

## Supplemental Thoughts about Revenue from Marijuana in Vermont

Pat Oglesby, January 16, 2015

### Background and Scope

“Considering Marijuana Legalization: Insights for Vermont and Other Jurisdictions,”<sup>1</sup> a RAND Corporation Report (“the Report”), discusses, among many things, options facing a state that grants any privilege to sell marijuana: Who, if anyone, might procure that privilege (Chapter Four); how the state might gain revenue in connection with privileged, private sales (Chapter Five); and how the privilege might be exercised (Chapter Six). The Report also examines how legalization might affect revenue, consumption, and budgets (Chapter Seven).

Revenue issues discussed in Chapter Five include possible tax bases, collection points, mechanisms for adjusting the tax burden, and fees and auctions. This document supplements the Report’s discussion of revenue from marijuana by looking at these issues:

- I. Who might get a break on marijuana taxes?
  - A. Medical card holders
  - B. Home growers
  - C. Buyers of favored products
  - D. Growers that use natural sunlight
  - E. Small or large businesses
- II. How much tax can the marijuana market eventually bear?
- III. Who pays marijuana taxes – (what is the collection point?) – for three possible tax bases?
  - A. Weight
  - B. Price
  - C. THC potency
- IV. What other issues might loom?

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### I. Who might get a break on marijuana taxes?

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<sup>1</sup> The Report, prepared for the state of Vermont and issued on or about January 15, 2015, is available at [www.rand.org](http://www.rand.org). I was delighted to be among the eight co-authors of the Report, but neither RAND nor anyone associated with the Report bears any responsibility for the views expressed here. Readers from jurisdictions other than Vermont will find much here that they can skip over.

Footnote citations in this web-based document aim to show a source’s author, title, publisher, and date. If a cited URL shows any of those, the text of a footnote does not repeat it. The Report included a link to this document before either went final.

## A. Medical card holders

Once marijuana is legal generally, medical users no longer need to prove anything to obtain it. But should they pay tax? This section looks at a conundrum: Medicine is usually tax-exempt, and marijuana is medicine for some people, but it is a recreational intoxicant for others. Some recreational users fake conditions like chronic pain or insomnia to disguise themselves as patients. That phenomenon threatens a tax on marijuana -- if medical marijuana gets a tax break.

### *Medical Marijuana – Current Tax Law*

The Vermont Legislature has not specified whether medical marijuana is sales-tax-exempt. For now, no sales tax is being collected on it.<sup>2</sup> A possible rationale for this practice is that Vermont does not impose sales tax on “supplies . . . intended to alleviate human suffering,”<sup>3</sup>

Sales taxes do apply to medical marijuana in most states that both allow medical marijuana and impose sales taxes.<sup>4</sup> *Beyond* the sales tax, a number of localities, especially in California, impose extra taxes specifically on medical marijuana.<sup>5</sup> And in November 2014 California balloting, although “more than a dozen local pro-medical marijuana initiatives fail[ed] . . . every proposed medical cannabis tax passed.”<sup>6</sup>

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<sup>2</sup> Vermont Legislative Joint Fiscal Office, “Medical Marijuana Tax and Fee Report,” <http://www.leg.state.vt.us/jfo/reports/2012-02%20Medical%20Marijuana%20Fee%20and%20Tax%20Report.pdf> pages 2 and 4, February 2012 (hereinafter “VLJFO”).

<sup>3</sup> 32 Vermont Statutes Annotated [V.S.A.] section 9741, <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=233&Section=09741>. In Vermont, prescribed medicine bears no sales tax, in line with a national consensus. Many over-the-counter drugs and devices are exempt from Vermont sales taxes as well. *Id.*

<sup>4</sup> VLJFO, *supra* note 2, at 2.

<sup>5</sup> “Laws to Tax Marijuana,” *State Tax Notes*, Vol. 59, No. 4, 251, 257 Table 1, <https://newtax.files.wordpress.com/2014/08/laws-to-tax-marijuana-published-version-in-state-tax-notes.pdf>; available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2214910](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2214910), January 24, 2011 (hereinafter “Laws to Tax”).

<sup>6</sup> David Downs, <http://www.eastbayexpress.com/oakland/green-lit-california-legalization-measure-is-a-go-for-2016/Content?oid=4127974>, November 19, 2014.

The first four states to legalize recreational marijuana sales (CO, WA, AK, and OR) exempt medical card-holders from excise taxes.<sup>7</sup> Exemption has created problems. In Colorado, most legal marijuana was being sold without excise tax to medical card-holders.<sup>8</sup> The recreational market there only recently surpassed the medical market,<sup>9</sup> and out-of-state customers account for a large share of its sales. Qualification as a medical buyer there – obtaining a medical card – is reportedly easy and cheap. A Washington State supporter of legalization, Seattle City Attorney Pete Holmes, said he “had a store owner in Colorado tell me that only chumps and tourists go to the recreational side. . . That's completely upsetting the Colorado market.”<sup>10</sup> But in Washington, too, taxed sales face competition from untaxed medical sales.<sup>11</sup> The problem is not just that healthy buyers posing as sick are evading tax; some medical buyers are reselling the tax-free product they bought.<sup>12</sup>

*Medical Alcohol – Current and Prior Tax Law*

The federal alcohol tax generally exempts spirits used in the production of medical products, like cough syrup. To prevent this tax exemption from benefitting recreational drinkers, spirits, to be tax exempt, must be incorporated into some

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<sup>7</sup> Excise taxes are imposed on particular products and services. Examples are taxes on tobacco, alcohol, jet fuel, and heavy trucks.

<sup>8</sup> Other legalizing states exempt medical marijuana from tax, but the size of their problems remains to be seen.

<sup>9</sup> Ricardo Baca, <http://www.thecannabist.co/2015/01/09/colorado-pot-taxes-nov-medical-sales-tanked-retail-numbers-held-strong/26994/>.

<sup>10</sup> Trevor Hughes, “Marijuana legal but often scarce in Washington state,” <http://www.usatoday.com/story/news/nation/2014/09/26/washington-marijuana-legal-scarce/16266573/>. Medical marijuana appears to be very easy to get in some early medical marijuana states, like California. See, e.g., Rocco Pendola, <http://www.thestreet.com/story/12262234/2/medical-marijuana-in-california-is-a-total-scam-but-its-dope.html>, January 27, 2014.

<sup>11</sup> “‘How can you have two parallel systems, one that’s regulated, paying taxes, playing by the rules, and the other that’s not doing any of those things?’ said Rick Garza of the Washington Liquor Control Board, which oversees recreational pot.” Gene Johnson and Kristen Wyatt, “Medical marijuana a challenge for legal pot states,” <http://news.yahoo.com/medical-marijuana-challenge-legal-pot-states-052859824--finance.html>, January 2, 2015.

<sup>12</sup> John Ingold, “Colorado to crack down on medical marijuana patients and caregivers,” [http://www.denverpost.com/news/ci\\_25443826/colorado-crack-down-medical-marijuana-patients-and-caregivers](http://www.denverpost.com/news/ci_25443826/colorado-crack-down-medical-marijuana-patients-and-caregivers),” March 28, 2014. See also Mark A.R. Kleiman, <http://www.samefacts.com/2015/01/drug-policy/the-medical-value-of-cannabis-and-the-fraud-of-medical-marijuana/#respond>, January 4, 2015: “Some sick people get relief from whole cannabis, but ‘medical marijuana’ is a political fraud, and the ‘medical marijuana’ business is mostly a sham, with most of the volume going to non-medical users – many of them with diagnosable cannabis use disorder – and resellers.”

secondary product that is not sold or used “for beverage purposes.”<sup>13</sup> The Federal Alcohol and Tobacco Tax and Trade Bureau first looks at “the content and description of the ingredients” of the product; if the product survives that document-based screening, testers perform an “organoleptic examination” – one based on the sense organs -- to determine, for instance, if they can swallow it.<sup>14</sup>

Although a doctor may recommend a dose of off-the-shelf spirits, no prescription is necessary. Alcohol taxes are low enough that, even after tax, a dose of medical (or “medicinal”) alcohol is cheap compared to many prescription drugs. Insurers like Medicare don’t pay for spirits.

Medicinal alcohol was legal during Federal alcohol Prohibition. “[P]atients willing to pay about \$3 for a prescription and another \$3 or \$4 to have it filled could get a pint of booze.”<sup>15</sup> “Presumably, doctors were doing examinations and diagnoses, but it was mostly bogus,” said Daniel Okrent. “There may have been some people who were being prescribed because there was a perceived medical need, but it was really a way for some physicians and pharmacists to make a few extra bucks.”<sup>16</sup>

#### *Other tax relief for medical conditions*

It is rare that the medical condition of an individual determines a tax result – although blind individuals get an extra federal income tax exemption.<sup>17</sup> And taxpayers argue, for instance, that costs of a home swimming pool, to the extent they do not add to the value of the house, if ordered by a physician and used *exclusively* for a medical reason, may be deductible as medical expenses.<sup>18</sup> No *excise* tax benefit that

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<sup>13</sup> “Determination of unfitness for beverage purposes,” 27 C.F.R. section 17.134, <http://www.law.cornell.edu/cfr/text/27/17.134> (as of January 7, 2014).

<sup>14</sup> *Id.*

<sup>15</sup> Megan Gambino, <http://www.smithsonianmag.com/history/during-prohibition-your-doctor-could-write-you-prescription-booze-180947940/#g1rAtsPG11EjpAi7.99>, October 7, 2013 (hereinafter “Gambino”).

<sup>16</sup> Gambino, *supra* note 15, quoting Daniel Okrent, author of *Last Call: The Rise and Fall of Prohibition* (New York: Scribner 2010). Chapter 13 of Okrent’s book discusses medicinal use of alcohol during Prohibition, at pages 193-200.

