TAXING MARIJUANA PRODUCTION IN CALIFORNIA

For the Lt Gov's Blue Ribbon Commission on Marijuana

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RATIONALE FOR TAXATION. As California moves towards legalizing marijuana, taxation of the industry is warranted on several grounds.

(1) To compensate for external social and health costs attributable to marijuana use (drug treatment and education, health costs and 911 calls, etc.). It is difficult to put a hard number on the public health costs of marijuana abuse , but a very rough argument can be made that they're on the order of $.50 per joint.[1] The average joint on today's medical marijuana market contains about one-half gram of buds. This equates to a cost of $1 per gram or $28 per ounce. Equivalently, since the average THC content of sinsemilla buds is around 16%,[2] this works out to $1 per 160 mg THC.

(2) To compensate for costs of regulation, local enforcement, environmental protection, etc. These are regularly collected as "fees" as opposed to "taxes." However, these fees may be legally classified as taxes if, as seems desirable, they are structured in a tiered fashion so as to impose a lesser burden on small businesses.

(3) To maintain stable prices and discourage abuse. The price of cannabis could decline radically under legalization, precipitating an increase in habitual use and abuse. The current price of cannabis in California's medical market varies according to quality and quantity, etc., but ranges around $6 - $18 or an average of $10/gram ($280/ounce). This figure could decline dramatically in a legal market once the costs of prohibition are removed. In a totally free, laissez-faire market, cannabis might cost about the same as other herbs such as tea, which sell for a few dollars per ounce. Israel currently caps the cost of medical marijuana for patients at 2 Euros ($2.20) per gram, while Uruguay is aiming to sell marijuana at $2.50 gram in order to compete with black market suppliers.[3] The historical price of pharmaceutical cannabis indica on the legal U.S. market a century ago was a mere $1- $ 2 per *pound*, which translates to a mere $0.10 - $0.20/gram in today's prices. In terms of intoxicating potential, a typical joint might be judged equal to half a six-pack of beer or half a bottle of wine; on this basis, a joint might be priced at about $3 – $8, or $6 -$16 per gram. Current prices are within this range. A good case can be made that marijuana should be priced lower due to its substantially lower health costs than alcohol. However, a price collapse to $1 or $2 would seem to invite an excessive risk of habitual use and abuse, especially among youth, who are highly sensitive to prices. In order to avert this possibility, an excise tax may be justified along the same line as alcohol and tobacco.

In order to provide stable revenues, an excise tax should be based on a fixed rate per weight or THC content, rather than a percentage of price. For example, a 10% tax on marijuana would yield $1 per gram in revenues at current prices, but only $.20 at Israeli price levels. In contrast, a fixed tax of $1 per gram would yield the same amount per joint regardless of price. It should be noted that alcohol and tobacco are both taxed on a similar price-per-content basis.

Market Size & Consumption

Medical: The current number of medical marijuana consumers can be estimated at 840,000 – 1.1 million Californians. (The lower figure is a population-adjusted projection of CO registry data; the higher figure reflects looser medical eligibility rules in CA[4]). The total retail value of the marijuana they consume is on the order of $2.5 - $3.4 billion (assuming retail prices of $10/gm = $280/oz and average consumption of 11 oz/year) .[5] In principle, this is subject to CA sales tax when sold in dispensaries; in practice, however, much product passes through untaxed, gray market channels and personal use caregiver gardens.

Adult Use Market: The annual adult-use consumption of cannabis in California can be conveniently estimated at around **800 -1000 metric tons** per roughly **2 million pounds** per year (based on population-adjusted extrapolation of data from CO Dept. of Revenue[6] and RAND study in WA[7]). This comprises some 3.5 million monthly users over age 21 plus another 1.4 million yearly users (SAMHSA usage data). It does not include potentially significant consumption by out-of-state visitors, nor future increases that might be caused by lower prices.

Potential Market Value: At an average retail price of $10/gram (=$280/oz), California's total adult consumption can be valued at $8 -10 billion per year. When Colorado's $700 million in reported marijuana sales for 2014 is projected to California, one arrives at a lower retail sales total of $5 billion, which is probably more realistic for the near future. However, if prices were to fall to current Israeli levels of $2/gram, the retail market value would decline to just $1.6 -$ 2 billion. The yield of any price-based percentage tax would likewise decline proportionately.

CA Marijuana Market	**User population**	**Total Consumption**	**Market Value @ $10/gm**
Current Medical Market	840,000 – 1,100,000	250 – 340 mt. tons	$2.5 - 3.4 billion
Adult Use Potential Market	~ 3.5 million	800 – 1000 mt. tons	$8 – 10 billion

Extent of Cultivation: California already cultivates more than enough marijuana to meet its needs. While accurate production statistics aren't available,[8] informed observers agree that California exports considerably more marijuana to other states as it consumes.

