



Edexcel A - AS Level Economics

Theme 1 – Introduction to Markets and Market Failure

1.2 How markets work Revision Notes

Contents

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1.2.1 Rational decision making

How Rational Are We in Economic Decisions?

When looking at markets, economists assume that everyone involved makes **rational decisions**, meaning they carefully think about their choices and pick the one with the most benefits.

Here's how different groups are **assumed** to act rationally:

- **Consumers:** They aim to get the most happiness (**maximise utility**) from what they buy.
- **Producers:** They focus on making the **most profit** from selling goods and services.
- **Workers:** They try to balance job satisfaction, pay, and benefits.
- **Governments:** They're expected to put people's welfare first to create the greatest good.

But let's be real, people don't always act rationally. For example, consumers often make emotional purchases (like splurging on something they didn't plan to buy), which isn't exactly logical.

In short, while classical economics assumes everyone is rational, real-life decisions are often influenced by emotions, habits, and other unpredictable factors.



1.2.1 Rational decision making

How Rational Are We in Economic Decisions?

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1.2.2 Demand

Demand

- **Demand refers to the quantity of a good or service purchased at a given price over a given time period.**

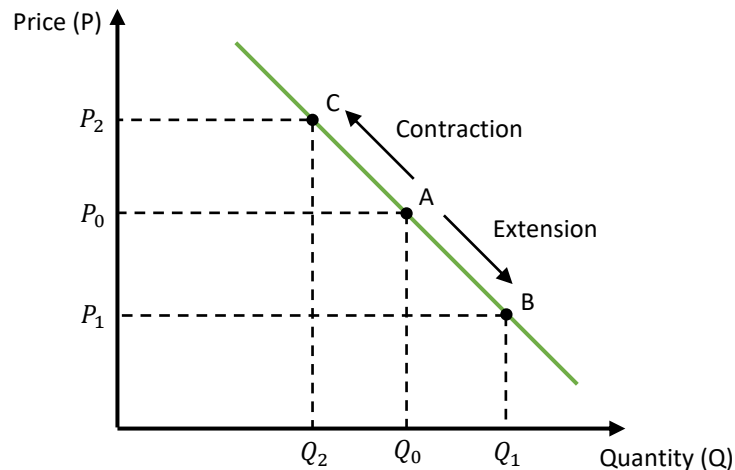
The demand curve is just a fancy way of showing the relationship between **price** and **quantity demanded (D)** on a graph.

- If economists plotted real data, it would curve slightly, but they often simplify it into a straight line for easier analysis.

Movements along a demand curve

The only time you'll see a movement along the demand curve is when the **price** of the good changes.

- **Price falls?** Demand goes up; this is called an **extension in demand**.
- **Price increases?** Demand goes down; this is called a **contraction in demand**.



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1.2.2 Demand

Diagram Analysis: How Price Changes Affect Demand

Let's break it down:

- When the **price increases** from P_0 to P_2 , we move **up** the demand curve from **Point A to C**, and the **quantity demanded** falls from Q_0 to Q_2 units. This is called a **contraction in demand**.
- When the **price decreases** from P_0 to P_1 , we move **down** the demand curve from **Point A to B**, and the **quantity demanded** rises from Q_0 to Q_1 units. This is called an **extension in demand**.

The Law of Demand:

- Price and quantity demanded have an **inverse relationship**:
 - **When prices go up**, quantity demanded goes down.
 - **When prices go down**, quantity demanded goes up.
- This is why the demand curve slopes downward, it shows that as things get cheaper, people want more of them.

