



Edexcel A - A Level Economics

Theme 3 – Business behaviour and the labour market

3.3 Revenues, costs and profits

Revision Notes

Contents

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3.3.1 Revenue


Total, average and marginal revenue

-  **Total Revenue (TR)**

This is the **total amount of money a business makes** from selling its goods or services.

Formula:

$$TR = \text{Price (P)} \times \text{Quantity sold (Q)}$$


 **Example:** If a bakery sells cupcakes for £2 each and sells 100 cupcakes, $TR = £2 \times 100 = \text{£200}$

-  **Average Revenue (AR)**

This is the **revenue made per unit sold**.

Formula:

$$AR = TR \div Q$$


 **Example:** If our cupcake bakery made £200 from selling 100 cupcakes, $AR = £200 \div 100 = \text{£2 per cupcake}$

-  **Marginal Revenue (MR)**

This is the **extra revenue** a business gets from selling **one more item**.

Formula:

$$MR = \text{Change in TR} \div \text{Change in Q}$$

 **Example:** If selling 100 cupcakes earns £200 and selling 101 earns £202, $MR = £2$ – that's the extra revenue from that 101st cupcake.

 **Fun Fact: Perfect vs Imperfect Competition**

- In **perfect competition** (like farmers selling identical apples), $AR = MR = \text{Price}$, and all firms are price takers.
- In **imperfect competition** (think Apple or Nike), $MR < AR$, because firms have pricing power and need to lower prices to sell more units.



3.3.1 Revenue

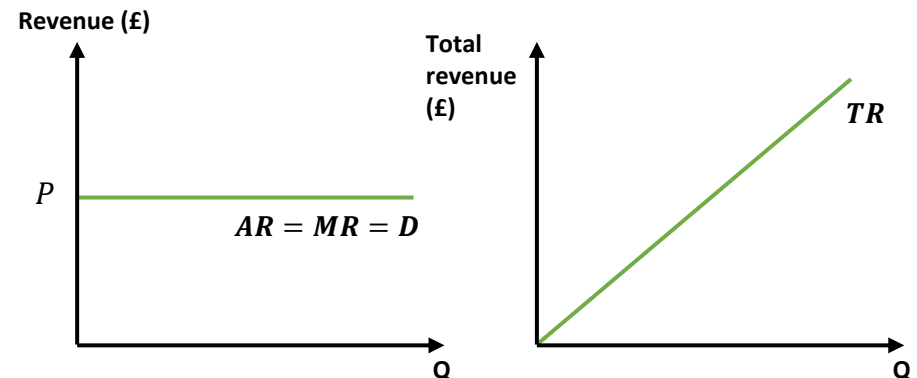
Total, average and marginal revenue

Perfect competition

The example below shows a **perfectly competitive market**, where price stays constant and $AR = MR = P$.

Output (Q)	Price (P)	TR (P × Q)	AR (TR ÷ Q)	MR ($\frac{\Delta TR}{\Delta Q}$)
0	£10	£0	-	-
1	£10	£10	£10	£10
2	£10	£20	£10	£10
3	£10	£30	£10	£10
4	£10	£40	£10	£10
5	£10	£50	£10	£10

As a diagram it can be shown as below:




3.3.1 Revenue


Total, average and marginal revenue

Analysis

- The firm is a **price taker**, which means it has **no control over the market price**, it must sell its product at the going rate. In this case, the price is £10 per unit.

 Example: Think of a small wheat farmer selling in a huge national wheat market. They must accept the market price, if they try charging more, no one will buy from them.

- Since the price stays the same:
 - Every single unit is sold at **£10**, no discounts or price hikes.
 - If the farmer (or firm) tries to charge **more**, buyers would just switch to someone cheaper.
 - If they charged **less**, they'd just be undercutting themselves, and all similar sellers would have to follow, dropping prices for everyone.
 - This kind of market has **perfectly elastic demand**, customers will only buy at the market price and not a penny more.
- In this scenario:
 - Total Revenue (TR)** increases at a **constant rate**, because you're just multiplying the number of units sold by the fixed price.
 - Marginal Revenue (MR)** — the extra revenue from selling one more unit, is always £10.
 - Average Revenue (AR)** is also £10.

 So basically, **MR = AR = Price**, and that's also the **demand curve** in perfect competition.



