]. However, as detailed in the appraisal section of this Assessment, evidence suggests that low income consumers tend not to purchase off-trade alcohol (which is expected to be mostly affected by a MUP set at any level in this Assessment). We would therefore not expect low income households to be significantly affected by a MUP. However, further work will be undertaken to consider the impact on low income consumers. Please see 'consumer' section for further details.

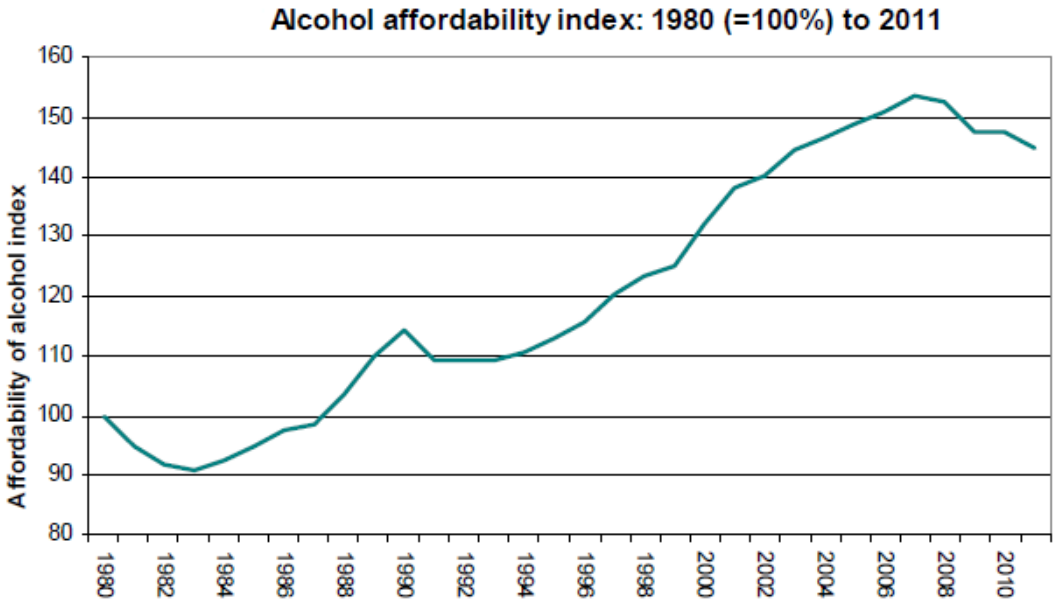
Impact on different age groups/consumers.

3. Those consumers that do not consume alcohol are not expected to be directly affected by a MUP and this Assessment suggests that those who consume harmful levels of alcohol are more likely to be impacted by a MUP. A MUP of 45p is expected to mostly affect harmful and hazardous consumers.

[77] There is a lack of survey data containing both information on households' alcohol expenditure as well as the prices they pay per product. IFS analysis is based on market research, when modelling 45p MUP in 2007.

Annex 2 – Tables and data

Graph 1: Alcohol affordability index 1980 - 2011



Sources:

Alcohol Price and Retail Prices (all items) Indices: derived from Focus on Consumer Price Indices: (Codes CBAA, CBAB, CHBD, CHAW). The Office for National

Real Households Disposable Income: Economic Trends: (Code NRJR)

Table 9: Off-trade price per unit of alcohol distribution in England and Wales in 2008[78]

Price per unit	Spirits	Light wine[79]	Beer	Cider	% alcohol sold through off-trade
< 20p	0.3%	1%	3%	35%	3%
20p - 24.9p	2%	0.9%	5%	9%	4%
25p - 29.9p	15%	5%	10%	9%	9%
30p - 34.9p	23%	12%	14%	12%	15%
35p - 39.9p	23%	16%	18%	12%	18%
40p - 44.9p	11%	23%	17%	10%	17%
45p - 49.9p	9%	11%	14%	3%	11%
50p - 54.9p	5%	12%	8%	2%	8%
55p - 59.9p	3%	4%	5%	1%	4%
60p - 64.9p	2%	6%	3%	1%	4%
65p - 69.9p	2%	2%	1%	2%	2%
70p - 74.9p	2%	2%	0.9%	1%	2%
75p - 79.9p	1%	0.9%	0.7%	1%	1%
80p - 84.9p	0.5%	0.6%	0.2%	1%	1%
85p+	1%	4%	0.7%	2%	3%

*Highest % of products are highlighted in red

[78] Data obtained from 2008 Nielsen sales Data

[79] Light wine = table wine, sparkling wine and champagne.