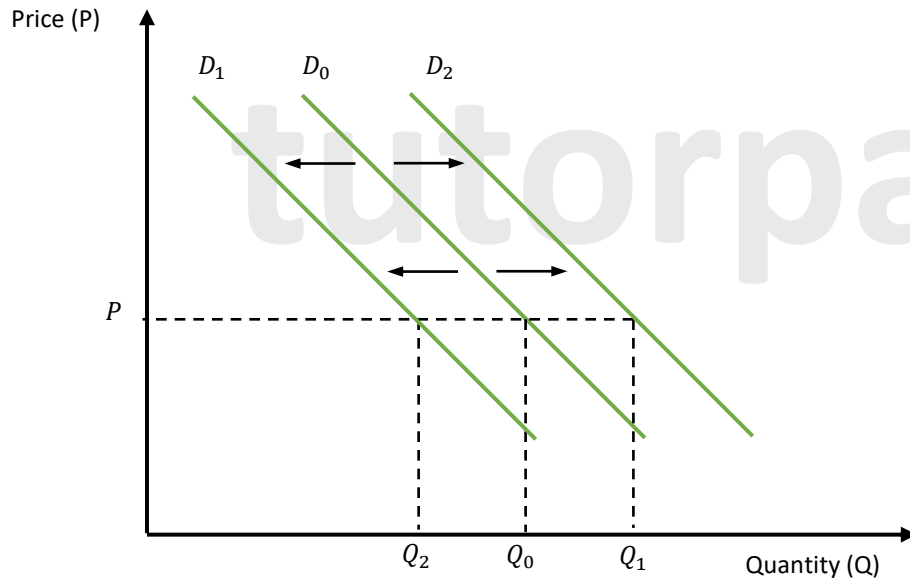
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1.2.2 Demand

Shifts in the demand curve

A number of factors can change the demand for a product or service, even if the price stays the same. These factors are called the **conditions of demand**.

When one of these conditions' changes, the entire demand curve shifts-it's not just a movement along the curve like with price changes.



1.2.2 Demand

Shifts in the demand curve

Imagine a fashion trend goes viral, and everyone wants puffer jackets. Even though the price stays the same, demand skyrockets as everyone jumps on the trend. In this case:

- The price stays the same at P .
- Demand rises and this causes a **shift in the demand curve** from D_0 to D_1 , not just a movement along it.

1.2.2 Demand

The conditions of Demand

The conditions of demand are the factors that cause the **entire demand curve** to shift, either to the **right** (higher demand) or to the **left** (lower demand). Here's how to remember them easily: **TIER GAS**.

T - Taste and Trends

- When something is trendy or fashionable, demand rises ($D_0 \rightarrow D_2$). When trends fade, demand falls ($D_0 \rightarrow D_1$). Think fidget spinners, they were everywhere, and now they're not.

I - Income

- Higher incomes mean people can afford more, increasing demand for most goods ($D_0 \rightarrow D_2$).
- But there are some cases demand might drop. For example, demand for budget items might drop ($D_0 \rightarrow D_1$), as people trade up for more expensive and fancier products.

E - Expectations

What people think will happen matters.

- If prices are expected to rise, people buy now, increasing demand ($D_0 \rightarrow D_2$).
- If prices are expected to fall, people wait, lowering demand ($D_0 \rightarrow D_1$).

R - Related Goods

- Complements: Goods that go together, like ink cartridges and printers. If one gets cheaper, the other's demand increases ($D_0 \rightarrow D_2$).
- Substitutes: If the price of Coke goes up, people might switch to Pepsi, increasing Pepsi's demand.



1.2.2 Demand

The conditions of Demand

G - Government Policies

- New laws or rules can change demand. For example, when helmets became mandatory for motorcyclists, helmet demand shot up.

A - Advertising

- Good marketing works wonders. A great campaign can make more people buy a product, shifting demand right. Bad ads? Not so much.

S - Seasons

- Weather affects demand.
- Hot summers = more ice cream and sun hats.
- Cold winters = more hot chocolate and coats.

Population

- There is also population. More people = more demand. A growing population shifts demand to the right because more consumers = more sales.

1.2.2 Demand

Diminishing Marginal Utility

Marginal utility is the extra satisfaction you get from consuming one more unit of something. But the more you consume, the less satisfying it becomes.

For example:

Imagine you're starving and take your first slice of pizza 🍕, it's amazing. You grab a second slice, and it's still great, but not as satisfying as the first. By the third or fourth slice, you're feeling full, and each bite is less enjoyable. By the fifth slice, you might even feel regret.

The **Law of Diminishing Marginal Utility** explains this:

- The first unit gives the most satisfaction.
- As you consume more, the extra satisfaction (marginal utility) from each additional unit decreases.

This is why the **demand curve slopes down**:

- At first, you're willing to pay a higher price for the first slice of pizza.
- But as your satisfaction drops, you'll only keep consuming if the price goes down too.

Firms know this. That's why they offer deals like **"50% off your second item."** They know you're less excited about buying the second unit unless it's cheaper. It's a win-win, you're tempted to buy more, and they sell more.

