

# OCR Economics A-level **Microeconomics**


## Topic 3: Business Objectives 3.3 Revenue and Profit


Notes


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## Total revenue (TR), average revenue (AR), marginal revenue (MR)

 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.

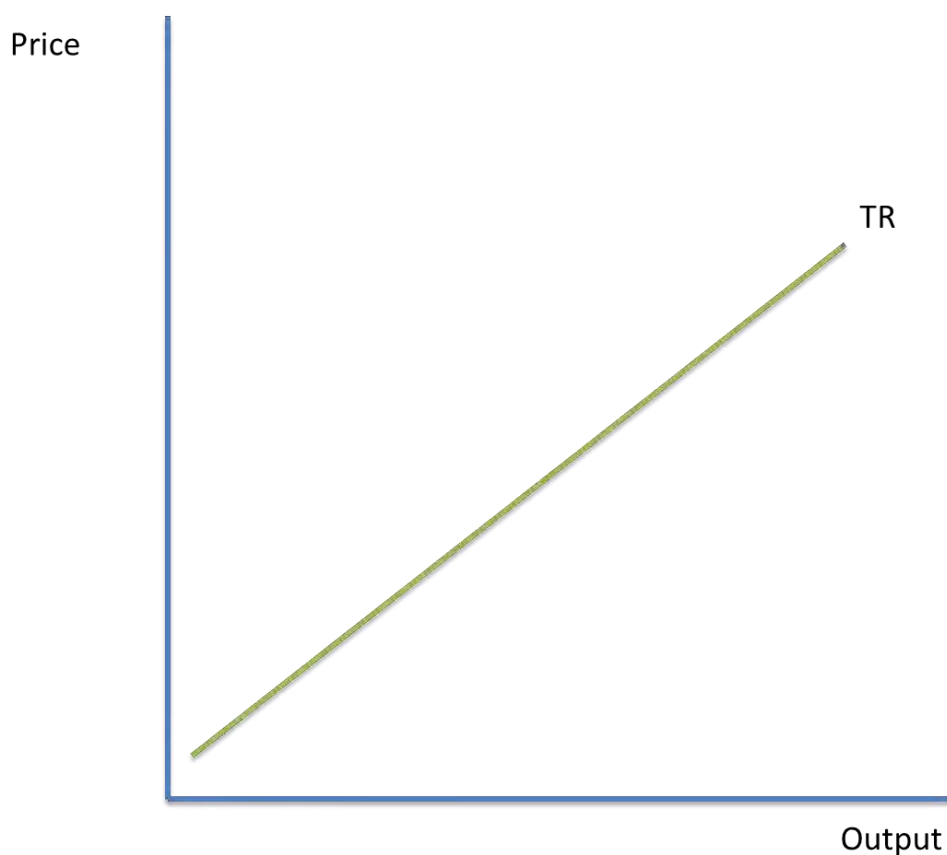
 It is the difference between total revenue at different levels of output.

## Formulae to calculate types of revenue

### Total revenue:

 Total revenue is calculated by **price x quantity sold**. It is the revenue received from the sale of a given level of output.





When price is constant, TR is as shown in the diagram. Prices are lowered to achieve higher sales.

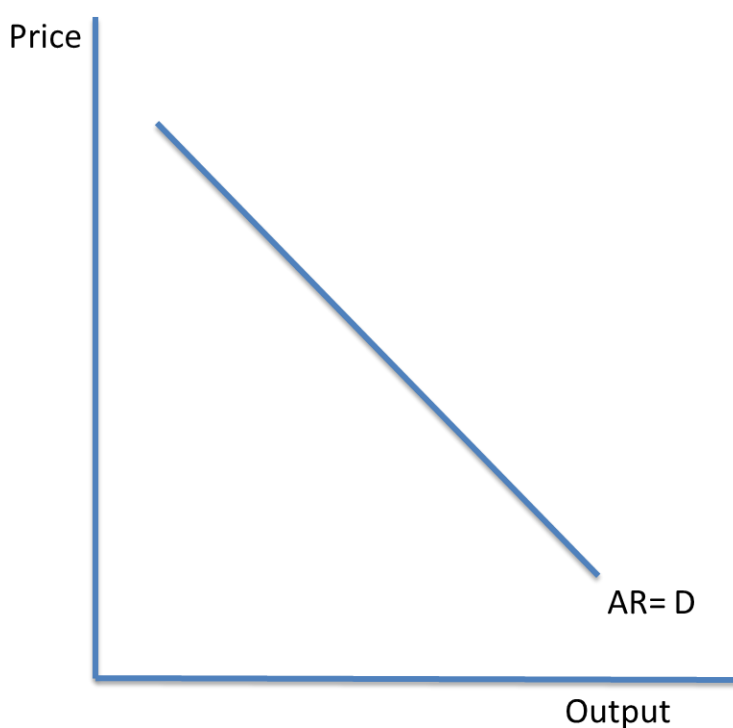
### Average revenue:

Average revenue (AR) is the average receipt per unit. This is calculated by  $TR / \text{quantity sold}$ . In other words, this is the price each unit is sold for.

The AR curve is the firm's demand curve. This is because the average revenue curve is the price of the good.

In markets where firms are **price takers**, the AR curve is horizontal. This shows the perfectly elastic demand for their goods.





### Marginal revenue:

📖 This is the extra revenue a firm earns from the sale of one extra unit. When marginal revenue is 0, total revenue is maximised.

📖 The point where  $MR = 0$  on the revenue diagram is directly below the midpoint of the AR curve. This is in the middle of the demand curve and it is the point where  $PED$

$$= 1.$$

📖 If prices rise or fall around this point, TR would fall.


