

Question 1

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## **Question 01**

### **Introduction**

The demand, supply and equilibrium theory imply to be the fundamental model relating to the price determination in the economic theory. The demand supply and equilibrium theory are crucial for determining the price of the commodity by considering the demand as well as supply in a specified market, which results in the equilibrium price (Li, and Li, 2016). With regards to that, this essay delves into analysing the impact of demand, supply and equilibrium theory on the role of the UK government in devising the decisions. In line with that, the theory of demand, supply and elasticity has been evaluated on three respective incidents involving the tax on petrol, subsidy on bus fares as well a price floor on alcohol.

### **Analysing the Impact of Demand, Supply and Equilibrium Theory on the Interferences**

The law of supply implies that the increased price of the products and the commodities results in the elevated level of quantity supplied. In addition to that, the law of demand represents that the increasing prices of the commodities lead to alleviating the demand required by the customers. Furthermore, the higher demand for the products contributes to its lower supply and an increase in its relative price. However, the equilibrium alludes to the equalisation between the quantity supplied and the quantity demanded with an agreed price by the producer as well as the consumers.

With regards to assessing the impact of tax on petrol with the aim of alleviating carbon dioxide emission again the equilibrium and the quantity supplied, it has been revealed that the UK government is imposing a higher level of tax on petroleum subsidies. The price of petrol in the UK has been constituted of 45% cost of petroleum to suppliers, 29% of the fuel duty, 17% of value added tax, 7% of cost pertaining to biofuel content, 2% concerning to retailers' profit as well as 1% cost of delivery and supply (BBC, 2022). In addition to that, the Government of the UK has imposed a tax on petrol in accordance with the Emissions Trading Scheme (ETS) for alleviating carbon dioxide emissions. The levy on the petroleum tax is under the consideration of their objective relating to attaining the target of being carbon neutral by 2050 which resultantly consequences on the demand and supply of petrol (GOV.UK, 2021).

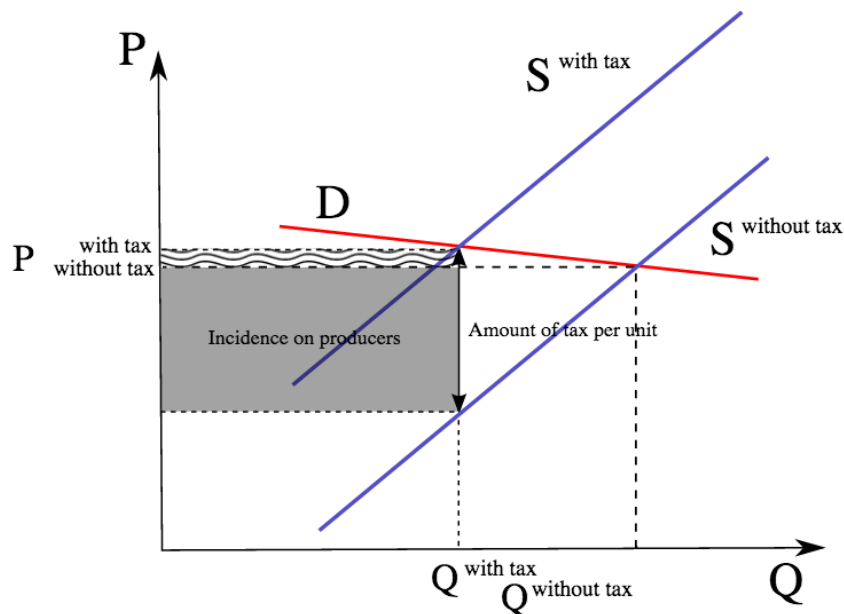


Figure 1. Impact of Tax on Supply and Demand

Source: ResearchGate (2021)

In this case of the tax levy on petrol, the corporation produces the same amount regardless of the price as the supply is inelastic. The consumer is extremely price sensitive due to the elastic nature of demand. A slight price rise causes the quantity demanded to decline significantly. The market price rises as a result of the taxation while the demand for the goods declines. The price customers spend does not really vary significantly since demand is elastic. The quantity supplied fluctuates greatly because the output is inelastic (Abrell, Kosch, and Rausch, 2019). The tax incidence lies on the producers because the producer is incapable to transfer the tax forward to the consumer. This respective figure 1, illustrated that the tax has the impact of shifting the quantities toward a position where the difference between the before-tax demand and the before-tax supply equals the tax (Yang et al. 2022). A tax elevates a buyer's price substantially more than the tax itself. Similar to that, the seller's price is reduced, however in a minimal manner (ONS, 2016). The less the cost of petrol per litre, the smaller the proportion of profitability for the retailers as well as suppliers because fuel duty is levied at a fixed amount per litre. Therefore, if a litre of gasoline costs 80 pence, duty and VAT is accounted for 89% of the cost, while the remaining 11% accrues to the retailers (BBC, 2022).

