



# Economic costs and benefits

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## IAS Factsheet

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## Social Costs of Alcohol

Many discussions of alcohol problems contain estimates of their economic costs to society. These include costs such as those to the health service of treating alcohol-related disease and to the criminal justice system of dealing with alcohol related crime and disorder.

In Europe, the social costs of alcohol are normally estimated to amount to between 1% and 3% of GDP. For the European Union in 1998, the social costs of alcohol have been estimated at between \$65 billion – \$195,000 billion at 1990 prices. These figures are comparable to, or even exceed, government expenditures on social security and welfare, and approximate to 25% of health service expenditure.<sup>1</sup>

However, this whole area of enquiry is complex and difficult. There are uncertainties and disagreements about what should be included as a cost and how costs are to be measured. There are a number of different methodologies that can be employed in estimating social costs, and these can have different implications for policy. For example, it is easy to misunderstand all social cost estimates as representing the amount of money that would be saved if there were no alcohol problems. In reality, not all costs are avoidable, and the avoidance or suppression of one activity might result in the adoption of alternative activities which generate costs of their own.

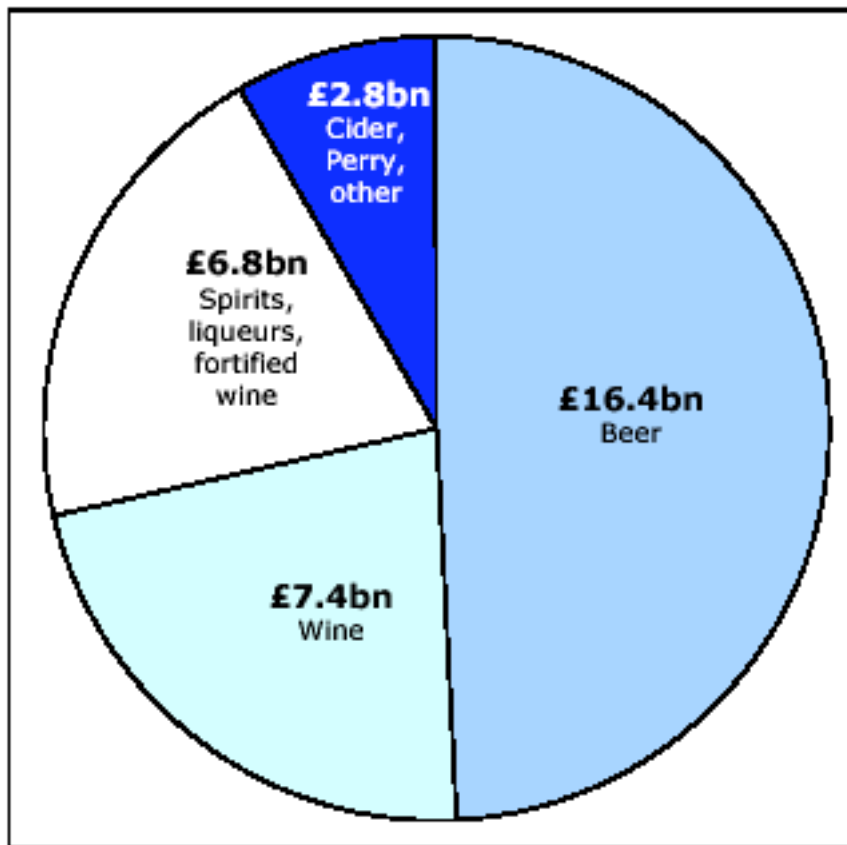
A basic question is, costs to whom? In relation to public policy, the costs falling exclusively on the alcohol consumers themselves are normally deemed irrelevant, the only ones that matter being the external costs i.e those which are transferred to third parties, - other individuals and businesses and the public purse.

This is because (in a free market and non-paternalistic society) it is only the external costs that are seen as justifying government intervention as a means of correcting market failure. For example, it is the external costs of alcohol that provide the social welfare justification for alcohol excise duties, for without this special tax, the consumer would escape making any direct contribution to the costs that alcohol consumption imposes on society arising from the need to provide policing and health services that would otherwise be unnecessary, costs not otherwise covered by the price of the product charged across the counter to the individual consumer.