<sup>17</sup> That exemption requires an eye doctor’s certificate that “(i) the central visual acuity of the individual for whom the exemption is claimed did not exceed 20/200 in the better eye with correcting lenses or (ii) such individual's visual acuity was accompanied by a limitation in the fields of vision such that the widest diameter of the visual field subtends an angle no greater than 20 degrees.” Treas. Reg. sec. 1.151-1(d), <http://www.law.cornell.edu/cfr/text/26/1.151-1> (as of January 7, 2015).

<sup>18</sup> H&R Block, “Can I deduct the costs of installing a swimming pool or a whirlpool tub used for rehabilitation?” [http://www.hrblock.com/tax-answers/services/jsp/article.jsp?article\\_id=67593](http://www.hrblock.com/tax-answers/services/jsp/article.jsp?article_id=67593) (as of January 1, 2015). *Cf.* IRS, Publication 502 (2013), Medical and Dental Expenses, <http://www.irs.gov/pub/irs->

depends on the diagnosed illness of the user is obvious—except for early state exemptions from marijuana taxes. An analogous determination, whether a particular individual should qualify for Social Security disability, has led to enough litigation to create a specialized area of law practice.<sup>19</sup> The stakes for individual medical marijuana determinations may be too low for the government to bother seeking correct determinations.<sup>20</sup> That is, the cost to the state of proving that a particular user does not qualify for a medical tax exemption might exceed what it could collect in taxes from him.

### *Non-tax relief at retail*

In various cases, certain purchasers obtain *non-tax* relief on retail prices at the point of sale, as for means-tested food stamps, for instance.<sup>21</sup> That is, they pay a lower price that has nothing to do with taxes. In Berkeley, California, in 2015, which imposes excise tax on sales of medical marijuana, “medical marijuana dispensaries . . . will be required to donate at least 2 percent of their cannabis to low-income residents.”<sup>22</sup>

### *Analysis*

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[pdf/p502.pdf](#), not mentioning pools and saying only, “You cannot include in medical expenses the cost of dancing lessons, swimming lessons, etc., even if they are recommended by a doctor, if they are only for the improvement of general health.” The IRS is bound to be wary of a deduction for pool construction that depends on not only a medical diagnosis but also valuation of the house with and without the pool – and on non-use for recreation by anyone ever. The same subjective need holds true for massages, which the IRS also ignores in Publication 502, though taxpayers may seek to have doctors characterize them as specific remedies for physical ailments. Blue Cross and Blue Shield of Illinois, “Items generally considered Eligible from IRS Publication 502,” [http://www.bcbsil.com/aon/pdf/213\\_information.pdf](http://www.bcbsil.com/aon/pdf/213_information.pdf), as of January 11, 2015. Itemizers can deduct medical expenses only to the extent that they exceed a floor of 10 percent of adjusted gross income.

<sup>19</sup>“Board certified social security disability lawyers engage in the comprehensive legal practice of counseling and representing persons with disabilities and their representatives about their rights to receive benefits from the social security administration.” National Board of Legal Specialty Certification, “Board Certified Social Security Disability Lawyer,” *available at* <http://www.nblsc.us/>, as of January 14, 2015.

<sup>20</sup> The stakes for the individual – paying the tax on marijuana – do not approach the cost of high-priced treatments like orphan drugs.

<sup>21</sup> Food and Nutrition Service, U.S. Department of Agriculture, “Supplemental Nutrition Assistance Program (SNAP) Eligibility,” <http://www.fns.usda.gov/snap/eligibility>, as of January 7, 2014)

<sup>22</sup> Ian Lovett, “Berkeley Pushes a Boundary on Medical Marijuana,” [http://www.nytimes.com/2014/09/03/us/03berkeley.html?\\_r=0](http://www.nytimes.com/2014/09/03/us/03berkeley.html?_r=0).

Whether to exempt medical marijuana from tax may seem to require a classic tax policy balancing between simplicity (tax everyone the same) and fairness (treat different taxpayers according to their individual facts). The argument for tax exemption for medical marijuana is simple: “Don’t tax my medicine.” The rationale for special treatment is that the public should assist – or at least not burden – sick people financially. That rationale might apply with special force to those who cannot afford treatment. Taxing medical marijuana could allow the accusation that the Legislature wants “the budget to be balanced on the backs of sick patients.”<sup>23</sup>

But marijuana is strange medicine. Healthy people don’t want to use hospital services, antifungals, or prosthetic devices – but many like marijuana. So any mechanism for the delivery of public assistance to medical marijuana users faces a tricky person: Who really is deserving? The slipperiness of medical marijuana tax exemption is illustrated by the example of a medical purchaser who has a symptom-free day and uses marijuana recreationally.

What conditions allow recommendations for (and use of) medical marijuana? The list varies widely by state. Some conditions allowing use of medical marijuana, like chronic pain, may be too subjective to prove or disprove to the satisfaction of skeptics.<sup>24</sup> Report co-author Mark Kleiman does not buy the notion that a system can always reliably distinguish between medical users and recreational users: “The difference between marijuana and medical marijuana is precisely the difference between water and holy water . . . As long as you can tell a random lie to a random doc and access untaxed cannabis, why should you pay the taxed price?”<sup>25</sup>

Abuse of medical rules is more prevalent in some states than in Vermont,<sup>26</sup> says the Report: “In . . . Vermont, the medical-marijuana system is more controlled,

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<sup>23</sup> Statement of Kari Boiter, of Americans for Safe Access in Washington state, in Casey Jaywork, <http://www.seattlemet.com/news-and-profiles/publicola/articles/sen-kohl-welles-wants-to-lift-cap-on-pot-stores-merge-medical-marijuana-into-i-502-system-december-2014>, December 11, 2014.

<sup>24</sup> “No one is perfectly whole. A [physician] friend puts it this way: ‘We all have chronic pain in the soul.’” Laws to Tax, *supra* note 5, at 274.

<sup>25</sup> Quoted in Aaron Mesh, “Into the Weeds: Oregon can avoid the bad trips other states took on legal pot,” *Willamette Week*, [http://www.wweek.com/portland/article-23790-into\\_the\\_weeds.html](http://www.wweek.com/portland/article-23790-into_the_weeds.html), January 7, 2014.

<sup>26</sup> See note 10 and accompanying text, *supra*. The same line between medical and recreational needs drawing -- in medical-marijuana-only states just to allow possession, and in fully legal states that provide tax exemption. But in the medical-only states, the harm from denying medicine to a sick patient may seem worse than the harm from allowing a legal purchase by a faker. So Vermont allows appeals only from denials of medical marijuana cards, with no analog for a card that is granted. 18 V.S.A. section 4473(5)(A), <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=18&Chapter=086&Section=044>

servicing more as an adjunct to the health system than as a loophole for recreational users.”<sup>27</sup> For instance, Vermont requires a six-month relationship between doctor and patient before medical marijuana can be recommended for pain and several other conditions.<sup>28</sup> Vermont’s reported success in making such determinations for its medical-only system might seem to bode well for a possible tax exemption. But prices of medical marijuana in Vermont, even tax-free, remain high, maybe high enough to give no advantage to users who pretend to be sick.<sup>29</sup> But prices of medical marijuana may come down over time. And unless the State can minimize system-gaming and leakage, a parallel medical path<sup>30</sup> to marijuana risks more than revenue.<sup>31</sup>

Rather than try to identify sick buyers, the state might direct tax breaks to particular *products* that seem more medical than recreational. That’s the approach of a proposal by Washington State Senator Jeanne Kohl-Welles: “High-CBD products, typically used by medical patients, would be given a tax break, eliminating the need for most patients to have authorizations”<sup>32</sup> – though she would provide special rules for medical uses involving high THC products. And it’s the thrust of an approach of State Senator Ann Rivers, who would let medical users buy only processed products, not bud.<sup>33</sup>

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73. In a state with separate systems for medical and recreational, the line drawing is just about money, not about access.

<sup>27</sup> Report, page 2.

<sup>28</sup> 18 Vermont Statutes Annotated section 4472(1). Some conditions for which medical marijuana is allowed, like cancer, are harder to fake than others, like chronic pain.

<sup>29</sup> See chapter Seven of the Report: “integrated producer-retailer operations . . . receive the full retail price, which we understand is generally \$15 per gram. That translates to \$425 per ounce or \$6,800 per pound; yet, by their reports, all of that revenue is needed to cover expenses.” See also Erin Mansfield, “Vt. medical pot growers seek to break even,” <http://www.rutlandherald.com/article/20141221/THISJUSTIN/712219963>, December 21, 2014.

<sup>30</sup> Tax relief could be provided either (1) through separate stores for the sick and well, or (2) at an all-comers point of sale, with medical users paying less.

<sup>31</sup> This kind of line drawing can cause disrespect for the law, and even for the medical profession. And “If healthy people want something and have to say they are sick to get it, they may come to think they are sick or even become sick, like the child who hates school and develops a stomachache in the morning.” *Laws To Tax*, *supra* note 5, at 274.

<sup>32</sup> Evan Bush, <http://blogs.seattletimes.com/pot/2014/11/21/state-sen-kohl-welles-outlines-bill-to-transform-marijuana-regulation/>. The Report explains CBD, found to be therapeutic rather than intoxicating, in detail. If the high-CBD marijuana is low in THC (the primary intoxicant in marijuana), it is unlikely to appeal to recreational users.

<sup>33</sup> Gene Johnson, “Key lawmaker’s proposal: medical pot shops without dried pot,” [http://www.bellinghamherald.com/2015/01/06/4063391\\_lawmakers-proposal-medical-pot.html?rh=1#storylink=cpy](http://www.bellinghamherald.com/2015/01/06/4063391_lawmakers-proposal-medical-pot.html?rh=1#storylink=cpy). Processed products, though, might be the wave of the future in the recreational market. No one can be sure.

A means test, allowing financial benefits to only those medical users who can't afford marijuana, could be a pre-requisite for excise tax relief.<sup>34</sup> Or means testing could deliver relief directly, not via tax break. Means-tested spending-side payments could subsidize needy medical users even more than tax exemption could. But means testing does not eliminate the problem of distinguishing medical use from recreational use.

