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LICENSING AND REGULATION OF THE CANNABIS MARKET IN ENGLAND & WALES: TOWARDS A COST- BENEFIT ANALYSIS

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Prof. Stephen Pudney

Professor Pudney described the research project, which aimed to take a detailed look at the licensing and regulation of a cannabis market. He then presented preliminary results.

Note: This presentation describes incomplete and provisional results from an ongoing project. The eventual findings of the project may differ from those presented to the House of Lords meeting.

THE PROJECT

The main objectives of this project were to 1) consider what a regulated cannabis market might look like; 2) list the possible consequences of a policy of regulation; 3) evaluate the social costs and benefits of each consequence; 4) analyse the potential advantages of a regulated market; and 5) consider not only social costs arising from consumption, but also costs arising from supply activity. The aim was not to provide a definitive answer, nor to argue for a particular policy, but to put estimates in the public domain to serve as the start of a better debate on cannabis policy.

A point of note is the particular subtlety of the title. This is not the presentation of a cost-benefit analysis, but rather *progress towards* a cost-benefit analysis, which is important as a starting point for a more rational debate of policy issues. The findings of

the research are to be approached very cautiously; they are provisional and have yet to be completed.

Another point of note in defining the project and the reasons it was undertaken is that it attempts to contribute towards evidence-based policy. It is very clear that the existing prohibitionist policy in the UK is not an optimal policy, and that it could be improved. To do so, analysts should be prepared to evaluate any serious policy proposal. There should not be any 'no-go' areas; there should not be policies that analysts do not dare talk about because of risk to their careers. It should be possible to consider anything.

In order to understand this analysis, it is necessary to think about the stages of policy and how research feeds into them. The first stage is that of fundamental research – what academic researchers do all the time. Those in medical research look at the health impacts of different drugs, economists look at the way the markets work, and so forth. It is basic knowledge that feeds into a policy decision. A second stage is what this project tries to do: to evaluate likely effects of policies which have not yet been tried but might be considered. This is always speculative because it is outside the range of anything we have actually experienced. Provided this sort of study reaches a conclusion which suggests that there is some virtue in a new policy idea, then we are in the realm of actually trying something out and experimenting. Indeed, experience shows that we should not be afraid of trying new policies.

Looking at evidence from various liberalisation endeavours all over the world, particularly in the US and in various countries in Europe and Australia, there has been no catastrophic explosion of demand resulting from liberalisation, so it does not seem to cause huge instantaneous social costs. On the other hand, we should not be afraid of experimenting with policy because, as UK experience has clearly shown, it is possible to reverse policy. And the evidence from the UK and other countries suggests that we are not talking about a "lost generation" if we try a policy and it turns out not to work, because we can reverse it.

Among the biggest barriers to more adventurous policy-making are the UN Conventions, which are an obstacle to coherent policy design. One example is the situation in the Netherlands, where policy declares some parts of cannabis supply to be tolerable, while all supply remains formally illegal. We need an international framework that allows individual countries to try new policy initiatives independently.

The project presented here aimed to take a detailed look at an option that has been discussed often, but very rarely in as much detail as it deserved: the licensing and regulation of a cannabis market. There are several potential advantages to this sort of policy reform. One is that in a regulated market, we have more control over the physical properties of the product that is consumed. A second is that much of the cost of prohibition is removed, i.e., we don't have to imprison so many people, we can reduce court costs, etc. A third advantage is that the creation of a regulated legal market would remove what is an entry point for some people into drug dealing, since in the UK and many other countries, the most basic level of cannabis supply is almost a social activity. Groups of friends get together, one of them buys cannabis and distributes it amongst the group, and that is a sequence of behaviour which results in drug dealing. A fourth advantage of a licensed market is that we can tax the product, thereby generating government revenue. This also provides policy leverage to influence demand.

A final potential advantage is that it would separate health messages from legal sanctions. At the moment, the UK's drug classification system under the Misuse of Drugs Act is designed to provide information about the dangers of drugs, but simultaneously determines the maximum period of imprisonment. Conflating these two is potentially damaging to the credibility of health messages.

The potential disadvantage of a regulated market is that removing the illegal status of cannabis, particularly if there is a large consequent fall in price, may increase consumption and thereby some of the harms. There is a trade-off between potential benefits and potential costs. The objective in this project was to consider what a regulated market might look like and to list the possible policy consequences.