The social costs of alcohol also need to be considered in relation to the economic benefits of alcohol consumption such as the provision of employment and tax revenues. These benefits may be more straightforward to calculate than some of the costs. However, in relation to the ultimate questions to which answers are often sought concerning whether in net terms society is better or worse off economically because of alcohol consumption, there is room for debate about both sides of the equation. If some of the costs can be challenged on the grounds, for example, that if people were not drinking, or not drinking too much, they would be doing something else that could be equally harmful, by the same token, if people were not spending money on alcohol they would be spending it on other goods or services that would also provide employment and tax revenues.

The total value of the UK alcoholic drinks market exceeds £30 billion.

## UK ALCOHOLIC DRINKS MARKET BY VALUE, 2000



Source: UK Drinks Market (2001)

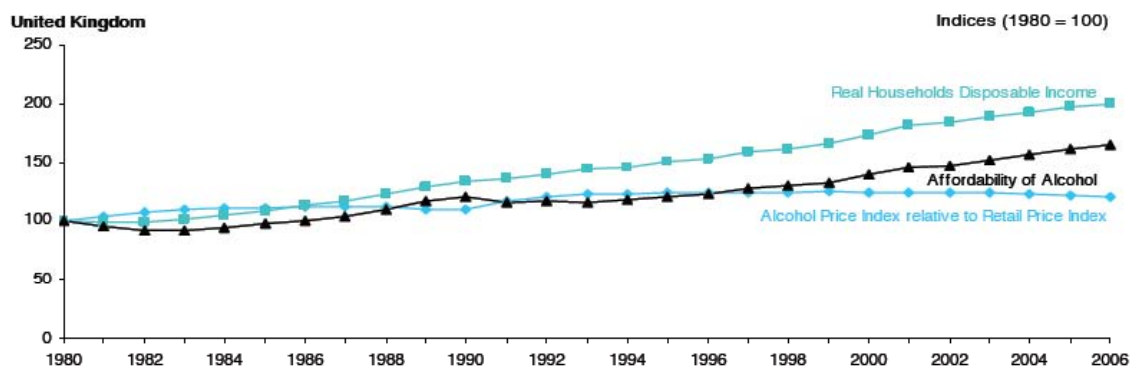
In 2001, £36,636,000,000 was spent on alcohol, equivalent to 5.8% of all consumer expenditure.

UK consumers spend more of their disposable income on alcohol than on, for example, personal goods and services, fuel and power or tobacco.

Britons spend around £17 billion in pubs each year. In 2002, the nightclub market was worth £1.7 billion.<sup>2</sup>

In comparison, Britons spent £7.2 billion on activities such as going to the cinema, theatre, museum and bingo combined. £7.4 billion was spent on gambling in 2002.

### Indices of alcohol price relative to retail price index, real households' disposable income and affordability of alcohol, 1980 to 2006<sup>3</sup>



Source: Focus on Consumer Price Indices, Office for National Statistics & Economic Trends, ONS, 2007

**Indices of alcohol price retail prices, alcohol price index relative to retail prices index (all items), real households' disposable income, and affordability of alcohol, UK, 1980 to 2006<sup>3</sup>**

