

Normal Profit, Supernormal Profit & Losses

Profit

Profit is the difference between a firm's total revenue and total costs.

$$\text{Profit} = \text{Total Revenue (TR)} - \text{Total Cost (TC)}$$

Economists include both explicit and implicit costs when calculating total costs.

- **Explicit costs** = actual payments made by the firm, such as wages, rent and raw materials.
- **Implicit costs** = the opportunity cost of using the firm's resources in their current use rather than their next-best alternative.

For example, if an entrepreneur invests £1m into a business but could have earned 5% interest by investing the money elsewhere, the forgone interest is an implicit cost.

Profit Maximisation

A profit-maximising firm produces at the level of output where:

MR = MC (purple point on the diagram)

Marginal Revenue (MR) is the additional revenue earned from selling one more unit of output.

Marginal Cost (MC) is the additional cost of producing one more unit of output.

Why Does MR = MC Maximise Profit?

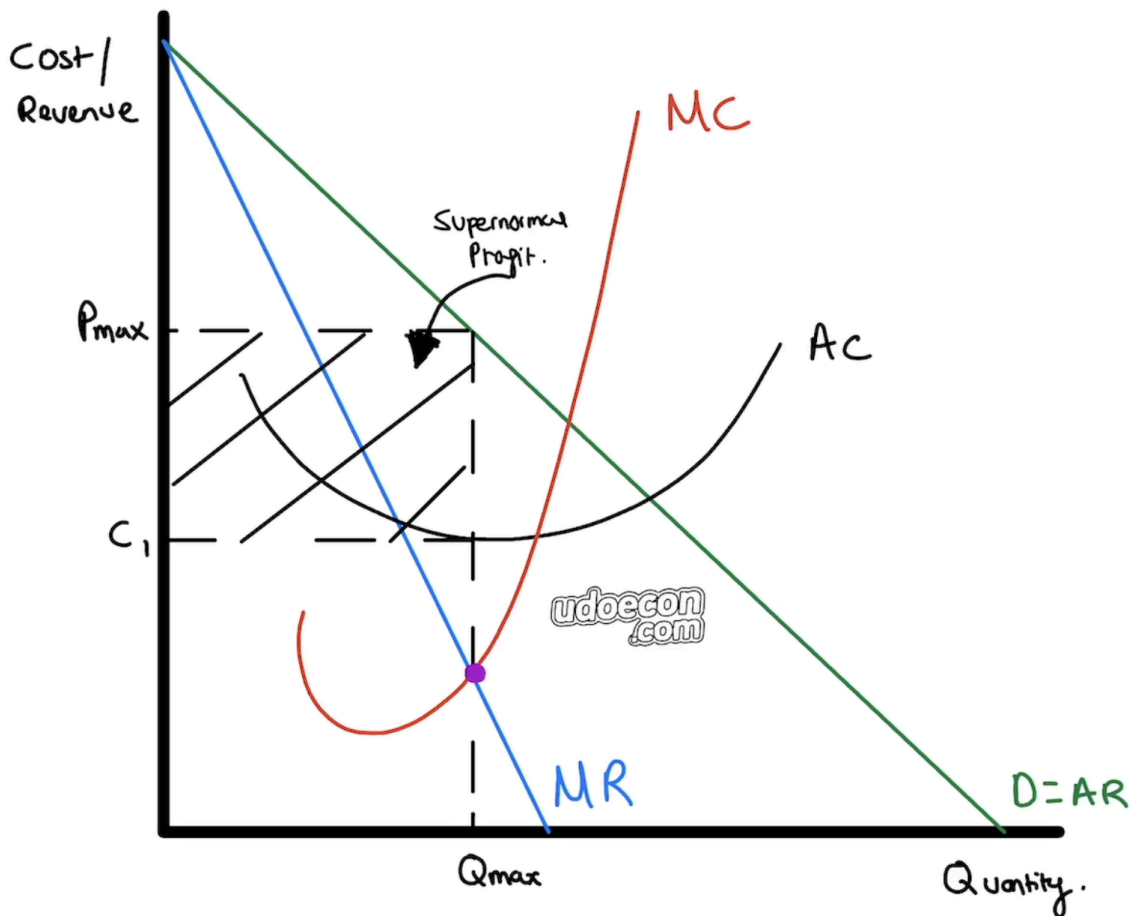
If **MR > MC**, the additional revenue from producing another unit is greater than the additional cost.

If **MR < MC**, the additional cost of producing another unit is greater than the additional revenue.

