Economic Analysis of Senate Bill 17-269

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Proposed Colorado Senate Bill 17-269 excludes revenues from the sale of tobacco, nicotine, and lottery products from the calculation of a retail liquor store's total revenues from non-alcoholic product sales. This paper will discuss the purpose of regulating the shares of revenue for retail liquor stores and analyze the effects of excluding tobacco, nicotine, and lottery products from the total non-alcoholic revenues.

Current Colorado liquor law states that retail liquor stores may sell non-alcoholic products as long as the revenues from the sale of non-alcoholic products do not exceed twenty percent of the store's total sales revenue. That is, for every additional dollar in revenue, at most twenty cents can be from the sale of non-alcoholic products, such as ice, cigarettes, and soft drinks. SB17-269 calls for the exclusion of tobacco products, nicotine products, and lottery products from non-alcoholic revenue calculations. By excluding these products from the total non-alcoholic revenues, liquor stores would be able to expand their non-alcoholic sales and increase their revenues.

To determine if this is an economically justified bill, it must first be determined why the regulatory practice of mandating that no more than twenty percent of revenue can be from non-alcoholic sales exists. Typically in a market where there are large regulatory pressures, it is assumed that either the market is going to produce at a below optimum level, or that there are additional costs not accounted for at the market equilibrium.

Regulations are placed on alcohol because of the large social cost of excessive alcohol consumption. In 2006, the cost of excessive alcohol consumption to society was $223.5 billion. The primary causes of these costs are workplace productivity losses, healthcare expenses, criminal justice costs, and motor vehicle crashes.[1] Alcohol has been determined to significantly contribute to chronic diseases, such as liver disease and chronic pancreatitis. It has also been shown to significantly increase a person's chance of certain cancers[2].

Alcohol is also an addictive drug. The *National Institute on Alcohol Abuse and Alcoholism* reports that 15.1 million people over the age of 18 have Alcohol Use Disorder, roughly six percent of the adult population. The addictive property of alcohol is likely the reason for inelastic demand for alcohol, "price elasticities of demand for beer, wine, and distilled spirits are -0.3, -1.0, and -1.5, respectively" (Chaloupka, Grossman, Saffer 2002)[3]. Since large changes in price will not dramatically affect the demand for alcohol, regulations targeting the supply of liquor are more effective in decreasing output and minimizing social cost.

Preventing general retail stores with large revenue shares from non-alcoholic goods from selling alcohol as an ancillary product limits the exposure of alcohol to consumers. However, SB17-269 only calls for the exclusion of a few goods, not enough to allow general retail stores to sell alcohol. This bill would allow retail liquor stores to expand the sale of ancillary products and thus increase revenues. However, it must now

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[1] "Excessive drinking costs U.S. $223.5 billion", *Centers for Disease Control and Prevention,* 2014

[2] "Measuring the burden of alcohol", *National Institute on Alcohol Abuse and Alcoholism,* 2014

[3] Chaloupka, F. J. Grossman, M. Saffer, H. "The effects of price on alcohol consumption and alcohol-related problems", *National Institute on Alcohol Abuse and Alcoholism,* 2002

be determined if excluding tobacco, nicotine, and lottery products exposes consumers, especially those with addictive tendencies, to further addictive substances.

Nicotine, and by extension tobacco, are addictive drugs. Cigarette smoking is the leading cause of preventable disease and premature death in the United States, "435,000 people … die prematurely from smoking-related diseases each year"(Benowitz, 2010)[4]. The cost to society from smoking-related illnesses is $300 billion annually. Cigarettes also have an inelastic demand curve, with a ten percent increase in price decreasing consumption by slightly less than four percent[5].

Lottery products have also shown to be addictive. The lottery is similar to gambling, and as a result has similar addictive properties, "persistence of the initial sales shock observes at longer intervals of time is evidence of addiction"(Guryan, Kearney, 2009).[6] In 2007, 46 percent of American adults participated in the state lottery. Lotteries are designed to increase revenues for States but have similar properties to regressive taxes. From the study, "Gambling on the Lottery": "Those in the lowest fifth in terms of socioeconomic status have the highest rate of lottery gambling, at 61%"(Wihbey, 2016). The poorest fifth of the population are contributing more to the government lottery revenues than any other socioeconomic class.

It has been determined that, in addition to alcohol, tobacco, nicotine, and lottery products have addictive properties. To determine the impact on the consumption of these goods as a result of excluding them from non-alcoholic products, the relationship

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[4] Benowitz, N. "Nicotine addiction", *U.S national Library of Medicine, National Institute of Health*

[5] "Economic trends in tobacco", *Centers for Disease Control and Prevention, 2017*

[6] Guryan J., Kearney, M., "Is lottery gambling addictive", *the National Bureau of Economic Research,* 2009

between alcohol consumption and the consumption of tobacco, nicotine, and lottery products must be examined.

Alcohol and cigarettes have been shown to be economic compliments of one another, "cigarette demand is consistent with rational addiction… positively affected by current alcoholic beverage consumption which means alcohol is a compliment for cigarettes"(Koksal, Wohlgenant, 2011)[7]. Since changes in prices have very little effect on the demand of these goods, it is possible that the convenience of buying both products in one place would increase the propensity to consume. Due to the social cost of consuming both of these products, any increase in consumption of one of the goods as a result of consumption of the other could be considered a negative externality.

There is a socioeconomic correlation between those who consume lottery products and those who consume excessive amounts of alcohol. Although total consumption of alcohol is similar among socioeconomic classes, binge drinking and alcohol abuse is more common in the lowest socioeconomic class, as are the majority of lottery players[8]. Despite minimal studies comparing the relationship between alcohol consumption and likelihood of playing the lottery, both products attract lower socioeconomic groups, which have shown to include and people with addictive tendencies. Similar to alcohol and cigarettes, the ability to purchase both alcohol and lottery products simultaneously could lead to increased consumption among certain consumers.

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[7] Koksal, A. Wohlgenant, M. "Alcoholic beverages and cigarettes: compliments or substitutes?", *Department of Agricultural and Resource Economics, North Carolina State University,* 2014

[8] Keyes, K., Hasin, D., "Socio-economic status and problem alcohol use: the positive relationship between income and the DSM-IV alcohol abuse diagnosis", *U.S national Library of Medicine, National Institute of Health,* 2008

It could be argued that, due the availability of tobacco, nicotine, and lottery products currently in the market, excluding those goods from the non-alcoholic revenue sales would not increase consumption of those goods. Those goods are also still available to be purchased at retail liquor stores under current law, as long as non-alcoholic revenues haven't exceeded twenty percent of total revenues. Under SB17-269 a consumer is guaranteed to be able to consume both products at a liquor store regardless of the revenue breakdown. Due to the nature of cigarettes and alcohol being complements, the convenience of buying at one store rather than two could in fact increase consumption.

It is also likely that consumers with addictive tendencies would be exposed to additional addictive products, increasing consumption. Any increase in consumption of these goods would surely lead to increased social costs. Despite the potential increases in revenues for retail liquor stores, the potential for increased costs to society as a result of increased consumption of unhealthy and dangerous products is unavoidable. As a result, SB17-269 should not be passed.