Marijuana Industry Overview

Impaxes

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I. Recent History of the Industry

California's Proposition 215 Leads to Recreational Legalization

In 1996, Californians passed Proposition 215, the Compassionate Use Act, and became the first state to legalize medical marijuana for patients with AIDS, cancer, and other serious diseases and launched the current phase of marijuana policy in the US.

Colorado put forth a bill in 1998 to do the same, but their first attempt failed. Then, in 2000 Amendment 20 made Colorado the only state with legal medical marijuana use written into its constitution. With this public opinion momentum Colorado voters passed Amendment 64 legalizing recreational use in 2012, and they were simultaneously joined in the recreational cannabis club by Washington, where initiative 502 also passed.

MMRSA and Proposition 64

In October 2015 California's state legislature passed, and Governor Jerry Brown signed into law a series of bills that became the Medical Cannabis Regulation and Safety Act (MCRSA). After 20 years without statewide regulation this law calls for the creation of a marijuana industry regulatory body similar to California's Department of Alcohol Beverage Control (ABC). In February 2016 Governor Brown appointed Lori Ajax to be California's marijuana czar and oversee the Bureau of Medical Marijuana Regulation (BMMR), where she is charged with building the regulatory framework for the industry and issuing the various licenses prescribed by the initiative.

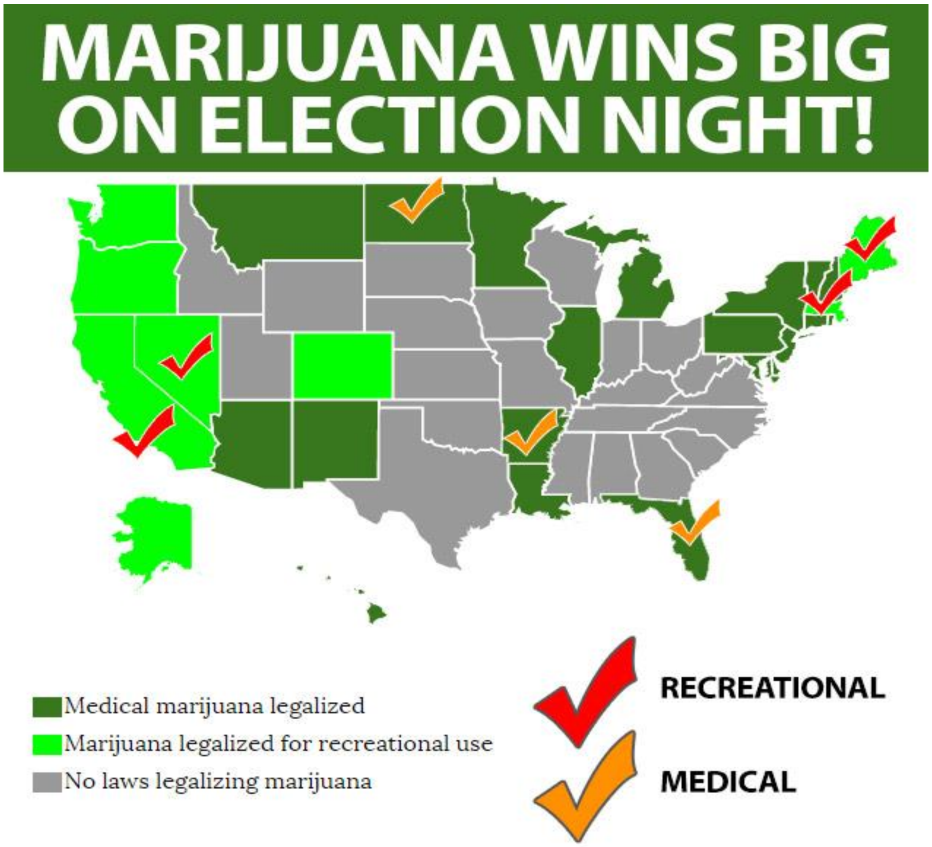
On November 8, 2016, Californians joined Coloradans and Washingtonians by voting for Proposition 64, known as the Adult Use of Marijuana Act (AUMA). This is widely seen as the inflection point in nationwide legalization. Following the passage of Proposition 64 (AUMA), the BMMR became the Bureau of Marijuana Control (BMC), and its purview increased to include both recreational and medical sales and usage. California has announced their intention to unify its medical and recreational marijuana industries.

II. It's All About California

Size of Industry

In 2015, Marijuana was a $53B retail market in America according to estimates from Drugscience.org.

In November 2016 eight states passed ballot initiatives legalizing Marijuana (four recreational and four medical). The list of recreational states includes the entire West Coast of the US, and the Northeast isn't far behind. Now, the marijuana industry is beginning its transition into a legal, regulated industry and will soon compete directly with the $211 billion alcohol industry in the United States. (Beer ~50%, Liquor ~30% and Wine ~20%)



California's Place in Industry

As one of the largest US states and the natural home of the industry, California will become the archetype for legal, responsible and recreational usage with legal statewide sales expected to eventually reach $20B.

