

① Economic Question

② Graph

③ Describe the graph

ECONOMICS
THIRD EDITION

④ Analysis

Why the airline will ~~cancel~~ close down
the direct flight to UK when the price of oil?

ECONOMICS

that TP fall $\rightarrow$ $\downarrow$ OP $\rightarrow$ $\downarrow$ π

$\rightarrow$ TP lost can not $\uparrow$ P $\rightarrow$ ~~reduction~~

5.1 To Help to Derive the Price Strategy - To Increase Total Revenue

When the demand is price-elastic, a decrease in the price of the good will lead to an increase in the total revenue as the gain in revenue due to the increase in quantity demanded is greater than the loss in revenue due to a reduction in the price of the good concerned.

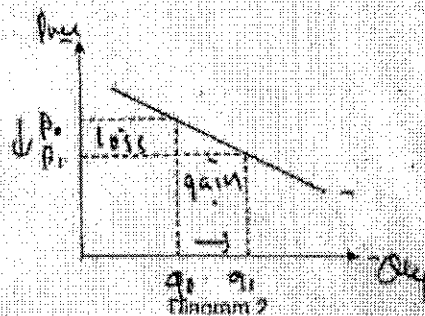
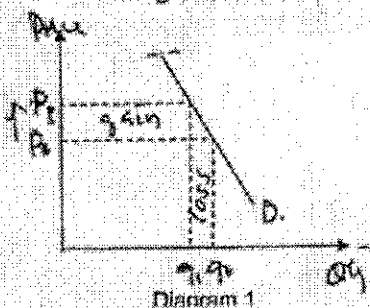
$\rightarrow$ TR $\downarrow$

$\downarrow$
cover $\uparrow$
cost

When the demand is price-inelastic, an increase in price of the goods will lead to an increase in the total revenue as the gain in revenue due to an increase in price of the good concerned is greater than the loss in revenue due to a reduction in the quantity demanded.

$\downarrow$
close
down

5.2 Draw Diagram



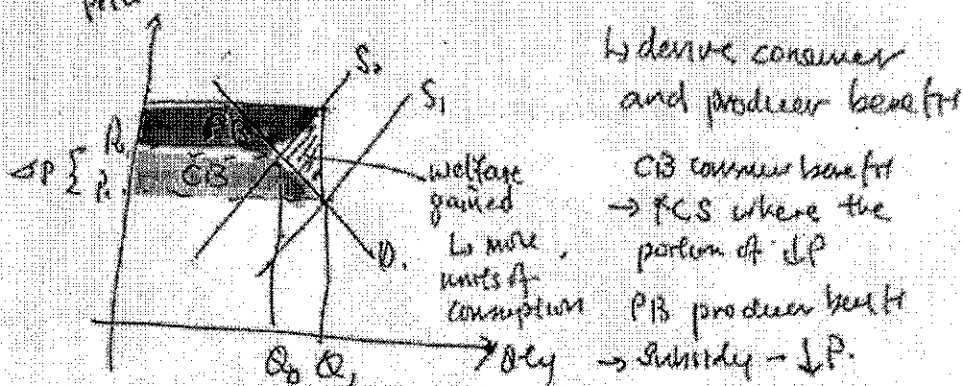
5.3 Description of diagram

As seen from the diagram 1, an increase in price from P_0 to P_1 will cause a less than proportional decrease in quantity demanded from Q_0 to Q_1 , contributing an increase in total revenue as the gain in revenue due to the increase in price is greater than loss in revenue due to the reduction in quantity demanded, given that the demand is price inelastic.

As seen from the diagram 2, a decrease in price from P_0 to P_1 will cause a more than proportional increase in quantity demanded from Q_0 to Q_1 , contributing an increase in total revenue as the gain in revenue due to the increase in quantity demanded is greater than loss in revenue due to the decrease in price, given that the demand is price elastic.

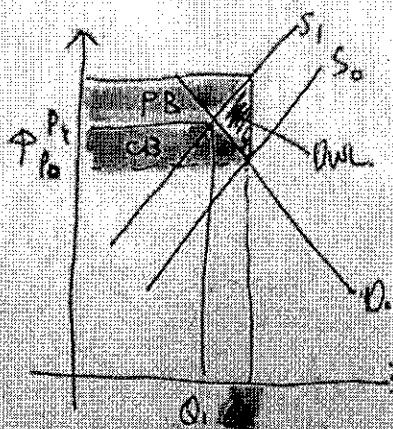
Q. Why do the airlines want to cancel the direct flight to UK?