Table 10: Enforcement costs to the Public Sector

Enforcement Sector	Hours of Enforcement per week per LA	High	Best	Low
Enforcement authority	1 (low) - 3 (high)	£0.7m	£0.5m	£0.2m

Table 11: **HMRC model**. Estimated change in consumption (%) following introduction of MUP[80]

MUP		Beer	Cider	Wine	Spirits	RTDs	Total
45p	Off-trade	-5.5%	-48.2%	2.8%	-5.4%	-1.2%	-5.5%
	On-trade	-0.4%	-2.5%	5.4%	0.0%	-0.1%	0.5%
Overall							**-3.5%**

Table 12: Transition costs to off-trade ***and*** on-trade retailers for familiarisation of policy[81].

	Number of retailers	Policy familiarisation time (in hours)	High	Best	Low
Off-trade	132,400	0.5 (low) - 1 (high)	£1.8m	£1.3m	£0.9m
On-trade	41,100	0.5 (low) - 1 (high)	£0.5m	£0.4m	£0.2m
Total			**£2.2m**	**£1.7m**	**£1.1m**

Table 13: Transition costs to off-trade for implementation of MUP

	Number of retailers	Amending products & price lists (in hours)	High	Best	Low
Off-trade	132,400	1 (low) - 8 (high)	£14.1m	£7.9m	£1.8m

Table 14: Business revenue impacts of MUP in first year of implementation (£m) (England only)[82].

	Off-trade	On-trade	Total
45p	£649m	£392m	**£1,040m**

The impact on revenue is estimated based on the increased prices resulting from MUP and the associated effect on consumption which is estimated using the ScHARR model. The ScHARR model is based on household survey data and is therefore likely to underestimate baseline consumption. Nielsen and CGA sales data were used to adjust the baseline consumption as well as update the baseline price per unit for each beverage type.

Estimated duty and VAT were netted off from the change in consumer's expenditure to avoid double counting (see Exchequer impact). Therefore total change in business revenue is different to total change in consumer expenditure Duty and VAT were estimated on the basis of the ScHARR model purely for the purposes of estimating the business revenue impact. The overall reduction in **consumption** leads to an additional gain in business revenue from the duty foregone. The overall increase in **expenditure** leads to an increase in VAT paid therefore a reduction in business

[80] The effect from the off-trade and on-trade does not sum up to the overall effect as they reflect the change of consumption as a proportion of the whole off-trade and on-trade respectively, not as a proportion of consumption overall.

[81] These figures have been calculated using the average hourly wage for an off-trade retail manager (£13.33) and on-trade bar manager (£11.62) multiplied by the estimated time to implement the policy. The 'best cost' has been estimated by taking a mid point between the low cost and high cost. See Table 17 for full average hourly salary breakdown. All figures have been up-rated by 21% for non-labour costs.

[82] Revenue is net of duty

revenue. The reduction in duty outweighs the increase in VAT. The ScHARR model currently does not split beer and cider[83] and duty estimates derived in this way may overstate the impact of MUP if consumption is biased more towards beer than cider post-MUP compared with pre-MUP. These figures are therefore likely to change as the policy is developed during and after consultation and will be reflected in the final Impact Assessment.

The ScHARR modelling uses price elasticities, including cross-price elasticities, to estimate the effect an increase in price would have on business revenue. The goods affected by the MUP are expected to experience a reduction in demand due to the price elasticity of consumer demand. At the same time a substitution effect is expected to occur whereby other alcohol products that are now more attractive to consumers are purchased instead. This effect is particularly significant in the on-trade because drinks sold on the on-trade will not be affected by a MUP (or will be affected to a lesser degree). As the substitute drinks are currently more expensive relative to those affected by the MUP, business is found to experience an increase in revenue.