In short, diminishing marginal utility shows why the first is often the best, and why prices have to drop to keep us coming back for more.



1.2.2 Demand

Diminishing Marginal Utility

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1.2.3 Price, income and cross elasticities of demand

Price Elasticity of Demand (PED)

The **law of demand** is simple:

- When **price goes up**, the **quantity demanded goes down**.

But here's the catch: economists want to know **how much** the demand will drop when prices change.

This is where **price elasticity of demand (PED)** comes in.

- **Price elasticity of demand (PED)** is the responsiveness in the demand for a good due to a change in its price. The formula to calculate it is:

$$PED = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} = \frac{\% \Delta D}{\% \Delta P}$$

To calculate a % change, use:

$$\% \text{ change} = \frac{\text{new value} - \text{old value}}{\text{old value}} \times 100$$



1.2.3 Price, income and cross elasticities of demand

Price Elasticity of Demand (PED)

Example 1

A bakery increases the price of cupcakes from **£2 to £3**, and as a result, daily sales drop from **200 to 120 cupcakes**. Calculate the **PED**.

Answer in the next page.

1.2.3 Price, income and cross elasticities of demand

Price Elasticity of Demand (PED)

Example 1

A bakery increases the price of cupcakes from **£2 to £3**, and as a result, daily sales drop from **200 to 120 cupcakes**. Calculate the **PED**.

Answer:

Step 1: Calculate the % change in Quantity Demanded (D)

$$\begin{aligned}\% \Delta D &= \frac{120 - 200}{200} \times 100 \\ \% \Delta D &= \frac{-80}{200} \times 100 = -40\%\end{aligned}$$

The quantity demanded dropped by 40%.

Step 2: Calculate the % change in Price (P)

$$\begin{aligned}\% \Delta P &= \frac{3 - 2}{2} \times 100 \\ \% \Delta P &= \frac{1}{2} \times 100 = 50\%\end{aligned}$$

The price increased by 50%.

Step 3: Insert the values into the PED formula

$$\begin{aligned}PED &= \frac{\% \Delta D}{\% \Delta P} \\ PED &= \frac{-40}{50} = -0.8\end{aligned}$$



1.2.3 Price, income and cross elasticities of demand

Price Elasticity of Demand (PED)

- In most cases, the answer is negative, showing that price and demand move in opposite directions with a negative gradient.
- However, ignore the minus sign to interpret PED values and explain elasticity.

1.2.3 Price, income and cross elasticities of demand

Interpreting numerical value of PED

PED Value	Name	Explanation
PED = 0	Perfectly Inelastic	No matter how much the price changes, the quantity demanded stays the same. E.g., life-saving insulin. If the price doubles, people still need it – it's essential.
PED is less than 1	Price Inelastic	The percentage (%) change in demand is smaller than the % change in price. A 20% rise in the price of toothpaste might only cause a 5% drop in demand – people still buy it because it's a necessity.
PED = 1	Unitary Elasticity	The % change in demand matches the % change in price. If movie ticket prices drop by 10%, demand rises by exactly 10%.
PED is greater than 1	Price Elasticity	Demand is super sensitive. A small price change causes a big shift in demand. E.g., if designer handbags go on sale for 10% off, demand might shoot up to 30%. People love a great deal.
PED is infinite	Perfectly Elastic	If the price rises even a tiny bit, demand drops to zero. A market with identical products, like bottled water at a festival. If one seller raises their price by a penny, everyone buys from the cheaper stall.

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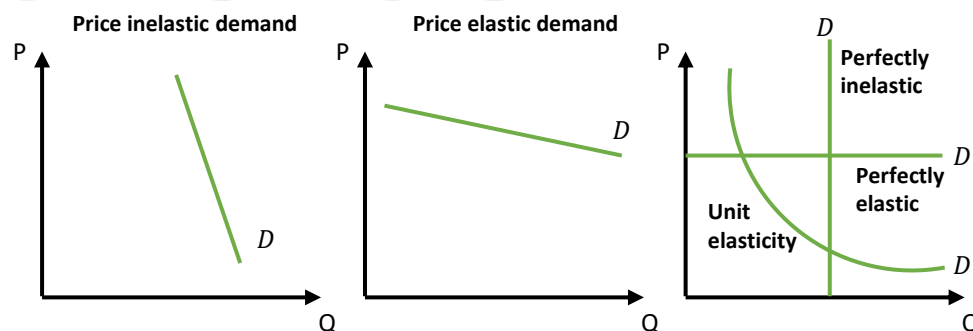
1.2.3 Price, income and cross elasticities of demand