	United Kingdom					Indices (1980 = 100)
	Alcohol price index	Retail prices index (all items)	Alcohol price index relative to Retail price index (all items)	Real households' disposable income	Affordability of alcohol index <sup>1</sup>	
1980	100.0	100.0	100.0	100.0	100.0	100.0
1981	116.9	111.9	104.5	99.5	95.2	95.2
1982	130.2	121.5	107.2	99.2	92.5	92.5
1983	140.0	127.1	110.1	101.2	91.9	91.9
1984	148.1	133.4	111.0	105.0	94.6	94.6
1985	157.4	141.5	111.2	108.6	97.6	97.6
1986	164.5	146.3	112.4	113.0	100.6	100.6
1987	171.2	152.4	112.3	117.2	104.3	104.3
1988	179.9	159.9	112.5	123.6	109.9	109.9
1989	190.1	172.3	110.3	129.4	117.4	117.4
1990	208.4	188.6	110.5	133.8	121.1	121.1
1991	234.3	199.7	117.3	136.5	116.4	116.4
1992	249.4	207.2	120.3	140.5	116.7	116.7
1993	260.4	210.5	123.7	144.2	116.6	116.6
1994	266.7	215.6	123.7	146.3	118.3	118.3
1995	276.8	223.1	124.1	150.1	121.0	121.0
1996	284.8	228.4	124.7	153.7	123.3	123.3
1997	292.7	235.6	124.2	159.5	128.4	128.4
1998	302.7	243.7	124.2	161.9	130.3	130.3
1999	310.6	247.4	125.5	166.4	132.5	132.5
2000	315.4	254.8	123.8	173.8	140.4	140.4
2001	322.0	259.3	124.2	181.3	145.9	145.9
2002	329.3	263.6	124.9	184.4	147.6	147.6
2003	336.3	271.2	124.0	188.9	152.3	152.3
2004	342.8	279.3	122.7	192.1	156.5	156.5
2005	349.6	287.2	121.7	197.0	161.8	161.8
2006	358.0	296.4	120.8	199.5	165.1	165.1

1. See Appendix A for affordability calculations

Sources: Alcohol price and retail prices (all items) indices: derived from Focus on Consumer Price Indices: tables 4.1 and 4.10 (Codes CBAA, CBAB, CHBD, CHAW), ONS

Real Households' disposable income: Economic Trends: table 2.5 (Code NRJR), ONS

## Total household expenditure on alcohol, 1980 to 2006<sup>3</sup>

United Kingdom	£ million at current prices					
	Beer	Spirits	Wine	Total household expenditure on alcohol <sup>2</sup>	Total household final consumption expenditure	Expenditure on alcohol as percentage of total household final consumption expenditure
1980	5,320	2,720	1,913	9,953	132,128	7.5
1981	5,971	2,908	2,274	11,153	146,508	7.6
1982	6,450	3,003	2,550	12,003	160,266	7.5
1983	7,138	3,265	2,867	13,270	175,908	7.5
1984	8,085	3,471	3,111	14,667	188,586	7.8
1985	8,762	3,831	3,404	15,997	205,737	7.8
1986	9,248	3,947	3,555	16,750	227,812	7.4
1987	9,886	4,145	3,773	17,804	250,274	7.1
1988	10,562	4,550	3,894	19,006	282,777	6.7
1989	11,216	4,611	4,117	19,944	310,168	6.4
1990	12,345	4,985	4,471	21,801	336,265	6.5
1991	13,274	5,296	4,848	23,418	358,107	6.5
1992	13,432	5,243	5,311	23,986	377,780	6.3
1993	13,605	5,524	5,650	24,779	399,875	6.2
1994	14,507	5,820	5,879	26,206	419,825	6.2
1995	14,842	5,284	6,529	26,655	441,085	6.0
1996	15,713	5,460	7,980	29,153	472,711	6.2
1997	16,703	5,911	8,168	30,782	501,290	6.1
1998	17,029	6,062	9,386	32,477	534,153	6.1
1999	17,230	6,769	9,667	33,666	567,994	5.9
2000	17,062	6,795	10,782	34,639	600,826	5.8
2001	17,342	6,971	11,690	36,003	632,496	5.7
2002	18,077	7,431	12,766	38,274	664,562	5.8
2003	18,878	7,738	12,240	38,856	697,160	5.6
2004	18,928	7,939	13,463	40,329	732,531	5.5
2005	18,936	8,165	13,820	40,921	760,032	5.4
2006	19,128	7,876	14,557	41,561	793,322	5.2

1. Excludes legitimate cross-border shopping which is included in tourists' expenditure

2. Total household expenditure on alcohol may not sum due to rounding

3. 'Spirits' includes spirits and liqueurs, 'Wine' includes grape and fruit wines, alcopops, cider and perry, 'Beer' includes beers, ales, lagers, porters, shandies and low alcohol beverages

4. In 2006, the data for expenditure on alcohol in 2003, 2004 and 2005 were revised by ONS. The data for total final household consumption were also revised for every year going back to 1948 by ONS mainly for benchmarking retail goods derived from the Annual Business Enquiry, 2004

