

Finland will be the first country in the European Union to impose a tax on sugary foods and beverages. The tax is a response to an increase in type 2 diabetes, with soda being the main contributor to sugar intake. This investigation will examine the effects of this tax on sugar consumption.

An indirect tax is imposed on purchases of goods or services. It is paid in part by the consumers but paid to the government by producers.

Allocative inefficiency is when an economy is not distributing its scarce resources to the best of its ability. This means the economy is either overproducing or underproducing a good.

A negative consumption externality is a negative effect on a third party from the consumption of a good.

Market failure is when the free market fails to achieve allocative efficiency.

A demerit goods are goods that will be over provided by the market and thus over consumed.

Diagrams

Figure 1.

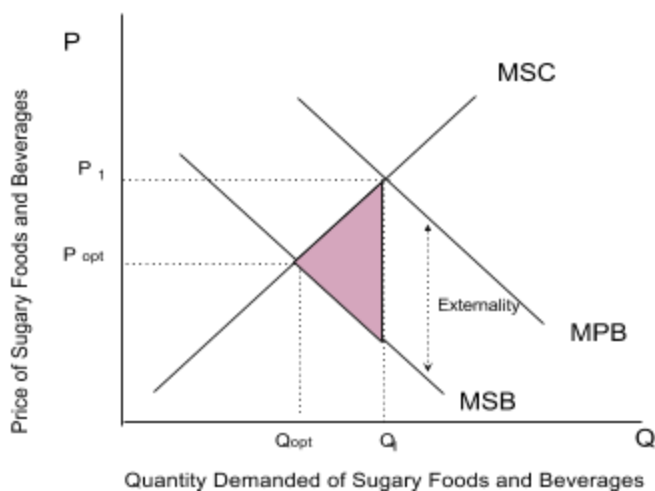
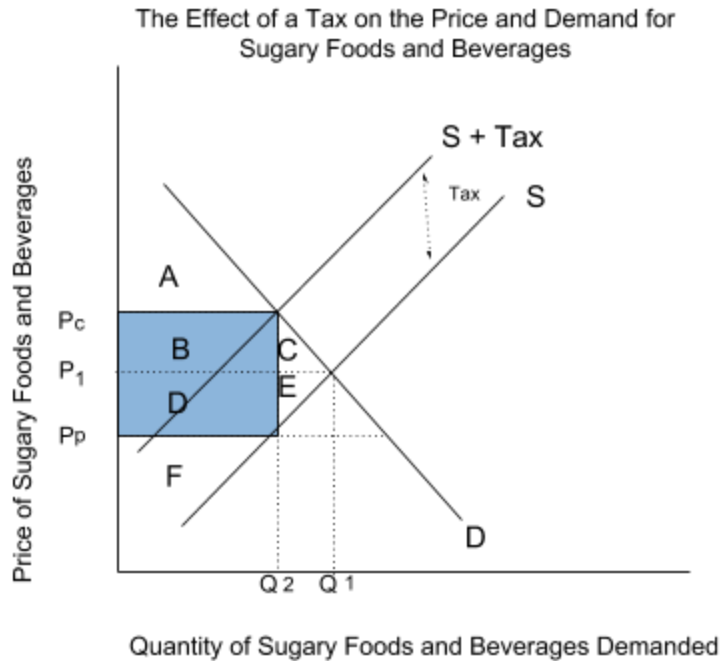


Figure 2.



Since the increased consumption of sugary foods and beverages is causing a heightened level of type 2 diabetes, leading to an overall less healthy population, it would have a negative consumption externality shown in Figure 1. The marginal private benefit (MPB) needs to be equal to the marginal social benefit (MSB) in order for allocative efficiency to occur. Since this is not the case market failure is occurring.

The price of sugary foods and beverages is at P_1 and the quantity is at Q_1 : this is not the socially efficient output. The price and quantity should be at P_{opt} and Q_{opt} , as this is the price and quantity when the externality is taken into consideration meaning it is socially efficient. The pink triangle in Figure 1 represents the welfare loss from this externality.

Before the tax was introduced, the market was at equilibrium, with the price being at P_1 and the quantity demanded at Q_1 . Since producers now have to pay a tax on their good the supply curve shifts to the left the amount of the tax. This creates a new, higher price for consumers at P_c , and a lower price received by producers at P_p , demonstrated in Figure 2. The government is collecting revenue from this tax represented by the blue section of Figure 2.

Due to the negative consumption externality, the Finnish government attempted to correct the problem through an indirect tax. The free market does not take into consideration the negative externality, therefore an economy's resources would be over allocated to the production of these goods and lead to the overconsumption of sugar, making it a demerit good. The tax would help to reduce the quantity supplied. The tax would shift the MSC curve to the left creating higher prices for consumers and lower prices received by producers (Figure 2). Because of the law of supply (as price decreases quantity supplied decreases) the quantity of sugary foods and beverages supplied would decrease. This tax would be beneficial because it would help to alleviate the overconsumption of sugar and allocative efficiency would occur.

At the surface placing a tax on sugar appears to be beneficial because it corrects the negative consumption externality, however, it does come with harmful consequences. First of all, taxes reduce the consumer surplus. Initially, the benefit consumers received was $A+B+C$, and afterwards, it was reduced to A (Figure 1). A sugar tax is also harmful to producers because it decreases the producer surplus. Originally, the producer surplus was $D+E+F$, but after the tax, it is only F . Taxes are damaging for producers because they are producing less output, and thus making less revenue. Moreover, The lost areas of $B+D$ are now government revenue. This can be beneficial, however, because the government could use this money to fund programs like

education or health care. The implementation of a tax on sugar would be unfavorable for workers as well. This is because producers will be making less output, meaning fewer workers are needed to make these products, leading to possible unemployment.

Additionally, it will be difficult to determine the amount of tax need to compensate for the negative consumption externality. If the tax is too much it could drive people to buy their sugary foods in other countries, but if it is too small the tax would not be effective.

Despite the negative consequences of taxes on consumers and producers, a sugar tax will have a positive impact on Finland. The benefit of reducing sugar consumption to society outweighs the higher consumer prices and lost revenue.