## **UCLA ECONOMICS**

### **Undergraduate Newsletter**

Editors: Charles Qian & Qiuyu Dong



### **Welcome Back Econ Bruins!**

### **Important Dates and Notices:**

- Last day to add courses: 1/25/19 (week 3)
- Last day to DROP non-impacted courses without transcript notation: 2/1/19 (week 4)
- Last day to change grading basis for optional P/NP courses: 2/15/19 (week 6)
- Last day to DROP non-impacted courses with transcript notation through MyUCLA:
  2/22/19 (week 7)
- Last day to DROP non-impacted courses by petition: 3/15/19 (week 10)
- Last day to WITHDRAW from current term: 3/15/19 (week 10)
- Final Examinations: 3/18/19-3/22/19

### **Have Questions? Find us at:**

- Economics Counselor's office: Bunche 2263
- Facebook: UCLA Economics Counselors
- Website: economics.ucla.edu/undergraduate

# **UCLA Department of Economics**welcomes David Bagaee

We are pleased to announce the appointment of David Baqaee as Assistant Professor. Professor Baqaee received his Ph.D. from Harvard and worked previously at the London School of Economics. He works on aggregation in disaggregated macroeconomic models, with an emphasis on the role production networks play in business cycles, growth, and international trade. His research interests include macroeconomics, network economics, IO, and applied economic theory.

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### The Wild West—Risks in Investing in Marijuana Stocks

Contributed by Qiuyu (Simon) Dong, UCLA Undergraduate Economics Student



Source: businessinsider.com

For Californians, it turns out the 2016 elections might not be one to forget about after all. With a 56% to 44% majority, the state passed Proposition 64, becoming the 5<sup>th</sup> US state to legalize marijuana for recreational use. Two years later, on October 17, 2018, Canada became the first major world economy to legalize recreational marijuana and embark on this long-debated experiment. This wave continued to sweep across North America and as of the 2018 midterm elections, recreational marijuana is legal in 10 US states, while medical marijuana is legal in 33. This means that in less than two years a new legal market for cannabis in North America was created from scratch. The controversial nature of the subject combined with the prosperity of the industry before legalization, immediately made it a fashionable topic among investors. However, dispelling all the hype, is pot really a reliable bet for our money? We argue that there are significant uncertainties in investing in marijuana, including how the new industry will take shape, government regulations, and the high capital market volatility inherent in a nascent industry. Investors, especially those with relatively less experience and lower risk tolerance, should use caution before making the decision to invest in marijuana-related stocks.

With the large-scale legalization of recreational marijuana in North America such a recent event, the industry itself is still in its infancy. Therefore, whereas the potential long-term return may be higher for investing at this stage, there is also undoubtedly more risk.

The prevailing theory of industry lifecycle divides the lifespan of an industry into four stages: startup/introduction, growth, maturity, and decline. For a startup-stage industry, new products in the market are viewed with skepticism since they have not proven to be able to generate a stable demand. At the beginning, most new industries require a large amount of capital input because it costs money to start companies and develop and test products/services for the very first time. Meanwhile, since a stable consumer base hasn't been formed for the products, revenue for the first several years tends to be unimpressive. Therefore, the net profit for most companies in a startup-stage industry would be negative, and even if any profits are generated they are typically reinvested into the company. What this means is, early

investors—that is, excluding the speculators and day-traders—usually have to "tough it out" with the industry for a considerable time period—possibly as long as several years—before being able to reap stable returns.