Table 15: Retail prices of a sample of products from Tesco (on 28 May 2012) and the impact of a 45p MUP[84]

Product	ABV	Units	Prices as at 28 May 2012*	Minimum price at 45p/unit	Increase
Cider					
Tesco Strong dry cider, 4x440ml	5.3	9.3	£2.09	£4.19	£2.10
Strongbow, 4x440ml	5.3	9.3	£3.50	£4.19	69p
Blackthorn dry cider, 12x440ml	5.5	29.0	£11.99	£13.05	£1.06
Gaymers Old English, 4x440ml	4.5	7.9	£3.95	£3.56	Not affected
Bulmers, 6x568ml	4.5	15.3	£9.00	£6.89	Not affected
Magners, 4x440ml	4.5	7.9	£4.79	£3.56	Not affected
Vodka and Gin					
Tesco Value vodka, 70cl	37.5	26.2	£8.72	£11.79	£3.07
Glen's vodka, 70cl	37.5	26.2	£12.00	£11.79	Not affected
Vladivar Classic, 70cl	37.5	26.2	£13.00	£11.79	Not affected
Gordon's gin, 70cl	37.5	26.2	£13.00	£11.79	Not affected
Smirnoff Red Label, 70cl	37.5	26.2	£13.00	£11.79	Not affected
Whisky					
Tesco Value, 70cl	40.0	28	£10.32	£12.60	£2.28
Tesco Special Reserve, 70cl	40.0	28	£12.00	£12.60	60p
Bell's, 70cl	40.0	28	£13.00	£12.60	Not affected
Whyte and MacKay, 70cl	40.0	28	£13.00	£12.60	Not affected
Grants, 70cl	40.0	28	£13.00	£12.60	Not affected
Famous Grouse, 70cl	40.0	28	£13.00	£12.60	Not affected
Johnnie Walker Red Label, 70cl	40.0	28	£16.11	£12.60	Not affected
Chivas Regal 12 yr old, 70cl	40.0	28	£21.00	£12.60	Not affected
Glenfiddich single malt 12 yrs, 70cl	40.0	28	£21.00	£12.60	Not affected
Beer and lager					
Tesco Lager 4x500ml	4.0	8	£2.39	£3.60	£1.21
Carlsberg Special Brew 4x440ml	9.0	15.8	£7.09	£7.11	2p
Tennents Super Lager 4x440ml	9.0	15.8	£7.09	£7.11	2p
Carling 4x440ml	4.1	7.2	£3.50	£3.24	Not affected
Stella Artois 4x440ml	4.0	7.0	£4.00	£3.15	Not affected
Red Stripe 4x440ml	4.7	8.3	£4.99	£3.74	Not affected
Carlsberg 4x440ml	3.8	6.7	£4.50	£3.02	Not affected
Wine					
Silver Rock Chardonnay 750ml	12.5	9.4	£3.19	£4.23	£1.04

[83] To estimate duty and VAT a constant average rate of duty for beer and cider was assumed.

[84] Supermarket data obtained from the Scottish Government's final Business and Regulatory Impact Assessment for minimum price per unit of alcohol as contained in the Alcohol (Minimum Pricing) (Scotland) Bill. Prices are in 2012 therefore are not directly comparable to a MUP introduced in 2014.