Interpreting numerical value of PED

Summary:

- **PED = 0**: Price doesn't affect demand (life essentials).
- **PED < 1**: Price changes a little; demand changes less (necessities).
- **PED = 1**: Demand changes equally with price (balanced).
- **PED > 1**: Price changes a little; demand changes a lot (luxuries).
- **PED = ∞**: Price changes = demand vanishes (high competition).

The demand curves below show the different elasticities:



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1.2.3 Price, income and cross elasticities of demand

The relationship between PED and total revenue

Total revenue is the money a business makes from selling its goods or services. It's calculated as:

$$\text{Total Revenue} = \text{Price per Unit} \times \text{Quantity Sold}$$

For example, if a bakery sells 100 cupcakes at £2 each, total revenue is £200.

How Elasticity Affects Total Revenue

The relationship between price, demand, and revenue depends on **PED**:

If demand is elastic ($PED > 1$):

- Consumers are **sensitive to price changes**.
- Example: If a clothing store reduces prices by 10%, sales might jump by 30%. Revenue goes up because the percentage increase in quantity sold outweighs the price drop.
- But, raising prices will cause a large drop in sales, reducing revenue.

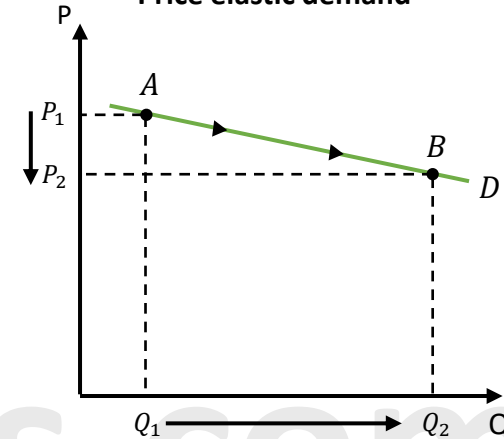
If demand is inelastic ($PED < 1$):

- Consumers are **less sensitive to price changes**.
- Example: A petrol station raises prices by 10%, and sales only drop by 5%. Revenue increases because the smaller drop in quantity sold is outweighed by the higher price.
- However, lowering prices won't boost sales enough to increase revenue.

1.2.3 Price, income and cross elasticities of demand

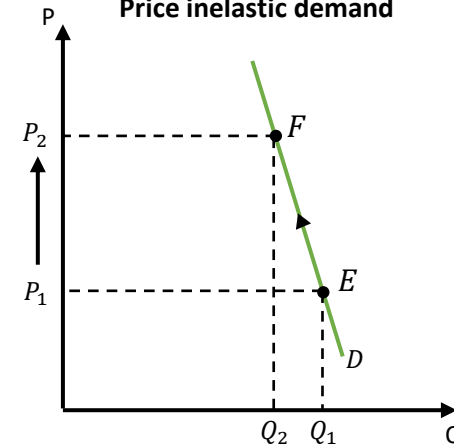
The relationship between PED and total revenue

Price elastic demand



A fall in price increases total revenue under elastic demand

Price inelastic demand



A rise in price increases total revenue under inelastic demand

1.2.3 Price, income and cross elasticities of demand

The relationship between PED and total revenue

Elasticity isn't the same all along a straight-line demand curve. Here's how it works:

- At the **top left**, demand is **elastic** (buyers are super sensitive to price changes).
- At the **bottom right**, demand is **inelastic** (buyers are less sensitive to price changes).
- Right in the **middle**, demand has **unit elasticity** - this is the sweet spot where the percentage change in price equals the percentage change in quantity demanded.

Maximising Total Revenue

- Revenue is maximised when the price reaches **unit elasticity** ($PED = 1$) - this is the **midpoint of the demand curve**.
- Example: A coffee shop adjusts its latte price until the increase in sales perfectly balances the price drop, hitting the sweet spot where total revenue peaks.

