

# AQA Economics A-level **Microeconomics**

## Topic 5: Perfect Competition, Imperfectly Competitive Markets and Monopoly

### **5.11 Consumer and producer surplus**

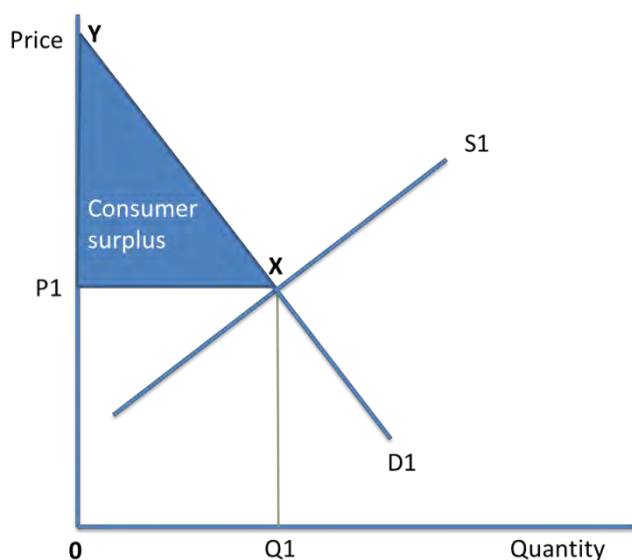
Notes



- 📄 Consumer and producer surplus are both maximised at the free market equilibrium.

## 📄 Consumer Surplus

- 📄 This is the difference between the price the consumer is willing and able to pay and the price they actually pay. This is based on what the consumer perceives their **private benefit** will be from consuming the good.




- 📄 Consumers pay price  $P1$  and demand a quantity of  $Q1$ . This is shown by area  $P1OQ1X$ . The total benefit to the consumer is area  $OQ1XY$ , but because they pay price  $P1OQ1X$ , the net gain to the consumer  $P1XY$ , the shaded triangle. This is consumer surplus.
- 📄 It is always the area above market price and below the demand curve.
- 📄 Due to the law of diminishing marginal utility, consumer surplus generally declines with extra units consumed. This is because the extra unit generates less utility than the one already consumed. Therefore, consumers are willing to pay less for extra units.
- 📄 Inelastic demand curves give a larger consumer surplus. This is because consumers are willing to pay a much higher price to consume the good.

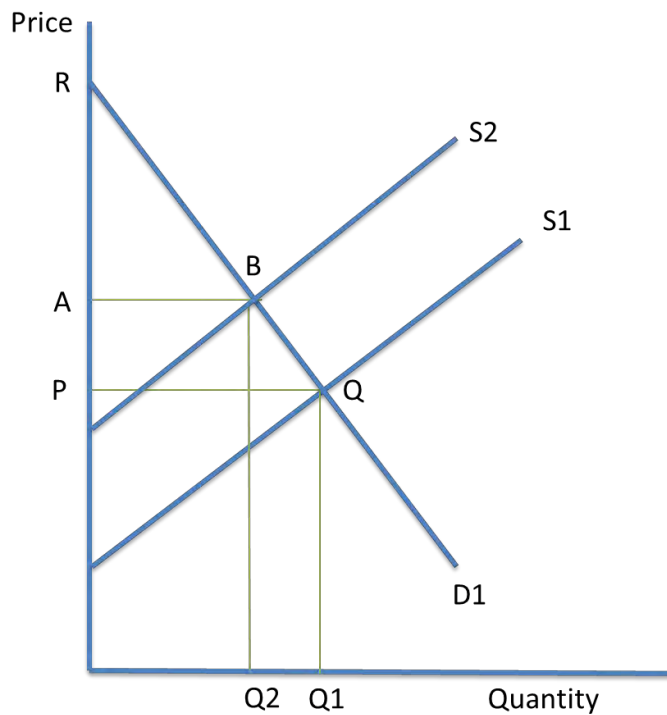
## 📄 Increasing consumer surplus:






 An increase in demand from  $D_1$  to  $D_2$  increases consumer surplus from  $PQR$  to  $ABC$ .


 **Decreasing consumer surplus:**

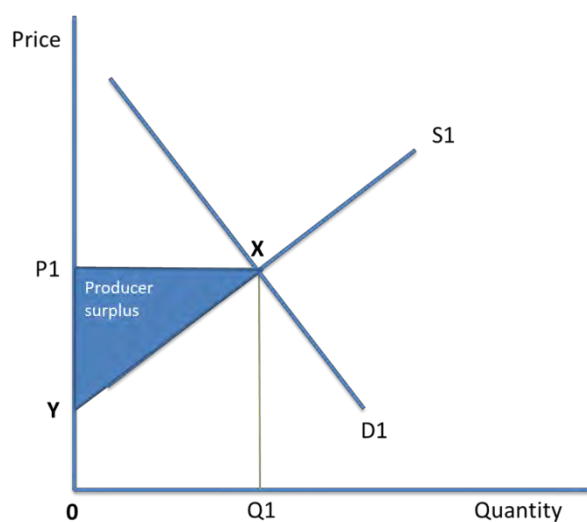



 Supply has shifted to the left, which could be due to higher costs of production. This causes market price to increase, and consumer surplus decreases from  $PQR$  to  $ABR$ .