### Accounting profit and economic profit


📖 Accounting profit is calculated by the total monetary revenue minus total costs. It is higher than economic profit.


📖 Economic profit considers the opportunity cost of production in addition to monetary costs. This means that economic profit is lower than accounting profit.




## Normal profit, supernormal profit and losses:

 **Normal profit:** Normal profit is the minimum reward required to keep entrepreneurs supply 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 profit) is the profit above normal profit. This exceeds the value of opportunity cost of investing funds into the firm. This is when  $TR > TC$ .

 **Losses:** A firm makes a loss when they fail to cover their total costs.

## Why supernormal profits are maximised at the level of output where $MC = MR$ .

 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.

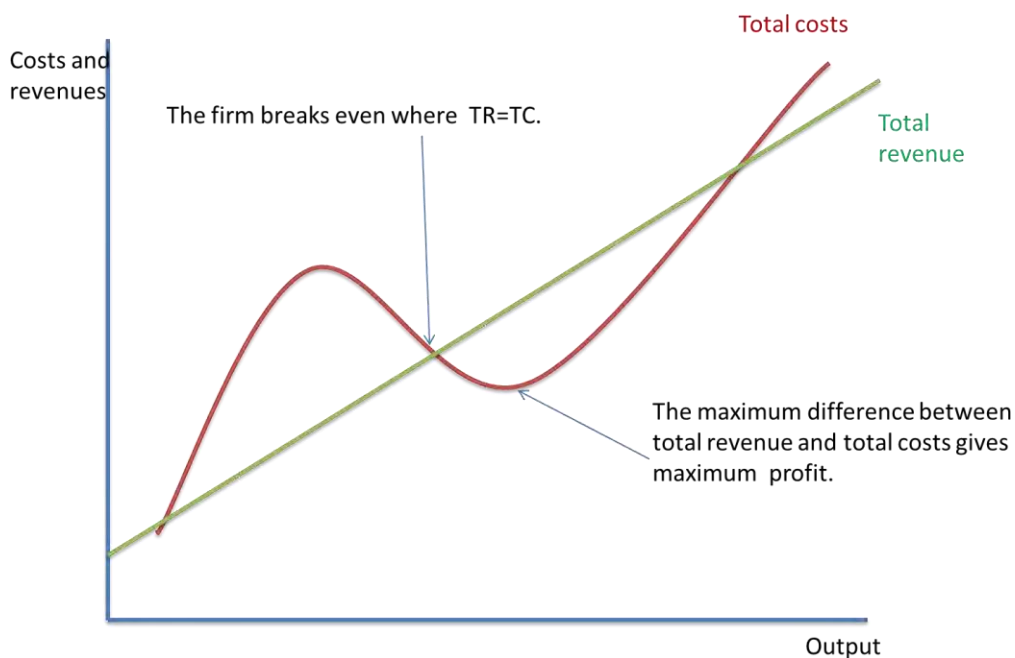
 However, firms can have other objectives which affect how they behave.

 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:

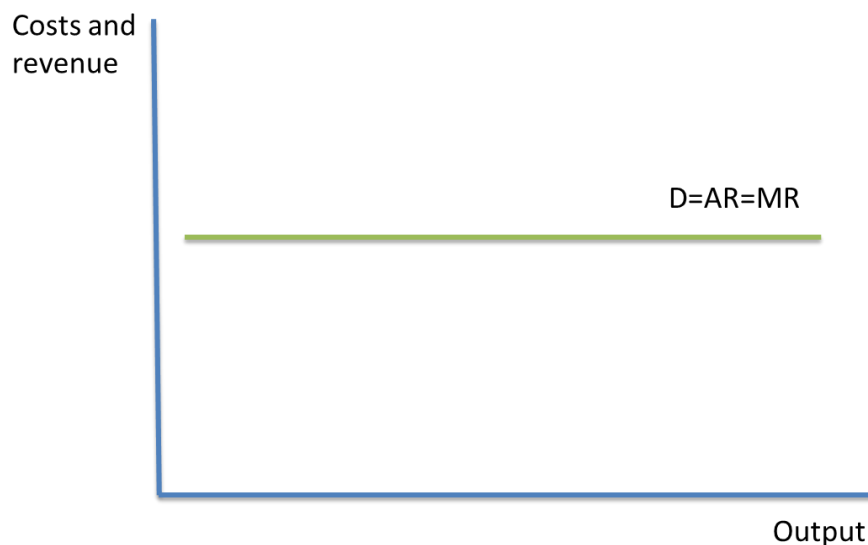
- It provides greater wages and dividends for entrepreneurs
- Retained profits are a cheap source of finance, which saves paying high interest rates on loans
- In the short run, the interests of the owners or shareholders are most important, since they aim to maximise their gain from the company.
- Some 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.

### **PED and its relationship to revenue concepts:**

 In markets where firms are **price takers**, the AR curve is horizontal. This is because the price received for the good is constant. This shows the perfectly elastic demand for their goods. AR= the demand curve, because AR is the price of the good, and the demand curve shows the relationship between price and quantity. Average revenue

= marginal revenue.





📄 If demand is elastic and price increases, the quantity demanded will fall. The effect on total revenue depends on how elastic the demand is.

📄 For example, if price rises by 10% and demand decreases by 20%, then the elasticity of demand is +2. This means demand is very elastic and total revenue decreases.

📄 If prices rise by 10% and demand decreases by 1%, the price elasticity of demand is +0.1. Demand is relatively inelastic, and revenue increases.

📄 Usually, the AR curve is downward sloping, because the price per unit is reduced as extra units are sold.

📄 The MR curve is twice as steep as the AR curve. This does not have to be proven in the exam. The AR curve is a trend line.