One view of the medical-recreational difficulty now facing Vermont comes from long-time marijuana advocate Keith Stroup of the National Organization for the Reform of Marijuana Laws (NORML): “[W]e . . . now have convincing evidence that once medical users are given a special (lower-tax) status, it becomes politically difficult to make the changes needed to merge the medical use consumers with recreational consumers. This is a challenge the legalization movement will continue to confront so long as medical use is defined as a separate market from recreational use.”<sup>35</sup>

But tax relief for medical users may turn out to be unnecessary.<sup>36</sup> Even paying full tax, medical users may be better off after legalization than they are now. Say “A” is the future after-tax price of recreational marijuana, and “B” is the tax-free price of medical marijuana now, before recreational legalization. If A is less than B, medical users will be better off than before, even paying full tax.<sup>37</sup> So Vermont’s current high prices<sup>38</sup> for medical marijuana may allow the state to create a single, unified system that is better than current law for both medical and recreational users – *without* tax exemption.

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<sup>34</sup> Some states incorporate means testing into medical marijuana rules. In Rhode Island, for instance, medical marijuana users on Medicaid and other means-tested assistance programs pay only nominal fees for a card. Department of Health, State of Rhode Island and Providence Plantations, “Rules and Regulations Related to the Medical Marijuana Program,” section 3.11, <http://sos.ri.gov/documents/archives/regdocs/released/pdf/DOH/5923.pdf>, March 2010, as of January 7, 2014.

<sup>35</sup> Keith Stroup, <http://news.marijuana.com/news/2015/01/merging-the-medical-use-market-with-the-recreational-market-mon-jan-10/>. Stroup suggests that states with no medical marijuana law might skip that step and move directly to a unified market.

<sup>36</sup> Special non-tax rules for medical users may be found appropriate. The 21-year old threshold commonly suggested for recreational marijuana has been relaxed in many states for medical marijuana. In Vermont, patients may be of any age; applications of those under 18 must be signed by a parent or guardian. 18 V.S.A. section 4473(b)(1).

<sup>37</sup> If wanting to give medical marijuana a tax break, but uncertain about whether A will be less than B, the Legislature could sunset any tax break for medical marijuana after a term of years – and see how prices turn out.

<sup>38</sup> See note 29 and accompanying text, *supra*.



Buying taxed recreational marijuana would bring other savings for medical users. Each year, Vermont medical users must revisit their health care providers, submit new forms and a new photograph, and pay a new \$50 fee; “There are no provisions to waive the fee.”<sup>39</sup> (Colorado’s low fee for medical cards – \$15 – may incentivize medical over recreational use.<sup>40</sup>) Those costs will disappear in the legal recreational market. So will the hassles of recurring application and documentation.

## **B. Home growers**

Vermont allows medical marijuana users to possess two mature plants and seven immature ones.<sup>41</sup> Colorado allows recreational users to grow six plants tax-free; Washington allows no recreational home growing at all. By comparison, federal law provides zero tolerance for liquor production, a 100-gallon per year limit for home production of beer and wine for personal use, and unlimited home production of tobacco for personal use.

The revenue loss from a perfectly enforced recreational home growing<sup>42</sup> exception would likely prove only negligible. That is, legal growing of a small number of plants for personal consumption should have little impact on tax receipts. Most consumers would buy product at the store rather than take up agriculture.<sup>43</sup>

Enforcement of a home growing exemption raises concerns, though. Leakage and evasion may take place, unless the home growing exemption is tightly drawn and enforced. At today’s prices, with plants allowed to grow large, a half dozen plants can

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<sup>39</sup> [http://vcic.vermont.gov/marijuana\\_registry/patients](http://vcic.vermont.gov/marijuana_registry/patients), as of January 7, 2014.

<sup>40</sup> Colorado Legislative Council Staff, “Comparison of Retail Marijuana Excise and Sales Tax Revenue Forecast Assumptions for FY 2014-15,” <http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251955678255&ssbinary=true>, March 2104: “The cost of a medical marijuana registry card has declined to \$15 from \$35 and the forecast projects that medical marijuana prices will remain lower than retail marijuana prices, incentivizing marijuana users to continue consuming medical marijuana.”

<sup>41</sup> 18 V.S.A. section 4472(10).

<sup>42</sup> Allowing home growing does not necessarily involve allowing extraction. But extraction, to be commercially competitive, would seem to need greater scale than the legal home grower might be able to provide.

<sup>43</sup> Recreational users in the District of Columbia, so far at least, will not have the opportunity to buy commercially grown marijuana, and will have to rely on home growing. See John Hudak, “Marijuana Policy in 2015: Eight Big Things to Watch,” <http://www.brookings.edu/blogs/fixgov/posts/2015/01/08-marijuana-policy-2015-things-to-watch-hudak>.

produce much more than enough for a single consumer.<sup>44</sup> The untaxed surplus could find illegal buyers. And if home grows serve as cover for such black market operations, the taxed market could suffer substantially. Beyond restrictions on number of plants or area, licenses for home growing could help law enforcement identify legitimate growers.

Transportation of home-grown marijuana raises ancillary enforcement issues. If everyone is allowed to transport home-grown products, then it becomes harder for police to tell the difference between a courier for an illegal operation and someone with a right to transport.<sup>45</sup> By contrast, if only licensees and their registered employees have a legal right to transport marijuana, the existence of legal production does not so severely challenge enforcement.

Fees for home growing licenses would likely bring in only negligible revenue. The revenue argument for licensing home grows is to prevent tax evasion, not to bring in fee money beyond the cost of supervising growers.

Instead of a number of plants, a home grow exemption could allow a set number of square feet for tax-free cultivation,<sup>46</sup> perhaps with a greater area outdoors. That approach could avoid tricky line-drawing between mature and immature plants, and thus prevent planning problems, and disputes.

### **C. Buyers of favored products**

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<sup>44</sup> “[D]iverting the yield from growing twenty-four plants at a time could readily support a middle-class lifestyle if the taxed retail price remained near current levels. Where fewer plants are allowed, an enterprising individual could aggregate the production of five to ten friends, each of whom stays under the limit on plants and square footage.” Caulkins, Jonathan P., Angela Hawken, Beau Kilmer, Mark A. R. Kleiman, Katherine Pfrommer, Jacob Pruess, and Timothy Shaw, “High Tax States: Options for Gleaning Revenue from Legal Cannabis,” 91 Oregon L. Rev. 1041, 1049, <http://law.uoregon.edu/org/olr/volumes/91/4/documents/Caulkins.pdf>, 2013 (hereinafter “Caulkins - Gleaning.”)

<sup>45</sup> A legalizing state might want to use tax stamps or other markers, common with alcohol and tobacco, to distinguish tax-paid product from contraband.

<sup>46</sup> California’s failed Proposition 19 would have allowed 25 square feet per home grow. Legislative Analyst’s Office, “Changes California Law to Legalize Marijuana and Allow It to Be Regulated and Taxed: Initiative Statute,” July 12, 2010. [http://www.lao.ca.gov/ballot/2010/19\\_11\\_2010.pdf](http://www.lao.ca.gov/ballot/2010/19_11_2010.pdf). Some California jurisdictions, like Santa Cruz, use a square foot limitation for medical home grows. See, e.g., <http://www.canorml.org/medical-marijuana/local-growing-limits-in-California#SantaCruz>, as of January 14, 2015. Dale Gieringer of California NORML indicates that light exposure might be a useful factor to consider in computing an area to allow for personal cultivation.

The federal government taxes pure alcohol in liquor at a higher rate than it taxes alcohol in beer or wine.

Vermont's tax burden on recreational marijuana could vary according to the form of the final product, such as bud, vaporizer liquid, edibles, tinctures, sublinguals, suppositories, dabs,<sup>47</sup> and so on. Alternatively, and perhaps more simply, the Legislature could set different tax rates to attempt, however crudely, to make an hour of intoxication from bud more or less expensive, after tax, than an hour of intoxication from trim and concentrates and their derivatives.

Although the idea of “social engineering by manipulating tax rates could be controversial,”<sup>48</sup> the Legislature could decide to nudge users toward products and practices thought to be less harmful or dangerous. The Legislature would need to consider which products to favor. For example, relative tax burdens could be set to nudge the market away from edibles that appeal to children and that sneak up on users as intoxicating effects develop slowly. Or burdens could be set to nudge toward edibles, so as to tilt users away from lung problems and from creating second hand smoke.

A tax nudging toward particular uses could be imposed earlier in the supply chain, but in that case accurate tracing of raw usable marijuana into its final form would be necessary and perhaps somewhat burdensome. That is, early in the supply chain, marijuana might be irrevocably designated for a particular final use, and taxed at an early collection point according to the perceived damage associated with that use. So, for instance, if the use of dabs is disfavored, and if material destined for dabbing can be identified and traced, an add-on tax could apply to it. Such a scheme would rely heavily on tracing of product by regulatory authorities to prevent leakage between categories.

#### **D. Growers that use natural sunlight**

Rancho Cordova, California taxes the square footage of indoor operations at 12.5 times the rate of that of outdoor operations.<sup>49</sup> Vermont could tax square feet of indoor grow space more heavily than square feet of outdoor grow space. Indoor space is more valuable, because it can allow more harvests per year than outdoor space. An area-based tax applying not annually, but to each harvest, would require a lot of monitoring.

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<sup>47</sup> The Report describes dabs as “an intensely powerful vapor material.”

<sup>48</sup> Caulkins - Gleaning, *supra* note 44, at 1055.

<sup>49</sup> Personal Cannabis Cultivation Tax, Chapter 3.85, Rancho Cordova, California, Code, <http://www.codepublishing.com/ca/ranchocordova/html/RanchoCordova03/RanchoCordova0385.html> (last accessed Sept. 17, 2014). The amount is prohibitory: \$600 for small operations, \$900 for large ones.