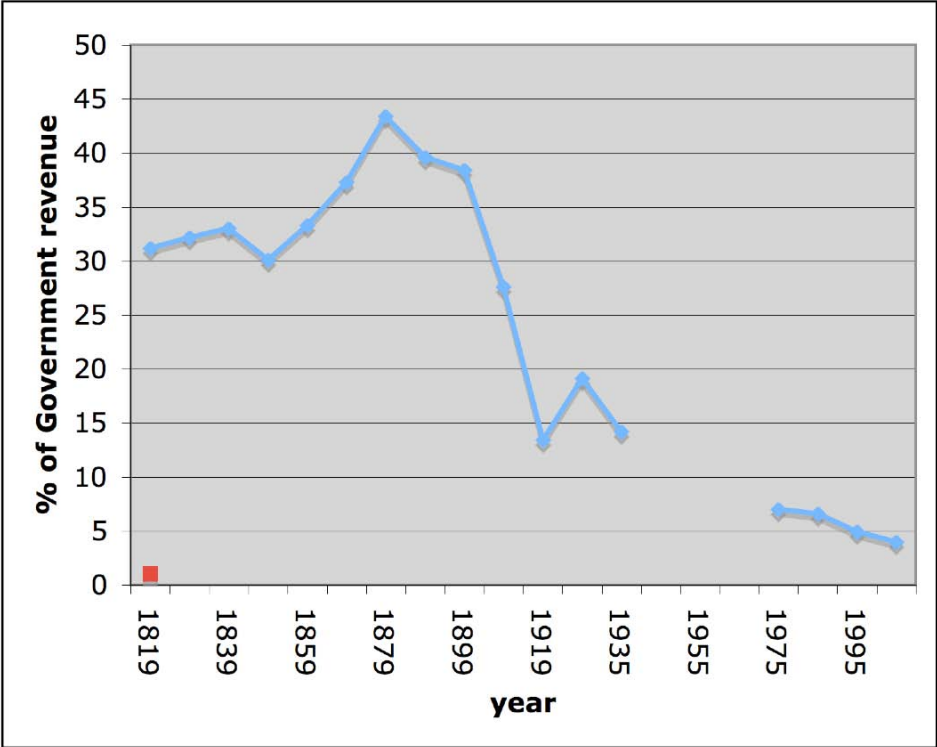
Source: Consumer Trends (Table ALC.CS: codes CCEL, CCSA, CCSB, CCRY; table OGS.CS: code ABJQ) ONS 2007

**Revenue from Alcohol Taxes**

Alcoholic drink is subject to both excise duty and VAT. Revenue to the Exchequer for alcohol is substantial and has been increasing for most of the last 30 years, though there was a small decrease in 2005/6.

However, as a proportion of total Government revenues the revenue from alcoholic drink has declined hugely as other forms of taxation have become more important. As can be seen from the graph, for a period in the 1860s alcohol taxes provided over 40% of total government tax revenue. Currently, alcohol provides less than 5% of total tax revenue. Receipts from alcohol have also declined in relation to GDP. (See Appendix)

**Percentage of Government revenue derived from alcohol taxes<sup>4</sup>**



Note: VAT was introduced in April 1973  
 All alcohol taxes are, of course, paid by the drinker

