

## **Taxing the UK Drugs Market**

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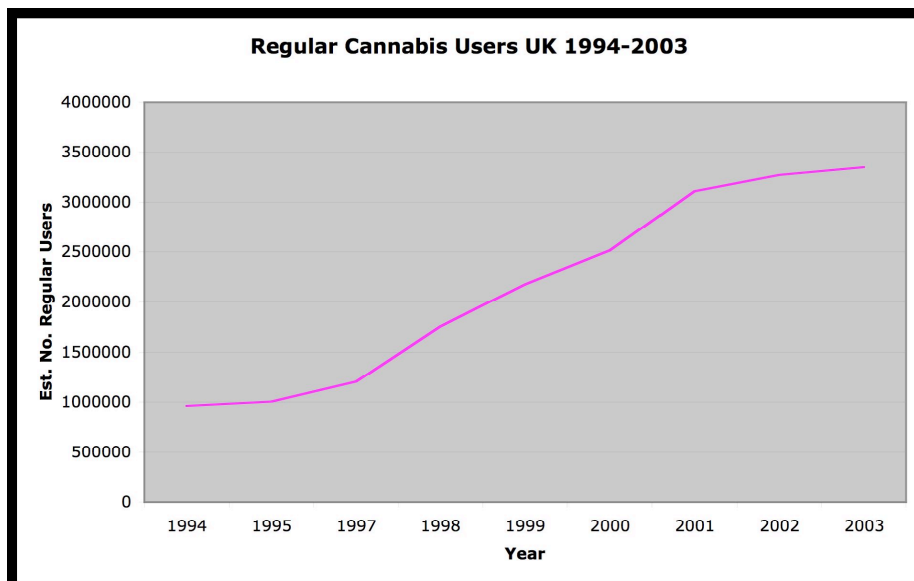
IDMU has conducted surveys of drug consumption in the UK over the past 10 years, involving a total of nearly 15000 UK drug users recruited at pop festivals and other outdoor events using anonymous self-completed questionnaires, collecting data on frequency of use of a range of different drugs, monthly spending on these drugs, among other data including whether the respondent had been ‘busted’ for cannabis or other drugs.

### **Estimating Prevalence**

#### **Cannabis**

An estimate of the number of regular cannabis users in the UK can be arrived with reference to the proportion of the sample who have been arrested for cannabis offences, their average duration of cannabis use (average age minus age first used cannabis) and the total number of cannabis convictions in the UK over the periods in question (historic data from Home Office statistical bulletins). Between 1945 and 2002, there were around 1.23 million cannabis convictions in the UK, the vast majority in the past 10 years.

<b>Year</b>	<b>% Busted Cannabis offences</b>	<b>Avg Duration (yrs)</b>	<b>Busts /use year</b>	<b>Convictions over avg duration</b>	<b>% Regular Users in survey</b>	<b>Estimated Number of Regular Users</b>
1994	21.2%	9.18	2.31%	270250	75.5%	961,073
1995	25.3%	8.69	2.91%	295695	85.9%	1,005,198
1997	21.0%	9.45	2.23%	362966	70.1%	1,209,383
1998	23.2%	12.78	1.82%	605532	67.3%	1,753,261
1999	21.4%	11.48	1.86%	655547	71.0%	2,175,048
2000	19.6%	11.42	1.71%	718519	68.5%	2,516,565
2001	18.2%	11.54	1.58%	768654	73.6%	3,106,950
2002	15.1%	12.80	1.18%	850228	58.2%	3,273,777
2003	17.0%	11.39	1.50%	839902	68.0%	3,350,801
<b>1994-2003</b>	<b>18.2%</b>	<b>10.89</b>	<b>1.67%</b>	<b>818891</b>	<b>67.9%</b>	<b>2,150,228</b>



### Prevalence of other drugs

Taking the survey data as a whole, these would represent approximately 3.1 million drug users in the UK (not all of whom use cannabis). By applying the proportions of survey respondents who reported lifetime and/or regular use of other drugs, an estimate of prevalence can be calculated.

