Impact of Marijuana Legalization on Tax Revenue in California

Introduction

According to "Drug-Free World" (n.d.), marijuana is "one of the most abused drugs in the world. Marijuana comes from the Indian hemp plant, and the "drug" is found primarily in the flowers (commonly called the "buds") and much less in the seeds, leaves, and stems of the plant." Moreover, recently, eight states in America have been legalized both the medical and recreational use of marijuana including California, Massachusetts, Nevada, Alaska, Colorado, Oregon, Washington and Washington, D.C. (Medical Marijuana, Inc., 2015). Furthermore, the marijuana legalization in California was due to Proposition 64. Generally, Proposition 64 "legalizes marijuana under state law, for use by adults 21 or older; imposes state taxes on sales and cultivation; provides for industry licensing and establishes standards for marijuana products and allows local regulation and taxation" (California Secretary of State, 2016). In addition, two new taxes on marijuana were created: "a 15 percent statewide sales tax on marijuana" and "a tax on growers of $9.25 per ounce for flowers and $2.75 per ounce for leaves" (Kovner, 2016). Plus, it is predicted that "additional tax revenues ranging from high hundreds of millions of dollars to over $1 billion annually, mostly dedicated to specific purposes" (California Secretary of State, 2016). It is likely that this statement will come true and this essay would demonstrate why.

Impact of Marijuana Legalization on Supply and Demand

It is believed that marijuana legalization would lead to a rise in demand of users, especially adults. As in Colorado, after marijuana legalization in 2012, "adult marijuana use rose significantly in Colorado. Among Coloradans ages 26 and older, past-year marijuana use rose from 16.80 percent in 2013/2014 to 19.91 percent in 2014/2015" (Ingraham, 2016). It could be explained that since people are not afraid of being penalized, the number of marijuana users in

California will grow tremendously as most people have an ability to purchase marijuana (Romero, 2016).

At the same time, it is likely that a number of suppliers will also rise, and maybe more significantly than demand, as they no longer need to "hide" from the government and sell illegally. Furthermore, since "California, already the world's largest legal market for marijuana, gleams with the promise of profits far beyond what pot shops and growers have seen in Washington or Colorado" (Lovett, 2016), a huge number of suppliers will be attracted and join in.

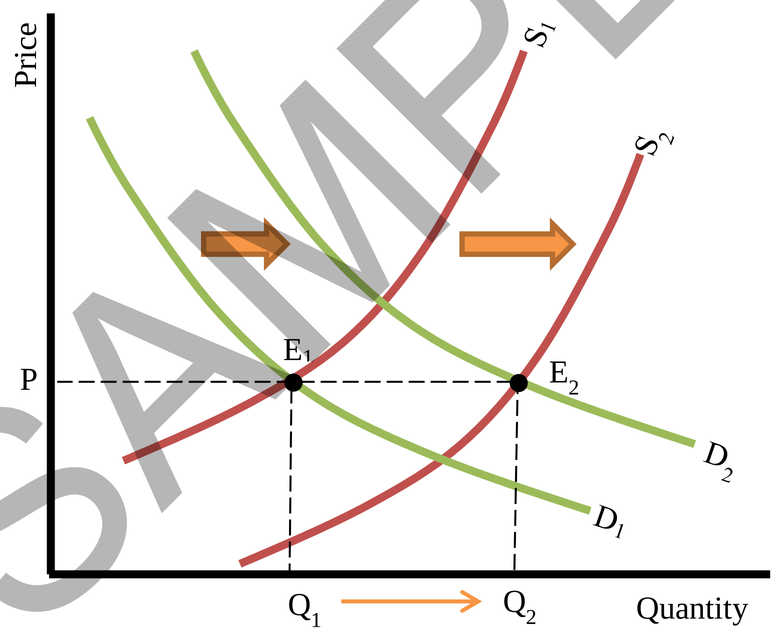

Figure 1.1. AN INCREASE IN BOTH DEMAND AND SUPPLY ON MARIJUANA MARKET EQUILIBRIUM IN CALIFORNIA

Eventually, due to an increase in demand and supply, a new equilibrium point is created. Equilibrium price would have relatively no change but on the other side, equilibrium quantity will increase. Buyers will purchase more and suppliers will supply more.