The amount of land needed to fulfill all of California's domestic needs is surprisingly modest. Harvest yields vary in proportion to the canopy area cultivated, with estimates ranging between 0.4 - 1.4 ounce of buds per square ft. of canopy area per crop.[9] Indoor cultivators can produce 3 or 4 times as much per year by planting multiple harvests. Assuming an average yield of 1 ounce/sq ft. of crop grown under good conditions, the total canopy area to meet California's annual consumption of 2 million lbs. comes to just 734 acres. In actual practice, more area is needed to allow for work and growing space between plants

In light of the limited acreage needed and the large number of experienced cultivators available, it's essential that California limit the size and number of large-scale cultivation licenses. It has been estimated that there are over 50,000 marijuana growers in California, 30,000 of them on the North Coast.[10] While the state's needs could theoretically be met by a few large-scale plantations, this would displace thousands of existing, modest- or small-scale growers, pushing them toward the illegal interstate market and perpetuating current enforcement problems. Large plantations could also lead to unhealthy monopolization and market capture by "big marijuana" interests along the lines of big tobacco and alcohol.

<u>The public interest would be best served by attracting as many of the state's existing small and moderate-scale growers as possible into the legal market.</u> This could be done through a tiered licensing system that gives preferential treatment to existing, small-to-moderate growers. Under this approach, existing medical growers might be guaranteed a license at their current production capacity, while new applications might be rationed or otherwise limited. One possibility might be to cap the total amount of acreage allotted to large-scale growers at no more than, say, 40% of the total crop. Applications from existing, small-scale medical growers might be granted automatic approval (assuming they comply with regulations) while further applications could be rationed according to the state's total needs subject to the limitation on large-scale grows. Another possibility would be to cap the maximum size of cultivation permits to, say, an acre or two (WA caps permits at 20,000 - 30,000 square feet; CO has no limit and has facilities as large as 100,000 sq ft). Another approach might be to assess a higher excise tax rate on large-scale grows. This is how the federal tax on beer and wine operates,[11]

Although it is more costly to regulate lots of small-scale farms than just a few large-scale agribusinesses, this is not necessarily disadvantageous, since the costs can be recovered by regulatory fees and taxes, and should help avert a potentially dangerous collapse in retail prices.

While there exists little room for growth in California's cultivation industry (at least until federal legalization), there remain major growth opportunities in the areas of distribution, processing, testing, product development, and tourism. Policy should therefore be directed towards initially attracting California's existing, modest-size, medical growers into the legal, regulated market, and subsequently opening the door to new entries from other, growth areas of the industry.

Potential Tax Sources:

Sales tax: The only tax presently applicable to marijuana is the sales tax. Sales tax revenues can't be allocated to a specific purpose but are distributed according to a set formula, with 6.5% going to the general fund, 1% to local governments, and an additional 0%-2% to special local districts. Because they are assessed on retailers, sales tax revenues don't accrue to the localities where marijuana is grown, manufactured or processed. As a result, producing counties are left short-handed when it comes to dealing with the enforcement and environmental costs of cultivation. In theory, sales tax revenues from California's current $2.5-$3.5 billion medical marijuana market would be around $200-280 million if all of it were bought through retail outlets, but in practice this isn't the case and there are no accurate records as to how much is actually collected. Assuming a $5 billion retail market under full legalization, as seems realistic from experience in CO, sales tax revenues would amount to some $400 million per year. However, this could fall substantially if prices decline.

Excise tax: Unlike the sales tax, an excise tax could provide revenues specifically targeted at costs related to marijuana, such as drug education and treatment, research, enforcement, environmental protection, etc. The best place to levy such a tax might be at the pre-retail level, at the point of first transfer from grower to processor or wholesaler. Revenues from such a tax could also be conveniently shared by localities where the production occurs. In general, it seems advisable to spread taxes across the various stages of the industry so as to avoid piling too high a tax burden at the retail end. Excessive taxation at any one stage– cultivation, processing/manufacturing, or retail – should be avoided in order to minimize the risks of diversion. A 20% tax at any one stage in the industry is more likely to invite evasion than the equivalent of a more modest 6+% tax at three different stages. In addition, a succession of taxation stages offers convenient checkpoints to monitor the market.

Although an excise tax could be assessed as a percentage of sales or revenues (as presently done in Colorado and Washington), such a tax is highly vulnerable to a price collapse. For this reason, a flat-rate assessment seems preferable so as to assure a more constant revenue stream. Economically, a flat-rate tax is justified on the theory that the social costs of a given amount of marijuana are more or less constant and don't follow the vagaries of retail prices.