Drug	Total Ever	%	Regular	%	Lifetime	Regular	Occ/Exp
Amphetamine	6174	42.4%	957	6.6%	1333385	206681	1126704
Cocaine	5154	35.4%	852	5.9%	1113098	184005	929093
Crack	1026	7.1%	107	0.7%	221583	23109	198474
Heroin	1257	8.6%	133	0.9%	271471	28724	242748
Ecstasy	5592	38.4%	1832	12.6%	1207692	395653	812039
LSD	5883	40.4%	685	4.7%	1270538	147938	1122600
<b>Base</b>	<b>14552</b>		<b>Total Users @ 2003</b>		<b>3142763</b>		

It is accepted that estimates of heroin and crack cocaine are likely to be low, due to the methods of data collection at pop festivals and other outdoor venues frequented by recreational drug users, where problem drug users tend to be unwelcome, and unable to afford the entry prices. For historical reasons, our figures are likely to overestimate the current value of the LSD and Amphetamine which have declined in popularity in favour of ecstasy and cocaine.

Bramley-Harker [2001]<sup>1</sup> of NERA estimated drug prevalence and spending for the Home Office, and arrived at the following figures for prevalence of regular users for the following drugs, from prevalence of drug positive urine specimens from arrestees<sup>2</sup>. The methodology was effective at detecting users of stimulants and opiates, who tend to be more likely to come to police attention than users of cannabis and hallucinogens.

Drug	Regular Users
Cannabis	595797
Amphetamines	116725
Cocaine	237180
Crack	102606
Heroin	156166
Ecstasy	76354

The British Crime Survey is a household survey which asks interviewees whether they have ever used a range of drugs and if so whether they have used these in the past year or past month. Bennett found that approximately 25% of users with positive tests failed to report use of that drug when interviewed, suggesting their estimates of prevalence should be increased by approximately 33%. The BCS figures for 2000, the most recent year with full details published, were as follows

Drug	Lifetime	Past Year	Past Month
Cannabis	4839231	2330000	1510000
Amphetamine	2258308	562414	188750
Cocaine	1075385	572000	253000
Crack	215077	107000	53000
Heroin	215077	95000	60000
Ecstasy	1182923	401724	215714
LSD	1182923	160690	52069

Maximum and Minimum Figures for regular users. Regular users typically account for in excess of 80% of the value of the market for most commodities, and drugs are no exception.

Drug	IDMU	NERA Regular	BCS Month	Min Estimate	Max Estimate
Cannabis	3,350,801	595797	1510000	595797	3,350,801
Amphetamine	206681	116725	188750	116725	206681
Cocaine	184005	237180	253000	184005	253000
Crack	23109	102606	53000	23109	102606
Heroin	28724	156166	60000	28724	156166
Ecstasy	395653	76354	215714	76354	395653
LSD	147938	-	52069	52069	147938

### Monthly Spending on Drugs

Respondents to IDMU surveys are asked to state how much they spend on a range of drugs during an ‘average month’, and how often they use a particular drug. Regular use is categorised as use monthly or more often.

Drug	Regular	Occasional
Cannabis	£ 86.67	£ 36.45
Amphetamines	£ 102.24	£ 26.31
Cocaine	£ 168.74	£ 33.90
Crack	£ 444.59	£ 27.59
Heroin	£ 447.40	£ 24.65
Ecstasy	£ 39.62	£ 19.23
LSD	£ 18.89	£ 6.99

### Value of the UK Drugs Market

#### Spending by regular users

Regular users of any particular drug account for the bulk of spending on that drug. Applying the IDMU spending data to the minimum and maximum prevalence estimates for regular users, annual spending by regular users can be calculated at between £1.46 billion and £5.86 billion per year.

Drug	Minimum Estimate	Maximum Estimate	Monthly Spending	Minimum Value	Maximum Value
Cannabis	595797	3,350,801	£ 86.67	£ 619,652,712	£ 3,484,967,072
Amphetamine	116725	206681	£ 102.24	£ 143,207,568	£ 253,572,785
Cocaine	184005	253000	£ 168.74	£ 372,588,044	£ 512,294,640
Crack	23109	102606	£ 444.59	£ 123,288,364	£ 547,411,218
Heroin	28724	156166	£ 447.40	£ 154,213,411	£ 838,424,021
Ecstasy	76354	395653	£ 39.62	£ 36,301,746	£ 188,109,262
LSD	52069	147938	£ 18.89	£ 11,803,001	£ 33,534,586
<b>Total Spending by Regular Users</b>				<b>£ 1,461,054,846</b>	<b>£ 5,858,313,585</b>

#### Spending by Occasional Users

Total spending by occasional drug users would be worth roughly £687 million per year.