There are two other reasons for a higher square footage tax. They would apply as well to a higher tax on indoor-grown *products*. (Higher rates on indoor-grown products could be based on weight, price, or potency, though this approach would require tracing of marijuana into products.) The first is to conserve energy: Use of natural sunlight for photosynthesis neither consumes scarce resources nor results in pollution.<sup>50</sup>

The second is to serve as a crude proxy for a tax on potency, because indoor-grown marijuana tends to have higher levels of THC. Indoor growing allows growers more control over their product. So growers can aim to make indoor-grown marijuana more potent per gram than outdoor-grown. Anecdotally, “In medical states, indoor buds are sold at much higher prices than outdoor buds.”<sup>51</sup> That price differential is likely to reflect potency. If the state satisfactorily taxes marijuana potency with a separate tax base, this reason for a tax discriminating in favor of outdoor growing disappears.

Greenhouse growing uses electricity from the grid only accessorially. To any extent that greenhouse growing consumes non-renewable energy, its area or products could be proportionately taxed like indoor growing.

### **E. Small business, or large**

Vermont gives a tax break to small liquor sellers.<sup>52</sup> Small brewers and wineries pay less federal alcohol tax, per gallon, than large businesses pay.

Large businesses pay *lower* tax rates on marijuana square footage in Berkeley, California. A taxpayer’s first 3000 square feet of space are taxed at \$25 per square foot; any excess is taxed at \$10 per square foot.<sup>53</sup>

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<sup>50</sup> See Michael O’Hare, Peter Alstone, and Daniel L. Sanchez, BOTECH Corp., “Environmental Risks and Opportunities in Cannabis Cultivation,” [http://liq.wa.gov/publications/Marijuana/BOTECH%20reports/5d\\_Environmental\\_Risks\\_and\\_Opportunities\\_in\\_Cannabis\\_Cultivation\\_Revised.pdf](http://liq.wa.gov/publications/Marijuana/BOTECH%20reports/5d_Environmental_Risks_and_Opportunities_in_Cannabis_Cultivation_Revised.pdf), September 7, 2013.

<sup>51</sup> Nebula Haze, “Growing Marijuana Indoors vs. Outdoors,” <http://www.growweedeasy.com/indoors-vs-outdoors> (last accessed September 17, 2014). The real name of the author is not clear.

<sup>52</sup> 7 Vermont Statutes Annotated § 422, <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=07&Chapter=015&Section=00422>.

<sup>53</sup> Berkeley Code section 9.04.305, findable at <http://codepublishing.com/ca/berkeley/>.

In Vermont, tax relief for small recreational marijuana business would prevent concentration and serve a progressive function. Tax relief for large business would allow government better to control the industry, and would make tax auditing easier.

Sized-based rules require line drawing, and could allow the Legislature to shape the structure of the industry. Sized-based rules need not be binary, that is, dividing businesses into only two categories, small and large. They can have several steps; the federal income tax, for instance, has six marginal income tax brackets.<sup>54</sup> For instance, a producer's first tranche of production could bear a rate of  $v$ , the next tranche a rate of  $v + w$ , the next a rate of  $v + w + x$ , the next a rate of  $v + w + x + y$ , and so on. This kind of structure avoids cliffs (discontinuities with absurd marginal rates).<sup>55</sup> Rates could even be logarithmic.<sup>56</sup>

Sized-based taxes that vary according to production area (perhaps allocated by quota) are conceivable, especially if production area is the tax base. If a tax applies to products rather than production area, system-gamers will have an incentive to disguise product as coming from a favored area. A taxpayer seeking to disguise source would seem to have an easier task with marijuana than with beer and wine, which are much less valuable than marijuana by weight and volume.

Size based-rules require imposition of related party rules, so that one big economic interest doesn't disguise itself as several small ones.

## II. How much tax can the marijuana market eventually bear?

The Report does not predict how much tax a mature marijuana market can bear.<sup>57</sup> Chapter Seven of the Report conducts an exploratory exercise in which

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<sup>54</sup> Elizabeth Rosen, <http://www.irs.com/articles/how-determine-your-income-tax-bracket>, January 31, 2013. The complexity arising from the number of tax brackets is infinitesimal. In the brackets, lines are bright, and there is no confusion about where they lie. The real complexity of the federal income tax comes from the difficulty of finding and measuring income, from line-drawing without clear standards, and from gray areas.

<sup>55</sup> Cliffs would arise, for instance, if a small business rule said, "Producers that produce 10 pounds or more pay a tax of \$2 a gram on all production; producers that produce less pay \$1 a gram on all production." That kind of primitive structure, which distorts the market by making the marginal tax rate confiscatory as a producer reaches and exceeds the 10-pound threshold, is easily avoided, as by the  $v + w + x$  example in the text.

<sup>56</sup> There's precedent for statutes completely avoiding steps and using a smooth function. See, e.g., 42 U.S. Code section 6295(u)(3), "Energy conservation standards": "Efficiency standards for class A external power supplies," where a sliding scale uses "0.09 times the Natural Logarithm of the Nameplate Output."

<http://www.law.cornell.edu/uscode/text/42/6295>, as of January 14, 2015.

<sup>57</sup> A technical point: Maturation to a relatively steady state involves at least three factors: Laws have stabilized at the federal level and in competing states and tribal lands to the

Vermont captures as taxes one-third of what users spend to buy marijuana, but indicates that that one-third number is neither a prediction nor a suggestion, even for the short term. Chapter Five suggests that market forces could allow only a low tax burden at first, but a higher burden over time.

The amount of tax that the state can<sup>58</sup> collect at any time depends not only on market forces,<sup>59</sup> but also on two sets of government decisions: (1) tax rules (base, rate, and so on); and (2) enforcement activities.<sup>60</sup> The need for enforcement activities tends to vary directly with the state's ambition for a high tax burden: High revenues require strong enforcement. So revenue collections are in part a function of the enforcement level, and the enforcement level is in part a function of the desire for revenue.

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point where net new entrants into the market are not a factor; firms have reached whatever scale the law will allow and enjoy economies of scale, professionalization, and so on; and the product mix is no longer evolving dramatically. Thanks to Jon Caulkins for this point. In looking at how much tax a mature market can bear, at least the first two factors would need to be relatively stable. Product mix might evolve without changing the amount of tax the market can bear, if consumers are willing to pay, and if taxes apply equally, about the same per hour of intoxication, whatever products consumers choose.

<sup>58</sup> This document looks at how much excise tax the state might be *able* to collect. The amount of tax the state should *aim* to collect is not clear. A Congressional Research Service reports lists several possible goals for a tax burden: to offset negative externalities, to maximize revenue, and to “set the tax so that the price of marijuana does not fall substantially with legalization and expanded demand.” Jane Gravelle and Sean Lowry, Congressional Research Service, “Federal Proposals to Tax Marijuana: An Economic Analysis,” <https://newtax.files.wordpress.com/2015/01/fed-mj-tax-r43785.pdf>, November 13, 2014 (hereinafter “CRS”), at 9. “The policy question then,” it says, “may be how much of a tax burden should be placed on non-responsive [to price] adult users to limit consumption of youth.” *Id.*

<sup>59</sup> Market forces here include forces from outside the state. So the marijuana laws of neighboring jurisdictions – now to include tribal lands in Indian Country – are of critical importance. The Administration's extension of its limited hands-off-marijuana approach to tribal lands may prove to be the most far-reaching development in marijuana policy in decades. But it may prove inconsequential. No one can be sure how it might play out. Will tribes, for instance, seek concessionaire deals, issuing only one license to grow? If such an arrangement is legally sustainable, so might be the Public Authority option, described in Chapter Four of the Report, and even state monopoly. The extension to tribal lands just adds to the uncertainty, and underlines the need for the state to maintain flexibility to react to unknowable events.

<sup>60</sup> This document supplements Chapter Seven of the Report, which also looks at the role of enforcement in a tax regime. To be clear, this Section III aims only to elaborate on some of the discussion there. It does not dispute the methods or conclusions of Chapter Seven (or of the Report as a whole).

The legal sector needs to take market share from bootleggers,<sup>61</sup> who, under legalization, cheat on taxes rather than violating prohibition. The Report “anticipates a continuation of the current downward trend in black-market prices” in some circumstances, and considers various outcomes. Bootleggers will likely compete on price. That’s because nearly all consumers will pay more for a legal product than for an illegal one.<sup>62</sup> That is, the price of a legal product should ordinarily exceed the price of an illegal product of comparable purported quality bought with comparable convenience.

President Roosevelt’s team that studied how to re-impose alcohol taxes after the repeal of Prohibition put it this way in 1933: “As between legal and illegal products of substantially similar price the buying public will have greater confidence in and will prefer to buy the legal product.”<sup>63</sup> Reasons for that preference include branding, testing, labeling, recourse against the seller, and the absence of legal risk to the consumer.

The extra price a legal product will bear varies with buyers’ perception of value.

The purchaser of contraband, branded cigarettes, taxed by some low-tax state, and shipped to high-tax New York City, has a good idea of what he is buying and risks little. If those cigarettes violate warranties, express or implied, the buyer can sue the wealthy corporation that manufactured and packaged them.<sup>64</sup> The risk of

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<sup>61</sup> Bootleggers here are sellers of marijuana illegally, whether in violation of prohibition or of tax laws.

<sup>62</sup> See Chapter Seven of the Report. Consumers willing to pay more for *illegal* products include those with an outlaw mentality or with loyalty to an illegal supplier.

<sup>63</sup> *Report to the Secretary of the Treasury of Findings of Fact and Law of the Informal Interdepartmental Committee Relative to Taxation and Control of Alcoholic Beverages, Supplement to Tax on Intoxicating Liquor, Joint Hearings Before the Committee on Ways and Means, House of Representatives and the Committee on Finance, United States Senate, 73d Congress, Interim, 1st and 2d Sessions, Dec. 11-14, 1933, at 309* (hereinafter “1933 Interdepartmental Report”). Those joint hearings were requested by Ways & Means, the House Committee, in light of the federal requirement, duplicated in the Vermont Constitution, that the House originate revenue bills. The hearings had the narrow focus of how, and how much, to tax liquor. They covered no regulatory issues, which were left to the states. The hearings went on for four consecutive days, with input from staff, the executive branch, academics, and interested private parties. After a great deal of give and take between Members and witnesses, the Committees reported out a bill in short order, and President Roosevelt signed it in January. On that Committee were a future Supreme Court Justice (Vinson), a future Speaker of the House (McCormack), and a future Vice President (Barkley).

