Minimum price control on alcohol

Drinks, a gesture of the hospitality, especially the alcohol, has long been a part of social occasions, for example, the parties, wedding, even the funerals. And 70% alcohol becomes more affordable over the last 30 years. Currently, the wine sales of Scotland occupy the eight places in the whole world. According to some surveys, in Scotland, there are almost 40, 000 people who are taken to the hospital are related to alcohol illness, on top of that, Scotland is the highest motility area of liver disease. Alcoholism has become an ever-worsening problem which is harmful to the social security. Therefore, for alleviating the excessive drinking, the Scottish government has set aminimum price on alcoholabout 50 pence per unit after considering the inflation. Some wine retailers, however, worried that this politics would have unfavorable influences on their sales and profits. In this article, we would discuss that s minimum price control on alcohol will work. What is the result this policy will bring at the aspect of customer and seller? And analysis the key factors that we should notice for determining the effectiveness of the minimum price.

Before discussing these questions, it is essential that we learn some basic economics principles. Firstly, the close relationship of demand and price is the basic principles for knowing how a minimum price control on alcohol will work. Figure 1 shows a negative relationship between price and quantity demanded. When other factors are constant (including the price of substitutes and complements, consumer income, tastes and preferences, price expectations), the quantity demanded would decline with an increase in price. For reducing the crimes and diseases related to the alcoholism, governments set a minimum price. That policy would trigger a decline in demand. Furthermore, we should know the attribute of the product. Alcohol is not life necessities for most people and soft drinks can be regarded as its substitutes; therefore, the price of alcohol change would lead to a much bigger change in quantity demanded. It was called “ elastic demand”, which is used for measuring this responsiveness of demand to change in the price of a particular product. From the figure (2),

Figure (2)

when the price change from P0 to P1, the demand change from Q1 to Q0. Therefore, after the governments set a minimum price for alcohol, the wine and beer retailers witnessed that the demand of alcohol has decreased.

Once a minimum price has been implemented, the price of alcohol will increase sequentially. As a sensible consumer, they want to buy a product that its price is lower than their expectation. This is called consumer surplus, which represents a benefit for consumers. Figure 3 is a diagram for explaining the change of consumer surplus after set a minimum price on alcohol controlling. Firstly, we assume that a buyer is willing to buy a bottle of beer by 60 pence for a particular brand, however, the actual price

Figure (3)

of this beer cost him 40 pence a unit. Naturally, he wants to buy more. According to the figure 3, we can see that the whole area of the triangle (a-d-e) is the consumer surplus for this beer. Now the governments set a minimum price of the alcohol because of crime control, which is not allowed to sell less than 50 Pence a unit. To guarantee the profits, the retailers are forced to sell by 50 pence or higher. Since then, the area of consumer surplus has become smaller, moving from the area of the triangle (a-d-e) to the counterpart of the triangle (a-b-c). From the figure 3, it is patently obvious that when retailers was forced to increase the selling price of alcohol, the consumer surplus decreases, the benefits for consumers also are missing at the same time. As rational consumers, it is taken for granted that some consumers prefer to choose its substitute, soft drinks. This is the ultimate goal of the governments.

Apart from analyzing the the influence for consumers, it is necessary that taking the benefits for supplier into consideration. What are the changes that this policy would bring? According to the supply curve-Figure(4), from a to b , as the price increases, willingness to supply also increases.

Figure(4)

In a word, the governments set a minimum price for alcohol, this is to say, the price for per alcohol unit goes up, then alcohol suppliers may willing to offer more.

In order to understand the marketplace, we need to bring consumers and retailers together. In Figure 5, the supply and demand curve are put in a line chart. Where the demand and supply meet is known as the market equilibrium. It occurs at the price where the willingness to demand for consumer is exactly equal to the willingness to supply for firms. Point a is the market equilibrium. In the alcohol marketplace, increasing the price

Figure (5)

means that consumer demand does not equal supply from firms are known as points point of disequilibrium. This disequilibrium would lead to market surplus. According to the basic principles " price ceiling and floor " in the economies, the governments imposed a minimum price on

Figure (6)

alcohol(p1), which is higher than the market's equilibrium (point a), as shown by the dotted line in the Figure 6. It is obvious that in this line of price one , the quantity supplied is more than quantity demand .(Qs> Qd) The whole area of the triangle from point a to the top dotted line (price one) is called surplus of supply. Therefore, when the price of alcohol drinks is forced to become higher than the free-market equilibrium price, more suppliers are willing to offer alcohol drink, which lead to the excess supply. On top of that, because of the increase in price, consumers find they buy a same product with a higher price, they reduce the purchases or choose the substitutes. At some degree, it achieves the ultimate goal.

After analyzing how a minimum price of alcohol will work on the aspect of consumers and supplier, we now discuss the key factors that can keep the effectiveness of the minimum price. Firstly, look back the Figure (6), the diagram of market intervention- price floor. If the governments set the price at the dotted line at the bottom of the diagram (price 2), which is below the free-market equilibrium price, the price floor has no practical effect. Therefore, for keeping this policy work effectively, the related departments were supposed to set a price higher than the free-market equilibrium. This is the first factor to keep its effectiveness.

The primary goal of the price control on alcohol is to alleviate the excessive drinking for reducing the disease and crimes related to alcohol.

Naturally, the most important step is reducing customer demand. Therefore, the factors that determine the effectiveness of minimum prices are closed related to the factors influencing customer demand. They are the price of the good; the price of substitutes and complements; consumer incomes; consumer's tastes or preferences and price expectations. Firstly, We take the income effect and the substitution effect into consideration. On the one hand, at the aspect of income effect, when alcohol price goes up which means the nominal income goes down. I. e. when consumers ' income keeps constant, the purchasing power declines at the same time. Alcohol drinks become less affordable. And when the income level increase, consumers can buy more normal goods, and vise versa. That is why the consumer's income is the key factor for determining the effectiveness of controlling a minimum price on alcohol. On the other hand, soft drinks as the substitution of alcohol also have an influence on the alcohol demand. Specifically, when the alcohol drinks cost consumers more than before, they who are sensible will prefer to choose soft drinks. This is called the substitution effect. Moreover, if the soft drinks reduce their price as well or do some promotions at the same period, the consumption of the substitution may go up dramatically. With a doubt, the own price of the product is a major factor. Because alcohol is elastic demand, the change of alcohol price lead to a shift of consumption. Finally, whether the policy can be implemented effectively is also determined by the power of government intervention.

In summary, For reducing the crime and disease related to the alcohol, governments use its visible hands to intervene the market price. The government set a minimum price on alcohol which is higher than free-market equilibrium price, which lead to a series of changes. Firstly, the consumption of alcohol has decreased instead by its substitution. Secondly, because of increasing price, more suppliers are willing to offer more alcohol, even result in surplus supply. Thirdly, consumer surplus has become smaller, which means they miss the benefits. Finally, due to the fact that the ultimate goal of its policy is to reduce the consumption, decreasing the demand is most fundamental. And the consumer income, the price of substitution, and the price of alcohol are the key factor for reducing the demand, also keep the effectiveness of the minimum price.