Spending on Drugs by Occasional Users					
Drug	Occasional Users	Monthly Spending	% of min	% of max	Total Occasional Users Value
Cannabis	820,000	£ 36.45	37%	9%	£ 358,668,000
Amphetamine	373664	£ 26.31	45%	32%	£ 117,973,133
Cocaine	319000	£ 33.90	26%	20%	£ 129,769,200
Crack	54000	£ 27.59	13%	3%	£ 17,878,320
Heroin	35000	£ 24.65	6%	1%	£ 10,353,000
Ecstasy	186010	£ 19.23	54%	19%	£ 42,923,633
LSD	108621	£ 6.99	44%	21%	£ 9,111,103
<b>Total Spending by Occasional Users</b>			<b>32%</b>	<b>10%</b>	<b>£ 686,676,390</b>

### Overall size of UK Drugs market:

The total size of the UK drugs market would thus be estimated at between £2.15 Billion and £6.54 Billion per annum.

<b>Total Value of UK Drugs Market</b>				
<b>Drug</b>	<b>Minimum Value</b>	<b>Maximum Value</b>	<b>Share of min</b>	<b>Share of max</b>
Cannabis	£ 978,320,712	£ 3,843,635,072	46%	59%
Amphetamine	£ 261,180,701	£ 371,545,918	12%	6%
Cocaine	£ 502,357,244	£ 642,063,840	23%	10%
Crack	£ 141,166,684	£ 565,289,538	7%	9%
Heroin	£ 164,566,411	£ 848,777,021	8%	13%
Ecstasy	£ 79,225,379	£ 231,032,896	4%	4%
LSD	£ 20,914,104	£ 42,645,689	1%	1%
<b>Total</b>	<b>£ 2,147,731,236</b>	<b>£ 6,544,989,974</b>	<b>100%</b>	<b>100%</b>

### Potential for Excise Duties

#### 2003 UK Drug Prices & Profit Margins:

Current prices of drugs, from 2003 survey. Production costs are based on the following:

*Cocaine/Crack* - \$2000 per kilo (Columbia) at 70%, ounce/gram @ 40%

*Cannabis Resin* - £150 per kilo (Morocco), UK Kilo and 1/8oz prices

*Cannabis Skunk* – estimated £170 per kilo in electricity, nutrients and equipment, UK Kilo and 1/8oz prices

*Amphetamine/Heroin* – Pharmaceutical prices at 100%, retail at typical street purity, wholesale amphet at ‘base’ prices @ 40%, street @ 14%, heroin at 50% purity