<sup>64</sup> Counterfeit cigarettes, bearing a phony label and taxed nowhere, are a smaller problem than taxed-elsewhere cigarettes in that market so far.

punishment for buying black market cigarettes is approximately zero. So the buyer may pay a significant fraction of the legal price for those black market cigarettes.<sup>65</sup> Untaxed bootleg spirits, by contrast, might be toxic, so they should sell at a substantial discount to legal alcohol.<sup>66</sup>

Chapter Seven of the Report looks at data from an opt-in web survey about consumers' willingness to pay a premium for legal marijuana. (There are many limitations of such surveys, but at present these data may be the best available that speak to this issue.) Consumers may rank bootlegged marijuana between reliable, branded cigarettes and unreliable liquor. Bootlegged marijuana won't seem so problem-free as Virginia-taxed Marlboros sold in New York City. At the same time, its dangers, of mold and pesticides, for instance, pale in comparison to sudden death, which may result from bad alcohol. The jury is still out on how consumers weigh legal against black market marijuana: In the early days of legalization in Colorado and Washington, some consumers were willing to pay legal prices that far exceeded black market and medical marijuana prices. Others were not.<sup>67</sup>

That's a look at buyers. How about sellers – the supply side? There is a popular misconception that the low cost of growing “weed” means the legal price must always be low. But production costs, as an economic matter, don't set a ceiling on legal prices. Out-of-pocket *production* cost is only one, small factor in the total price of black market marijuana. The critical factor in black market prices is the “prohibition premium,” which is the *extra* price bootleggers must charge (1) to cover the costs of “structural consequences of product illegality” (meaning, inefficiencies

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<sup>65</sup> Christopher Matthias recently reported, for high-taxing New York City, prices of \$8 a pack under the table, \$12 to \$14 legally. [http://www.huffingtonpost.com/2014/04/03/cigarette-smuggling-new-york-n\\_5041823.html](http://www.huffingtonpost.com/2014/04/03/cigarette-smuggling-new-york-n_5041823.html).

<sup>66</sup> In 1933, Lewis Landes, lawyer for the Wholesale Liquor Dealers Committee of New York City, accused a “Distillers’ Trust” of keeping legal prices to wholesalers “exorbitant” — nearly three times the black market price. *Tax on Intoxicating Liquor, Joint Hearings Before the Committee on Ways and Means, House of Representatives and the Committee on Finance, United States Senate, 73d Congress, Interim, 1st and 2d Sessions*, page 296 (Dec. 11-14, 1933)(hereinafter “Hearings”). A higher ratio turned up anecdotally, in Junior Johnson’s pre-NASCAR alcohol-running heyday, some 60 years ago: “A gallon of whiskey [bore] \$11 tax [\$10.50 in federal excise tax per proof gallon -- on top of the cost of production]. You could make it for 75 cents to a dollar and sell it for \$3 or \$4.” Quoted in Peter Golenbock, *American Zoom: Stock Car Racing - From the Dirt Tracks to Daytona*, page 22 (MacMillan 1993).

<sup>67</sup> More details are provided in the text accompanying note 83, *infra*. Eventually, if the federal government legalizes marijuana, it may seek revenue beyond what it collects now under the anti-drug tax rule of Internal Revenue Code section 280E, discussed in Appendix B of the Report. See the Report at 88 n.31.



created by having to operate covertly)” or (2) to compensate for the risk of getting caught and penalized.<sup>68</sup>

Upon legalization, the prohibition premium becomes the tax evasion premium. That is, like bootleggers during prohibition, tax evaders will need to incur the costs of sneaking around and hiding their tracks, and to charge extra for taking the risk of punishment. As President Roosevelt’s team wrote of alcohol in 1933, “The illegal industry must make a substantially higher gross and net profit on its sales than the legal industry. If it does not, it will not be profitable to run the risks involved.”<sup>69</sup>

It took about four years to contain the harm from big alcohol bootleggers after repeal of Prohibition took hold in late 1933: “The syndicated type of illicit operation was virtually destroyed by the end of 1937.”<sup>70</sup> But the trouble from post-legalization marijuana bootlegging may take a very different form from post-Prohibition repeal alcohol bootlegging. Small violators may prove much more troublesome with marijuana than with alcohol. Marijuana’s current high weight and volume to price ratios are just part of the problem. Alcohol bootlegging, even at small scale, requires substantial, detectable equipment, capable of holding many gallons of liquid – and then bulky bottles to reach the consumer. In a rural area, small-scale marijuana bootlegging requires only a few seeds and some plastic bags.

Still, by keeping illegal prices high, legally-created scarcity can allow legal products to enjoy gigantic markups over production costs.<sup>71</sup> Sometimes, the law protects a privilege to do business – and bans illegal competitors from undercutting prices.

Patented pharmaceutical products, for instance, may sell for many, many times the cost of their production. Those enormous markups rely on the rule of law to protect patents and profit margins. By threatening to prosecute sellers of counterfeit pharmaceuticals, law enforcement makes those sellers pay a counterfeiting premium, which is analogous to a prohibition premium or tax evasion premium.

In 2000, for instance, the *New York Times* reported that an Indian manufacturer “makes sildenafil citrate, the active ingredient in Viagra, for 2 cents a

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<sup>68</sup> Caulkins, Hawken, Kilmer, and Kleiman, “*Marijuana Legalization: What Everyone Needs to Know*” (New York: Oxford University Press 2012), at 37.

<sup>69</sup> Interdepartmental Report, *supra* note 63, at 308-09.

<sup>70</sup> Tun Yuan Hu, *The Liquor Tax in the United States, 1791-1947: A History of the Internal Revenue Taxes Imposed on Distilled Spirits by the Federal Government* (New York: Columbia University, Graduate School of Business 1950), at 95 (hereinafter “Hu.”)

<sup>71</sup> Research costs typically exceed production costs, and make the case for legal protection of huge profits.

pill. He exports it to Yemen and Sudan. . . Assuming he gets government approval next month, he will sell it for 10 cents in India.”<sup>72</sup> India at that time imposed no counterfeiting premium, so the manufacturer could operate openly with no risk of punishment. Eventually, India started respecting foreign pharmaceutical patents,<sup>73</sup> and that operation became illegal.

So illegal businesses -- black marketers, counterfeiters, or tax evaders -- often suffer from huge premiums on account of illegality.<sup>74</sup> Their legal competitors can then sometimes charge huge markups. Legal 100 mg. doses of Pfizer’s Viagra in the United States sold for around \$15,<sup>75</sup> far above the 2-cent-in-India cost of production. At around \$150 per gram, Viagra now retails for much more than marijuana in any market.

One reason such enormous markups are sustainable is law enforcement. Pfizer goes to enormous lengths to pursue unlicensed, counterfeit Viagra, with the assistance of law enforcement, including the U.S. Department of Homeland Security.<sup>76</sup>

Like Pfizer with sildenafil citrate, the legal marijuana industry might join the effort to marginalize the black market, as the alcohol industry did in the late nineteenth century, when “[t]axpayers became important allies in the [revenue] bureau’s crusade against evasion.”<sup>77</sup> Now individual private companies will not have the level of incentive Pfizer has unless the market consolidates.

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<sup>72</sup> Donald G. McNeil, Jr., “Selling Cheap ‘Generic’ Drugs, India’s Copycats Irk Industry,” *The New York Times*, <http://www.nytimes.com/2000/12/01/world/selling-cheap-generic-drugs-india-s-copycats-irk-industry.html?pagewanted=all&src=pm>, Dec. 1, 2000.

<sup>73</sup> “In January 2005, India amended its patent laws . . . . Under the new patent law, Indian drug makers can no longer manufacture and market reverse-engineered versions of drugs patented by foreign drug producers.” William Greene, U.S. International Trade Commission Working Paper 2007-05-A, “The Emergence of India’s Pharmaceutical Industry and Implications for the U.S. Generic Drug Market,” [http://www.usitc.gov/publications/332/working\\_papers/EC200705A.pdf](http://www.usitc.gov/publications/332/working_papers/EC200705A.pdf), 2007.

<sup>74</sup> See Oglesby, “Gangs, Ganjapreneurs, or Government: Marijuana Revenue up for Grabs,” 66 *State Tax Notes* 255, 263-65, downloadable at <http://ssrn.com/abstract=2165864>, October 22, 2012.

<sup>75</sup> Felix Gillette, “Inside Pfizer’s Fight Against Counterfeit Drugs,” *Business Week*, <http://www.businessweek.com/articles/2013-01-17/inside-pfizers-fight-against-counterfeit-drugs>, January 17, 2013.

<sup>76</sup> *Id.* “For a skittish consumer hoping the discount erectile dysfunction drug that he ordered online will (a) show up, (b) work, (c) not poison him, and (d) not get him arrested, a letter from U.S. Customs and Border Protection arrives with all the stimulative effect of an IRS audit. The odds of a repeat purchase plummet.” Enforcement of laws against possession of non-tax paid marijuana would provide an analogue.

<sup>77</sup> Wilbur R. Miller, *Revenuers and Moonshiners* 8 (Chapel Hill: UNC Press 1991), at 6.

Nevertheless, high prices for legalized marijuana might give *government* a significant incentive to battle the illegal market – on top of government’s general duty to enforce the law. (Indeed, it may be worrisome that government has a financial incentive to favor consumption of the newly legal intoxicant, but that comes with the territory of legalization-with-revenue.)