3.3.1 Revenue

Total, average and marginal revenue

Imperfect competition

Output (Q)	Price (P)	TR ($P \times Q$)	AR ($TR \div Q$)	MR ($\frac{\Delta TR}{\Delta Q}$)
1	£5.00	£5.00	£5.00	£5.00
2	£4.80	£9.60	£4.80	£4.60
3	£4.50	£13.50	£4.50	£3.90
4	£4.00	£16.00	£4.00	£2.50
5	£3.20	£16.00	£3.20	£0.00
6	£2.50	£15.00	£2.50	-£1.00
7	£1.50	£10.50	£1.50	-£4.50

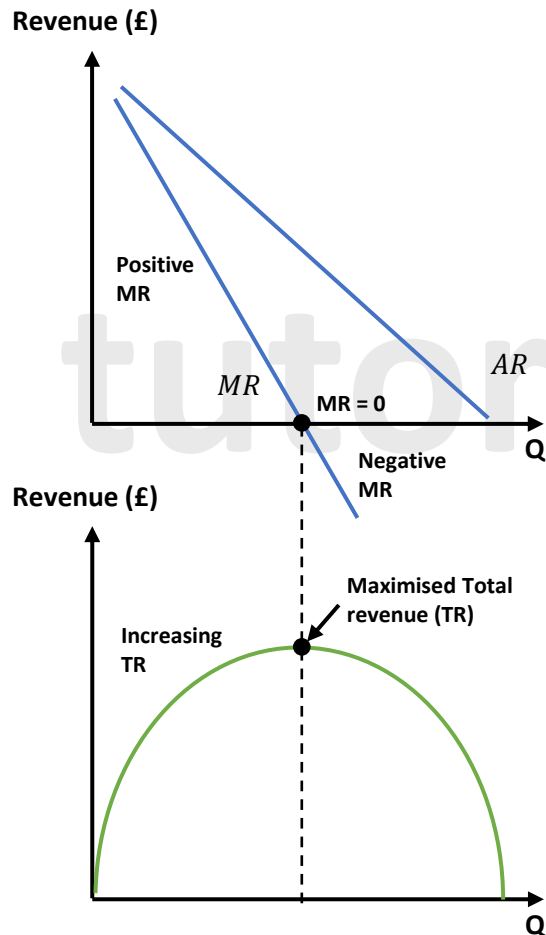
Diagram on the next page.

3.3.1 Revenue

Total, average and marginal revenue

Imperfect competition

As a diagram it can be shown as below:



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3.3.1 Revenue

Total, average and marginal revenue

📌 Analysis

- A **price maker** is a firm that has control over the price it charges (unlike a price taker). Think of a local indie café that can set its prices, not like a corner shop selling milk at the same price as the supermarket.
- In imperfect competition, if a firm wants to sell more products, it has to **lower the price**. This is because the **AR** and **MR** both drop as more units are sold.
- **Total revenue (TR)** is maximised when **MR = 0**.
- When **MR = 0**, the **price elasticity of demand (PED)** is exactly **1**, meaning that the percentage change in quantity demanded is exactly the same as the percentage change in price. This is called **unitary elasticity** – a perfectly balanced point.

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3.3.1 Revenue

Price elasticity of demand (PED) and revenue

Let's talk about how firms can make the most money (total revenue) using something called **Price Elasticity of Demand (PED)**.

💡 What's the Big Idea?

- **Total Revenue (TR)** is the amount of money a business makes from selling its products. It's calculated using: **TR = Price × Quantity sold**
- **PED** tells us how sensitive customers are to price changes:
 - If something is **price elastic**, a small drop in price = a big jump in sales.
 - If it's **price inelastic**, changing the price won't affect sales that much.

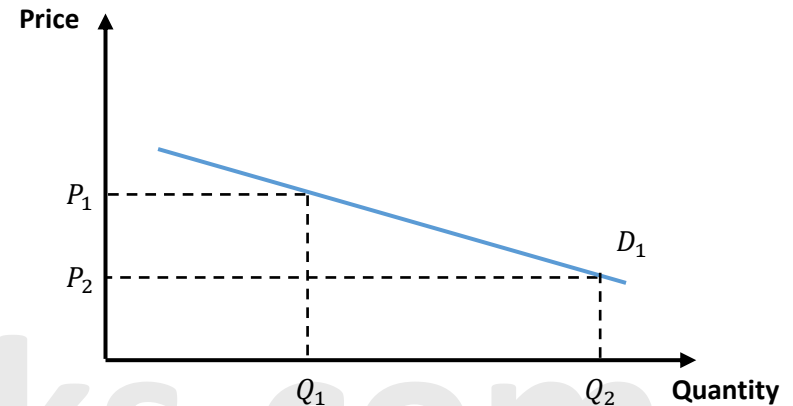
🧠 The Total Revenue Rule

- If a product is **elastic** (like cinema tickets or branded trainers), firms should **lower the price** to get more people buying. More quantity = more revenue.
- If a product is **inelastic** (like petrol or insulin), firms should **raise the price** because people will still buy it anyway, so TR increases without losing customers.

3.3.1 Revenue

Price elasticity of demand (PED) and revenue

Elastic demand



📊 In the Diagram:

- The firm drops the price from **P_1** to **P_2** .
- Because the product is elastic, people buy **way more**, moving from **Q_1** to **Q_2** .
- So, even though each item is cheaper, **total revenue goes up** because they're selling loads more.