Tesco South African White 750ml	12	9	£3.37	£4.05	68p
Tesco Simply Chenin Blanc 750ml	12.5	9.4	£3.49	£4.23	74p
Blossom Hill Californian Red 750ml	12.5	9.4	£4.59	£4.23	Not affected
Echo Falls Merlot, 750ml	13	9.8	£4.99	£4.41	Not affected
Blossom Hill Chardonnay, 750ml	13	9.8	£5.49	£4.41	Not affected
Black Tower Rivaner, 750ml	9.5	7.1	£4.88	£3.20	Not affected
Hardy's Cabernet Merlot, 750ml	13.5	10.1	£7.99	£4.55	Not affected

*source: mysupermarket.com

Table 16: Impact on alcohol prices in the off-trade across product types

45p MUP	Beer	Wine	Spirits	RTDs	Overall off-trade price change	Overall alcohol price change
Average Price rise(£)	0.07	0.02	0.04	0.00	**9.3%**	**6.0%**
Average price rise (%)	16.9%	3.7%	9.2%	0.1%		

Table 17: Average Hourly Wage of local authorities and alcohol retailers

Job role	Average hourly wage[85]
Police officer (Sgt and below)[86]	£22.01
Licensing officers	£13.60
Trading Standards officers	£18.19
Bar manager (on-trade)[87]	£11.62
Retail manager (off-trade)	£13.33

Table 18: Health savings (£m) (incl. QALYs)[88]

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
45p	77.0	100	127	157	189	225	265	307	353	401

Figures to 3.s.f.

Annex 3 – Government Modelling

Government analysis: Sheffield Alcohol Policy Model and HMRC model

The Sheffield University School of Health and Related Research (ScHARR) model estimates the impact of a MUP on alcohol consumption and alcohol harms (such as deaths and hospital admissions) in England. The **ScHARR modelling** calculates an aggregated average relative price change for 16 different price distributions (split by 4 beverage types[89], on- and off-trade, high- and low-priced) for each of the 54 modelled subgroups (by gender, 9 age groups and 3 drinker groups defined by the baseline consumption status[90]) using transaction-level purchasing data from the Expenditure & Food Survey

[85] Figures have been up-rated by 21% to include non-labour costs

[86] This is the median hourly wage for police officers (sergeant and below) and local government administrative occupations (licensing officers) and business and public service associate professionals (Trading Standards Officers). Data was obtained from the 2011 Annual Survey of Hours and Earnings. http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-256648

[87] This is the median hourly wage for publicans and managers of licensed premises (on-trade) managers and directors in retail and wholesale (off-trade) and staff in the retail and pub sectors. Data was obtained from the 2011 Annual Survey of Hours and Earnings - http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-256648

[88] When calculating the NPV we apply a 3% discount rate to direct health cost savings and a 1.5% discount rate to QALYs as per standard Dept. of Health methodology.

[89] Wines, spirits, beer and RTDs

[90] The 3 drinker groups are: moderate, harmful and hazardous drinkers. NHS harmful drinking is defined as when a person regularly drinks over more than double the NHS guidelines, i.e. more than 50 units weekly for men or more than 35 units weekly for women. NHS hazardous drinking

(EFS) adjusted by Nielsen and CGA sales data in 2008 prices. For each price distribution (on- and off-trade, beverage type, low- and high-price for each subgroup) the proportion sold below the MUP and the price required for the unit price to rise to the MUP can be calculated.

ScHARR elasticities are then applied to these average price changes to calculate the consumption effects of the 16 beverage types for each subgroup. Subgroup-specific preferences for the 16 beverages are then used as weighting factors to calculate the overall alcohol consumption effect for each subgroup.

The baseline and after-intervention consumption levels for these subgroups are then used to estimate the impact of MUP on crime and health as different subgroups have different levels of baseline risk. [91]

The **HMRC modelling** calculates an aggregated average price change (for 5 beverage types) using 2008 Nielsen off-trade price data which has been uprated by RPI to 2014 prices. For each beverage type, the Nielsen distributional data, which shows the volume of products sold at each price level, is used to calculate the proportion sold below the MUP and the price required for the unit price to rise to the MUP. These elements are then combined to calculate an average price increase across the whole of each beverage type. HMRC elasticities are then applied to these average price changes to calculate the consumption effects.