Law enforcement is not the only reason that counterfeiters have trouble competing with Viagra, and that legal Viagra can sell for such a high price. Another reason for the ability of Pfizer to impose high markups is that the purchaser of a Viagra knock-off may worry that he’s getting a placebo, or worse, and he may be right. Consumers of black market marijuana, as opposed to questionably sourced “Viagra,” will be much less worried that they are buying fake or dangerous product. So black market marijuana could bear higher markups than questionably sourced “Viagra.” But legal marijuana, requiring a field, not a factory, might someday cost less to produce than the 20 cents a gram<sup>78</sup> it cost to produce sildenafil citrate.

If legalization were to take a large share of the market, current enforcement resources, applied to a smaller illicit market, would represent more pressure per gram and might support higher legal prices than the black market can charge today.<sup>79</sup> But the fact remains that marijuana has an extremely high weight- or volume-to-price ratio. There may be no tax on any product, by weight or volume, as high as the prohibition premium on marijuana today. And it may be that marijuana prohibition is easier to enforce than taxes.<sup>80</sup> When all marijuana is illegal, law enforcement has no problem identifying illegal product. Legalization of only medical marijuana limits authorized possession to a small fraction of the population, who need documentation to possess the substance. Upon full legalization, when all adults may possess, separating legally bought product from black-market product may present a daunting challenge – to the detriment of the law enforcement technique of encouraging possessors to identify suppliers.

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<sup>78</sup> Two cents per hundred milligrams works out to 20 cents a gram.

<sup>79</sup> To reiterate, as a conceptual starting point, the state might seek legalization without price degradation: To the extent that pre-tax prices fall, taxes could rise, as discussed in Chapter Five of the Report. More precisely, the state’s goal could be that real after-tax prices, taking into account different strains and different products, should remain, over time, homeostatic -- steady -- in terms of price per intoxicated hour delivered to the consumer. Advocates of legalization do not often list “lower prices” as a goal for reform. That said, the price in the pre-legalization market at any particular moment is a function not only of supply and demand, but also of resources and tactics that law enforcement uses to combat it. In Vermont as elsewhere, those factors have not been constant, and there may be no particular reason that they result in a price level that state should adopt as a permanent target. But whatever goal the state seeks to achieve through revenue means, there are limits to what the market will bear.

<sup>80</sup> The details of enforcement present huge issues, but are beyond the scope of this document.

Law enforcement has various techniques at hand, but none are sure-fire. Tracking with RFID tags and the like may prove useful, but the adequacy of tracking is yet to be determined.<sup>81</sup> Limiting the amount of loose marijuana anyone can possess outside a tax-paid package could create a presumption that the possessor who exceeds the limit is in violation of the law. Nontoxic biomarkers or genetic coding of legal product might someday allow detection of product that did not originate legally.<sup>82</sup>

But the black market will not vanish immediately upon legalization. In the early days of legalization in Washington,<sup>83</sup> legal prices reportedly doubled black market prices and medical marijuana prices. By late 2014 in Colorado, meanwhile, legal prices anecdotally exceeded comparable black market prices by 50 percent or more.<sup>84</sup> Some people in the marijuana community, accustomed to law-breaking, think of marijuana prohibition laws as foolish, and not deserving of respect. That pattern of thinking might not change overnight upon implementation of a tax-and-regulate system. Already, in Colorado, open defiance of the new tax-and-regulate scheme is popping up.<sup>85</sup>

But success of a marijuana legalization plan does not depend on the reaction of the marijuana community alone. Today, the public may be ambivalent about marijuana offenses. That ambivalence may take the form, after legalization, of ambivalence about marijuana taxes. In light of any perceived public ambivalence,

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<sup>81</sup> That approach would follow the federal approach to liquor. Federal law bans the possession of non-tax-paid liquor, and allows the sale of liquor only in bottles that hold no more than 1.75 liters.

<sup>82</sup> See Leonardo Haberkorn, “Uruguay to track pot by genetic markers,” <http://bigstory.ap.org/article/uruguay-track-pot-genetic-markers>, March 28, 2014.

<sup>83</sup> Hunter Stuart, Oregon's Cheap Legal Weed Could Starve Washington's Market, [http://www.huffingtonpost.com/2014/11/01/oregon-legal-weed\\_n\\_6084208.html](http://www.huffingtonpost.com/2014/11/01/oregon-legal-weed_n_6084208.html), November 1, 2014. But by mid-January, though recreational marijuana was still selling for about twice the price of medical, both sets of prices had fallen – and Washington producers were reporting a glut that one producer called an “economic nightmare.” Gene Johnson, <http://www.msn.com/en-us/news/us/growers-struggle-with-glut-of-legal-pot-in-washington-state/ar-AA8ee7s>, January 16, 2015.

<sup>84</sup> Jacob Sullum, “This Is What Legalizing Marijuana Did to the Black Market in Colorado,” <http://reason.com/archives/2014/10/30/the-lingering-black-market>.

<sup>85</sup> An hour-long CNBC report, “Marijuana Country: The Cannabis Boom,” shows and names a wounded Army combat veteran who, using Craigslist, transfers surplus medical marijuana tax-free, in sales portrayed as reciprocal donations, for “a third” of the legal retail price. <http://www.cnbc.com/live-tv/cnbc-originals/full-episode/marijuana-country-the-cannabis-boom/379637315796> (beginning around 9:20 mark) (first aired on January 5, 2015.) “I’m not selling anything. He’s just giving me some money. And I’m just giving him some cannabis.” (Around 11:58 mark.)

prosecutors may choose not even to charge marijuana offenders.<sup>86</sup> Even if offenses are prosecuted, juries could nullify the law – refusing to convict offenders.

Since marijuana prohibition has proved hard to enforce, a tax-and-regulate model may suffer, too.<sup>87</sup> Enforcing laws against tax evasion, grand or petty, is no simple feat. The public may condemn tax evasion less harshly than drug crimes. After legalization, if the public winks at tax evasion, the black market will thrive.<sup>88</sup> If tax evasion is widely tolerated, tax revenue will not materialize. But if evasion of marijuana taxes is seen as a “fool’s errand,”<sup>89</sup> a revenue plan can succeed. Indeed, citizens who think marijuana prohibition ill advised and who now wink at marijuana bootlegging might cooperate with law enforcement against tax evasion. Throughout American history, “[m]aking drinkers pay higher taxes for their liquor and punishing tax evaders were state powers most citizens recognized; denying drinkers the right to buy their liquor was state imposition of one group’s morality upon another group.”<sup>90</sup>

Unless taxes are ultra-low, the life or death of the black market, and of the legal industry, will turn on enforcement of the new revenue laws. And on public support for those laws. In connection with marijuana legalization, the Legislature might consider ways to involve the public and to determine public support.<sup>91</sup>

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<sup>86</sup> Post-legalization of recreational marijuana, “King County [Seattle] Prosecutor Dan Satterberg says medical dispensaries live in a legal ‘gray area,’ and hasn’t brought many cases in part because King County juries simply won’t convict.” Jonathan Martin, [http://seattletimes.com/html/opinion/2025417951\\_jonathanmartincolumnmarijuana09xml.html?cmpid=2628](http://seattletimes.com/html/opinion/2025417951_jonathanmartincolumnmarijuana09xml.html?cmpid=2628), January 8, 2017.

<sup>87</sup> Cf. Peter Reuter, “Can tobacco control endgame analysis learn anything from the US experience with illegal drugs?” [http://tobaccocontrol.bmj.com/content/22/suppl\\_1/i49.full.pdf](http://tobaccocontrol.bmj.com/content/22/suppl_1/i49.full.pdf) (2013).

<sup>88</sup> So will the gray market, here meaning the market in goods that were once legal, but that don’t bear full tax.

<sup>89</sup> That term comes from “Concluding Thoughts” of Chapter Five of the Report. This section in part supplements some of that discussion.

<sup>90</sup> Wilbur R. Miller, *Revenuers and Moonshiners* 8 (Chapel Hill: UNC Press 1991), at 6. Modern-day tobacco companies have much more of an incentive to go after counterfeiters than to worry about cross-border tax-driven smuggling of products they have been paid for.

<sup>91</sup> In 1916, Vermont voters told the Legislature they disapproved of state-level alcohol prohibition. Here’s the story: The Legislature passed prohibition in 1915, but delayed enforcement until giving voters, in 1916, a chance to decide whether they wanted prohibition effective right away (later in 1916), or delayed until 1927. The voters said 1927, which the Legislature interpreted to mean “never,” as it had indicated it would. So the Legislature repealed the state prohibition law posthaste.

<https://www.sec.state.vt.us/media/59745/1916P.pdf>. A ballot measure is a slow form of consultation with the public. More wiieldy forms may be available in an age of massive information flows.

Amid all this uncertainty, it may be helpful to look back at the 1933 testimony, before the federal tax-writing Committees, of Luther Gulick, a tax expert who helped the authors of *Toward Liquor Control*, the Rockefeller Commission Report on Prohibition repeal: “Bootlegging cannot be stamped out in the United States by low taxes. [An initially] low tax rate will not solve the problem by itself. It has got to be solved by law enforcement and by the recognition by the citizens of this country that they have more today to gain than they have to lose by buying legitimate liquors through legitimate channels, even if someone else can come to them and say, ‘Here, we have the same stuff at lower rates’--and probably they do not have the same stuff. In many cases when we pay lower prices for illegal beverages than legitimate taxes require and demand, we are subsidizing the [illegitimate products] which serves to debauch our police, undermine our courts, and wreck our government machinery throughout. Therefore, it is not only necessary to have taxes, but it is necessary to have rigid enforcement, and a new attitude on the part of the public at large. It seems to me there is an opportunity for that new attitude.”<sup>92</sup> Gulick hoped that “the people will join in seeing bootlegging stamped out, as has been revealed by the repeal vote.”<sup>93</sup>

But will the public take a new attitude toward marijuana? An option listed in Chapter Five of the Report, “Scheduled Future Rate Increases,” could address the uncertainty. For instance, future rates – say, three to five years out<sup>94</sup> – could currently be set high enough to seize the entire prohibition premium. Setting future rates so high could put the Legislature in a comfortable<sup>95</sup> position. If enforcement efforts prove successful, the Legislature could cut taxes only marginally, or even not at all. If unsatisfactory enforcement leaves the black market strong, the Legislature could cut taxes substantially, to let the legal sector seize market share. One can imagine a series of tax cuts as the market evolves – if enforcement is adequate.