Subsidy to producer - $\downarrow$ COP - cheaper to produce
 $\rightarrow \uparrow$ SS $\rightarrow \downarrow$ P $\rightarrow \uparrow$ Qd. $\rightarrow \downarrow$ P, $\uparrow$ Q.

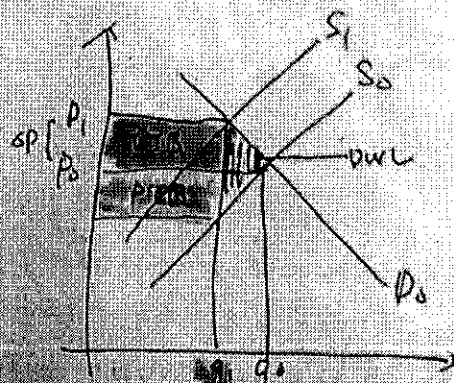


* Explain how the removal of subsidy affects the consumer and producer.

$\downarrow$ subsidy $\rightarrow \uparrow$ COP - more expensive to produce -
~~cut~~ cut down production - $\downarrow$ SS $\rightarrow \uparrow$ P $\rightarrow \downarrow$ Qd ($\uparrow$ P, $\downarrow$ Q)



loss of CB
 loss of PB
 $\uparrow$ loss of CW (CWL)



that $\rightarrow \uparrow$ COP $\rightarrow$ more expensive to produce - $\downarrow$ production $\rightarrow \downarrow$ SS
 $\rightarrow \uparrow$ P $\rightarrow \downarrow$ Qd

Price Control — Price ceiling (max price)
 — Price floor (min price)

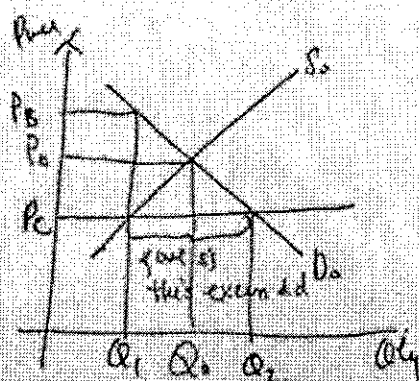
Price ceiling — $\downarrow P \rightarrow$ protect consumers
 Subsidy — $\downarrow P \rightarrow$ protect consumers

Advantages

1. Immediate / Direct
2. Able to $\downarrow P$ to benefit consumers

Disadvantages

1. May create black market
2. $\hookrightarrow$ Some may not get the goods
2. Disruptive to the economy



Importance of price ceiling $\rightarrow$
 Price $\downarrow$ from P_0 to $P_1 \rightarrow$
 $\uparrow$ Qty dd / $\downarrow$ Qty ss
 — create shortages at P_1 .

— not by buffer stock —
 effect of $\downarrow P$ is achieved.

But if no buffer stock $\rightarrow$
 $P \uparrow$ from P_1 to P_0 at Q_1
 — undermine those who did
 not allocate the good.

~~Price Control~~

* Rental Control

* Sale of HDB

* Enrolment in University

Price Control — Price ceiling (max price)
 — Price Floor (min price)

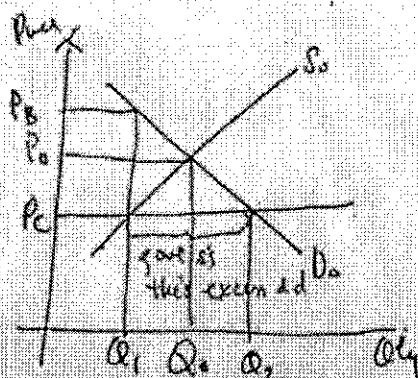
Price ceiling — LP → protect consumers
 Subsidy — LP → protect consumers

Advantages

1. Immediate / Direct
2. Able to ↓ P to benefit consumers

Disadvantages

1. May create black market
 ↳ Some may not get the goods
2. Disruptive to the economy



Importance of price ceiling →
 Price ↓ from P_0 to P_c →
 ↑ Qty d / ↓ Qty s
 — create shortage at P_c .
 — met by buffer stock —
 effect of ↓ P is achieved.
 But if no buffer stock →
 P ↑ from P_c to P_0 at Q_1
 — undermine those who did
 not allocate the good
 + Rent Control
 + Rental Control
 + Sale of HDB
 + Enrolment in University

- (d) Discuss the view that a congestion charge on motorist is the most appropriate policy to tackle the market failure related to the use of cars. [10]

Suggested answer:

Briefly explain why negative externalities arise from use of cars.