Factors Affecting Tax Revenue Collected by California State Government

Since government imposes a fifteen percent tax on recreational marijuana, it is likely that marijuana price will be boosted (Romero, 2016, p. 64). According to Gans, King, Stonecash & Mankiw (2009), it is claimed that "other things being equal, the quantity demanded of a good falls when the price of the good rises". However, it also depends on the price elasticity of marijuana, whether the consumers are elastic or inelastic towards marijuana.

It is studied by Ruggeri (2013) that an average price elasticity of demand for marijuana from 2002 to 2007 within the United States was -0.44. As the absolute number is less than one, it is concluded that marijuana demand is inelastic.

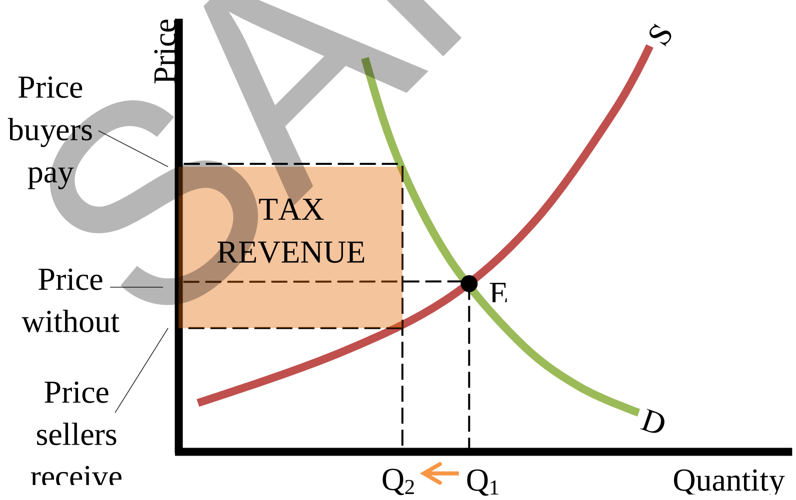

Figure 2.1. EFFECT OF AN INELASTIC PRICE ELASTICITY OF DEMAND OF MARIJUANA TO TAX REVENUE IN UNITED STATES

An inelastic price elasticity of demand is represented as a relatively steep curve on the graph. Therefore, even though marijuana price increases noticeably because of the tax, marijuana quantity demanded decreases insignificantly. Compared with the amount of tax revenue collected if the price elasticity of demand is elastic, a huge difference in tax revenue can be observed.

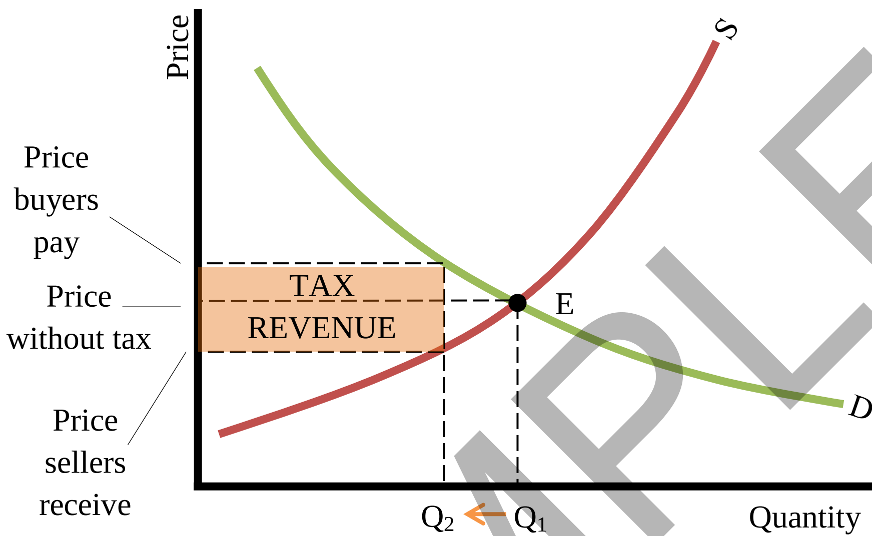

Figure 2.2. EFFECT OF AN ELASTIC PRICE ELASTICITY OF DEMAND OF MARIJUANA TO TAX REVENUE IN UNITED STATES

It is easily seen that the amount of tax revenue in figure 2.2 has been reduced significantly and furthermore, it is said that "if demand is more inelastic than supply, consumers bear most of the tax burden" (KhanAcademy, n.d.). To conclude, as marijuana's price elasticity of demand is inelastic, California's government would be able to collect an enormous amount of tax revenue.