A “Scheduled Future Rate Increases” approach could even, at the extreme, involve a tax holiday – a zero tax rate on marijuana enterprises for a few months. The point would be to convert the illegal trade. Such an extreme and unsustainable low rate, during the transition to legality, might make the market function well. To be sure, low initial rates would exacerbate a problem: Legalization will be a cash drain at

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<sup>92</sup> Statement of Luther Gulick, Director of the Institute of Public Administration, Hearings, *supra* note 66, at 147-48.

<sup>93</sup> *Id.* at 148.

<sup>94</sup> Picking a number of years may seem as arbitrary as picking tax rates. Three to five years comes from the four year period mentioned in the text accompanying note 70, *supra*.

<sup>95</sup> Ordinarily, for a legislative body, cutting taxes is easier than raising them. For marijuana tax cuts, maybe not. Marijuana tax cuts might offend opponents of marijuana.

first, because the state will need to spend money to make money. The longer the state waits for tax revenue, the worse the cash drain.

A possible response is to collect high fees early in the process (see Chapter Five of the Report). The state could set a high fee for licenses, perhaps without the preliminary step of an application fee. (Nonrefundable application fees are common in medical marijuana states.) The high fee could winnow applicants – and so reduce the number of appeals, including litigation, from disappointed applicants. High fees could be tailored to the size of the right granted, to allow many or few entrants into the industry. (Many in the marijuana community would like to see production rights widely dispersed, even available to all comers.)

### **III. Collection points for taxes based on weight, price, and THC**

Chapter Five of the Report looked at various bases – measuring sticks – to use when taxing marijuana. It also looked at collection points for marijuana taxes – where the tax would be collected, and who would pay it. This section III provides detail about the collection point for three primary tax base options: weight, price, and THC potency. This section will likely be useful or interesting only, or at least primarily, to tax technicians.

#### **A. Collecting weight-based taxes**

Weighing of product to assess tax might take place at dispersed locations. Weighing, although it should require control of moisture content, should prove cheaper and simpler than potency testing. So while multiple locations for potency testing could be prohibitively expensive, dispersed weighing might be affordable. Because centralization is not so important, weighing could be effective earlier in the supply chain than potency testing -- if, for instance, the supply chain narrows from farm to wholesaler.

With careful monitoring at the growing location, weighing could even take place at the producer level. But if there are many producers and fewer resellers, the audit function might tilt the process toward more centralized weighing – with the danger of leakage to be reckoned with.

Contemplating weight-based marijuana taxation in 2010, the staff of the California Board of Equalization recommended a tobacco-like collection point:

“BOE staff typically recommends that excise taxes or fees be imposed as high [early] in the distribution chain as possible since there are fewer taxpayers and less potential for evasion. With respect to marijuana, the highest point in the distribution chain would be the grower. However, growers normally sell in bulk volume, which would not be conducive to a unit-based [weight-based]

tax. These bulk volume sales are usually repackaged by a distributor/processor for retail sale making the distributor level an appropriate, and BOE staff recommended, point of taxation. Distributors are high in the sales chain, which minimizes the number of taxpayers, and imposition at this level would allow for the use of tax stamps.”<sup>96</sup>

Note that the California BOE staff did not seek perfection:

“[G]enerally speaking, growers would be licensed and inspected regularly. By knowing the size of a grower’s crop, we know the approximate amount of product produced. Just like alcohol, some product may go out the back door that the taxing agency is not aware of. This can never be completely controlled. There is no fool proof system to stop all evasion schemes. But by using indicia, licensing all the levels including retailers, and doing regular inspections, the state of California can reduce the evasion level.”<sup>97</sup>

Seed-to-store, round-the-clock video surveillance was only in the conceptual stage in 2010 when BOE staff looked at the collection point issue. It may be that such surveillance and tracking make evasion more difficult than the staff imagined. If so, collection late in the supply chain becomes less problematic.

## **B. Collecting price-based taxes**

This section highlights four considerations for price-based taxes: the standard considerations of choke points and early collection; and two unique ones: increases in revenue as the collection point moves later into the supply chain; and gamed prices.

### *Price-based choke points*

Vermont may create collection choke points at retail by allowing only a small number of marijuana businesses. (Vermont now allows only four medical marijuana dispensaries.) Similarly, a small number of collection points could arise from a tax at the farm gate, because the marijuana needs of Vermont could be met by a small number of acres, and the state could choose to let only a small number of growers met that need. But choosing a small number of growers would likely require rejecting many interested applicants.

### *Price-based early collection*

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<sup>96</sup> [California] State Board of Equalization (BOE) Legislative and Research Division, “Proposition 19,” *available at* <http://www.boe.ca.gov/news/pdf/Proposition%2019%20draft%20analysis.pdf>.

<sup>97</sup> BOE spokesperson Anita Gore, quoted in *Laws to Tax*, *supra* note 5, at 277 n.234.



Early collection points tend to allow less leakage of untaxed product than later points.<sup>98</sup> A retail collection point creates opportunities for leakage and thus evasion, because it allows untaxed marijuana to linger in the supply chain before a retail sale takes place. That is, it creates uncertainty about whether tax will be paid. Leakage before the retail sale anywhere in the supply chain – theft at farm or factory, hijacked truck, shoplifting, untaxed sales to friends, gifts, and pilferage – defeats the tax collected at retail. (So does fire, but that is not a case of tax evasion.)

Still, price-based taxes imposed at low rates, such as sales taxes, are routinely collected at retail. For instance, Vermont imposes an extra 10-percent tax rate for sales of alcohol for on-premises consumption.<sup>99</sup> If a tax is low, the stakes may be low enough that cheating is so rare as to be tolerable.

*Variation of revenue and price with price-based collection point*

Collections of a price-based tax, unlike taxes with other bases, could vary depending on the place in the supply chain where tax was collected. Collecting tax early in the process creates a cost for purchasers of tax-paid product. Later operators in the supply chain don't just pass that cost on; they mark that cost up – like other costs.<sup>100</sup> So the later the collection point, theoretically, the greater the revenue collected. So an identical percentage tax *rate* would theoretically produce higher tax *collections*, in dollar terms, from a later collection point. That is, assuming no leakage or evasion, delaying collection of a price-based tax would put more revenue in the hands of government, because the price base expands along the supply chain as intermediaries increase prices. For other bases, government receipts do not depend on the collection point.

Despite the theoretical extra revenue that might pour in from a late collection point, major excise taxes are routinely collected as early as possible. A plausible reason for that routine practice is that leakage and diversion don't just cost revenue, they undermine the integrity of the tax.

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<sup>98</sup> This rule of thumb applies in the simple case where all commerce is unijurisdictional. Thanks to Jon Caulkins for this point (and much more). When other states legalize, if their products are imported into Vermont, an early collection point at the producer level would miss their products completely. In such a case, the state might seek the earliest collection point available within the state, as it does with tobacco taxes.

<sup>99</sup> 32 Vermont Statutes Annotated section 225, <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=225&Section=09241>.

<sup>100</sup> Jon Caulkins, Susan Andrzejewski, and Linden Dahlkemper, *How Much Will the 25/25/25 Tax Scheme Actually Impact the Price of Cannabis?*, BOTEC Analysis Corp., [http://liq.wa.gov/publications/Marijuana/BOTEC%20reports/8a\\_Impact\\_of\\_tax\\_scheme\\_on\\_price\\_of\\_regulated\\_cannabis-Final.pdf](http://liq.wa.gov/publications/Marijuana/BOTEC%20reports/8a_Impact_of_tax_scheme_on_price_of_regulated_cannabis-Final.pdf) (July 28, 2013).

*Gamed prices and price-based taxes*

The Report discusses two system-gaming techniques unique to a price base, (1) bundling in sales to unrelated parties, and (2) related party (and intra-company) “transfers.”

Bundling – selling taxed marijuana and tax-free goods or services as a bundle, for one undifferentiated price – can crop up anywhere in the supply chain. Since the problem can be ubiquitous, no choice of collection point can solve it. To solve it, marijuana sellers could be allowed to sell or provide no other goods or services, so they would have nothing to bundle marijuana with.

Phony related party and intra-company marijuana transfer prices arise routinely under vertical integration.<sup>101</sup> If Vermont required or even allowed vertical integration, a *collection-point solution* to the phony price problem is worth considering. Here it is: **Any price-based taxes might be imposed on the first sale to an *unrelated party*.** A first-unrelated-party approach could avoid the problem that has developed in Colorado, which has retreated from a price base for its Constitutional producer tax. A first-unrelated-party rule would result in a price to tax that is at arm’s-length, rather than the kind of estimated price Colorado has developed.

A first-unrelated-party rule may be unprecedented, and policymakers might be wary of unprecedented tax schemes. Why might there be no precedent? It may be that percentage-of-price-based excise taxes do not typically target related party transactions. That is, tax writers may ordinarily solve this problem by avoiding it – by using bases other than price to impose excise taxes on transactions that frequently involve related parties.<sup>102</sup>

For a completely integrated business, the first unrelated buyer would be the retail consumer, so a percentage-based tax would apply to the retail price. By contrast, for a non-vertically integrated business, the first sale to an unrelated party

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<sup>101</sup> Vertical integration, where the supply chain consists of only one company that does everything from growing to retailing, is described in Chapter Six of the Report. Vermont, like Washington, could ban vertical integration and financial connections between wholesalers and retailers. In that case, a price-based tax at, for instance, the wholesale level, would be feasible, because an arm’s-length price between unrelated parties would provide a measurable base for a tax.