Therefore:

MR = MC → no further profit can be gained by increasing or decreasing output → profit is maximised

Profit Maximisation on a Diagram



To identify profit on a cost and revenue diagram:

- Find where **MR = MC** → draw a straight line down which gives you the profit-maximising output **Qmax**.
- Move vertically upwards from Q until you hit your **AR curve then go left** → this determines profit maximising price **Pmax**.
- At the same output, find the **AC curve** → this determines average cost **C1**.
- Compare **AR and AC** to determine whether the firm earns normal profit, supernormal profit or a loss.

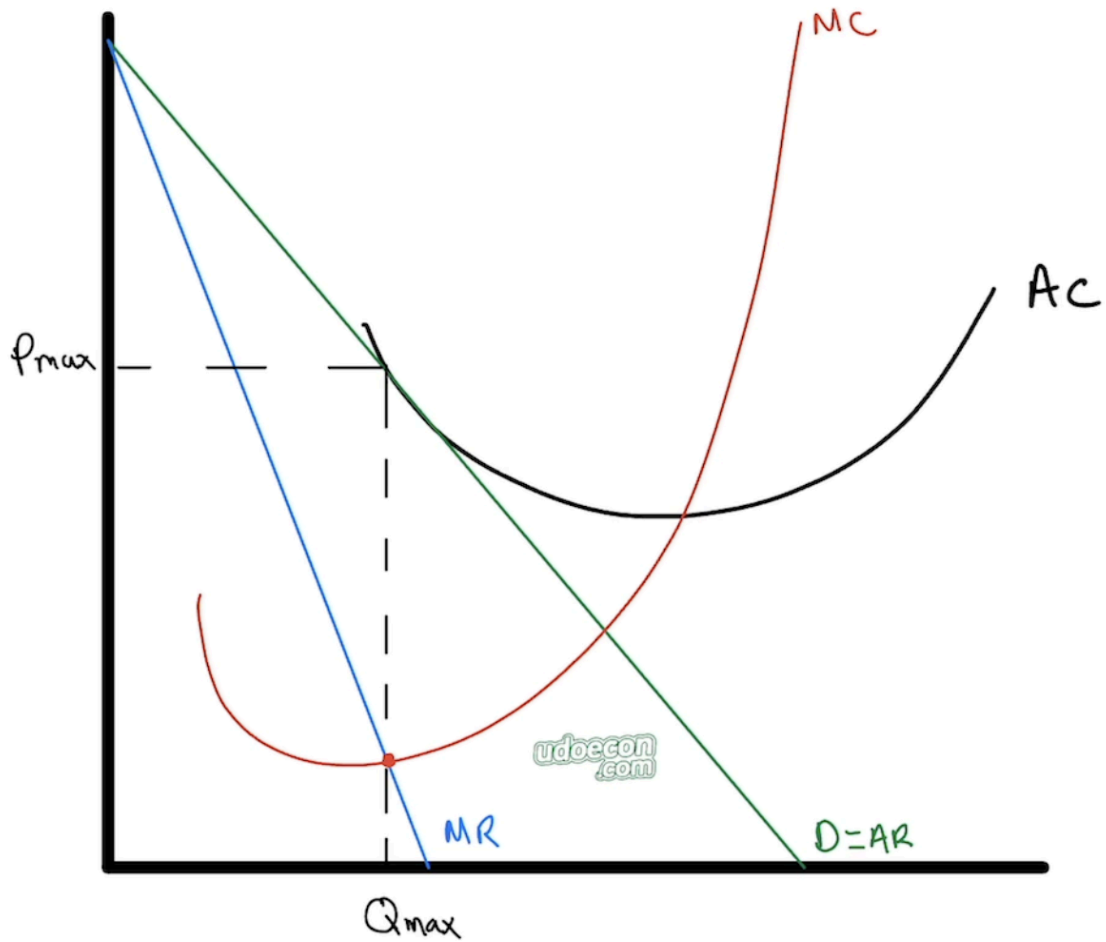
Normal Profit

Normal profit is the minimum level of profit required to keep a firm in the industry

It occurs when:

$$\mathbf{AR = AC}$$

The firm's revenue is exactly enough to cover all explicit and implicit costs, including the opportunity cost of entrepreneurship.