*LSD/Ecstasy* – guesstimates for production, UK 100 tab and 1 tab prices

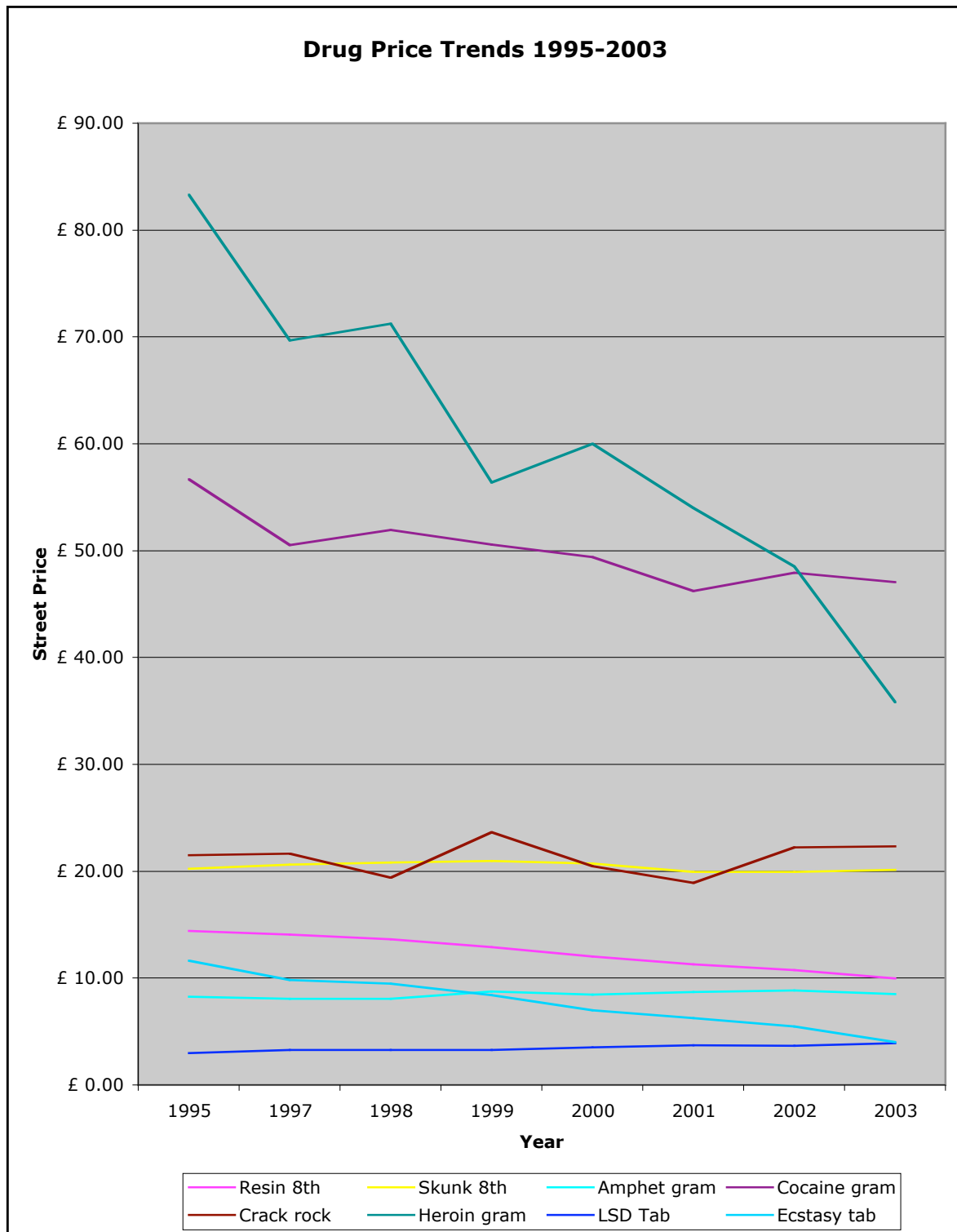
<b>2003 UK Drug Prices per gram equivalent</b>			
<b>Drug</b>	<b>Production Cost</b>	<b>Distributor Price</b>	<b>Max Retail Price</b>
Cannabis Resin	£ 0.15	£ 0.90	£ 2.85
Cannabis Skunk	£ 1.70	£ 2.85	£ 5.75
Amphetamine*	£ 6.86	£ 12.67	£ 60.64
Cocaine*	£ 1.20	£ 35.10	£ 117.65
Crack*	£ 1.50	£ 40.17	£ 139.63
Heroin*	£ 12.30	£ 57.14	£ 207.20
LSD†	£ 0.20	£ 1.51	£ 3.91
Ecstasy†	£ 0.20	£ 1.58	£ 4.02