Given that the estimations of all different MUP effects under consideration (i.e. health, crime and Exchequer revenue) are based on the underlying change in consumption, the outputs from the ScHARR and HMRC modelling are not directly comparable. The benefit of using two separate models is that they are designed to specifically estimate certain impacts of a MUP. The ScHARR model is the best available model to estimate the impact on crime and health harms as a result of the introduction of a MUP. The model contains two sets of elasticities, one for moderate drinkers and one for hazardous/harmful drinkers and provides a breakdown between high and low priced goods within these elasticities. The HMRC model is frequently used to estimate the impact of government alcohol policies in terms of the impact on duty revenue for the Exchequer. The HMRC model has the added strength of being able to separately assess the impact on beer and cider.

It is important to note that, despite also using the ScHARR model, our MUP estimates are lower than those published in the original ScHARR report. This is due to a simple adjustment we have made to ensure consistency between the level of the MUP at the point of implementation and the price data it is applied to. The price data is from 2008 and it is not possible to accurately update this for inflation. Instead, the MUP inputted into the ScHARR model has been deflated to take into account inflation from 2008-2014. For example, a 45p MUP would have a much larger effect in relation to 2008 prices (as used in the ScHARR model) than in relation to 2014 prices (the proposed year of implementation).[92]

Limitations of ScHARR modelling

At low MUP levels the ScHARR modelling finds an increase in overall consumption for some subgroups due to a large substitution effect from MUP-affected goods to other goods. For example, young hazardous drinkers consume the majority of their alcohol in the on-trade, so small switching effects from the off-trade to the on-trade, in relative terms, can outweigh the reductions in off-trade consumption arising from the policy.[93] (See Table 2). This leads to the ScHARR estimating an increase in alcohol-related crime for some subgroups.

This effect may be due to the modelling not being able to take into account the differences between subgroups, especially their preference to different on/off beverage types. The ScHARR model operates on 54 sub-groups defined by gender, age and baseline consumption level; however since the econometric calculations require a large number of observations to achieve convergence, elasticity matrices are only available for moderate drinkers and the combination of hazardous and harmful

is defined as when a person regularly drinks over the alcohol (NHS daily guidelines (equivalent to 21 units weekly for men and 14 units weekly for women).), but less than double the guidelines.

[91] ScHARR report 2009 http://www.gserve.nice.org.uk/nicemedia/live/11828/46443/46443.pdf

[92] To estimate what a MUP in 2014 would have been in 2008, RPI indices were used for 2008-11 and forecast inflation figures were used for 2012-2014. For RPI indices see: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-260874 and for forecast inflation figures see: http://www.hm-treasury.gov.uk/d/201209forcomp.pdf

[93] http://www.gserve.nice.org.uk/nicemedia/live/11828/46443/46443.pdf, p.102

drinkers. Since the beverage preferences from both the General Household Survey and Expenditure and Food Survey indicate that differences exist between the genders and between age groups, it may not be entirely appropriate to apply the aggregated elasticity matrices when estimating the responses of individual sub-groups.[94]

A sensitivity analysis was carried out which attempted to take into account the different beverage preferences for individual sub-groups. By weighting the cross-price elasticities by sub-group beverage preferences the analysis found a reduction in consumption, and therefore a fall in crime, for every sub-group.[95]

The ScHARR model is based on 2008 prices and the crime and health baseline volumes are from 2006/07 data. The ScHARR report states that, as the model is based on survey data, the baseline consumption figures are underestimates of actual consumption.[96] This would have significant effects when estimating the impact on business revenue. The outputs were updated using Nielsen and CGA 2011 price data which contain information on the volume of units per drinker and the price per unit of alcohol, by product type and on/off trade. It was then possible to estimate the impact on consumers' expenditure using the ScHARR estimate of the change in consumption and increase in price per unit and the Nielsen and CGA estimates of baseline consumption and average price per unit. The overall expenditure impact was uprated by forecast inflation to 2014 prices.[97]

To quantify the relationship between levels of consumption and alcohol attributable harms the ScHARR model uses a methodology built around two concepts:

1) Alcohol Attributable Fractions (AAF): the proportion of the harm attributable to alcohol.