Impact of Recreational Marijuana on Tax Revenues from Tobacco

According to Jacobs (1995, p. 6), “tobacco is a green, leafy plant that is grown in warm climates. After it is picked, it is dried ground up, and used in different ways. It can be smoked, chewed or sniffed through the nose”. Moreover, Jackler said that “tobacco and marijuana are marketed in similar ways – as products to help people relax and ease their stress” (as cited in Gorman, 2016).

Furthermore, in California, there has been a downward trend in adult smoking prevalence from 1988 to 2014, which was due to the tobacco control program in 1989. In 2014, the smoking rate has dropped by more than 50 percent compared to 1988 (California Department of Public Health & California Tobacco Control Program, 2016). Moreover, recently, there was a decrease in tobacco tax revenue in California. From 1977 to 2014, a year whose tobacco tax revenue was highest among others was 2002 with more than one billion dollars, however, currently, in 2014, California’s tobacco tax revenue has dropped by about 200 million dollars (Tax Policy Center, 2017). This has shown that over years, a number tobacco smokers has been dropping. In addition, according to Halpern-Felsher, “many young people consider marijuana, and blunts, to bring benefits, be more socially acceptable, and less risky than cigarettes” (as cited in Gorman, 2016).

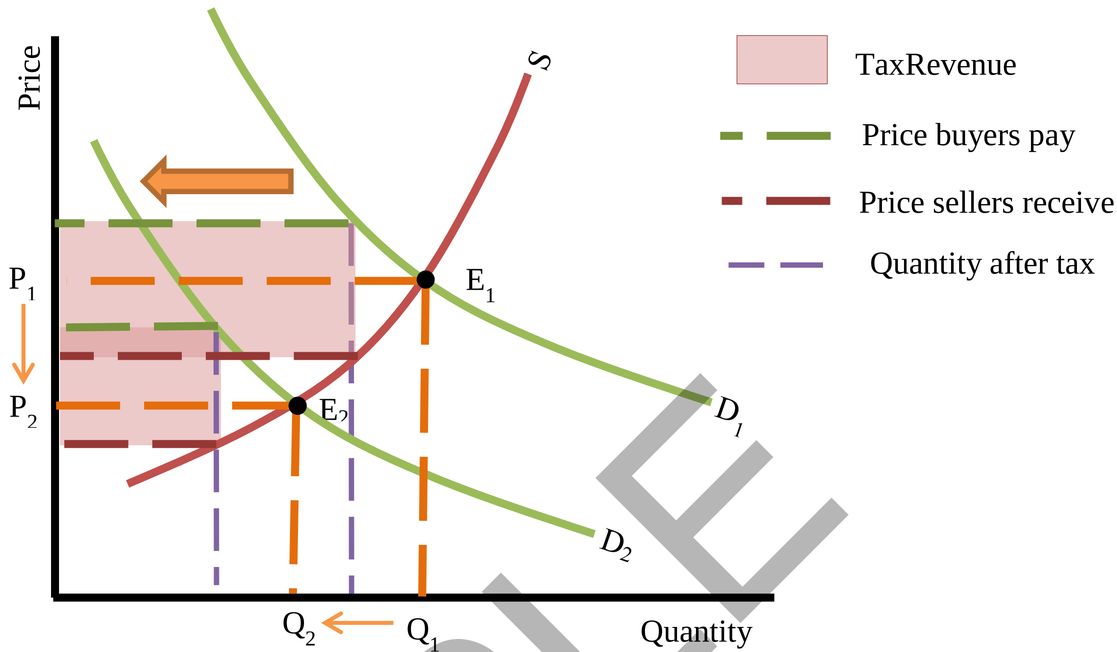

Figure 3.1. SHIFT IN DEMAND FOR TOBACCO AFTER MARIJUANA LEGALIZATION

Consequently, once marijuana legalization is established, there will be a large number of people switching from tobacco to marijuana, especially young people. Hence, as shown in figure 3.1, demand for tobacco will decline which results in a left shift of demand and moreover, it will lead to a decrease in tobacco price, quantity and tax revenue.