\* Per pure gram - † Per tab/dose

#### UK Drug Price Trends

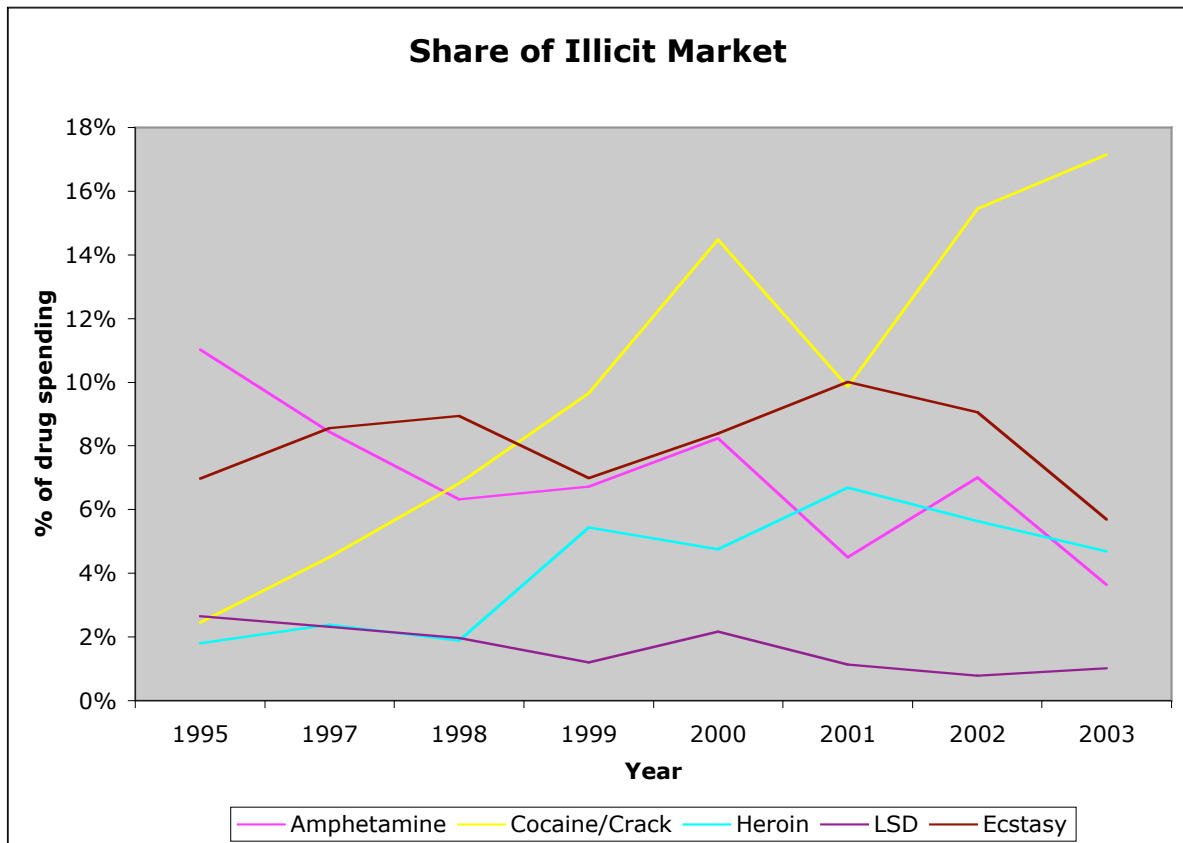
Prices of cannabis resin, ecstasy and heroin have fallen sharply in recent years (all by 50% or more), although skunk, amphetamine and cocaine prices have remained stable, and LSD prices have increased over the past 10 years.

<b>UK Drug Price Trends 1995-2003</b>								
<b>Drug</b>	<b>1995</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Resin 8th	£ 14.39	£ 14.06	£ 13.64	£ 12.88	£ 12.01	£ 11.29	£ 10.74	£ 9.96
Skunk 8th	£ 20.21	£ 20.63	£ 20.82	£ 20.98	£ 20.70	£ 19.94	£ 19.95	£ 20.14
Amphet gram	£ 8.28	£ 8.07	£ 8.04	£ 8.74	£ 8.43	£ 8.71	£ 8.85	£ 8.49
Cocaine gram	£ 56.66	£ 50.51	£ 51.92	£ 50.55	£ 49.38	£ 46.20	£ 47.95	£ 47.06
Crack rock	£ 21.50	£ 21.64	£ 19.38	£ 23.65	£ 20.48	£ 18.91	£ 22.23	£ 22.34
Heroin gram	£ 83.33	£ 69.69	£ 71.25	£ 56.40	£ 60.00	£ 54.00	£ 48.54	£ 35.83
LSD Tab	£ 2.99	£ 3.25	£ 3.28	£ 3.26	£ 3.53	£ 3.73	£ 3.68	£ 3.91
Ecstasy tab	£ 11.65	£ 9.84	£ 9.46	£ 8.38	£ 6.99	£ 6.24	£ 5.47	£ 4.02



### Market Shares of Illicit Drugs

Cannabis accounts for the vast majority of spending on drugs in the UK, and clear trends are apparent, notably an increase in the use of cocaine and crack at the expense of amphetamine, and an increase in heroin usage. Use of LSD is in long-term decline, and ecstasy use may have peaked, with a fall in market share over the past two years,



The key to maximising excise revenues is to keep the user price low enough to undercut the illicit market, learning the lessons of cross-channel alcohol and tobacco smuggling. Furthermore, if the worldwide market was liberalised, the ‘crime tariff’ would be reduced across the board, in the illicit as well as the newly-legitimate and licensed market.