Traffic congestion and pollution by the use of cars are likely to cause market failure as they are negative externalities on third parties. Negative externalities are spill over costs to third parties who are not directly involved in the consumption and production of the goods and the third parties are not compensated in the free market. With the presence of external costs, marginal social cost (MSC) is higher than marginal private cost of car usage.

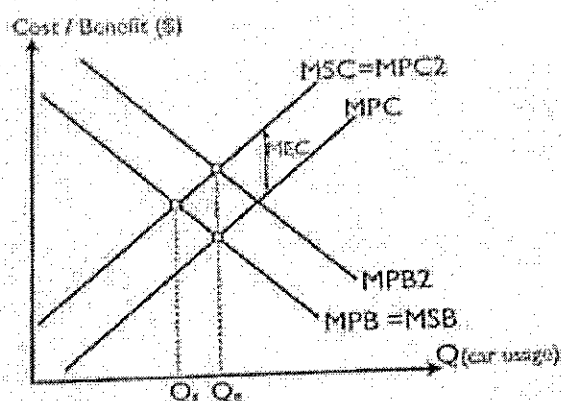


Figure 1

With reference to Figure 1, the quantity of cars determined by market forces is at Q_m , while the socially optimal level of cars on the roads is where $MSC = MSB$ at Q_s . Thus, the level Q_m represents an excessive level of car usage which leads to the problem of traffic congestion and pollution.

Imposing a congestion charge on motorist is a policy to tackle the market failure related to the use of cars. To determine if a congestion charge on motorist is the most appropriate policy to tackle the market failure related to the use of cars, we need to consider if a congestion charge addressed the root cause of the problem and the effectiveness of a congestion charge in reducing the use of motor vehicles to the socially optimum level.

Claim: A congestion charge on motorist can tackle the market failure related to the use of cars.

Support:

A government can impose a congestion charge where drivers must pay the congestion charge in order to drive into the city, and this increases the MPC faced by drivers in the use of their cars on city roads. As shown in Figure 1, the MPC shifts upwards to MPC_2 and will coincide with MSC ($MPC_2 = MSC$), assuming the congestion charge is exactly equal to MEC . Hence, a congestion forces the drivers to take into account the external cost and it addresses the root cause of over use of cars. Drivers now will consider $MPC_2 = MPB$ and use cars up to Q_s , which is the socially optimal level.

Question: Would a congestion charge be effective in correcting the market failure?

The experience of UK suggests that there are other factors affecting the demand for road usage that could cause congestion to worsen again. With a rising population and rising income, more people in China and Beijing are buying cars since cars are normal goods and the demand rises with a rise in income. The rise in the number of car owners will increase the demand for car and road usage in cities. Graphically, this means a rightward shift of MPB (dd) to MPB_2 , and the new

equilibrium where $MPB_2 = MPC_2$ will be at Q_d , showing again the problem of overuse of cars in cities, resulting in congestion again. Hence, a congestion charge may not be the most appropriate policy to tackle the market failure related to the use of cars.

Question: Besides a congestion charge, what is an alternative policy?

Another policy that a government can consider is to invest in public transport. With a better public transport (such as trains and buses) in terms of comfort and reliability, the demand for car / road usage in cities, hence shifting the MPB leftwards from MPB_2 back to MPB_1 . This can help to alleviate the traffic congestion since a fall in demand reduces the social equilibrium quantity and with less road usage, congestion can be reduced in the country. While this may create a burden on the government budget, given that the amounts of money spent will likely be large. Furthermore, the effects can only be seen in the long term.

Conclusion:

To sum up, a congestion charge can address the root cause of market failure related to the use of cars. However, a congestion alone may not be an effective in removing market failure as demand for cars rises as consumers become more affluent. A government may still require to implement other short-term policy and long-term policy to complement the use of congestion to effectively reduce the negative externalities caused by the use of cars to the minimum. Investing in public transport is a long-term and expensive option for a government to consider when tackling market failure arising from car usage. If, in the long run, the public transport is well connected and reliable, more commuters may opt to use public transportation and the congestion and pollution problems from car usage can be greatly reduced (Extract 9).

[Total: 20]