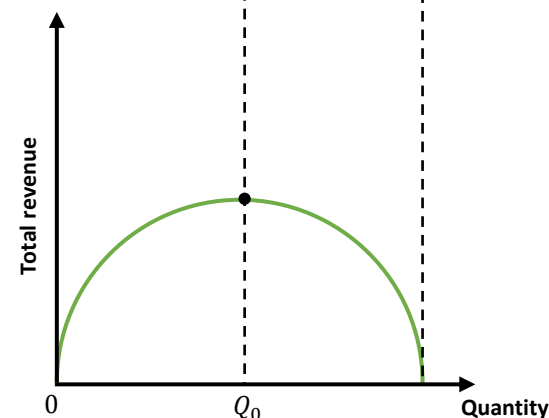
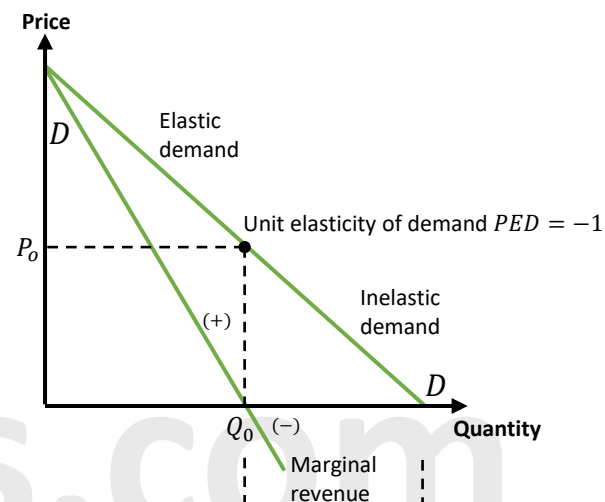
Relationship Between PED and Marginal Revenue (MR):

Marginal revenue (MR) is the **extra money** a business makes when it sells **one more unit** of a product. It tells the firm how much their revenue increases with each additional sale.

- **Positive MR:** Demand is price elastic (cutting prices increases revenue).
- **Zero MR:** Demand is unit elastic (revenue is maximized).
- **Negative MR:** Demand is inelastic (raising prices increases revenue).

1.2.3 Price, income and cross elasticities of demand

The relationship between PED and total revenue



1.2.3 Price, income and cross elasticities of demand

The relationship between PED and total revenue

Example 2

A coffee shop increases the price of a latte from **£3 to £5**. As a result, daily sales drop from **50 to 20 lattes**. Explain if it made the right decision.

Answer:

Step 1: Calculate revenue before the price change:

$$\begin{aligned}\text{Sales revenue} &= \text{Price of product} \times \text{Quantity sold} \\ &= £3 \times 50 = £150\end{aligned}$$

Step 2: Calculate revenue after the price change:

$$\text{sales revenue} = £5 \times 20 = £100$$

Step 3: Analyse the results:

Price increase caused revenue to drop from **£150 to £100**, a loss of **£50**. This means customers reacted strongly to the price increase, showing that the demand for lattes is **price elastic**.

1.2.3 Price, income and cross elasticities of demand

Factors influencing PED

Price elasticity of demand (PED) depends on several factors.

1. Substitutes

What it means: If there are plenty of alternatives, demand is **elastic** because people can switch to other options.

Example: If apples get expensive, people might buy bananas or oranges instead. But if it's insulin (no substitutes), demand is inelastic.

2. Luxury vs. Necessity

Luxury goods: Tend to have **elastic demand**. If the price of designer bags goes up, fewer people buy them because they aren't essential.

Necessities: Have **inelastic demand**. Even if bread prices rise, most people will still buy it because they need it to survive.

3. Cost relative to income

What it means: If a product costs a large chunk of your income, demand is **elastic** because you'll think twice before buying it.

Example: A car or a holiday - if prices rise, demand drops because they're big-ticket items.

Small-cost goods, like toothpaste or gum, are **inelastic** because the price change barely impacts your budget.

4. Addictive Goods

What it means: Products people are addicted to tend to have **inelastic demand** because they'll buy them no matter what.

Example: Coffee lovers won't stop buying coffee even if the price doubles. The same goes for cigarettes or alcohol.