The policy debate is of remarkably low quality in the UK. People on one side of the debate argue based on one particular point, people on the other side counter-argue based on another point. Very few people involved in the policy debate are prepared to debate the whole range of issues that need to be considered. There are dozens of aspects to consider if one wants to form a view about cannabis policy, and listing those aspects was an important part of the research. It was intended to evaluate some of these aspects in terms of social costs, and to discover what was quantitatively important.

THE REFORM TO BE EVALUATED

There are three versions of a regulated market. One is *the medical market*, i.e., cannabis and cannabis-derived drugs which are intended to treat specific ailments, such as multiple sclerosis. Some think it is only a matter of time before cannabis-derived drugs are routinely prescribed in the UK on a very large scale. However, there is no suggestion that a medical market is coming soon. A second version is *a market with very limited product controls*, such as what would have resulted from California's Proposition 19, which was defeated in 2010. This would create a market with a large number of relatively small, heterogeneous producers, and would resemble the alcohol industry in the UK, which includes large numbers of micro-breweries. Such a market is relatively hard to regulate and hard to tax, because of its heterogeneity. A third version of a regulated market is one with *more stringent controls on product characteristics*. There would be very high costs of complying with those controls, so there would be fewer, much larger producers. As a parallel the tobacco market, which is controlled on nicotine, carbon monoxide, and tar, in the case of cannabis it would be tempting to introduce controls on THC, as well as other components like cannabidiol (CBD), which has been found to attenuate some of the effects of THC in producing psychotic symptoms. If one wished to control these two components, it could only be done within a regulated market.

There has been a revolution in the UK cannabis market over the last 10 years. In 2002, around 15% of the cannabis market was very high-potency skunk or 'sinsemilla.' In the following 6 years, skunk's market share grew to 80%. (These figures are based on police seizures of cannabis). We went from a market dominated by one commodity – relatively low-potency herb or cannabis resin – to a market dominated by a quite different product – high-potency sinsemilla or skunk. The high-potency forms have virtually no CBD content, so this potentially beneficial component, which attenuates the worst effects of THC, now appears to be absent from the main market commodity. This trend

is worrying, and points to the need for measures that give us more control over the nature of the product that is being traded.

One of the problems is that we know remarkably little about demand, particularly in relation to the potency of cannabis. The only thing we can do in these circumstances is consider alternative scenarios and make assumptions. In all cases, we assumed that in this regulated market, the government would be able to set its taxation and enforcement policy in such a way that illegally imported traditional cannabis products would be driven out of the market. At the same time, this would also cause some substitution away from illegal domestically-produced high-potency sinsemilla. So what we may very well find in such a policy is that the volume of cannabis material actually increases because the government sets taxes so that the price falls, but there is substitution away from high-THC, high-potency cannabis, and therefore the intake of THC actually falls.

Three alternative scenarios were explored 1) a low-response case where there is a small rise in cannabis quantity balanced by an equivalently small fall in THC consumption; 2) a large 20% rise in cannabis consumption, but much smaller rise in the consumption of THC; and 3) a high-response scenario, where both cannabis quantity and also THC consumption increase sharply. An important feature of these scenarios is that there is no assumption that the government is able to drive illicit cannabis out of the market completely. Whatever you do, there will always be an illicit market, and it seems almost certain that the illicit market that remains would be for high-potency cannabis. It is assumed that the residual illicit market would make up at least 20% of the total market. In the UK tobacco industry, it is believed that the illicit market is about 12%, so the study allowed for more of a market in this case.

THE EVALUATION: PROVISIONAL FINDINGS

The cost estimates only cover external costs and benefits, i.e., the cost to society, not to the drug user him/herself. The reason for excluding costs 'internal' to the user is that drug users presumably judge the personal benefits (enjoyment) of consumption to outweigh the personal costs and risks of consumption. For well-informed and competent decision-makers, this means that estimates generally understate the net benefits to society; however, for groups of users who are ill-informed or struggle to make good personal choices, this may be reversed.

The research produced 3 sets of numbers. The first, '*Direct Net External Benefits of Reform,*' were the direct social costs and benefits associated with the move from the existing system to a regulated, licensed system. A positive figure would mean an estimated decrease in social costs or some benefit to society after making the policy change. The obtained estimates indicated differences between the current state of social wellbeing and that following the policy change. Specifically, there were estimated savings of policing costs of around £100 million and savings on court procedures around the same level, as well as savings on implementing the sentences (e.g., incarceration, community work, etc.) of about £90 million. Locking people up in prison also prevents the contribution to society from earnings that they would have generated by being employed – around £10 million of tax and contributions lost.