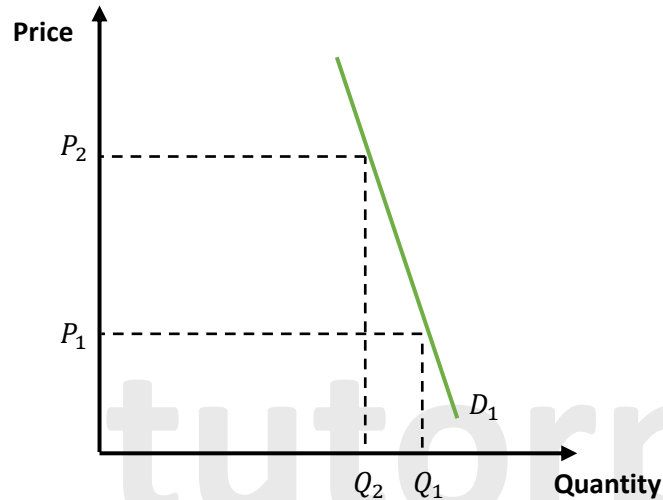
In maths speak:

$$P_2 \times Q_2 > P_1 \times Q_1$$

3.3.1 Revenue

Price elasticity of demand (PED) and revenue

Inelastic demand



 In the Diagram:

If you **increase the price** of an inelastic product:

- People will buy **slightly less**, but not by much.
- You make **more money overall**, because the higher price outweighs the small drop in sales.

In math terms:

$$P_2 \times Q_2 > P_1 \times Q_1$$

(Revenue after the price rise is greater than before.)



3.3.1 Revenue

Price elasticity of demand (PED) and revenue

Continue to the next page...


3.3.2 Costs

Types of costs

Fixed Costs (FC)

These are your **non-negotiable bills**. They don't change no matter how many customers you serve.


Examples:

- Monthly rent on your shop
 - Annual website hosting fees
 - Salaries of office staff (not paid by the hour)
-  Even if you don't book any clients this month, you still pay these.

Variable Costs (VC)

These **depend on how much you produce or sell**; they go up when business is booming and down when it's quiet.

Examples:

- Printing materials for photo packages
 - Coffee cups and beans for each drink sold at your café
-  The more services/products, the more these costs add up.

Marginal Cost (MC)

This is how much it costs to produce **one extra unit**; your cost for "just one more."




3.3.2 Costs


Types of costs

Simple cost formulas


1. **Total Cost (TC) = Total Fixed Costs (TFC) + Total Variable Costs (TVC)**

 This is everything it costs to run your business at a given output.


2. **Total Variable Cost (TVC) = Variable Cost per unit × Quantity**

 If each t-shirt costs £5 to make and you make 100, your TVC is £500.


3. **Average Total Cost (ATC) = Total Cost ÷ Quantity**

 How much, on average, it costs to make each unit.


4. **Average Fixed Cost (AFC) = Total Fixed Cost ÷ Quantity**

 Spread your fixed costs over all units made.

5. **Average Variable Cost (AVC) = Total Variable Cost ÷ Quantity**

 The variable cost per item, averaged out.

6. **Marginal Cost (MC) = Change in Total Cost ÷ Change in Quantity**

 If total cost goes from £200 to £240 when you make 10 more units, your marginal cost is £4 per unit.

3.3.2 Costs

Types of costs

Example:

Output (Q)	TFC	TVC	TC	AFC	AVC	ATC	MC ($\frac{\Delta TC}{\Delta Q}$)
0	£150						
1	£150	£50	£200	£150	£50	£200	
2	£150	£90	£240	£75	£45	£120	£40
3	£150	£115	£265	£50	£38.33	£88.33	£25
4	£150	£150	£300	£37.50	£37.50	£75	£35
5	£150	£210	£360	£30	£42	£72	£60
6	£150	£290	£440	£25	£48.33	£73.33	£80
7	£150	£410	£560	£21.43	£58.57	£80	£120



3.3.2 Costs

Short-run cost curves

To understand why cost curves (like average and marginal cost) look the way they do in the **short run**, we need to understand a few key ideas:

1. The Short Run

This is a time period where **at least one factor of production** (like machinery, land, or factory space) is **fixed**, meaning it can't be changed quickly. For example, if you own a small coffee shop, you can hire more baristas tomorrow, but you can't magically build a second café overnight. That's short run!

Usually, **labour** is the flexible factor because it's easier and quicker to hire or fire people than to expand buildings or buy equipment.

2. The Long Run

This is the opposite of the short run, **everything can be changed**. All factors of production become **variable**. So in the long run, you can expand your shop, get new equipment, or even open more branches. It's the planning stage where big changes happen.

3. Marginal Product of Labour (MP)

This is the **extra output** you get by hiring **one more worker**. So, if adding an extra employee helps make 10 more candles a day, their MP is 10.