The legal cannabis industry in North America fits almost every criterion of this stage. Concurrent with legalizations, companies have been racing to gain a foothold in the industry, exploring the substance's recreational and medical uses. Canopy Growth Corp. (TSX: WEED), who is expected to become a major player in the legal recreational marijuana industry in Canada, has been surging in stock prices since shortly before the legalization and now has a market capitalization of \$12.5 billion. At the same time, various studies have shown that Cannabis-based medicine can be a superior substitute for opioids because it is much less harmful and addictive. Several companies, including the UK-based GW Pharmaceuticals, are already starting to manufacture these kinds of medicines. Traditional brewing companies are also teaming up with cannabis producers to develop marijuana-infused beverages. For instance, Constellation Brands, the maker of Corona beer, raised its stake in Canopy Growth to 38% in August this year, after initially acquiring a 9.9% stake of the latter back in October 2017. However, despite all of this activity, pot is not entirely legalized in the US. The background that it still hasn't been legalized on a federal level—the fact that we are still in the middle of the "legalization wave"—suggests the industry is still far from its full potential. According to a report by Frontier Financial Group, the total market size for legal marijuana in the US is around \$10.8 billion in 2018, whereas it projects it to be \$24.1 billion in 2025. Characteristic of the startup stage, the legal cannabis industry is having difficulties with high overhead costs of building production facilities and fostering each product unit from initial seeding to the final sale. Also, this early in the industry it is hard to control the cost per plant, and supply-side management appear more challenging just "because it's marijuana." For instance, despite sales of \$31.4 million in the fiscal year ended March 2017, Canopy Growth reported a net loss of \$13.4 million for that time period.<sup>6</sup>

All startup-stage industries have question marks written all over them. One ne such question for cannabis is whether or not consumers will switch from illegal to legal sources. Per a Deloitte report on the Canadian cannabis industry, the price of the substance is expected to be higher through legal channels, and legal sales will only account for a little more than half of the total sales in 2019.<sup>7</sup> Although the report itself is confident that eventually the "majority of recreational cannabis sold will be legal," this goal hinges largely upon product quality, reasonable pricing, and consumer experience, all of which are difficult to predict. People may also have doubts about the competitive landscape within the industry. Currently, the legal cannabis industry in the US is highly fragmented because of the prohibition of interstate trade, difficulty to secure long-term funding because of federal illegality, and individual states' active attempt to foster more competition.<sup>4</sup> Nevertheless, will this picture change once the US government eventually legalizes pot on a federal level, or at least when the vast majority of states do so? Will there be large corporations that end up dominating the entire industry? If so, what would their market strategies be? These are all questions investors should ask, and no one can currently provide an accurate answer to.

One of the most crucial factors in the formation of the legal cannabis industry is the role of the government. The extent and rigor of government regulations are of such high importance to the future of the industry that it deserves to be discussed on its own. Regarding this, what is currently happening in Canada can be a good indicator of the US in the future. From the government's perspective, although legalization brings about considerable benefits such as safer products, improvements in public education and harm reduction, and a curb on illegal sales, it also entails equally grave challenges. Though the government has vowed to track legal recreational cannabis "from seed to sale," it still hasn't provided a detailed plan to do so. Additionally, there remains a degree of incoordination among different levels of government. While the federal government decides the general direction, provincial and municipal governments have to take care

of specific rules such as whether to allow consumption in public spaces and where to allow physical shops to be set up, which are likely to vary across the country. Seemingly trivial, they could have a larger impact on the industry than many expect. In the US, regulatory uncertainties are of a broader scale. For example, will the ban on interstate and international transportation eventually be lifted? What are the requirements for licensing? And how will marijuana be taxed?

Last but not least, there is the risk mentioned in almost every caution against overenthusiasm in a new industry—volatility and the possibility of a bubble effect. Different from uncertainties in the formation of the industry itself, this volatility refers to the over-expectation of the public that results in overinvestment. For a high-profile industry like cannabis, extensive media coverage as well as its own controversial nature can easily create an undue hype among the public. And many, uninformed about industry specifics but taken by irrationality, would opt to put money in it. From there, the snowball only grows. Nevertheless, there is little certainty that this hype would eventually translate into success of the industry, and every time it doesn't live up to expectations the investors—a large percentage of them uninformed, remember—would waste no time in sending its stock prices down the cliff. We've already seen too many instances of this—tulip bubble, dot-com bubble, real-estate bubble—where the same emotionality that drove people into the market saw them leaving with nothing.

There's no denying that the cannabis industry after legalization has the potential to be a highly profitable investment. For now, this industry looks set to grow into a mature and solid "sin industry"—one whose activities are generally considered unethical or immoral to varying degrees. For instance, it bears high semblance to the alcohol industry, both possessing a relatively inelastic demand curve and the ability to mass-produce given proper management. Nevertheless, as is shown above, large uncertainties loom in its infancy. It's safe to say that as long as one of the three aspects discussed—industry formation, government regulation, and market volatility—turns unfavorable, people should be deterred from making additional investments. Brave the Wild West, but never forget to bring caution with you!