On the other hand, if this policy were implemented, it would need to be accompanied by a substantial investment in health information. We allocated the completely arbitrary sum of £45 million to that as a cost. It is well over double the cost of health information expenditures on alcohol and tobacco at present, so this is a large sum.

A great deal of work went into trying to estimate the scale of drug-related crime connected to cannabis, but found no evidence of any cannabis-related crime, or at least not related to cannabis use. There was evidence of some crime associated with cannabis supply, which would be reduced if one were to introduce a regulated market, so this negligible quantity was probably a benefit, not a cost.

There was also some cost due to cannabis-related accidents, but if total THC consumption were to fall rather than increase, accidents may actually decline rather than rise. In some scenarios, even if more people use more cannabis, they may be using less potent cannabis, so it is possible for this actually to be a benefit and not a cost.

Finally, there are cannabis addiction treatment costs, which would increase if THC consumption increased.

The bottom line is that the straightforward, direct, cannabis-related cost savings seem to be somewhere around £200 million to £300 million, which is not a vast sum, but is not negligible either. However, those costs and benefits were much harder to estimate than anticipated, and there is a wide range of uncertainty around them.

The second set of estimates, '*Indirect/long-term net external benefits*,' is more difficult still, and there is a lot of scope for argument there. These are long-term consequences involving, for example, things like psychotic illness, which may in the very long run accrue as a consequence of changes in demand for cannabis. Psychotic illness has occupied a lot of the debate over cannabis policy – much more than it deserves. This is a relatively small cost or benefit category, we think, and if it were possible to introduce a form of regulation which made THC consumption decline, then the effect could actually be positive and not negative. But, in any case, it is a relatively small number. The largest scale of damage we estimated was about £40 million. The same order of magnitude was allowed for physical illness, as people who smoke cannabis may develop respiratory or cardiovascular problems. However, unlike mental health, physical illness was a cost increase in every scenario because it was likely that morbidity would mainly relate to the increasing physical amount of cannabis consumed.

Another indirect long-term impact is the scarring from a criminal record. A conviction for a cannabis-related offence leads to a criminal record, and criminal records have become much more visible in the labour market. Criminal record checks are now conducted on a very large number of people every year: there were over 5 million CRB checks in Great Britain last year, so this is now very visible to employers and there is a lot of evidence that it stigmatises people. Therefore, the external costs from this source were put at around £25 million.

A fourth long-term impact is the gateway effect, i.e., the idea that cannabis use drives people to use hard drugs, which has been discussed very widely. There may also be a gateway operating in the other direction, i.e., buying cannabis for friends can lead down a slippery slope to other kinds of drug-dealing. Removing the need to get involved in illegal cannabis supply activity may choke off some of those longer-term consequences.

Only in the 'very high market response' scenario would there be a social cost arising from these gateway effects. On the whole, these indirect long-term costs may be quite modest, but the degree of uncertainty around them is very high indeed.

The final set of numbers was '*Government budget impacts.*' These are transfers within society and not part of social cost and benefit, but they are interesting to government. There has been a lot of attention paid to potential tax revenue from illegal cannabis markets, but most of the estimates of potential tax revenues look much too high (figures of £5 or £6 billion, which are not viable). There is no way that this scale of tax revenue could be generated, because it relies on the ability to tax all cannabis that is purchased, which the government would not be able to do. In total, tax revenue might be at best £0.75 billion, and the total savings to government from policing costs, court costs, etc. could come to perhaps £1 billion. It is not a vast sum, but it is still very substantial.

CONCLUSIONS

- It is not possible to decide on cannabis policy by focusing on just one aspect. One cannot get worried about the gateway effect and therefore be in favour of cannabis prohibition. We have to think about a very wide range of effects, and balance one against another.
- The evaluation work that we have done is just a first step and will be improved on as others contribute to the debate. Nevertheless, the work suggests that there is no "killer fact" which serves as an unanswerable argument against licensing and regulation. We think it unlikely that there is a huge social cost waiting to surprise us out there.
- Our analysis does favour regulation, but in a modest way. There are no huge monetary gains, but there are significant ones. Much depends on how regulation is designed and implemented. A particular question which has to be thought about is how well vulnerable groups can be protected in the current system of prohibition – which may not protect them very well at all – compared to a regulated system. Would regulation allow us to protect young people better than we do at the moment?
- Finally, we should not regard this kind of policy experiment as irreversible and therefore unacceptably risky. UK cannabis policy since the turn of the millennium may not have achieved much, but it has certainly demonstrated the feasibility of rapid policy reversal.