4. Law of Diminishing Marginal Productivity

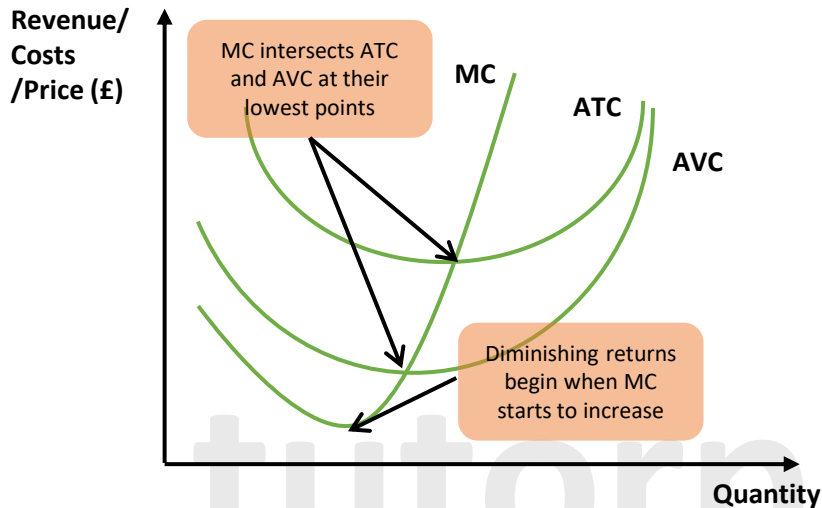
In the short run, if you keep adding more workers while your space and equipment stay the same, at some point, each extra worker will become **less effective**.

Imagine trying to fit 10 baristas behind one small counter, they'll bump into each other, spill drinks, and slow each other down. At first, productivity increases with each new worker, but eventually, it **starts to fall**. That's the law of diminishing returns kicking in.

Important takeaway: In the **short-run**, the shapes of key cost curves like **Average Cost (AC)**, **Average Variable Cost (AVC)** and **Marginal Cost (MC)** are mostly affected by this law of diminishing returns.

3.3.2 Costs

Short-run average cost curves



Analysis

Remember the law of diminishing marginal productivity (DMP) It's the idea that **as you add more of one input (like workers) to a fixed input (like a factory), the extra output you get from each new worker starts to fall.** At first, more workers = more output. But eventually, they get in each other's way, and productivity *drops*.

● Average Fixed Cost (AFC)

- The distance between ATC and AVC equals AFC.
- AFC drops as output increases, because fixed costs are spread over more units.
- **Example:** Rent is £200. Make 1 unit? That's £200 per unit. Make 10? Now it's just £20 per unit.

3.3.2 Costs

Short-run average cost curves

● Average Variable Cost (AVC)

- AVC is **U-shaped** due to the **law of diminishing marginal productivity**:
 - At first, extra workers = more output with lower cost.
 - But then DMP kicks in, eventually, too many cooks in the kitchen means crowding and overuse of equipment, and costs per unit rise.

● Average Total Cost (ATC or AC)

- **Definition:** Total cost per unit = AFC + AVC.
- Also **U-shaped**, again because of **DMP**:
 - Initially, efficiency rises and ATC falls.
 - But as DMP sets in, rising variable costs push ATC back up.
- **Extra tip:** The **lowest point of the ATC curve** is where efficiency is at its peak *before* DMP ruins the party.

● Marginal Cost (MC)

- **Definition:** The cost of making **just one more unit**.
- This curve is the most directly affected by **diminishing marginal productivity**.
 - At first, it's cheap to make one more unit.
 - But as DMP sets in, the cost of each extra unit **risers fast**.



3.3.2 Costs

Short-run average cost curves

Key Fact: MC Cuts AVC & AC at Their Lowest Point

- If **MC is lower than average**, it brings the average down. 🍷
- If **MC is higher**, it pulls the average up.
- So, the MC curve always crosses **AVC and AC at their lowest point**, where they stop falling and start rising.

A Real-World Example:

You're running a small t-shirt shop. At first, adding another person helps get shirts made faster and cheaper. But after a while, the room gets crowded, people get in each other's way, and every extra shirt costs more to make. That's diminishing returns (and rising MC) in action.



3.3.2 Costs

Short-run and Long run average cost curves

Let's start with the basics:

- In the **short run**, some resources (like the size of your café or number of machines) are **fixed**. You can't suddenly build a bigger kitchen overnight, right? But you can hire more baristas.
- This limited flexibility means the firm works with what it has, adding more **labour** (a **variable factor**) to existing equipment. This leads to **diminishing returns** after a point, where each new worker adds less and less extra output.

This is why **Short-Run Average Cost (SRAC) curves** are **U-shaped** – costs go down first (because of better use of fixed resources), then start to rise (because of overcrowding or inefficiency).

Enter the Long Run...