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### Is It Wise to Invest in Vice?

Contributed by Adithya Kumar, UCLA Undergraduate Economics Student

Despite the ominous caricature, sin stocks represent an opportunity for those willing to recognize and capitalize on our greatest vices by investing in industries involved in the sale and production of alcohol, tobacco and weaponry, amongst other things. While investing in firms whose activities are perceived as unethical is bound to draw scrutiny from self-professed socially responsible investors, from a solely investing standpoint there are many arguments that can be made in favor of sin stocks.

The first mental barrier to overcome for investors is the morality behind investment decisions. Investing in the stock market has long been viewed as a tool to generate passive income from the operations of well-established firms of all industries. For the average retail investor, apart from expressing their personal beliefs, deciding not to invest in tobacco firms like Philipp Morris or defense contractors like Raytheon will do little to fundamentally change or limit the 'unethical' nature of these industries. Tobacco companies will continue to sell cigarettes and defense contractors will secure new contracts irrespective of whether you choose to invest a few thousand dollars in purchasing their stocks—a paltry sum compared to their billion dollar market capitalizations and financing from institutional investors. Moreover, morality is undoubtedly a highly subjective matter within your own personal ethos. For instance, while investing in defense companies can be seen as perpetuating war and violence, others may consider it an act of patriotism. Likewise, the taboo surrounding marijuana consumption may dissuade individuals from investing in cannabis companies, whereas those who see no harm in its recreational and medicinal uses may choose to invest. The bottom line is, you shouldn't be deterred from investing in sin stocks purely on the basis of public consensus alone.

That said, in financial terms, a considerable number of sin stocks have historically been solid investments with well-defined characteristics. Almost all vice products are inelastic in nature which translates to better revenue generation and predictability. Regardless of economic conditions, people continue to purchase liquor and smoke cigarettes, and governments continue to ramp up defense on a larger scale relative to other industries. In spite of the 2008 global crisis, the Distilled Spirits Council of the United States reported that revenue from liquor suppliers rose 2.8% from the previous year to \$18.7 billion in 2008. Additionally, the firearms industry has grown nearly 168% since 2008 as gun-makers report consistent year over year sales despite economic fluctuations, signaling that it is relatively more recession proof compared to other industries. For investors, generating consistent and positive returns is the ultimate end goal. Sin stocks represent an opportunity to do so by allowing investors to eliminate uncertainty and reduce overall risk due to economic volatility.

Another aspect to consider is the intrinsic stock price and potential dividend yield. Given that many investors shy away from sin stocks, vice companies tend to be undervalued with stocks being offered at a discount. Combining this fact with the steady and strong financial results that vice companies have historically shown over the decades presents a lucrative break. The tobacco industry, for instance, is often subject to market speculation about FDA action on products such as e-cigarettes, menthol cigarettes and other offerings that often results in momentary price declines. Both Philipp Morris International (PMI) and tobacco giant Altria Group have experienced these, leading to their stock being undervalued. Even with fewer people smoking and increased government regulation, both PMI and Altria have continued to thrive. Since 2007, PMI reported a gross profit margin consistently above 60% for the past decade with \$78 billion in net revenues last year. Moreover, vice companies are high cash flow businesses that tend to pay sizeable dividends. For instance, alcohol beverage producer Diageo & PMI offer dividend yields of 3% and 5.8% respectively, higher than majority of blue chip stocks.

Lastly, investing in sin stocks doesn't necessarily mean putting money into risky, unchartered territory. Many of these firms are industrial giants with a well-established, sometimes multinational presence and several iconic brands to their name. Anheuser-Busch InBev, for instance, is the world's largest brewer and has over 500 beer brands in over 100 countries. These brands include Corona, Stella Artois, Budweiser and Busch, an indication of their sheer diversification. Meanwhile, defense contractor Lockheed Martin just reclaimed its position last year as the world's largest arms supplier, reporting 2017 annual revenues of \$51 billion, largely due to the contract it has with the US government for the manufacture of F-35 fighter jets.

Taking into account the holistic profile of vice firms, their historically strong financial results and low volatility, we can see that for the emboldened investor, sin stocks are worth looking into. That said, there is no substitute for due diligence and thorough research. At the end of the day, what you invest in is a personal choice that only you can morally and financially justify.

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