12 Key Diagrams for AS Microeconomics

Advice on drawing diagrams in the exam

- The right size is about 1/3 of a side of A4 – don’t make them too small
- Avoid wrapping text around the diagram
- Avoid directional arrows – label each curve clearly so that it is clear which curves are shifting
- Remember to label both the x and the y axis
- Always draw dotted lines to the x and y axis to show changing prices, quantities etc.
- Draw in pencil
A PPF shows the different combinations of goods and services that can be produced with a given amount of resources in their most efficient way. Any point inside the curve suggests resources are not being utilised efficiently. Any point outside the curve is not attainable with the current level of resources. An outward shift of the PPF implies that an economy has achieved economic growth.

Point X is an allocative inefficient combination – it lies within the PPF. Points C, A and B are all allocatively efficient. D is unattainable unless there is an outward shift of the PPF.
The Effects of an Indirect Tax on Producers and Consumers

A direct tax increases the costs faced by producers. The amount of the tax is shown by the vertical distance between the two supply curves. Because of the tax, less can be supplied at each price level. The result is an increase in the equilibrium market price and a contraction in market demand to a new equilibrium output of Q2.

- P2 is the price paid by consumers after the introduction of the tax.
- P2 - P3 is the tax per unit received by the government.
- (P2 - P3) x Q2 is the total tax revenue received by the government.
- The producer keeps price P3 after the tax has been paid.
- The consumer pays P2 - P1 of the tax.
- The producer pays P1 - P3 of the tax.
- The effect of the tax depends on the price elasticity of demand & supply for the good.
3) A Government Subsidy to Producers

A government subsidy encourages an increase in supply at each price level because the subsidy provides a reduction in a firm’s costs of production. The extent of the subsidy per unit is shown by the vertical distance between the two supply curves.

The price before the subsidy is offer is P1 and the equilibrium quantity is Q1.
Following the subsidy, the price falls to P2 (this is the price paid by consumers)
Output rises to Q2 i.e. the lower price has encouraged an expansion of demand.
The producer then receives the subsidy P2-P3 and received price P3.
Total government spending on the subsidy equals Q2 x (P2P3).
Once again, the elasticities of demand and supply affect how a subsidy causes changes in price and quantity in the market.
Most students forget to show the subsidy payment to producers in their diagrams!
Governments may use subsidies for a variety of reasons including reducing the price and increasing the consumption of merit goods – check your notes on subsidies for the arguments for and against government subsidies for producers.
4) Drawing shifts in demand and supply – and their effects on market price

When drawing price theory diagrams
- Avoid any use of arrows – clear labelling does that job for you!
- Always draw to the axis to show prices and quantities
- It is often a good idea to draw two diagrams in the latter parts of questions – this allows you to change the elasticities of demand and supply and see how this changes your analysis
- Shifts in demand do not normally cause a shift in supply
- Likewise shifts in supply cause movements along the demand curve and not shifts in the demand curve
- Inelastic demand and supply curves mean that equilibrium prices tend to be volatile when conditions of demand and supply change
- Think about the implications of such shifts in price and quantity on the incomes of producers – applying the concept of price elasticity of demand is often very helpful when discussing the incomes and profits of suppliers
5) Economies of large scale production

Economies of scale are the advantages of large scale production that result in lower unit (average) costs (cost per unit)

- Economies of scale lead to a fall in the long run average cost curve.
- It is more cost efficient to produce output Q2 at an AC of AC2 than it is to produce Q1.
- Q3 is the output where the economies of scale have been fully exploited.
- This is known as the output of productive efficiency in the long run.
- Depending on the elasticity of the demand curve, output Q3 gives higher total profits at output Q2 – and the consumer also benefits from lower prices.
- Economies of scale therefore increase both consumer and producer surplus.
- Important when discussing the economics of large scale production and also the potential costs and benefits of monopoly power in a market.
- Make sure you have examples of the different types of economy of scale that a business can exploit.
6) Consumer and producer surplus and allocative efficiency in a market

Allocative efficiency is achieved here where the market clears and the price reflects the costs of supply. Consumer and producer surplus is maximised!

If output is reduced to Q2 and the price is raised to P2, then there is a loss of allocative efficiency – leading to a deadweight loss of consumer and producer surplus.

Allocative efficiency occurs when the market clears at a price when the price charged to consumers reflects the true cost of factors of production used in supplying the product.
7) Market failure when there are negative externalities

**Production Externalities**

When there are negative production externalities then the social cost of supplying the product is greater than the private cost. The product is over-supplied and under-priced by the market – i.e. market failure.

**Consumption Externalities**

When there are negative consumption externalities then the social benefit of consuming the product is less than the private benefit. The product is over-consumed by the market – i.e. market failure.
8) Price elasticity of demand – two important applications

(i) Price elasticity of demand and the total revenue to a supplier

(ii) Price elasticity of demand and the profit margins of a business
9) Merit Goods – positive externalities

Merit goods – could be provided by the market but consumers may not be able to afford or feel the need to purchase – thus the free-market economy would not provide them in the quantities society needs.

Welfare loss because merit goods tend to be under-consumed by the free market.

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Costs
Benefits

Output (Q)

External Benefit

Supply

Social Benefit

Private Benefit

Qp

Qs
10) Market failure due to information failure

Market failure with demerit goods – the free market may fail to take into account the negative externalities of consumption (because the social cost > private cost). Consumers too may experience imperfect information about the long term costs to themselves of consuming products deemed to be de-merit goods.

The social optimal level of consumption would be Q3 – an output that takes into account the information failure of consumers and also the negative externalities.
11) Maximum and minimum prices – when governments intervene in a market

A maximum price for rented accommodation or for a foodstuff

A minimum wage in the labour market
12) Buffer stock schemes to support prices and incomes in a market

Buffer stock schemes seek to stabilize the market price of agricultural products by buying up supplies of the product when harvests are plentiful and selling stocks of the product onto the market when supplies are low.

The government offers a guaranteed minimum price (P min) to farmers of wheat. The price floor is set above the normal free market equilibrium price.

If the government is to maintain the guaranteed price at P min, then it must buy up the excess supply (Q3-Q1) and put these purchases into intervention storage. Should there be a large rise in supply putting downward pressure on the free market equilibrium price. In this situation, the government will have to intervene once more in the market and buy up the surplus stock of wheat to prevent the price from falling.