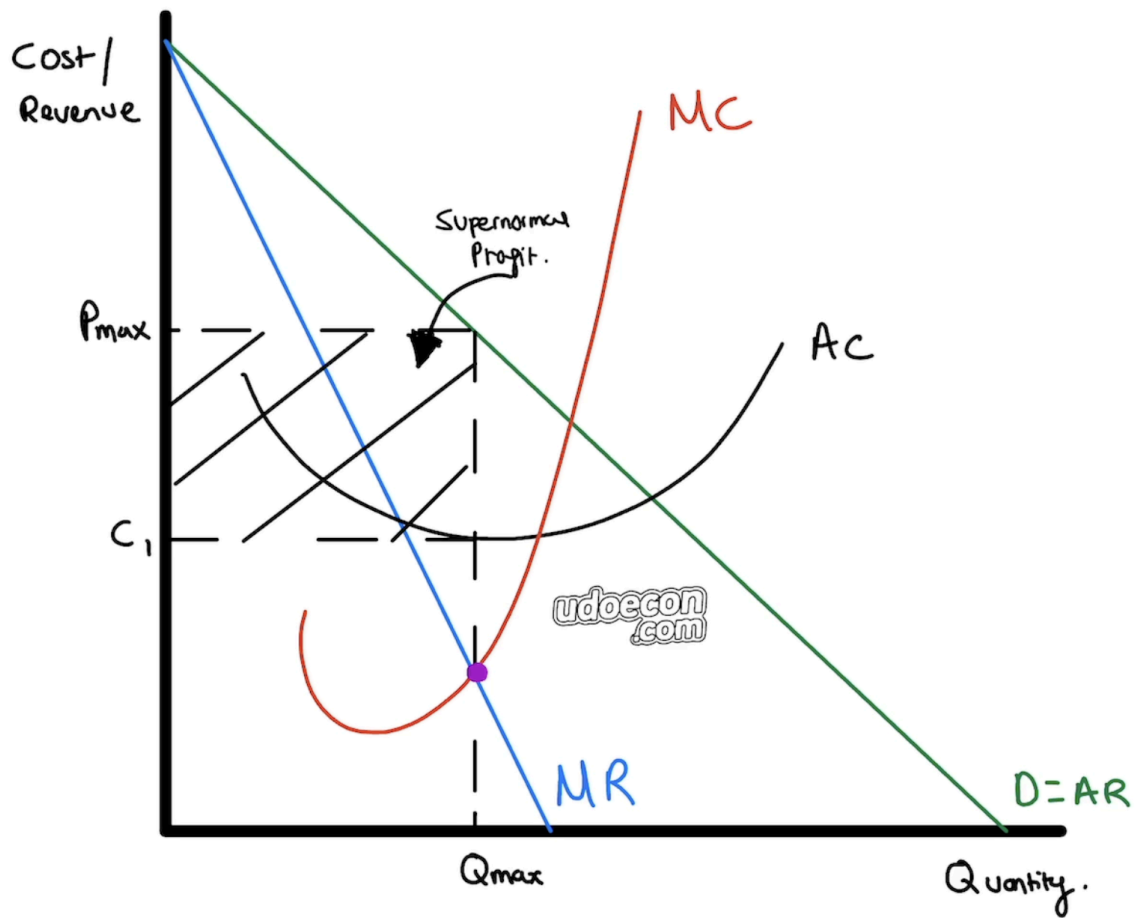


Supernormal Profit

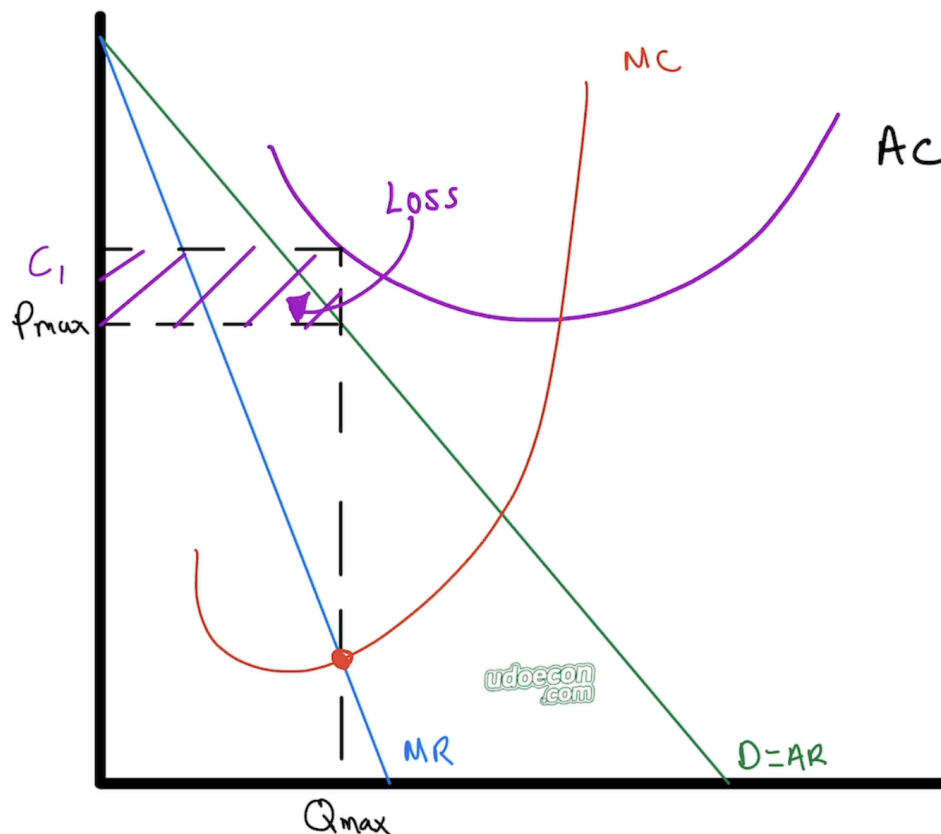
Supernormal profit occurs when a firm's total revenue (TR) exceeds its total cost (TC). For example **Apple** Earned **\$93.7 billion** in supernormal profit in 2023.

Calculating Supernormal Profit

Supernormal profit per unit is the difference between average revenue and average cost.



Losses



A firm makes a loss when:

$$AR < AC$$