1.2.3 Price, income and cross elasticities of demand

Factors influencing PED

5. Time Period

What it means: In the **short run**, demand is less elastic because people can't immediately change their habits. In the **long run**, demand becomes more elastic as people find alternatives.

Example: If electricity prices rise, households might continue using it in the short term. Over time, they might switch to solar panels or gas to save money.

6. Brand Image

What it means: Products with a strong brand image tend to have **price inelastic demand**. Loyal customers are willing to pay a higher price because they value the brand's reputation, quality, or status.

Example: People keep buying **Nike trainers** or **Costa coffee** even if prices go up. They love the brand too much to switch to alternatives.

1.2.3 Price, income and cross elasticities of demand

Income elasticity of demand (YED)

Income elasticity of demand (YED) helps us figure out how much demand for a product changes when people's incomes change. Economists love this because it shows how **sensitive demand** is to income shifts for different products.

The formula is simple:

$$YED = \frac{\text{percentage change in quantity demand}}{\text{percentage change in real income}} = \frac{\% \Delta \text{ in } D}{\% \Delta \text{ in } Y}$$

Therefore:

- **YED measures how much demand for a good or service changes when people's real income changes.**
- **Real income is the actual purchasing power of your money; the amount of goods and services you can buy with your nominal income.**

Example 3

A consumer's **income increases** from **£150 to £180 a week**. They used to enjoy **6 cups of fancy lattes** a week, but now they're treating themselves to **9 cups a week**. Let's calculate the **YED** for their latte habit.



1.2.3 Price, income and cross elasticities of demand

Income elasticity of demand (YED)

Example 3

A consumer's **income increases** from **£150 to £180 a week**. They used to enjoy **6 cups of fancy lattes** a week, but now they're treating themselves to **9 cups a week**. Let's calculate the **YED** for their latte habit.

Answer:

Step 1: Calculate the % change in Quantity Demanded (D)

$$\% \Delta D = \frac{\text{New quantity} - \text{Old quantity}}{\text{Old quantity}} \times 100$$
$$\% \Delta D = \frac{9 - 6}{6} \times 100 = +50\%$$

Step 2: Calculate the % change in Income (Y)

$$\% \Delta Y = \frac{180 - 150}{150} \times 100 = +20\%$$

Step 3: Insert the values into the YED formula

$$YED = \frac{\% \Delta D}{\% \Delta Y}$$
$$YED = \frac{50}{20} = +2.5$$

1.2.3 Price, income and cross elasticities of demand

Interpreting YED values

YED between 0 and 1 (Normal Necessity)

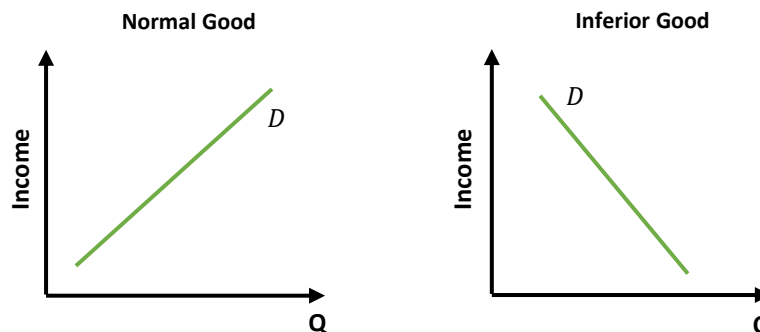
- Demand increases **less than income**.
- These are essential goods like bread or toothpaste. Even if your income doubles, you're not going to start buying *that* much more bread.

YED > 1 (Normal Luxury)

- Demand increases **more than income**.
- These are your fancy things like holidays or designer bags. When people earn more, they splurge on luxuries.

YED < 0 (Inferior Good)

- Demand **decreases** when income rises.
- Think of cheap instant noodles or second-hand clothes. As people earn more, they upgrade and buy better alternatives.



1.2.3 Price, income and cross elasticities of demand

Factors influencing YED

YED is shaped by all sorts of things happening in the economy:

- **Economic Growth:** Rising incomes mean more demand for **normal goods** and fewer inferior ones.
- **Recession:** When incomes drop, people buy more **inferior goods** and fewer luxuries.
- **Other Factors:** Things like minimum wage hikes, taxes, or global trade can influence incomes and YED.