The fall in prices of cannabis resin, heroin and ecstasy has highlighted the potential for the illicit market to cut prices, and the criminal organisations currently involved in smuggling drugs have the infrastructure in place to continue importing from producer countries. The fall in the prices of these drugs shows no signs of bottoming out at the present time, and it is conceivable that cannabis resin could become as cheap as £5 per 1/8oz (3.5g), ecstasy at £2 per tablet and heroin at £20 per gram, within the next 5 years if current trends continue.

One solution is for the legitimate market, whether state/UN controlled, or licensed private companies, to purchase the drugs at source from the producers, paying a better price than the smuggling cartels, and depriving the cartels of their raw material. For the heroin and cocaine markets, this would be cheaper than the current worldwide expenditure on interdiction and within the criminal justice systems treatment of offenders.

### Excise Duty Levels & Estimated Revenues

Realistic levels of excise duty would not therefore exceed the following levels, representing approximately 50% of the anticipated retail price. Duty levels could be related to purity or potency of the drug, as is the case with alcohol.

- Cannabis Resin (<10% THC) - £1 per gram*
- Cannabis Skunk (>10% THC) - £2 per gram*
- Amphetamine (15% purity) - £3 per gram*
- Cocaine (40% purity) - £15 per gram*
- Crack (80% purity) - £30 per gram*

Heroin (50% purity) - £15 per gram

LSD – £1 per tab (80 µg)

Ecstasy - £1 per tab (80mg)

At the above levels of duty, and the minimum/maximum market estimates above, the potential duty revenues which could be raised would fall between £878 Million and £2.86 billion. Also, assuming duty represents 50% of the retail price, the VAT revenues from retail sales would fall between £307 million and £1 billion, the total take for the exchequer falling between £1.185 billion and £3.864 billion per annum.

<b>Potential Excise Duty Revenues</b>						
<b>Drug</b>	<b>Unit price 2003</b>	<b>Min Units</b>	<b>Max Units</b>	<b>Duty per unit</b>	<b>Min Duty</b>	<b>Max Duty</b>
Resin	£ 2.85	154471691	606889748	£ 1.00	£ 154,471,691	£ 606,889,748
Skunk	£ 5.75	93578503	367652050	£ 2.00	£ 187,157,006	£ 735,304,101
Amphetamine	£ 8.49	30763333	43762770	£ 3.00	£ 92,290,000	£ 131,288,310
Cocaine	£ 47.06	10674825	13643516	£ 15.00	£ 160,122,368	£ 204,652,733
Crack	£ 22.34	6319010	25303918	£ 30.00	£ 189,570,301	£ 759,117,553
Heroin	£ 35.83	4592978	23689004	£ 15.00	£ 68,894,674	£ 355,335,063
LSD	£ 3.91	20262245	59087697	£ 1.00	£ 20,262,245	£ 59,087,697
Ecstasy	£ 4.02	5202513	10608380	£ 1.00	£ 5,202,513	£ 10,608,380
<b>Total</b>		<b>325865099</b>	<b>1150637084</b>		<b>£ 877,970,799</b>	<b>£ 2,862,283,586</b>
				VAT 17..5%	£ 307,289,780	£ 1,001,799,255
				<b>Total</b>	<b>£ 1,185,260,579</b>	<b>£ 3,864,082,841</b>

### Domestic Cannabis Cultivation

Domestically produced cannabis currently accounts for over 50% of the UK Market. Systems range from small cupboards to industrial units, with the typical system involving a spare room partitioned into separate areas for growth and flowering. It is reasonable to assume that such levels of production would continue or even increase following a change in the law.

Growers could be licensed to cultivate cannabis for personal use or social supply, with the licence permitting cultivation (flowering) of cannabis plants up to a certain surface area and/or wattage of lighting, based on a reasonable estimate as to the production capacity of a typical system of such size.

Enforcement of licensing conditions for domestic cultivation would be one of the duties of Offdrug, with growers subject to random inspections to ensure conditions are not breached. Any unlicensed growers would face the full force of the law.

### Expenditure Savings

Based on separate estimates from the late 1990s<sup>34</sup>, the current cost of enforcing drug prohibition is likely to fall between £1.5 billion and £2 billion per annum. The cost of processing users and traffickers through the criminal justice system would be dramatically reduced in a licensing regime, although some costs would remain for prosecution of unlicensed suppliers or growers.