This means the firm's revenue is insufficient to cover all of its costs.

However, making a loss does **not necessarily mean the firm should immediately shut down**. This depends on whether the firm is operating in the short run or long run.

For example Uber posted a **\$8.5 billion** net loss in 2019.

Short-Run Shutdown Point

The **short-run shutdown point** occurs when:

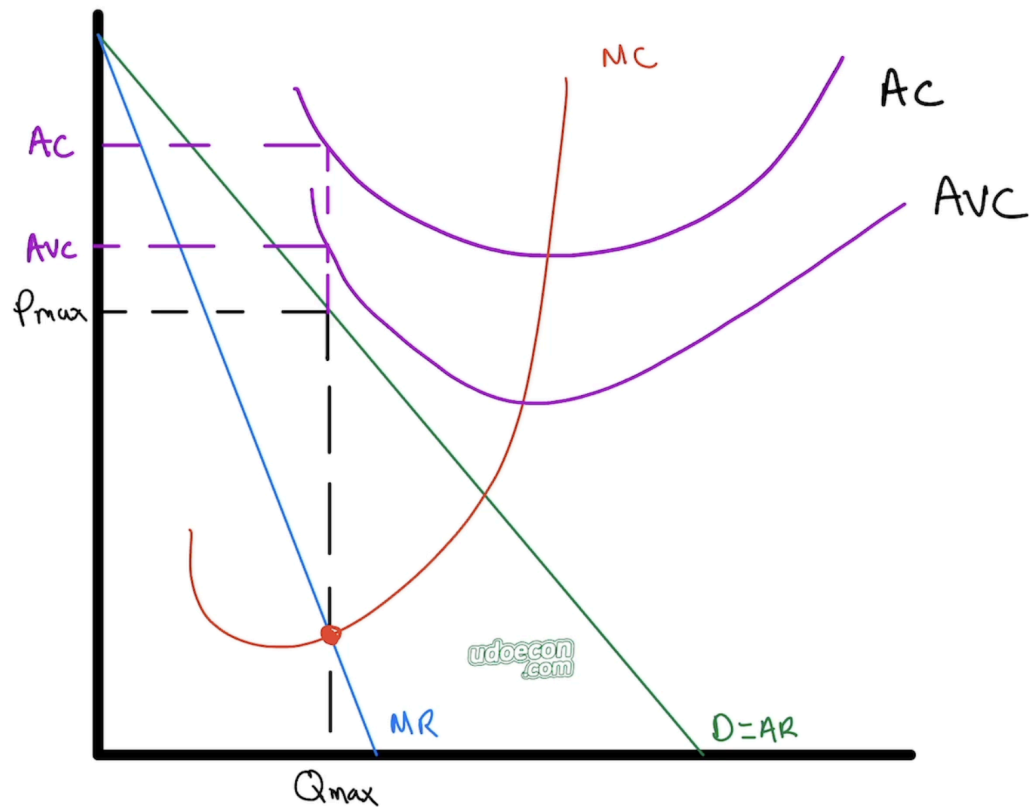
$$AR = AVC$$

At this point, the firm's revenue is **just enough to cover its variable costs**.

