

Edexcel (B) Economics A-level  
**Theme 4: Making Markets Work**

**4.1 Competition and Market Power**  
**4.1.4 Business objectives and pricing decisions**

Notes



## Short-run cost function

 Total costs are how much it costs to produce a given level of output. An increase in output results in an increase in total costs. **Total costs = total variable costs + total fixed costs**

### Total fixed cost:

 In the short run, at least one factor of production cannot change. This means there are some **fixed costs**. Fixed costs do not vary with output. For example, rents, advertising and capital goods are fixed costs. They are indirect costs.

### Total variable cost:

 In the long run, all factor inputs can change. This means all costs are **variable**. For example, the production process might move to a new factory or premises, which is not possible in the short run. Variable costs change with output. They are direct costs. For example, the cost of raw materials increases as output increases.

## Marginal cost and average cost

 **Average (total) costs (ATC) = total costs / quantity produced.  $ATC = AVC + AFC$ .** This is the cost per unit of output produced.

 **Average fixed costs (AFC) = total fixed costs/quantity.**

 **Average variable costs (AVC) = total variable costs/quantity.**

 **Marginal costs** are how much it costs to produce one extra unit of output. It is calculated by  $\Delta TC \div \Delta Q$ .

## Short-Run Average Cost (SRAC)

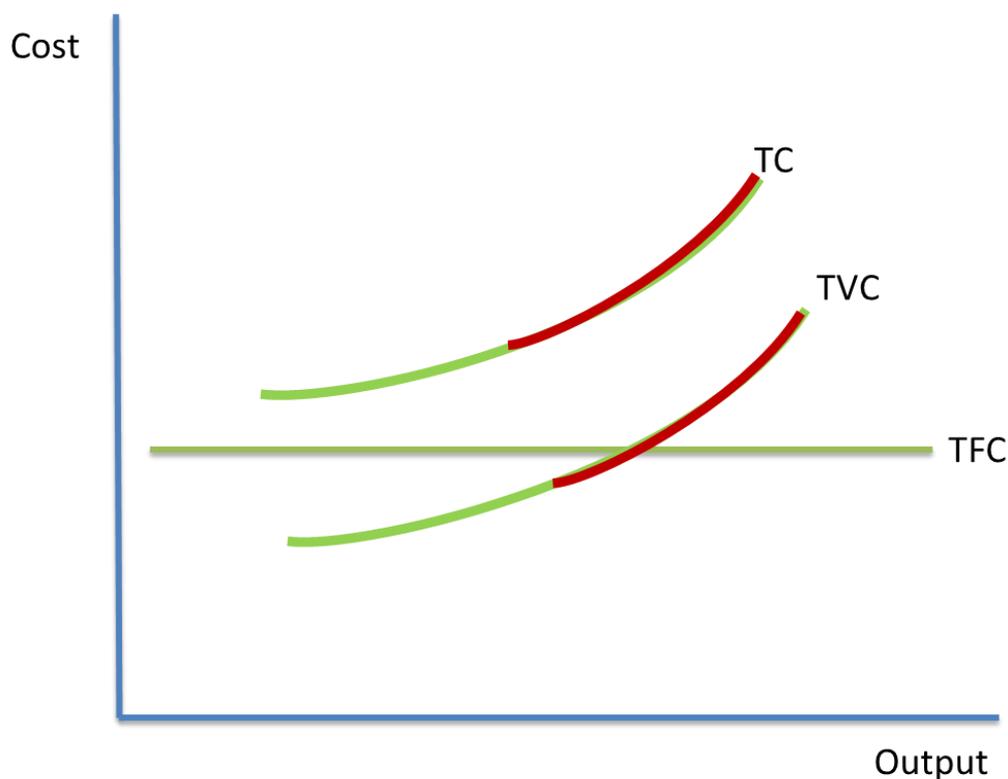
 The measure of the short run varies with industry. There is no standard. For example, the short run for the pharmaceutical industry is likely to be significantly longer than the short run for the retail industry. In the short run, there are some fixed costs. In the long run, all costs are variable. In the very long run, the state of technology can change, such as electronics.

 The **law of diminishing marginal productivity** states that adding more units of a variable input to a fixed input, increases output at first. However, after a certain