In the **long run**, **all factors of production are variable** – you can expand the café, buy more machines, move into new locations, etc. This gives the firm room to improve efficiency and reduce costs over time.

This flexibility leads to **economies of scale** (falling long-run costs as output grows), then eventually **diseconomies of scale** (rising costs when the business gets too big and inefficient).

So, the **Long-Run Average Cost (LRAC) curve** is also U-shaped, but for **different reasons** than the SRAC.

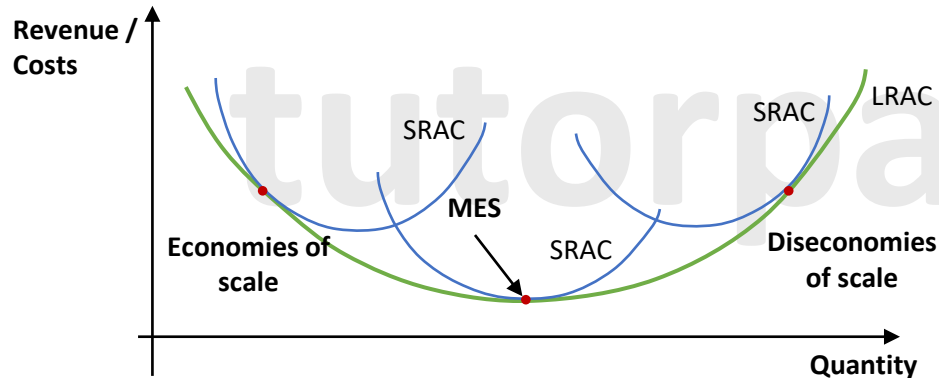
3.3.2 Costs

Short-run and Long run average cost curves

The LRAC curve is like a smooth line that “hugs” the lowest points of many SRAC curves. Why?

- Each SRAC curve represents a different short-run setup (e.g. one machine, two machines, three machines, etc.).
- As the firm increases output, it jumps to a **more efficient setup** (a new SRAC curve) until it hits the best possible cost at a certain output.




That best point is called the **Minimum Efficient Scale (MES)**; the lowest output level where long-run average costs stop falling.



3.3.2 Costs

Short-run and Long run average cost curves

Movement vs Shift

- **Moving along the LRAC** happens when a firm changes its level of output (e.g. selling more coffee using the same tech).
- **Shifting the LRAC curve** happens when there's a major change in external conditions, like:
 -  A new espresso machine that makes 50 cups a minute = **better technology**
 -  Lower electricity bills = **reduced production costs**
 -  A government tax = **higher costs**, shifting the curve **up**

3.3.3 Economies and diseconomies of scale

As a business grows and produces more in the **long run**, its **average cost per unit** doesn't stay the same, it changes. Here's how:

Economies of Scale: When Bigger Is Cheaper

Definition:

Economies of scale are the **cost advantages** a firm gains when it increases output. This means the more it produces, the lower the cost per unit, at least for a while.

Why?

Because bigger firms can spread their fixed costs, buy in bulk, use better equipment, and hire specialists.

Example:

A smoothie company buying bananas in huge crates instead of small boxes gets a discount; that's purchasing economy.

Diseconomies of Scale: When Bigger Gets Messy

Definition:

Diseconomies of scale happen when a firm gets **too big**, and average costs **start rising**. Growth creates problems; more layers of management, poor communication, or even unhappy employees.

Example:

A tech firm that expands to 10 global offices may struggle to get teams to collaborate; that's a communication diseconomy.



3.3.3 Economies and diseconomies of scale

Types of economies and diseconomies of scale

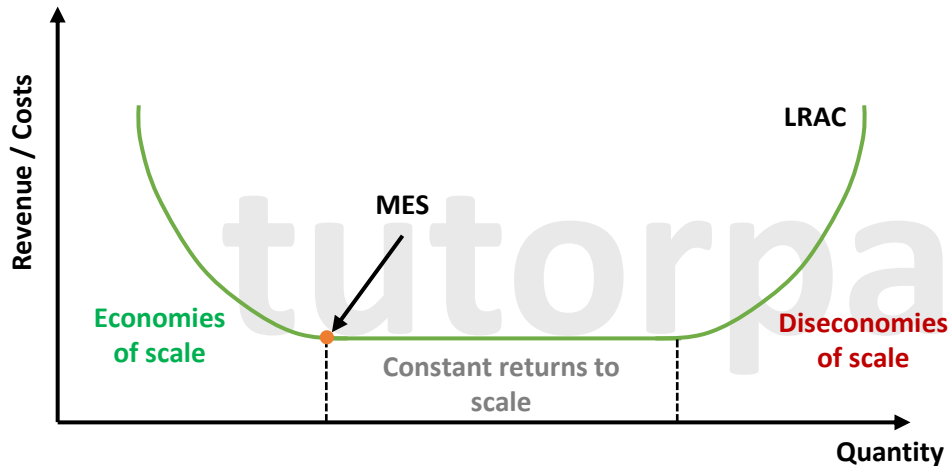
Economies of scale	Diseconomies of scale
Technical – Advanced machinery, specialist workers, R&D reduces costs.	Geographical – more locations = more transport costs
Financial – Easier access to loans at better rates.	Management – too many layers slow decisions.
Risk-bearing – Diversifying products spreads risk.	Communication – messages get lost in the system/
Managerial – Hiring skilled managers boosts productivity.	Cultural – different office cultures can clash.
Purchasing – Bulk buying discounts.	
Marketing – Big firms spread ad costs over more units.	