YED Quick Tips:

- **Positive YED** = Normal good (necessity or luxury).
- **Negative YED** = Inferior good.
- The bigger the number, the stronger the link between income changes and demand.
 - Example: If $YED = +2.5$, demand is very responsive to income changes (hello, luxury goods!).

Why Does It Matter?

- YED helps businesses and policymakers figure out what products people will buy more (or less) of as incomes rise or fall. Whether it's designer bags or instant noodles, income plays a big role in shaping demand! 🛍️🍜🌟

1.2.3 Price, income and cross elasticities of demand

Cross elasticity of demand (XED)

- XED measures how **demand for one good (A)** changes when the **price of another good (B)** changes.
- It's all about the relationship between **complementary goods** (e.g., coffee and milk) and **substitute goods** (e.g., Coke and Pepsi).

Different goods have different levels of responsiveness to price changes:

- **Complementary goods:** A price increase in one good (e.g., coffee) might cause demand for its complement (e.g., milk) to drop.
- **Substitutes:** A price increase in one good (e.g., Coke) might push people to buy its competitor (e.g., Pepsi).

The formula:

$$XED = \frac{\text{percentage change in demand for good B}}{\text{percentage change in price of good A}} = \frac{\% \Delta \text{ in } D_B}{\% \Delta \text{ in } P_A}$$

Therefore:

- **XED measures how the demand for good B reacts to a change in the price of good A.**

Let's say:

- If the price of hot dogs goes up, fewer people buy buns.
- XED will show how much the demand for buns has dropped due to the price hike in hot dogs.



1.2.3 Price, income and cross elasticities of demand

Cross elasticity of demand (XED)

Example 4

A local cinema decides to lower the price of its movie tickets from £12 to £8. As a result, the weekly sales of popcorn in the cinema jump from 50 to 90 bags. Calculate the XED and explain the relationship between the two products.

Answer:

Step 1: Calculate the % change in Quantity Demanded of popcorn (Good B)

$$\% \Delta D = \frac{\text{New quantity} - \text{Old quantity}}{\text{Old quantity}} \times 100$$
$$\% \Delta D_B = \frac{90 - 50}{50} \times 100 = +80\%$$

Step 2: Calculate the % change in price of movie tickets (Good A)

$$\% \Delta P_A = \frac{8 - 12}{12} \times 100 = -33.33\%$$

Step 3: Insert the values into the XED formula

$$XED = \frac{\% \Delta \text{ in } D_B}{\% \Delta \text{ in } P_A} = \frac{+80\%}{-33.33\%} = -2.4$$

Step 4: Explain the relationship

The **negative XED value** shows that movie tickets and popcorn are **complementary goods** (you usually enjoy them together). The high magnitude of -2.4 (ignoring the minus sign) indicates that they are **strong complements**, lowering ticket prices significantly increases popcorn sales. 🎬 🍿

1.2.3 Price, income and cross elasticities of demand

Interpreting XED values

XED helps us figure out the relationship between two products. Here's how to interpret the values:

XED < 0: Complementary Goods

- A negative XED value shows that two goods are **complements**. If the price of one goes up, the demand for the other falls.
- Coffee and sugar. If coffee prices soar, people might buy less sugar because they're drinking less coffee.

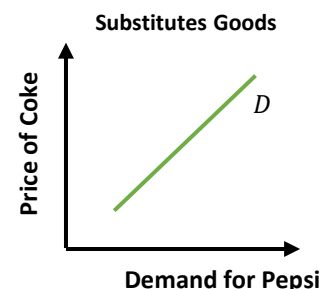
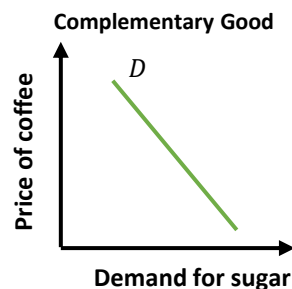
XED > 0: Substitutes

- A positive XED value means the goods are **substitutes**. If the price of one rises, demand for the other increases.
- Coke and Pepsi. If Coke prices jump, people will grab Pepsi instead.

XED = 0: Unrelated Goods

- A value of zero means the goods have **no connection**. A change in the price of one won't affect demand for the other.
- Bananas and car tires. If tire prices drop, it won't make anyone rush to buy bananas.