## Excise Duty Revenue from alcohol drink, 1980/81 to 2005/06<sup>5</sup>

United Kingdom		£ million at current prices			
	Estimated total receipts on alcoholic drinks <sup>1</sup>	Duty receipts on alcoholic drinks	Duty receipts on beer	Duty receipts on spirits	Duty receipts on wine, cider and perry
1980/81	4,080	2,601	1,048	1,153	400
1981/82	4,760	3,101	1,356	1,222	523
1982/83	4,810	3,021	1,526	965	530
1983/84	6,060	4,076	1,679	1,702	695
1984/85	5,940	3,760	1,825	1,242	693
1985/86	6,580	4,197	1,958	1,503	736
1986/87	6,670	4,184	1,969	1,465	750
1987/88	6,990	4,343	2,001	1,558	784
1988/89	7,340	4,512	2,104	1,574	834
1989/90	7,410	4,438	2,074	1,513	851
1990/91	8,110	4,856	2,229	1,703	924
1991/92	8,560	5,065	2,325	1,742	998
1992/93	8,680	5,108	2,378	1,661	1,069
1993/94	8,860	5,172	2,282	1,707	1,183
1994/95	9,450	5,560	2,534	1,776	1,250
1995/96	9,560	5,616	2,642	1,653	1,321
1996/97	9,840	5,631	2,629	1,593	1,409
1997/98	10,160	5,742	2,696	1,546	1,500
1998/99	10,590	5,966	2,702	1,643	1,621
1999/00	11,250	6,429	2,813	1,804	1,812
2000/01	11,640	6,664	2,850	1,842	1,972
2001/02	12,230	6,955	2,899	1,919	2,137
2002/03 <sup>2</sup>	12,920	7,297	2,935	2,273	2,089
2003/04	13,260	7,565	3,044	2,362	2,159
2004/05	..	7,876	3,101	2,385	2,390
2005/06 <sup>3</sup>	..	7,861	3,076	2,309	2,476

1. In addition to duty revenue, VAT is also paid on alcoholic drinks and estimated total receipts on alcoholic drinks includes VAT revenue on alcohol expenditure and Excise Duty receipts

2. Up to 28 April 2002, wine includes wine of fresh grape, made wine and wine and spirit-based coolers (coolers or ready-to-drink products are alcoholic lemonade and similar products). From that date, duty on spirit-based 'coolers' has been charged at the same rate as spirits, so spirit-based coolers are now included under spirits. This change in classification explains, at least in part, the decrease in wine and increase in spirits from 2002/03

3. The figures for 2005/06 are provisional. Data on estimated total receipts on alcoholic drink in 2004/05 and 2005/06 are not yet available

### Source:

HM Revenue & Customs Statistical Bulletins: Beer and cider, Made wine, Wine of fresh grape, Spirits, which can be accessed on the internet via the HM Revenue & Customs UK Trade Information Site at: <http://www.uktradeinfo.com/index.cfm?task=statbulltwo>

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It is stated by the Cabinet Office Strategy Unit that the alcoholic drinks industry generates approximately one million jobs across the whole supply chain, from farming through distribution to pubs, bars and restaurants. It is also stated that one in four of all new jobs created are in tourism-related industries, many of them being in hospitality and leisure.<sup>6</sup>

The British Beer and Pub Association stated that there are 1,396,000 people employed in hotels, restaurants, pubs and clubs.<sup>7</sup> However, this includes an unknown number of casual workers, so the

number of full-time jobs could be greatly less than this.

Against these benefits, the Strategy Unit<sup>8</sup> calculated that for England and Wales the costs of some but not all adverse consequences of alcohol consumption to be in the region of £20 billion.

<b>Overall Costs of Alcohol Misuse (£ millions)<sup>5</sup></b>	
	<b>Estimate</b>
<b>Health Care Costs</b>	
<b><i>Hospital inpatient (&amp; day) visits</i></b>	
Directly attributable to alcohol misuse	126.2
Partly attributable to alcohol misuse	399.8
Hospital outpatient visits	445.6
Accident and emergency visits	305.2
Ambulance services	205.0
Practice nurse consultations	19.3
NHS GP consultations	48.7
Laboratory tests	N/A
Dependency prescribed drugs	1.6
Other health care costs	35.3
Specialist treatment services	96.2
<b>Workplace and Wider Economy Costs</b>	
Lost output due to absenteeism	1,785.9
Lost output due to reduced employment	2,153.7
Lost output due to reduced employment efficiency	N/A
Lost output due to premature death	2,481.8
<b>Costs of alcohol-related and alcohol specific crime</b>	
<b><i>Criminal Justice System costs</i></b>	
Alcohol specific offences	29.9
Alcohol-related offences	1,720.4
Property/health and victim services	2,521.2
Costs in anticipation of crime (alarms etc)	1,494.6
Lost productive output of victims	969.8
Emotional impact costs for victims of crime	4,678.6
<b>Drink driving</b>	
Criminal Justice System costs	77.3
Cost of drink-driving casualties	
<b>Lost output</b>	
Serious casualties	33.8
Slight casualties	25.9
<b>Medical and ambulance</b>	
Serious casualties	20.5
Slight casualties	11.0
<b>Human costs</b>	
Serious casualties	232.8
Slight casualties	123.8
<b>Total Costs</b>	<b>20,044.0</b>