It has been suggested that such a tax be administered on a per-dosage basis, as measured by THC content. However, this seems problematic given that the accuracy of current potency testing methodology remains highly uncertain.[12] Furthermore, there exists no agreed upon standard for THC dosage, as it varies greatly according to the method of preparation and administration.

For practical purposes, it seems convenient to assess the tax based on weight. This approach was used successfully in British India, where the government assessed a weight-based tax on product along with license fees from growers and vendors.[13] The appropriate place for a weight-based tax is after harvesting and drying, but before processing into extracts, edibles or other products. The tax should ideally distinguish between different grades of marijuana. Oregon's Measure 91 proposed a taxation scheme of $35 per ounce for marijuana flowers, $10 per ounce for leaves; and $5 per seedling. In Colorado, the state has found it convenient to assess taxes on the basis of weight instead of a percentage of price where prices are hard to estimate reliably.

A flat rate excise tax of $10 /oz would raise approximately half as much revenue as the 7.5% retail sales tax at current prices of $280/oz, or around $320 million assuming sales of 2 million pounds. Assuming present wholesale prices of $1,500/pound, this is equivalent to an 11% wholesale excise tax.

Area-based cultivation fees: Another convenient way to raise revenue would be to assess a licensing fee based on cultivation area, which is directly proportional to production. The revenue might logically be shared with local governments to help cover enforcement and environmental costs. For indoor gardens that yield multiple crops per year, the fee might logically be assessed for each crop cycle. While we have estimated that just 734 acres of crop canopy are adequate to satisfy California's market, it's realistic to assume that at least 150% as much area might be needed in order to allow for work and growing space between plants. Assuming a total licensed space of 1200 acres, a fee of $1/sq. ft./per crop cycle could be expected to yield some $50 million per year.

TAX REVENUE SCENARIOS

SOURCE	**MARKET SIZE**	**ASSUMPTIONS**	**REVENUES**
Sales tax (8%)	$10 billion	High scenario - 1000 mt. tons @ $10/gm	$800 million
" "	$5 billion	Realistic scenario (projected from CO)	$400 million
" "	$2.2 billion	Projected from Israeli price = $2.2/gram	$220 million
OTHER TAXES	**RATE**	**BASE**	**REVENUES**
Excise tax	$10/ ounce	2 million lbs.	$320 million
" "	10% wholesale	$1500/lb (current)	$300 million
" "	" "	$500/lb (potential)	$100 million
Cultivation fee	$1/ sq ft	~ 1200 acres	$ 50 million

Other taxes: Numerous local governments now impose supplementary sales or business taxes on medical marijuana dispensaries, ranging as high as 10%. The case can be made for capping or replacing local taxes with a uniform state tax that is shared by local governments.

• The case can also be made for imposing a supplementary tax on non-medical products that involve a higher risk of abuse, such as high-potency "dabs" and edibles.

• Due to a fluke in federal tax law (IRS Code Section 280E) dispensaries are not allowed normal business tax deductions for sales of marijuana. California tax law should be changed to allow such deductions on state returns.

Medical marijuana: it is commonly argued that patients with legitimate need for marijuana should not be taxed for their medicine. Medical marijuana is currently subject to sales tax in California, unlike prescription drugs but like over-the-counter herbal medicines; this reflects marijuana's peculiar, in-between status as a non-prescription, doctor-recommended drug. Patient advocates rightly argue that additional taxes could pose undue hardship on many seriously ill patients. On the other hand, due to the easy availability of medical recommendations in California, only a minority of existing users have compelling medical need. Furthermore, industry experts agree that it's impractical to distinguish between medical and non-medical varieties during cultivation, or to regulate them differently prior to the final processing stage. It therefore seems difficult to exempt patients from any new excise taxes on cultivation without a complicated tax rebate system. It is more convenient to exempt patients from taxes at the point of retail sales, as is presently done in Colorado. But because Colorado offers a 25% tax differential between medical and non-medical sales, the state has seen a major diversion of tax revenues to casual medical users. Ideally, patients who need marijuana for medicine should be covered by health insurance; however, this is not presently possible due to marijuana's continued Schedule I status under federal law. Under these circumstances, the following measures should be considered. (1) Establish a special state identification card for patients with *bona fide* medical need, perhaps bolstered by proof of eligibility for Medi-Cal or SSI. (2) Provide tax exemptions or subsidies only for patients with this ID card; (3) Exempt medical marijuana from sales and/or special local taxes, but not pre-retail excise and cultivation taxes.

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