Concerning that, the impact of subsidy on the bus fares for encouraging the higher consumption of public transport on the quantity supplied and the price, it can be inferred that this respective measure contributes to decreasing the prices (Argyriou, and Barry, 2021).

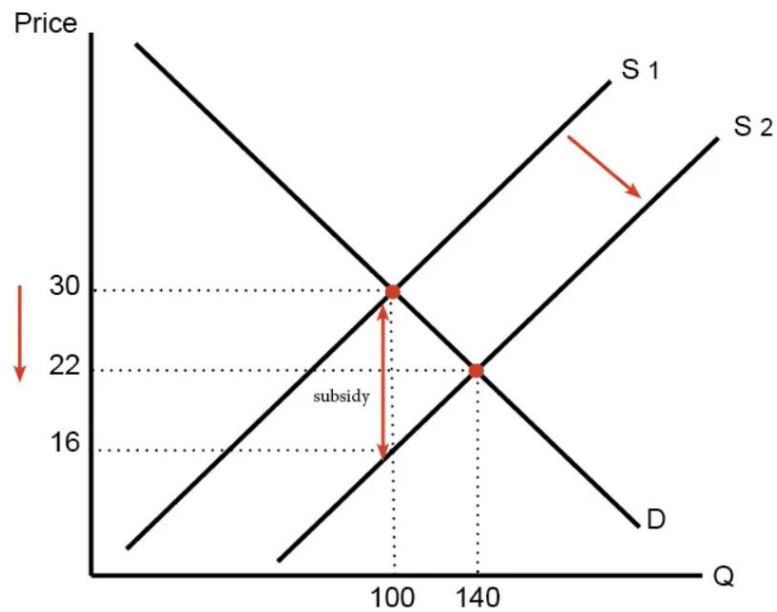


Figure 2. Impact of Subsidy on price and quantity supplied Source:  
ResearchGate (2019)

Figure 2 has demonstrated that a subsidy on bus fares is expected to lower fares for public transportation since it would cause the supply curve to shift to the right, which lowers the equilibrium price. In response to that, an increasing number of individuals are persuaded to employ this mode of transportation, which upsurges the demand for public transport in the UK. In addition to that, The Times (2022), reported that the income and substitution effects work together to enhance demand pertaining to using public transport in the UK. The substitution effect renders alternative options to public transportation which reflects to be relatively expensive when the price is reduced, therefore if money income is constant, less costly public transportation raises real income under the income effect (Vickerman, 2021).

Concerning the situation pertaining to the imposition of a price floor on alcohol for reducing consumption, it is revealed that this respective measure by UK Government upholds the substantial impact. The supply tends to increase as a result of the price floor, creating an excess of alcohol and aggravating the negative externalities in the UK. However, the intake of various forms of alcohol implies to be slightly influenced by income elasticity (Mendonca, and Adăscăliței, 2020). As the beer is revealed to be income inelastic, other alcoholic beverages as well as wine alludes to income elastic. This indicates that alcohol is not cheap anymore and is subjected to being over-consumed. Owing to the inelastic characteristic of alcohol, a rise in price can result in a lower than a proportional decline in the quantity demanded, and as a

response, the quantity and price are not attained that is publicly acceptable (O'Connell, and Smith, 2020).

## **Conclusion**

The law of demand, supply and equilibrium highlight various phenomena with respect to the prices, quantity supplied along with the changing in the demand and supply curve. Furthermore, the equilibrium price refers to an agreement between the consumers of the goods as well as the producers in order to highlight the interaction between price and quantity. This essay has revealed that the tax on petrol, subsidy on bus fares as well as the price floor on alcohol pose a crucial impact on the quantity of supplies and prices under the theory of demand, supply and equilibrium.

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