<sup>102</sup> The trillions of dollars stashed and captured in foreign subsidiaries of U.S. corporations found their way there largely because transfer-pricing rules don’t in fact prevent tax-motivated related-party shenanigans. See Avi-Yonah, “Back from the Dead: How to Revive Transfer Pricing Enforcement” <http://ssrn.com/abstract=2363580>, December 4, 2013.

would be not to the ultimate consumer, but to an intermediary. The first-unrelated-party sale there might be from grower to wholesaler, or from grower-wholesaler to retailer. That sale would presumably bear a lower price than a retail sale (if products are comparable and the market is relatively competitive), because the price would be marked up as the product moves along the supply chain.

Here is how a first-unrelated-party collection point would work in two hypothetical cases, one vertically integrated, one not. We assume that a 60 percent price-based tax applies to the first sale of marijuana to an unrelated party; that production costs for all market participants are \$1.00 per unit; that the selling function for all participants involves marking up all costs, including taxes, by 50 percent;<sup>103</sup> that the state allows but does not require vertical integration; and that vertical integration provides no cost saving or other economic benefit. A vertically integrated company marks up its \$1.00 production cost on account of the selling function by 50 percent, to \$1.50. The 60-percent tax on that \$1.50 is \$0.90, so the after-tax price to the first unrelated party, the consumer, is \$2.40. In the nonintegrated hypothetical case, where the only two links in the supply chain are grower and seller, the pre-tax price the grower charges the retailer is \$1.00 per unit. The 60-percent tax adds \$0.60 to the price the retailer pays. The retailer marks up that \$1.60 all-in cost by 50 percent, or another \$0.80, again for a total after tax price of \$2.40.

In the example above, a vertically integrated business would pay a higher tax bill than its non-vertically integrated competition. But that higher tax may not result in a competitive disadvantage: vertically integrated operations may be so much more efficient than non-vertically integrated operations that no competitive disadvantage appears – as the example assumes. Vertically integrated operations, for instance, may well have economies from avoiding transaction costs and other friction -- so a higher dollar tax on them may level the competitive playing field so they are less dominant. So even with a first-unrelated-party collection point, vertically integrated businesses might experience no competitive disadvantage.

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<sup>103</sup> Several documents prepared by the BOTEC Corporation for the State of Washington lead to the view that this assumption is not likely to hold. See [http://liq.wa.gov/marijuana/botec\\_reports](http://liq.wa.gov/marijuana/botec_reports), “Dynamic simulation scenario model spreadsheet,” 2013. In the real world, an early tax collection point would tend to favor retailers that charge low markups, if they mark up taxes like other costs. ([http://liq.wa.gov/publications/Marijuana/BOTEC%20reports/8a\\_Impact\\_of\\_tax\\_scheme\\_on\\_price\\_of\\_regulated\\_cannabis-Final.pdf](http://liq.wa.gov/publications/Marijuana/BOTEC%20reports/8a_Impact_of_tax_scheme_on_price_of_regulated_cannabis-Final.pdf)), 2013. An informative Spreadsheet, “How much will the 25/25/25 tax scheme actually impact the price of cannabis?” is downloadable from [http://liq.wa.gov/marijuana/botec\\_reports](http://liq.wa.gov/marijuana/botec_reports), 2013.

But vertical integration might instead be relatively inefficient.<sup>104</sup> In that case, a first-unrelated-party rule would add to a competitive disadvantage for vertical integration. Whether vertical integration in any particular case is advantageous depends on a variety of factors.

But should policy makers care if vertically integrated businesses get a competitive disadvantage, or a competitive advantage? It is not clear which one, if either, is desirable; Chapter Six of the Report discusses this issue.

In attempting to patch up a price-based excise tax to make it work, a first-unrelated-party collection point does not answer every objection. For instance, it does not result in a readily measurable tax base when an individual vertically integrated producer consumes his own product. In that case, there is never a sale. When the producer is widely held, the tax-evasion problem is less worrisome: A more widely held company would not be well served by unlimited free marijuana consumption by the owner of a minority of its shares.<sup>105</sup> Artificial benchmarked prices might be needed to address the producer-as-consumer problem. Indeed, federal law relies on artificial benchmarked prices when truck manufacturers use their own taxable trucks to deliver trucks they are selling, and when vaccine makers administer taxable vaccines to their employees.<sup>106</sup> These problems illustrate difficulties with a price base – even in the absence of the foreseeable price collapse – that other bases don't present.<sup>107</sup>

### **C. Collecting potency-based taxes**

Potency-based taxes can be assessed as soon as testing takes place. The Legislature might decide (1) to tax concentrates as the producer sells them, or (2) to let concentrates, or products from concentrates, travel untaxed from producer to wholesaler (or perhaps retailer). (If the concentrate-producer is a wholesaler, or sells

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<sup>104</sup> See John Stuckey and David White, “When and when not to vertically integrate,” *McKinsey Quarterly*, [http://www.mckinsey.com/insights/strategy/when\\_and\\_when\\_not\\_to\\_vertically\\_integrate](http://www.mckinsey.com/insights/strategy/when_and_when_not_to_vertically_integrate), August 1993.

<sup>105</sup> Employee discounts, standard in retail trade, present another issue: Should full tax (on a non-discounted benchmarked price) be collected? For sales taxes, the answer is no. Sales tax rates are generally so low that employee discounts don't constitute a major problem.

<sup>106</sup> IRS, “Excise Taxes,” <http://www.irs.gov/pub/irs-pdf/p510.pdf>, July 2013.

<sup>107</sup> The flimsiness of price as a tax base is a possible takeaway from all this discussion. Beyond bundling and related party transactions, prices might be adjusted to curry favor, as New Orleans songwriter Allen Toussaint suggested: “If he's rich treat him nice./Give him the cut price./Then overcharge the poor/Some more.” *Viva La Money*, 1968. When a price can be manipulated for various purposes, it's natural to think it will be manipulated to beat tax. Formula pricing is a possible response, but brings arbitrariness.

directly to retailers or to customers, then options (1) and (2) yield the same answer.) If there are many producers of concentrates and few wholesalers, the first option involves the administrative burden of many taxpayers and audits, which would need to be balanced against the danger of leakage in the second option.

A likely scenario is that testing of concentrates would take place in a central or mobile laboratory operated (or supervised, if federalism concerns force a work-around) by the state, and that some time would be needed to obtain test results. In that scenario, while test results were being produced, concentrates could travel untaxed along the supply chain. In that case, tax could be assessed on resellers rather than producers. If producers ship tax-free product, a tracking system might allow a penalty to apply to product “lost” en route – in an amount that would exceed any likely tax that is not collected.

#### **IV. What other problems might loom?**

Marijuana legalization is likely to provide surprises.<sup>108</sup> Legalization on tribal lands in Indian Country, for instance, is likely to produce unanticipated consequences. Early work<sup>109</sup> on marijuana tax design largely overlooked at least three major traps -- the high probability that collapsing prices will gut a percentage-of-price tax base, the importance of concentrates, and a technicality<sup>110</sup> threatening the deductibility of state excise taxes under the federal income tax.

Maybe, with two states already taxing commerce, no major surprises lurk. But a tax system is like a bucket: One hole can make it suspect. We don't yet know how well policymakers can plug the hole of tax exemption for medical use. The predictable problem of collapsing pretax prices has no ready-made solution. And we can't anticipate all the holes that smart businesspeople will create. So, as the Report indicates, a state monopoly, or a public authority, would seem more leak-proof.<sup>111</sup> And monopoly might appeal more to the public.<sup>112</sup>

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<sup>108</sup> The four Federal Constitutional Amendments of the early 20<sup>th</sup> century, adopted with the best of intentions, provide an object lesson. Results ranged from Women's Suffrage, now an article of faith, to Alcohol Prohibition, a painful failure. In between are Direct Election of Senators, nearly, but not quite, universally accepted, and the Income Tax, which still attracts vehement opposition.

<sup>109</sup> These oversights are found, for instance, in *Laws to Tax*, *supra* note 5.

<sup>110</sup> “State Law Fix for 280E Problem?” <http://newrevenue.org/2014/12/04/wa-fix-for-280e-problem/>, updated December 16, 2014.

<sup>111</sup> Would the federal government would step in and shut down a reasonably run state marijuana monopoly before a new Administration takes office in 2017? One cannot prove it would not. But one way of looking at the issue builds on the observation “that the federal government was not comfortable with the rapid expansion of marijuana entrepreneurship.” Erwin Chemerinsky, Jolene Forman, Allen Hopper, and Sam Kamin,

But tax-and-regulate is first past the post, and its tax element occupies a unique position. At a time when tax increases are hard to pass, marijuana taxes enjoy rare public support.<sup>113</sup> And, for instance, Grover Norquist, the “keeper” of the No-Tax Pledge, has said “that lawmakers who signed the pledge and want to legalize and tax cannabis are in the clear. ‘That's not a tax increase. It's legalizing an activity and having the traditional tax applied to it.’”<sup>114</sup> So tax-and-regulate with large commercial production is the model of the hour. Models other than tax-and-regulate have advantages, to be sure, but the challenges of making taxes work don't mean that task is impossible.

A final thought: As the nation and the world examine marijuana legalization, many promising options remain untried. Their benefits and costs are far from clear. The state and the world might benefit from experience that Vermont could gain, by taking a road not yet traveled.

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“Cooperative Federalism and Marijuana Regulation,” <http://ssrn.com/abstract=2411707>, March 19, 2014. State monopoly is at one end of the spectrum from entrepreneurship.

<sup>112</sup> Marijuana monopoly polled much more favorably than private sales in another liquor control state. <http://newrevenue.org/2013/03/12/nc-poll-shows-3-to-1-preference-for-state-marijuana-monopoly-model-over-private-sales/>.

<sup>113</sup> <http://newrevenue.org/2015/01/06/taxes-help-legalization/>.

<sup>114</sup> Alex Seitz-Wald, <http://www.nationaljournal.com/congress/grover-norquist-gives-thumbs-up-to-pot-taxes-20131024>.