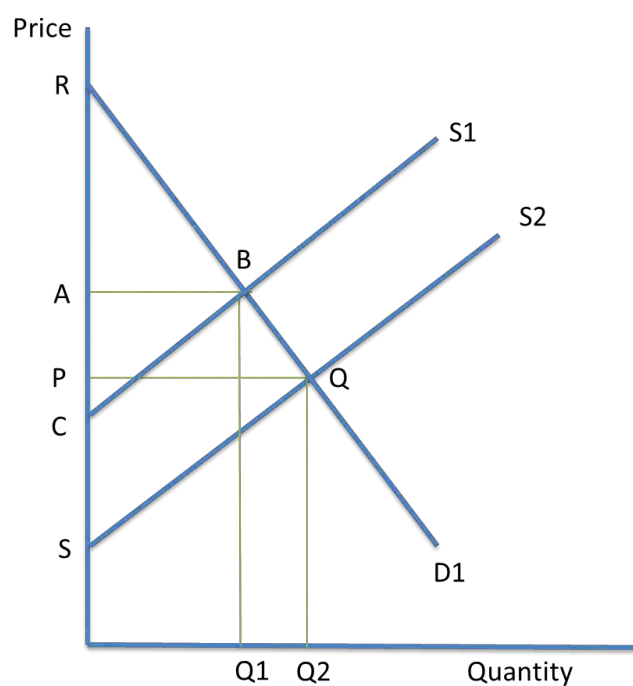
## **Producer Surplus**

-  This is the difference between the price the producer is willing to charge and the price they actually charge. In other words, it is the private benefit gained by the producer that covers their costs, and is measured by profit.



-  This is always the area below the market price and above the supply curve.

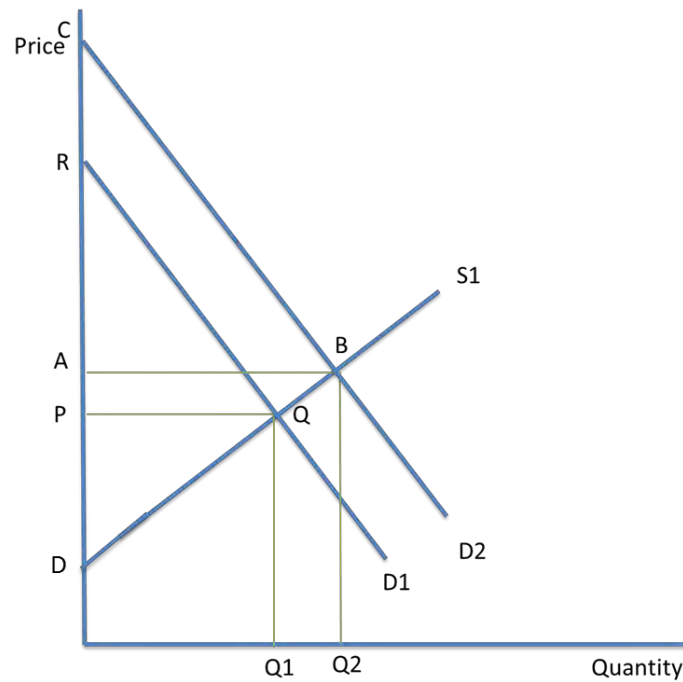
## **Increasing producer surplus:**



📄 This is caused by a shift in the supply curve from  $S_1$  to  $S_2$ , which could be due to lower average production costs, for example. Therefore market price decreases and producer surplus increases.

📄 Producer surplus increases from  $ABC$  to  $PQS$ .

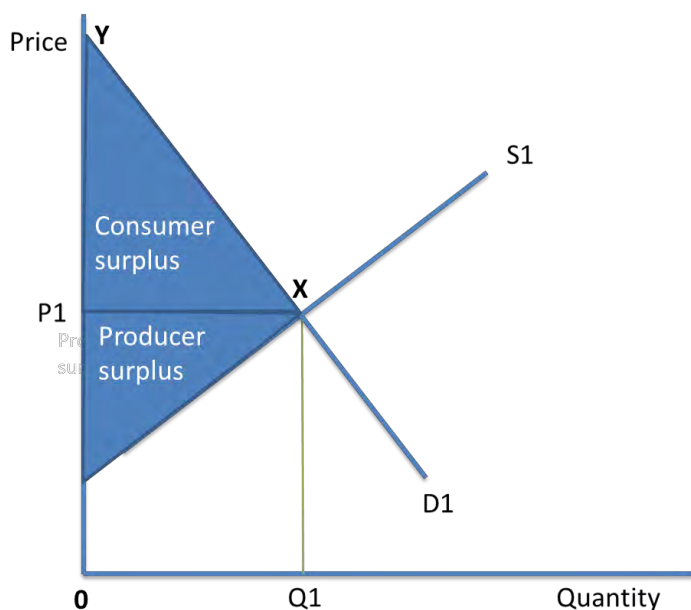
📄 This could also be due to an increase in demand which causes price to increase.






📄 Producer surplus increases from area  $PQD$  to  $ABD$ .







## Economic Welfare



-  This is the total benefit society receives from an economic transaction.
-  It is calculated by the area of producer surplus and consumer surplus added together.
-  It is important when considering the effects of government policies, which could affect either producer or consumer surplus.

## Price discrimination and deadweight loss with monopoly

-  Price discrimination occurs in a monopoly, when the monopolist decides to charge different groups of consumers different prices, **for the same good or service**. This is not for cost reasons. It generally results in a loss of consumer welfare.
-  By charging different prices, the monopolist can maximise their overall profits and producer surplus.
-  Deadweight loss is the loss of economic efficiency when the equilibrium price and quantity is not achieved. For example, higher prices due to monopoly power, could lead to a net deadweight loss to society.
-  The yellow shaded section on the diagram shows the area of deadweight loss to society when monopolies produce at the profit maximising level of output (MC=MR).