III. California's Goals

Convert Industry into Legal, Taxpaying One

According to the promoters of the AUMA, the conversion of the cannabis industry from its current lawless, black-market status into a fully legal, taxable and regulated system will yield up to $1B in new tax revenue, beginning in January 2018, with the establishment of statewide regulations and a licensing system. Over the ten months between now and 2018 the legislators in California will reconcile the AUMA with MCRSA, and the Bureau of Marijuana Control will design and develop the regulatory framework that will underpin the supply chain of the industry.

Allow Industry Players to Make Money or else the Black Market Will Win

Since Prop 215 in 1996, many cities and municipalities have passed ordinances that allow retail sales of medical marijuana. Prior to 2018 these stores are organized as cooperatives for the non-profit benefit of their patients, but given minimal enforcement, most operators thrive by operating in the shadows. They are currently joined in the black market by Mexican cartels and other underworld figures, and most experts estimate that less than 1% of the marijuana sold in the US goes through a completely legal supply chain.

Today in California, an astonishingly small amount of our marijuana is grown legally in a licensed facility, and only a handful of municipalities allow licensed manufacturing of marijuana extracts. Because the state has yet to issue statewide distribution licenses, all distribution is ad hoc and illegal. In addition, the retail universe is littered with numerous unlicensed or "rogue" shops that look and feel like their legal brethren without the hassle of testing constraints and paying local taxes. And, literally thousands of small-timers operate illegal app-based marijuana delivery services in nearly every city in California.

The current system favors rogue actors and renders rule followers as tax-paying patsies. Only a well-designed operating system that allows businesses to make money can succeed in the long run. Otherwise, operators will spend their time designing methods for skirting the system, law enforcement will complain that they don't have money to enforce the rules, and we will be back to the drug war.

IV. System Development Case Study - Colorado

Size of Market ($1.1B at retail in 2016)

In its first year in 2014 Colorado's marijuana regulatory system produced retail sales of $700m. It then grew by over 50% in 2015 to $1b, and by another 10% in 2016 to $1.1b. These sales generated tax revenues for the state of $63m, $120m and $170m respectively.

Industry observers estimate that legal sales now account for roughly 70% of total sales, leaving 30% remaining in the black market. But, are enough businesses making money? Is the system working? Is it sustainable?

Key Policy Decisions

Colorado's policymakers made 3 key decisions about their marijuana supply chain.

1. Separate systems for medical marijuana and recreational marijuana
2. Two-tiered supply chain where cultivators/manufacturers interface directly with retailers (testing occurs inside the manufacturing segment)
3. Seed-to-sale track and trace system that allows monitoring on a plant-by-plant basis

Separate Systems for Medical and Recreational

The first decision likely made sense at the time of inception, but it has proven to be cumbersome and onerous. Not only do retailers need to choose to serve one or the other market, but cultivators need to separate their facilities into two distinct areas to provide the same product to different markets. This adds nothing but inefficiency to the system where the only true benefit to medical users from having a separate system is to save sales tax costs.

Two-tiered Supply Chain

By choosing to implement a two-tiered supply chain, the state of Colorado destined its marijuana industry to eventual failure, barring a change of course. Prior to 2014 the unregulated industry had two supply chain segments: cultivation/manufacture and retail. So, upon regulation, Colorado acquiesced to the wishes of current industry operators and maintained the basic system, allowing both large retailers and large manufacturers to self-distribute.

Self-distribution doesn't work at scale in any sophisticated product industry, let alone one that faces the legal and social challenges of marijuana. The first couple years in Colorado provide evidence of a broken system. Large retail chains have discovered that they make significantly higher margins when they create their own supply, and large cultivators have found that they capture vastly more rents when they supply their own stores.

Now, the big players are vertically integrated operators who service the entire supply chain. Aside from violating a fundamental rule of economics that teaches companies to focus on their areas of competitive advantage, the resulting distribution system yields a tilted playing field against smaller operators. Not large enough to warrant self-distribution, they are now forced to rely on distributors who are actually their competitors and quasi-monopolists to boot.

Seed to Sale Tracking

Seed to sale tracking for marijuana seems like a good idea, but a bit of perspective is useful. The only other product in the US that requires tracking from product creation to sale is plutonium. Systems should be used as tools, not as failsafe monitors. Product testing would suffice to control for outliers in product quality, pesticide use and THC amount. Seed to sale tracking adds unnecessary costs to the system that can and should be easily avoided.

Result

Colorado's system today seems healthy on its surface, but cracks are evident. The overwhelming majority of retailers in Colorado have failed to generate profitable businesses, the product quality is sub-par by most accounts, growth in only the third year of business is down to 10% and many sophisticated Colorado operators have moved their businesses to California and Nevada.