### Knock-on benefits

Our 1994-1997 surveys<sup>5</sup> found that users who had a drugs record earned, on average, approximately £1000 per year less than those users with a clean criminal record. The benefits of financial activity would be most keenly felt among those users most dependent on

state benefits but who, given a clean supply of drugs, could be expected to develop marketable skills. This would result in reduced benefit expenditure and income tax revenues, possibly to the extent of a further £1 billion per year.

### New Costs

There would be additional cost implications in the following areas:

- Excise duty collection and testing of samples for purity to determine duty payable.
- Regulation and processing of licence applications (Offdrug)
- Policing of compliance with licensing regulations
- Law enforcement costs in respect of smuggling and unlicensed sales
- Health education, prevention costs & treatment costs (some health costs may be offset via wider medicinal uses of cannabis)

Total costs of Offdrug would be anticipated in the region of £250-£500 million per annum

### Models of Distribution

The preferred model of distribution would aim to satisfy existing demand without attracting new customers, via regulation. Different drugs would require different levels of regulatory control.

*Cannabis Cafés* – These are successful in the Netherlands, allowing sales to the public with a maximum which could be purchased at any one time

*Members Clubs* – These could operate on a model similar to Working Men’s clubs, providing drugs to members, with reciprocal arrangements for affiliated clubs in other conurbations

*Licensing Users* – A user of current class A drugs could be licensed to purchase a certain quantity of drugs (e.g. from a chemist), having to produce a ‘smart card’ to do so.

*General sales (Off Licence)* – Cannabis products could be sold commercially via off licences and tobacconists. This model should not be considered for other drugs, for which some restraint on consumption is desirable.

*Prescription* – Similar to licensing users, although the control of supply is in the hands of the doctor rather than ‘Offdrug’

### Changes in Prevalence

One anticipated consequence of a change in the law would be an increase in the prevalence of drug use. IDMU surveys have addressed this question by asking respondents who had not yet used a drug whether or not they would consider doing so in the future.

Market Saturation				
Drug	Might Use	Ever Used	Total Non-Users	Potential Increase
Cannabis	31	9554	4998	0.32%
Amphetamine	171	6174	8378	2.77%
Cocaine	306	5154	9398	5.94%
Crack	223	1026	13256	21.73%
Heroin	193	1257	13295	15.35%
LSD	381	5883	8669	6.48%
Ecstasy	304	5592	8960	5.44%

The figures for cannabis are skewed by the targeting of cannabis users within the survey methodology. The figures for crack and heroin do give cause for concern, although these partially reflect the relatively small numbers of respondents who had tried these drugs, the vast majority of whom were experimental or occasional users.



It is likely that prevalence of cannabis use would increase most dramatically among the older generation, in particular pensioners using the drug medicinally, as the generation most likely to be deterred by illegality, rather than regarding it as a challenge as do many younger users. It is possible that if cannabis is no longer forbidden it may lose much of its sweetness among the younger generation, and fall out of fashion as a symbol of rebellion.

## Conclusion

Licensing and regulating the drugs trade would require international agreement to work effectively, with purchase of drugs at source from producers in developing countries. The UK could go it alone, and licence domestic cultivation and supply, although there will always be a demand for higher quality cannabis resins (e.g. Moroccan Pollen, Charas, Nepalese, Minali etc), although this could partially be supplied by (potentially very high potency) resins produced from domestic plants.

The financial effects of legalisation and regulation of the drugs trade would have benefits – in excise duty, VAT, general economic growth and expenditure savings, with modest additional expenditure required to establish a regulatory authority and give the regulator effective ‘teeth’ to tackle abuses of the system.

<b>Revenue Implications</b>		
<b>Item</b>	<b>Minimum</b>	<b>Maximum</b>
Excise Duty	£ 877,970,799	£ 2,862,283,586
VAT	£ 307,289,780	£ 1,001,799,255
Income Tax	£ 1,000,000,000	£ 1,000,000,000
Savings	£ 1,500,000,000	£ 2,000,000,000
Total	£ 3,685,260,579	£ 6,864,082,841
New costs	<b>-£ 250,000,000</b>	<b>-£ 500,000,000</b>
<b>Net Benefit</b>	<b>£ 3,435,260,579</b>	<b>£ 6,364,082,841</b>

Regulation and licensing of the drugs trade could reasonably be expected to result in a net gain to the exchequer of between £3.4 billion and £6.4 billion per annum.

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5 October 2004

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## References

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