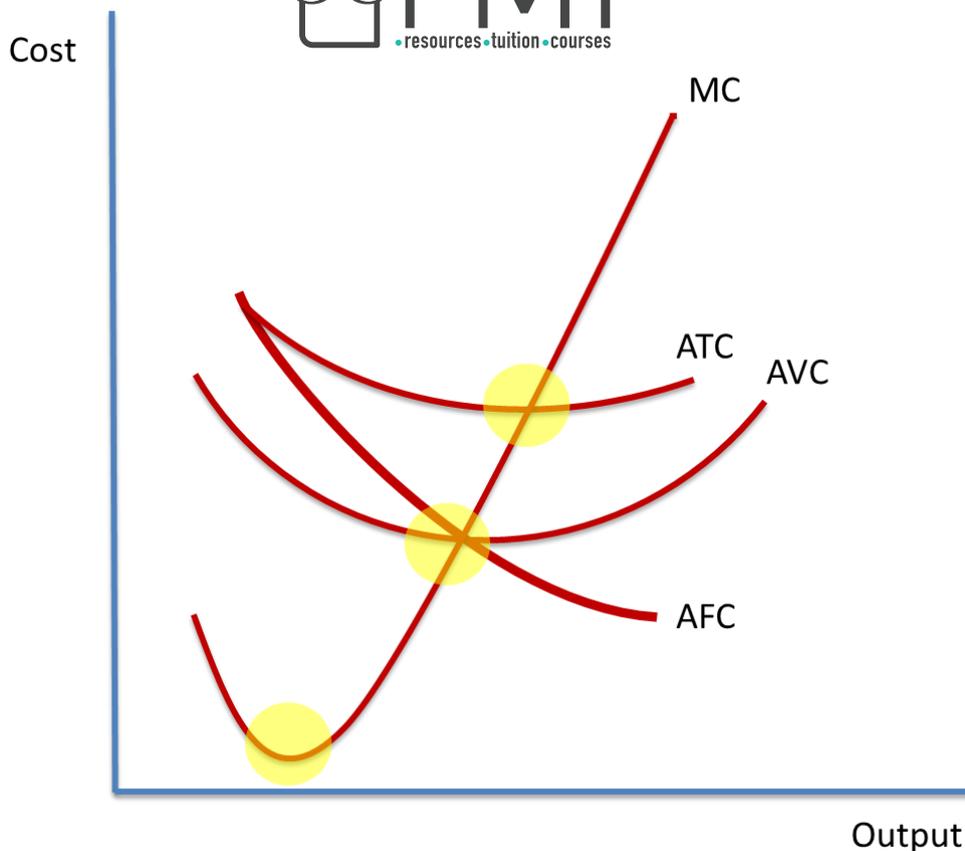
number of inputs are added, the marginal increase of output becomes constant. Then, when there is an even greater input, the marginal increase in output starts to fall.

-  In other words, at some point in the production process, adding more inputs leads to a fall in marginal output.
-  This could be due to labour becoming less efficient and less productive, for example. At this point, total costs start to increase.



-  On the diagram, the red parts show diminishing returns, where the cost of production starts to rise with increased output.
-  Marginal costs rise with increasing diminishing returns.





-  The diagram above shows cost curves. MC, ATC and AVC rise with diminishing returns. AFC falls with increasing output.
-  The lowest points on the curves, as shown by the yellow highlighted circles, are the points where diminishing marginal productivity sets in. Before this, average costs are falling. After this, average costs are rising.
-  The MC curve cuts through the lowest points on the ATC and AVC curves.

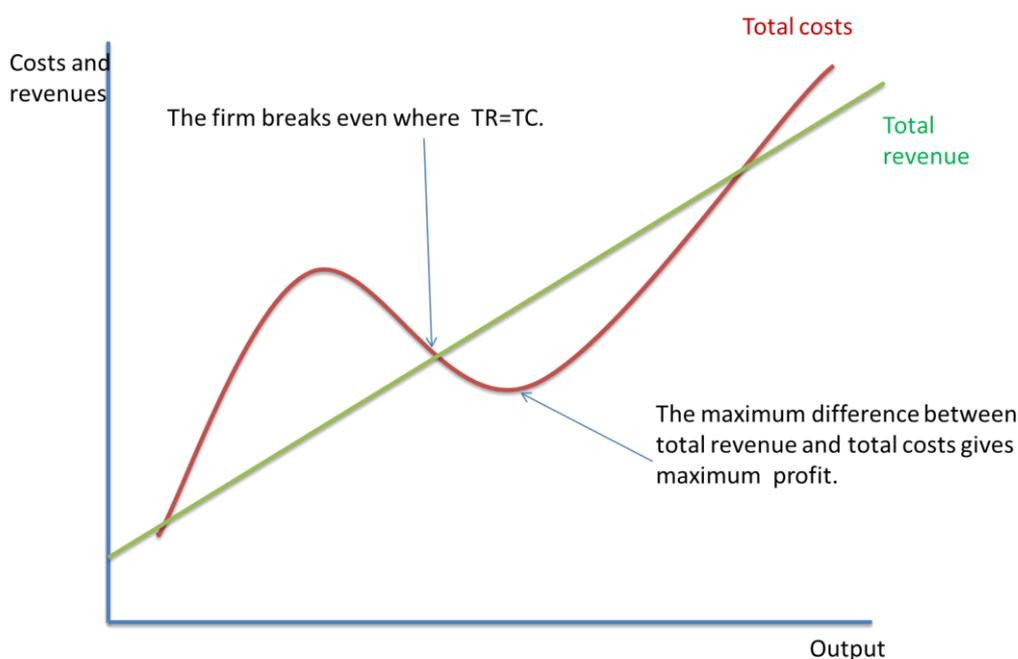
### **Revenue: total, average and marginal**

-  Total revenue (TR) is calculated by **price times quantity sold**. This is the revenue received from the sale of a given level of output.
-  Average revenue (AR) is the average receipt per unit. This is calculated by **TR / quantity sold**. In other words, this is the price each unit is sold for.
-  Marginal revenue is the extra revenue earned from the sale of one extra unit. It is the difference between total revenue at different levels of output.