3.3.3 Economies and diseconomies of scale

Minimum efficient scale (MES)

The **Minimum Efficient Scale (MES)** is the sweet spot on the **Long-Run Average Cost* (LRAC)** curve. It's the **lowest average cost per unit** a firm can reach when it's operating at maximum efficiency in the long run.

In other words, it's the point where producing more doesn't make things cheaper, but also not more expensive... yet.



* **Long-Run Average Cost (LRAC)**: This shows the average cost per unit when all factors of production (like land, labour, capital) can be changed. Nothing is fixed, the firm is free to expand or shrink

3.3.3 Economies and diseconomies of scale

Types of economies and diseconomies of scale

Analysis

- 1. Early growth = Economies of Scale (Increasing Returns to Scale)**
 - The firm is becoming more efficient.
 - Costs per unit are falling.
 - Think: A bakery buying flour in bulk and using better ovens!
- 2. MES = Minimum Efficient Scale**
 - The firm hits its lowest possible average cost per unit.
 - It's operating at peak efficiency; not too small, not too big.
- 3. Beyond MES = Constant Returns to Scale**
 - Producing more doesn't really lower or raise the cost, it just stays steady.
 - The firm is cruising along at its most efficient size.
- 4. Too much growth = Diseconomies of Scale (Decreasing Returns to Scale)**
 - Now, costs start to rise.
 - Maybe communication breaks down, or managing lots of staff gets chaotic.
 - Efficiency drops and average cost per unit increases.




3.3.3 Economies and diseconomies of scale

Internal and external economies of scale

We've already talked about **internal economies of scale** (you can find the table below too), which are cost savings a business gets from growing on its own (like buying in bulk or using better machines).

Economies of scale	Diseconomies of scale
Technical – Advanced machinery, specialist workers, R&D reduces costs.	Geographical – more locations = more transport costs
Financial – Easier access to loans at better rates.	Management – too many layers slow decisions.
Risk-bearing – Diversifying products spreads risk.	Communication – messages get lost in the system/
Managerial – Hiring skilled managers boosts productivity.	Cultural – different office cultures can clash.
Purchasing – Bulk buying discounts.	
Marketing – Big firms spread ad costs over more units.	

But what about when **the whole industry** is growing, and your firm just benefits by being part of it?

That's where **external economies of scale** come in!  These are **cost savings a firm enjoys from things happening outside of the business**, but within the **industry or region** it operates in. Basically, you get a free ride on someone else's success!

These external benefits help reduce the **long-run average total cost** for all firms in the area.

3.3.3 Economies and diseconomies of scale

Internal and external economies of scale

 **Real-Life Sources of External Economies of Scale:**

1. Access to Skilled Labour

When lots of similar businesses operate in one area, workers with the right skills are more likely to live and work nearby. This gives firms a **larger pool of trained talent**, so they save on recruitment and training costs.

Example:

In **Vancouver**, Canada's booming **video game industry** has attracted loads of talented designers and developers. Companies benefit by hiring skilled workers quickly and cheaply.

2. Geographic Clustering (aka Industry Hubs)

When businesses in the same industry **locate near each other**, it creates a mini-ecosystem. Suppliers, support services, and specialist workers all move in, making it cheaper and easier for everyone to operate.

Example:

Think about **Toulouse in France**, where aerospace giants like Airbus operate. Hundreds of smaller engineering firms have set up shop nearby, offering parts, services, and skilled labour. That means Airbus and its neighbours don't have to look far (or pay much) for what they need.

3. Improved Transport Links

As an industry grows, local or national governments often improve **infrastructure** (roads, rail, ports) to support it. This reduces delivery times and transport costs for all businesses in the area.

Example:

The **Port of Rotterdam** in the Netherlands has seen huge investment because of the thriving shipping and oil industries. Faster, more efficient transport means companies spend less on moving goods in and out.

3.3.3 Economies and diseconomies of scale

Internal and external economies of scale

4. Favourable Government Support

Sometimes, the government steps in with **tax breaks, subsidies, or grants** to boost a particular industry or region. These policies reduce production costs for every firm that qualifies.

Example:

The **renewable energy industry in Denmark** has flourished thanks to generous government support. All firms involved in wind energy have benefited from lower costs thanks to R&D funding and tax incentives.