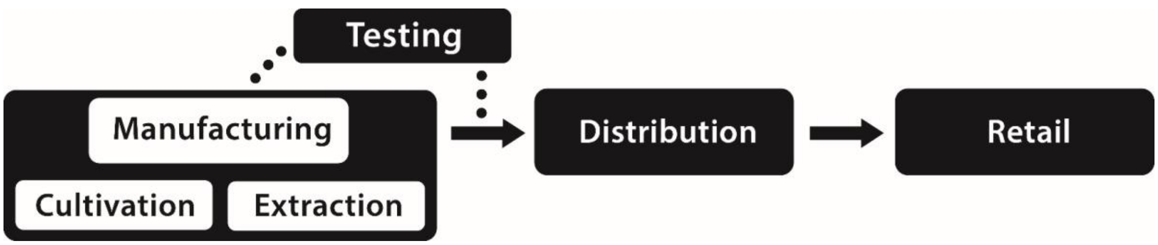
IV. System Development in California

Given its Size and Importance California Must Become the Prototype

As mentioned, California is the epicenter of the marijuana industry both economically and culturally, and it will become the archetype for other states, whether by choice or circumstance. Thus, it is critical that California lawmakers develop a solid framework, while continuing to iterate and make improvements to their chosen system.

System Design is Very Important

The failures of the Colorado recreational marijuana industry demonstrate the need for a well-designed system in California. Despite the protestations of some current industry players, and contrary to the organization of some current recreationally legal states like Colorado, the cannabis industry in California will utilize a three-tiered supply chain as diagrammed below. The AUMA and the MMRSA both convey this logic, and Governor Brown's choice of former Alcohol Beverage Control deputy, Lori Ajax, to become head of the BMC confirms this.



When designing this legal system, Californian lawmakers should look to the alcohol industry as a guideline due to multiple parallels. The alcohol distribution system begins when the manufacturer delivers his product to the distributor's warehouse. Upon arrival, the batch is paid for and stored in the warehouse as inventory. Then, portions of the inventory are sorted per retail establishment, loaded onto trucks and delivered on a weekly basis to each restaurant, bar, arena or liquor store. The distributor's delivery personnel fill their trucks and drive their routes. The distributor's salespeople visit each outlet weekly to take inventory, get the new week's orders, merchandise the shelves and pick up payment. The distributor collects the excise taxes that the retailer owes to the state each month, and interestingly, he also collects taxes on behalf of the manufacturer and becomes the sole payer of excise tax in the system. Thus, in the alcohol industry the State of California only needs to manage tax collection from a few dozen sources.

Focus on Distribution

For the past fifty years or so the distribution of marijuana has been the most secretive part of an opaque system. Given this, along with the fact that most of the states that legalized recreational marijuana did so unsystematically, there is very little history to show us how it will work. What is obvious is that the overwhelming number of edge operators (small cultivators and small retailers) inherent in California's legal cannabis industry will require a choke-point in order for the system to function properly. Hence, lawmakers should focus on designing a strong distribution system to serve as the foundation. As is the case in the alcohol industry, we believe this will result in a few well-capitalized and sophisticated statewide distributors who can perform the following functions vital to the success of the system:

1. Collect taxes on behalf of the BOE
2. Provide capital and take ownership of product
3. Store and warehouse product
4. Truck and deliver product to retail stores
5. Merchandise product at stores
6. Provide fair, rules-based access to the retail channel for small manufacturers
7. Monitor and ensure the testing of products for pesticides
8. Monitor and ensure the testing of products for efficacy and proper labeling
9. Maintain wholesale pricing in the system

There are still many questions to be answered about the structure of the distribution system. Should California require mandatory independent distribution? Should distribution be statewide or regional? Should there be many small distributors, or a few large ones? The answers to many of these questions lie in the failures of Colorado, and working examples set by other industries. Some other questions require modeling and further study.

VI. Likely Outcome

Similar to Alcohol

Marijuana will mirror Alcohol due to multiple similarities. Alcohol is populated by several dominant mainstream brands and hundreds of highly profitable specialty brands. We believe the same will be true of the marijuana industry - with consumers choosing brands based on similar criteria they use to select their alcohol favorites.

Due to the size limits inherent in AUMA's licensing scheme, small retail and cultivation operators will dominate California's marijuana industry. In a system that is so atomized on its edges (Manufacturing and Retail), both of these segments will ultimately contain tens of thousands of licensed operators who will need to connect with each other to do business.

In many regulated businesses including alcohol, the government has understood the value of having a small number of sophisticated and well-capitalized players to help it control the system. Wine & liquor distribution in California is dominated by the two-company oligopoly of Southern Wine & Spirits and Young's Market. Beer is distributed on a county-by-county basis, and each county in California has its own two-company oligopoly of an Anheuser Busch distributor and a Miller-Coors distributor. Most other states in the US operate their alcohol industry in the same fashion.

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