The Alcohol Needs Assessment Research Report, published in November 2006, identified that £217 million was spent in 2003-4 by Primary Care Trusts and local authorities to support alcohol treatment.<sup>9</sup>

**Annual societal cost of alcohol misuse in Scotland at 2001/02 prices.<sup>10</sup>**

<b>Health service resource use associated with:</b>	<b>Annual resource use</b>	<b>Annual cost (£ million)</b>
GP consultations	211,516	3.6
GP-prescribed drugs	6% of drugs prescribed by GPs for substance dependency	0.2
Consultations with practice nurses, district nurses and health visitors	No information currently recorded. Unable to quantify.	
Laboratory tests	147,256	1.8
Hospitalisation days	257,775	54.3
Accident and emergency attendances	187,951	9.6
Outpatient visits	93,999	8.1
Day hospital attendances	44,800	3.1
Community psychiatric team visits	8% of total community psychiatric team expenditure	4.0
Ambulance journeys	64,382	9.1
Health promotion/prevention by Health Education Board for Scotland (HEBS) Scottish executive and health boards	HEBS, Drinkwise, Alcohol Development Officers	1.2
Health board expenditure to alcohol-related voluntary organisations	Funding to 25 organisations	0.6
<b>Total for NHS Scotland</b>		<b>95.6</b>
<b>Social work services and associated organisations resource use:</b>		
Children and Families	24% of total expenditure on children's and families' social work	71.8
Community Care	20% of social work expenditure on the substance misuse client group	2.2
Criminal Justice social work	27% of total expenditure on criminal justice	11.1
Children's Hearing System	6% of expenditure	0.8
Voluntary and private sector alcohol services	Expenditure directly on alcohol misuse unavailable	
<b>Total for social work services</b>		<b>85.9</b>

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<b>Criminal justice system and emergency services resource use associated with:</b>	<b>Annual resource use</b>	<b>Annual cost (£ million)</b>
Custodial sentences	565,172 days in prison	46.1
Court time and legal costs for prosecutions	49,336 offences proceeded against	19.8
Property damage	Unable to quantify	
Police time	26% of all expenditure	201.8
Fire services time on alcohol-related road accidents	Unable to quantify	
Fire service time on alcohol-related fires	Unable to quantify	
Drink-driving campaign	£141,000 on the drink driving campaign and £70,000 to be spent on research	0.2
<b>Total for criminal justice system and emergency services</b>		<b>267.9</b>
<b>Wider economic costs due to :</b>	<b>Annual resource use</b>	<b>Annual cost (£million)</b>
Inability to work (unemployment)	3,536 individuals	84.0
Working days lost (absenteeism)	1,164,344 days absent from work	119.0
Working days lost caring for those with alcohol problems	Unable to quantify	
Premature mortality in the working population (discounted)	1,641 deaths resulting in 12,546 working years of life lost	201.5
Reduced productivity in the workplace	Unable to quantify	
<b>Total wider economic costs</b>		<b>404.5</b>
<b>Human costs</b>		
Premature mortality in the non-working population (discounted)	15,457 non-working life years lost	216.7
Morbidity	Unable to quantify the cost of reduced quality of life	
<b>Total human costs</b>		<b>216.7</b>
<b>Total annual societal cost</b>		<b>1070.6</b>

In 2008 the Scottish Executive published an updated estimate of the social costs presented in 2006/7 values. The estimated costs below are described as not exhaustive and as only indicative of the scale and scope of the effects of alcohol in Scotland.<sup>1</sup>

#### Summary of costs of alcohol misuse 2006/7

<b>Resource Category</b>	<b>Cost 2006/7 (£million)</b>
NHS Scotland	405
Social Work Services	170
Criminal Justice & Fire Service	385
Wider economic costs	820
Human/social costs	470
<b>Total</b>	<b>2250</b>