- **$AR > AVC$** → firm continues producing in the short run, as it can cover its variable costs and make a contribution towards fixed costs.

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- **$AR < AVC$** → revenue cannot cover variable costs → producing creates greater losses than shutting down → **firm shuts down in the short run.**

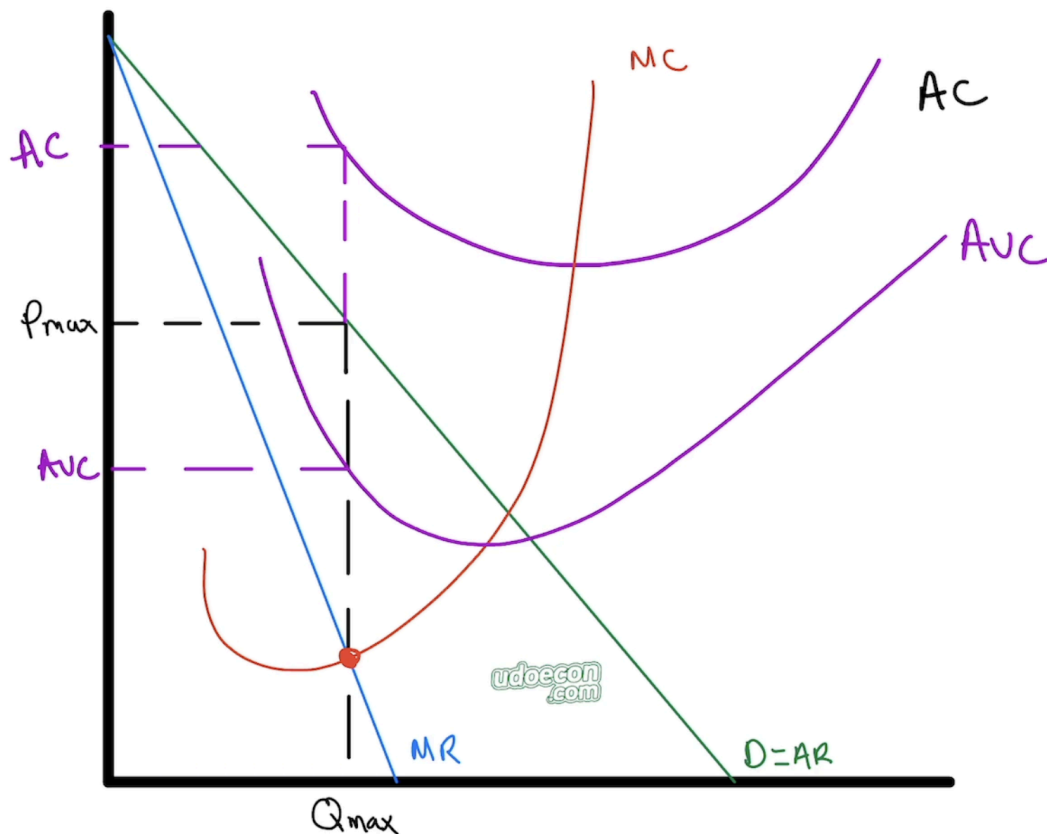


The key thing to remember is:

Shutdown point = $AR = AVC$

Shutdown condition = $AR < AVC$

What if $AVC < AR < AC$?



In this situation, the firm is making a loss because:

$AR < AC$

However, it should continue producing in the short run because:

$AR > AVC$

The firm's revenue covers all of its variable costs and contributes towards some of its fixed costs.

$AVC < AR < AC \rightarrow$ firm makes a loss $\rightarrow$ variable costs are still covered $\rightarrow$ firms should NOT shutdown

Long-Run Shutdown Point

The long-run shutdown point occurs when:

$AR = AC$

At this point, the firm's revenue is just enough to cover its total costs, meaning the firm earns **normal profit**.

$AR > AC$ → firm continues producing in the long run, as it covers all its costs and earns supernormal profit.

$AR < AC$ → revenue cannot cover total costs → firm earns less than normal profit → firm exits the market in the long run.

The key thing to remember is:

Shutdown point = $AR = AC$

Shutdown condition = $AR < AC$