### **Profit maximisation**



- 📖 Profit is an important objective of most firms. Models that consider the traditional theory of the firm are based upon the assumption that firms aim to maximise profits.
- 📖 However, firms can have other objectives which affect how they behave.
- 📖 Profit is the difference between total revenue and total cost. It is the reward that entrepreneurs yield when they take risks.
  
- 📖 Firms break even when  $TR = TC$ .
  
- 📖 A firm's profit is the difference between its total revenue (TR) and total costs (TC). A firm profit maximises when they are operating at the price and output which derives the greatest profit. Profit maximisation occurs where **marginal cost (MC) = marginal revenue (MR)**. In other words, each extra unit produced gives no extra loss or no extra revenue.



- 📖 Profits increase when  $MR > MC$ . Profits decrease when  $MC > MR$ .
- 📖 Some firms choose to profit maximise because:
  - It provides greater wages and dividends for entrepreneurs
  - Retained profits are a cheap source of finance, which saves paying high interest rates on loans
  - In the short run, the interests of the owners or shareholders are most important, since they aim to maximise their gain from the company.
  - Some firms might profit maximise in the long run since consumers do not like rapid price changes in the short run, so this will provide a stable price and output.



- 📖 PLCs are particularly keen to profit maximise, because they could lose their shareholders if they do not receive a high dividend. They are more likely to have **short run profit maximisation** as an objective, because they need to keep their shareholders happy.
- 📖 **Normal profit:** Normal profit is the minimum reward required to keep entrepreneurs supplying their enterprise. It covers the opportunity cost of investing funds into the firm and not elsewhere. This is when total revenue = total costs ( $TR = TC$ ). Normal profit is considered to be a cost, so it is included in the costs of production.
- 📖 **Supernormal profit:** Supernormal profit (also called abnormal or economic profit) is the profit above normal profit. This exceeds the value of opportunity cost of investing funds into the firm. This is when  $TR > TC$ .

- **Sales maximisation**

- 📖 This is when the firm aims to sell as much of their goods and services as possible without making a loss. Not-for-profit organisations might work at this output and price. This is where average costs ( $AC$ ) = average revenue ( $AR$ ).

An example of sales maximising is Amazon's Kindle launch. They sold as many Kindles as possible to gain market share, so they can earn more profits in the long run. It helps keep out and deter competitors.

- **Satisficing**

- 📖 Another objective a firm might have is satisficing. A firm is profit satisficing when it is earning just enough profits to keep its shareholders happy.
- 📖 Shareholders want profits since they earn dividends from them. Managers might not aim for high profits, because their personal reward from them is small compared to shareholders. Therefore, managers might choose to earn enough profits to keep shareholders happy, whilst still meeting their other objectives.
- 📖 This occurs where there is a divorce of ownership and control.

- 📖 **Other objectives:**

- **Survival**



 Some firms, particularly new firms entering competitive markets, might aim to simply survive in the market. This is a short term view. During periods of economic decline such as the 2008 financial crisis, when consumer spending plummets, firms might have survival as their objective, until there is economic growth again. Firms might aim to sell as much as possible to keep their market position, even if it is at a loss in the short run.

- **Market share**

 This helps increase the chance of surviving in the market, and it can be achieved by maximising sales. For example, Amazon aimed to increase their market share in the e-reader market, by trying to sell as many Kindles as possible. They did this at a loss in the short run, but they gained customer loyalty and now they are a leading e-reader producer.

- **Cost efficiency**

 The more cost efficient a firm is, the lower its average costs. This gives the firm a competitive advantage, since they can afford to charge consumers lower prices. Firms operating in competitive markets will need to be cost efficient to ensure they are not competed out of the market by more efficient producers.

- **Return on investment (ROI)**

 Entrepreneurs take risks by making investments. The reward for taking these risks is profit, which is the return on their investment. The higher the ROI, the more attractive the investment is. The ROI can give firms an idea of how profitable an investment is, which is important for planning.

- **Employee welfare**

 Some firms might try and ensure their employees are well looked-after. When employees are happy, they are more likely to be productive and do a good job. It also increases loyalty towards the employer, so the employee is less likely to leave the job. Google is renowned for their employee perks such as on-site physicians and travel insurance.

- **Customer satisfaction**



 Firms might aim to increase their competitiveness by improving their quality and increasing their customer satisfaction. Firms might consider improving their customer service or the quality of the good they produce. This could be achieved through innovation. If firms can gain a reputation for high quality goods, they could potentially charge higher prices, since consumers might be willing to pay more for them.

- **Social objectives**

 Some firms might focus on **social welfare** and their **Corporate Social Responsibility (CSR)**. They might take responsibility for consequences on the environment and aim to maximise social welfare. Firms might try and perform more ethically, especially if they have a philanthropic owner.