#### Summary of NHS costs attributable to alcohol misuse 2006/7

<b>Resource Category</b>	<b>Cost 2006/7 (£million)</b>
GP/Practice consultations	12
GP prescribed drugs	0.77
GP initiated lab tests	0.84
Hospitalisation days (acute)	146
Hospitalisation days (psychiatric)	89
A & E attendances	32
Outpatient appts	64
Community psychiatric service	13
Day hospital	3
Ambulance	32
Health improvement/specific funding	13
<b>Total</b>	<b>405</b>

### Summary of social work cost attributable to alcohol misuse 2006/7

Resource Category		Cost 2006/7 (£million)
Children's hearings (SCRA)		2
Social work:		
	Children's hearings	0.3
	Children & families	153
	Substance misuse	11
	Community care	2
	Criminal justice	33
<b>Total</b>		<b>169</b>

### Summary of criminal justice & emergency services cost attributable to alcohol misuse 2006/7

Resource Category	Cost 2006/7 (£million)
Police time	288
Court and legal costs associated with <i>prosecutions</i>	19
Custodial sentences	78
Fire service	6
<b>Total</b>	<b>385</b>

### Summary of 'economic' cost attributable to alcohol misuse 2006/7

Resource Category	Cost 2006/7 (£million)
Presenteeism	203
Absenteeism	190
Unemployment	96
Premature death	328
<b>Total</b>	<b>818</b>

### Summary of human cost attributable to alcohol misuse 2006/7

Resource Category	Cost 2006/7 (£million)
Consequences of crime	145
Homicide	51
Deaths in fires	23
Excess mortality	248
<b>Total</b>	<b>466</b>

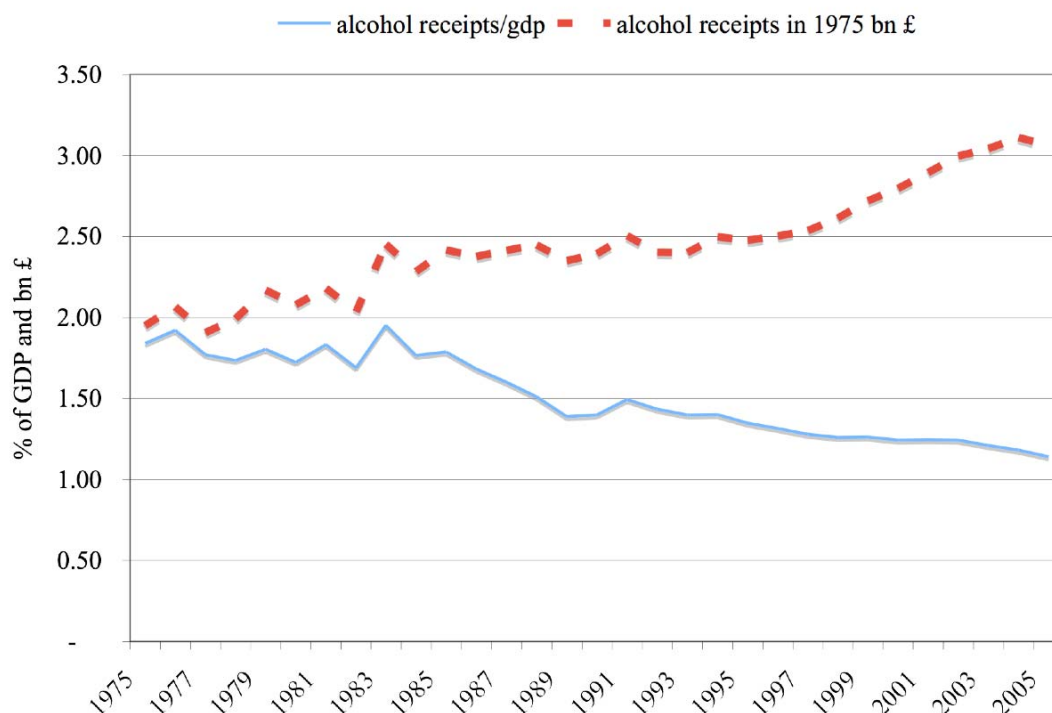
Institute of Alcohol Studies  
8 May 2008

## Appendix

### The Alcohol Revenue of the Exchequer by Dr. Gustavo Rinaldi of the Institute of Alcohol Studies

Figure 1 shows that the revenue<sup>11</sup> at constant prices decreased in the fiscal year 2005/2006, but has been growing for most of the last thirty years. In the fiscal year 1975/1976 the exchequer had a revenue of about £2 billion and it was, in real terms, 50% bigger in the fiscal year 2005/2006.