Conclusion

In conclusion, California's government would be likely to collect marijuana tax revenue of up to one billion dollars annually once marijuana is legalized. Moreover, it is considered as one of the positives of marijuana legalization as government could be able to use that tax revenue in "drug use prevention and treatment, helping at-risk youth, law enforcement, environmental clean-up and research" (Staggs, 2016). However, it is recommended that California should impose more strict rules and regulations in order to control and minimize the negative, harmful effects of marijuana, for instance, short-term memory problems, anxiety, panic, increased heart rate, increased risk of stroke, decline in IQ, addiction and so on (Drug-Free World, n.d.). It is believed that by following this suggestion, marijuana legalization in California will develop in a positive and healthy way.

References

California Department of Public Health & California Tobacco Control Program. (2016). *California Tobacco Facts and Figures 2016 [pre-print vesion]*. Sacramento, CA: California Department of Public Health.

California Secretary of State. (2016). Prop 64 Marijuana Legalization. Initiative statute. Retrieved from http://voterguide.sos.ca.gov/asl/prop64.htm

Drug-Free World. (n.d.). Short- & Long-Term Effects. Retrieved from http://www.drugfreeworld.org/drugfacts/marijuana/short-and-long-term-effects.html

Drug-Free World. (n.d.). What is marijuana? Retrieved from http://www.drugfreeworld.org/drugfacts/marijuana.html

Gans, J., King, S., Stonecash, R., & Mankiw, N.G. (2009). *Principles of economics.* South Melbourne, Victoria Australia: Cengage Learning Australia.

Gorman, A. (2016). Will Legal Marijuana Lead To More People Smoking Tobacco? Retrieved from http://www.npr.org/sections/health-shots/2016/11/18/502567273/will-legal-marijuana-lead-to-more-people-smoking-tobacco

Ingraham, C. (2016). After legalization, teen marijuana use drops sharply in Colorado. Retrieved from https://www.washingtonpost.com/news/wonk/wp/2016/12/21/one-of-the-greatest-fears-about-legalizing-marijuana-has-so-far-failed-to-happen/?utm_term=.8af7432bee03

Jacobs, M. (1995). FROM THE FIRST TO THE LAST ASH: The History, Economics & Hazards of Tobacco. Retrieved from http://healthliteracy.worlded.org/docs/tobacco/Tobacco.pdf

KhanAcademy. (n.d.). Elasticity and tax revenue. Retrieved from http://www.drugfreeworld.org/drugfacts/marijuana/short-and-long-term-effects.html

Kovner, G. (2016). Should marijuana be legalized in california? A look at proposition 64. *TCA Regional News*

Lovett, I. (2016). In California, Marijuana Is Smelling More Like Big Business. Retrieved from https://www.nytimes.com/2016/04/12/us/in-california-marijuana-is-smelling-more-like-big-business.html?_r=0

Medical Marijuana, Inc. (2015). Overview of U.S. Medical Marijuana Law. Retrieved from http://www.medicalmarijuanainc.com/overview-of-u-s-medical-marijuana-law/

Romero, D. (2016). Pot Prices Could Actually Rise After Legalization. Retrieved from http://www.laweekly.com/news/pot-prices-could-actually-rise-after-legalization-7575349

Ruggeri, D. (2013). Marijuana Price Estimates And The Price Elasticity Of Demand. Retrieved from http://ijtemt.org/proceedings_vol2_issue3/6_Marijuana_Price_Estimates_And_The_Price_Elasticity_Of_Demand_Vol_II_Issue_III.pdf

Staggs, B. D. (2016). Where would $1 billion in pot money go if California marijuana is legalized? Retrieved from http://www.thecannabist.co/2016/09/16/california-marijuana-tax-where-would-money-go/63307/

Tax Policy Center. (2017). Tobacco Tax Revenue. Retrieved from http://www.taxpolicycenter.org/statistics/tobacco-tax-revenue