Why It Matters

External economies of scale **make it cheaper for everyone in a growing industry to operate**, not because they're individually more efficient, but because the **environment around them** is working in their favour.

So, whether it's clever neighbours, smarter roads, or helpful government policies, sometimes, being in the right place at the right time makes all the difference



3.3.3 Economies and diseconomies of scale

Internal and external economies of scale

Continue to the next page...

3.3.4 Normal profits, supernormal profits and losses

Profit is simply the **money a business makes after covering its costs.**

Profit = Total Revenue (TR) – Total Costs (TC)

Conditions for profit maximisation

There are **two key conditions** for profit maximisation:

1. TR and TC Are Furthest Apart

A firm makes the **highest profit** when the gap between **total revenue** and **total cost** is the **largest**, but only when **TR is above TC**.

Think of it like this: if you're selling cookies at a market, your profit is greatest at the point where your earnings from sales are miles ahead of what you spent on flour, sugar, and rent for the stall.

2. When Marginal Cost = Marginal Revenue (MC = MR)

This is the **golden rule** in economics.

- **Marginal cost (MC)** is the cost of producing **one more unit**.
- **Marginal revenue (MR)** is the extra money you earn from selling that **one more unit**.
Profit is maximised when **the cost of making the next item equals the money it brings in**.

Let's say you're selling handmade candles:

- If making an extra candle costs £2 (MC) but brings in £5 (MR), you should definitely make it, it increases profit.
- Keep doing this until $MC = MR$ — that's the sweet spot.



3.3.4 Normal profits, supernormal profits and losses

Profits and losses

✓ Normal Profit

Normal profit is the **minimum return** a business needs to stay in operation. It's just enough to **cover all costs**, including the **opportunity cost** (what the business owner gives up to run the business, like another job).

Think of it as breaking even, not making extra, but not losing anything either.

This happens when:

📌 **Total Revenue (TR) = Total Cost (TC) or Average Revenue (AR) = Average Cost (AC).**

Example:

You run a coffee cart. You make £100 a day, and your total daily costs (coffee, milk, rent, your time) also come to £100. You're not rich, but you're covering everything; that's normal profit.

📌 Supernormal Profit (also called abnormal or monopoly profit)

This is when your business is making **more than enough** to just survive, you're thriving.

This happens when:

📌 **TR > TC or AR > AC**

Example:

Back to your coffee cart, now you're making £150 a day, but your costs are still only £100. That extra £50 is **supernormal profit**, you're not just surviving, you're smashing it.

3.3.4 Normal profits, supernormal profits and losses

Profits and losses

✗ Losses

A loss happens when your income **isn't enough** to cover your costs.

This happens when:

📌 $TR < TC$ or $AR < AC$

Example:

Imagine you're only making £70 a day, but your costs are £100. You're **losing £30** a day. You'll need to fix that fast or risk closing the business.

💡 Quick Summary:

- **Normal profit** = business survives ($TR = TC$)
- **Supernormal profit** = business wins ($TR > TC$)
- **Loss** = business struggles ($TR < TC$)

3.3.4 Normal profits, supernormal profits and losses

Short-run shut-down point

Sometimes, firms face tough choices. One of those is whether to keep producing or shut down completely, at least for a while. Let's break it down:

🔍 The Rule:

In the short run, a firm should keep producing as long as the **price** (which is the same as **average revenue, or AR**) is **higher than the average variable cost (AVC)**.

This means the business is at least covering the day-to-day running costs like wages and materials.

✅ If $AR > AVC$, keep going.

✗ But if $AR = AVC$ (so the firm is only just covering variable costs and not even touching fixed costs like rent or equipment), then it's better to **shut down**.

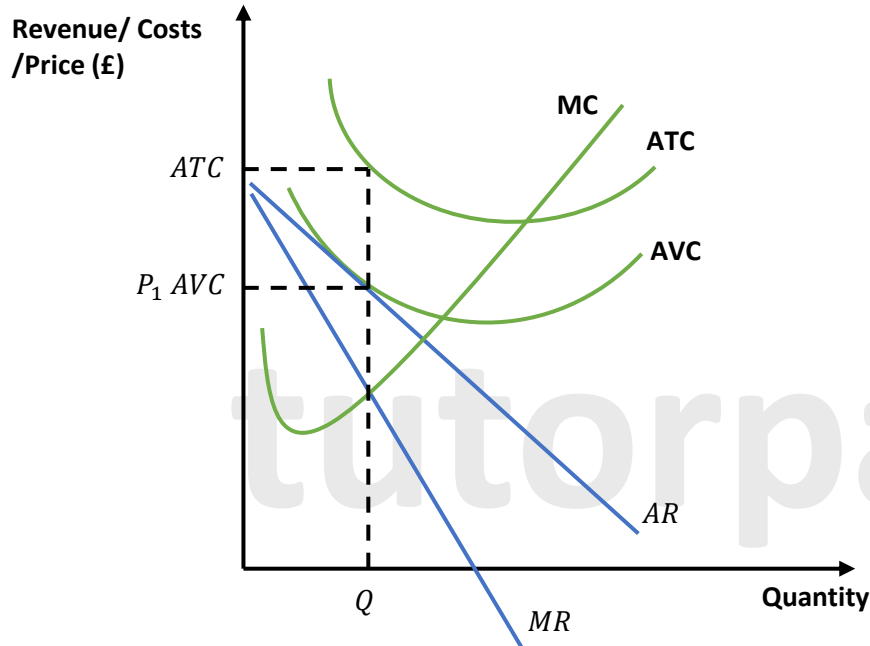
💡 Definitions:

- **Short run:** A time period where at least one input (like capital or machinery) is fixed.
- **Average Variable Cost (AVC):** Cost per unit for things that change with output, like raw materials or hourly labour.
- **Average Revenue (AR):** Revenue per unit sold (basically the price).
- **Contribution:** The money left over after paying AVC, which goes towards covering **fixed costs** like rent or salaries.



3.3.4 Normal profits, supernormal profits and losses

Short-run shut down point



🧠 What the Diagram Shows:

- The firm is producing at the point where **MC = MR** — this is the **profit-maximising output**.
- But here, **Price = AVC**, so the firm is **breaking even on variable costs** but **not covering fixed costs**.
- That's like running a café where your coffee sales only pay for the beans and cups, but not your rent or staff. Not sustainable.

3.3.4 Normal profits, supernormal profits and losses

Long-run shut down point

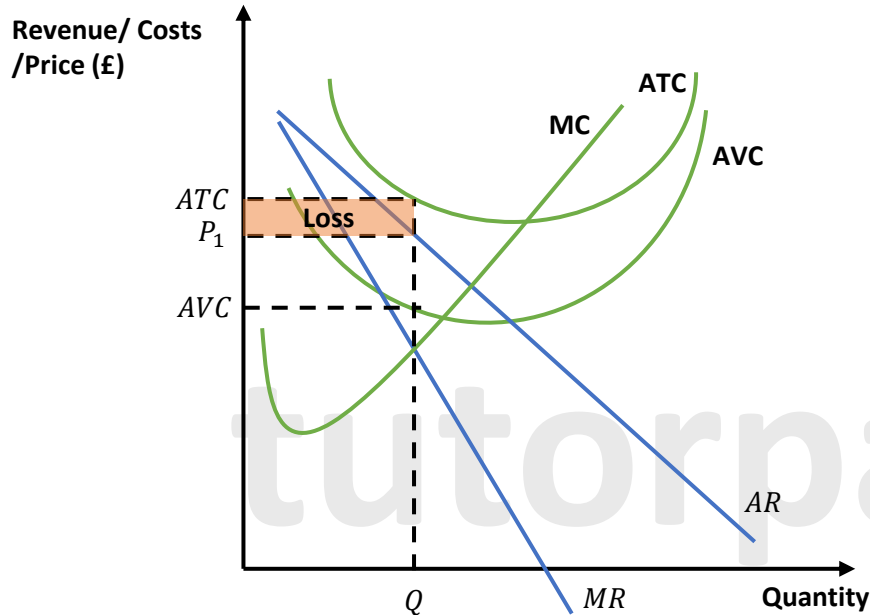
Imagine running a bakery 🍞. You've got rent to pay, staff to pay, and ingredients to buy. In the **long run**, all costs (**fixed** and **variable**) need to be covered by the money you make from selling your croissants (yum). If they're not? Maybe its time to close shop. Let's break it down:

🔍 What is the Long-Run Shutdown Point?

- In the **long run**, firms need to cover **all** their costs, not just the ones that change with output like ingredients (**variable costs**), but also the ones that don't, like rent (**fixed costs**).
- If the **selling price** (or **Average Revenue, AR**) is **higher than the Average Total Cost (ATC)**, then great, the business is making **profit**. 🍰 Keep operating.
- But if **AR = AC**, the firm is just **breaking even**, it's covering all its costs but making **zero economic profit**.
- And if **AR < AC**, the firm is **losing money** in the long run and should **shut down**.

3.3.4 Normal profits, supernormal profits and losses

Long-run shut down point



🧠 What the Diagram Shows:

- The firm is producing where $MC = MR$, which is the **profit maximising output** (or trying to be).
- But at that level of output, $P_1 < ATC$. The price they sell at doesn't cover their total costs.
- It might still operate in the **short run** because it's covering **variable costs** (AVC), but in the **long run**, when there's no improvement, the firm will eventually close.



3.3.4 Normal profits, supernormal profits and losses

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Please see the '3.3 Revenues, Costs and Profits Worked Examples' pack for exam style questions.

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