In Figure 1 we can observe that while revenues have grown in absolute values, in relative terms, in percentage of GDP, alcohol revenues have gone down by more than 40%. If, in 1976, alcohol receipts were equivalent to about 2% of GDP (1.92%), in 2005 they were very close to 1% (1.14%) of GDP. This is more impressive if we take into account the projection of the



**Figure 1 Alcohol receipts: in value and as a percentage of GDP**

Chancellor<sup>12</sup> for the period 2004/2005 - 2010/2011. The Chancellor forecasts that the total sum deriving from excise duties (fuel, alcohol and tobacco duties) should go down from 3.3 to 2.9 per cent of GDP. Always in relative terms, the Chancellor foresees changing national insurance contributions from 6.6 to 7.1 per cent of GDP, income tax from 10.8 to 11.8 and the so called “other taxes and royalties”, which include council tax and money paid into the National Lottery Fund as well as other central government taxes, from 6.6 to 7.2 per cent of GDP. It seems that taxes on labour and houses can go up, but taxes on alcohol and fuel should represent an always smaller percentage of our income. It is not that the Chancellor has any objection to taxing people: he is just unwilling to keep constant the percentage of revenue derived from alcohol.

It could be argued that the unwillingness to tax alcohol arises from the problem of smuggling and cheap legal imports from across the channel. However, a study specifically focused on this topic (Crawford et al. 1999) shows that the effects of smuggling and personal purchases are extremely limited and tend not to change demand sensitivity to price. Similarly in the years 2001-2005 personal imports (purchases done abroad by consumers) of beer have represented 2.34% of total purchases, 1.3% in 2005 (BBPA, 2006:23). Finally, we know that in 2003, the last available figure, the value of smuggled alcoholic drinks represented just 1.4% of the value of all alcoholic drinks consumed in the UK. On these bases it is hard to argue that personal imports and smuggling are a serious limitation to the powers of the UK government in taxing alcohol. Similarly we cannot argue that EU obligations limit this power. EU obligations merely prevent Britain from taxing wine in a discriminatory way.

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<sup>1</sup> E.Gutjahr & G.Gmel in Klingemann & Gmel

<sup>2</sup> Mintel as reported on Daily Political Newswire 2 October 2003

<sup>3</sup> Statistics on alcohol, England, 2007 – The Information Centre for Health & Social Care, 2007

<sup>4</sup> Data taken from British Beer and Pub Association Statistical Handbooks and G B Wilson – Alcohol and the Nation (Nicholson & Watson, London, 1940)

<sup>5</sup> Statistics on alcohol, 2006: The Information Centre, 2006

<sup>6</sup> Address given by Andrew Cunningham at conference: Managing Nightlife in Urban Areas, 27 November 2001

<sup>7</sup> British Beer and Pub Association Statistical Handbook 2003-11-14

<sup>8</sup> Strategy Unit: Alcohol Misuse: How much does it cost? September 2003

<sup>9</sup> Caroline Flint - Answer to Parliamentary Question 100771 – Burrowes – Alcohol Misuse – 23 November 2006

<sup>10</sup> Scottish Executive Health Department, *Alcohol Misuse in Scotland: Trends and Costs* by Julian F Guest and Susan Varney (Catalyst Health Economics Consultants Ltd)

<sup>11</sup> (BBPA, 2006:49). Prices have been deflated using the CPI (BBPA, 2006:48). GDP from Eurostat.

<sup>12</sup> Table C9 at page 266 of the budget 2006.

<sup>13</sup> Costs of Alcohol Use and Misuse in Scotland. ASD – Health. April 2008