2) Relative Risk (RR): the risk that a person exposed to a certain degree of alcohol will experience/cause a particular harm relative to a person not exposed to alcohol.

The two can be used to produce an equation for each crime and harm type showing how risk of causing that harm increases as alcohol consumption increases.

To calculate the crime harms the ScHARR model uses the Offending Crime and Justice Survey (OCJS) which asks whether, in the offender's view, they undertook the offence because they were drunk.[98] This is more conservative than the alternative OCJS question which asks whether the offender was drunk at the time of the incident, which is used by the Home Office to calculate the cost of alcohol-related crime.

The ScHARR model uses this as an alcohol attributable fraction (AAF), for males and females aged under 16 and 16-25 yr olds separately. Risk functions were estimated from the AAFs, based on a mapping of crime categories from OCJS to the modelled crime types. The study selected a threshold of risk, i.e. a level of consumption where risk starts. Risk for crime is assumed to start at 4 units a day for men and 3 units for women. The risk functions for 16-25 year olds was re-used for over 25s due to the lack of data for the latter. This approach is not ideal since it is likely that AAFs for older individuals are different to those for younger individuals. Whilst this is a limitation, the authors of the model argue that it is not likely to impact greatly on the modelling results since individuals over 25 years old contribute to less than 30% of all crimes.[99]

The potential impact fraction (PIF) is calculated based on the consumption distribution at time 0 and time t and the estimated risk function (derived from the above AAF).[100] The PIF is then applied directly to the baseline number of offences to give a new volume of crime for time t. The model uses the consumption distribution for the intake in the heaviest drinking day in the past week (peak consumption) since crime

[94] To account for these differences, in Sheffield model v2, a sensitivity analysis is carried out whereby cross-price elasticities are weighted for each sub-group according to how the sub-group beverage preferences compare to the mean preferences for the aggregation of sub-groups used to estimate each elasticity matrix. This found a reduction in the volume of offences committed by young hazardous drinkers. http://www.nice.org.uk/nicemedia/live/11828/45668/45668.pdf p.89

[95] For a more detailed explanation see: http://www.gserve.nice.org.uk/nicemedia/live/11828/46443/46443.pdf p. 81

[96] ScHARR NICE Report

[97] For forecast inflation figures see: http://www.hm-treasury.gov.uk/d/201209forcomp.pdf

[98] The OCJS is a well used and large scale self-reporting survey. As with all surveys of its kind, it has a number of limitations.

[99] ScHARR Nice Report

[100] Analysis of consumption is split by age, gender, and drinker type (e.g. hazardous, harmful, responsible drinker)

was assumed to be a consequence of acute drinking rather than average drinking (and so there is no time delay between change in exposure to alcohol and subsequent change in risk of committing a crime).

The crime harms outcomes are presented in terms of number of offences prevented and associated cost of crime and QALY impact to the victim.

For the health harms, the ScHARR model considers 47 separate acute and chronic conditions related wholly or partially to alcohol.[101] The health harms include those wholly attributable (AAF=100%, acute and chronic) such as alcohol liver disease and accidental poisoning and partially attributable (acute and chronic) such as throat cancer. A mean lag of 10 years was assumed for all chronic conditions. While such a lag may under/over-estimate the true mean time lag for some conditions, given the lack of consensus it is considered to be a plausible estimate. The time lag for acute conditions was assumed to be zero since benefits associated with a reduction of acute harms occur instantaneously.

The direct health cost component comprises of NHS cost reductions, measured by number of reduced illnesses, deaths and hospitalisations. This cost is broken down by hospital inpatient and day visits, hospital outpatient visits, accident and emergency visits, ambulance services, NHS GP consultations, practice nurse consultations, dependency prescribed drugs, specialist treatment services and other health care costs.

Health related QALYs are calculated by using the difference in health-related quality of life (utility) in individuals with alcohol health harms and the quality of life measured in the general population (or 'normal health').

[101] The 47 conditions included can be found on p.40 of the ScHARR Nice Report http://www.nice.org.uk/nicemedia/live/11828/45668/45668.pdf