Pro Tip: The closer XED is to zero, the weaker the relationship.



1.2.3 Price, income and cross elasticities of demand

Significance of elasticities of demand to firms and government

Understanding elasticity is essential for businesses and governments to make smarter decisions.

- For businesses, **Price Elasticity of Demand (PED)** helps maximise revenue. If demand is **inelastic** (not sensitive to price changes), firms can raise prices without losing many customers. On the other hand, if demand is **elastic** (very price-sensitive), lowering prices can boost sales and revenue. Similarly, **Cross Price Elasticity of Demand (XED)** lets firms adjust pricing strategies for substitutes (e.g., Coke vs. Pepsi) or complements (e.g., coffee and sugar) and anticipate the impact of competitors' price changes.
- Governments use PED to design effective taxes and subsidies. Taxing inelastic goods, like petrol, ensures steady tax revenue because people keep buying despite price increases. Subsidising elastic goods, such as public transport, creates a significant rise in demand, making subsidies impactful and worthwhile.
- Firms also rely on **Income Elasticity of Demand (YED)** to plan during economic shifts. In recessions, they focus on **inferior goods** (e.g., budget items) as demand for these increases when incomes fall. During economic growth, they pivot to **luxury goods**, which see higher demand as incomes rise.

In short, elasticity helps firms boost profits, governments optimise tax policies, and both adapt to changes in consumer behaviour.



1.2.3 Price, income and cross elasticities of demand

Significance of elasticities of demand to firms and government

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1.2.4 Supply

- **Supply** refers to how much of a product or service producers are ready and willing to offer at a certain price during a given time.

The Supply Curve:

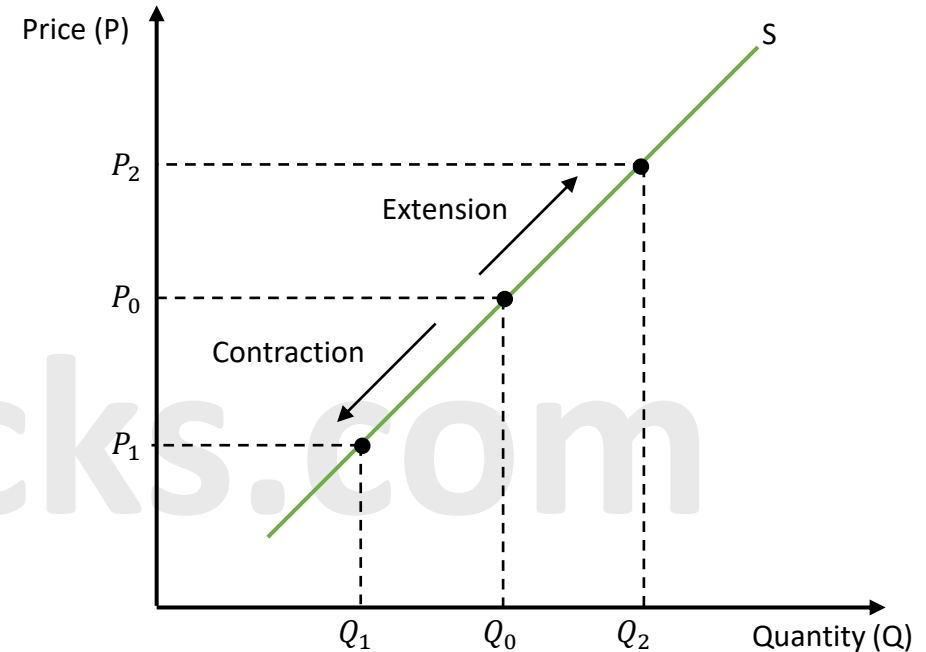
The supply curve shows the relationship between price and quantity supplied. It's usually sloping **upward**, meaning as prices go up, producers are happy to supply more. Why?

- 1) When **prices increase**, firms are motivated to supply more to **earn higher profits**.
- 2) However, as **output grows in the short run, production costs also rise**. To offset these costs, firms charge higher prices to consumers, which can also attract smaller or less-established businesses (aka marginal firms) into the market.

Movement along a supply curve

There is a movement along a supply curve only when the price of a good changes. If the price goes up, producers supply more, this is called an **extension** in supply. If the price drops, producers supply less, this is known as a **contraction** in supply.

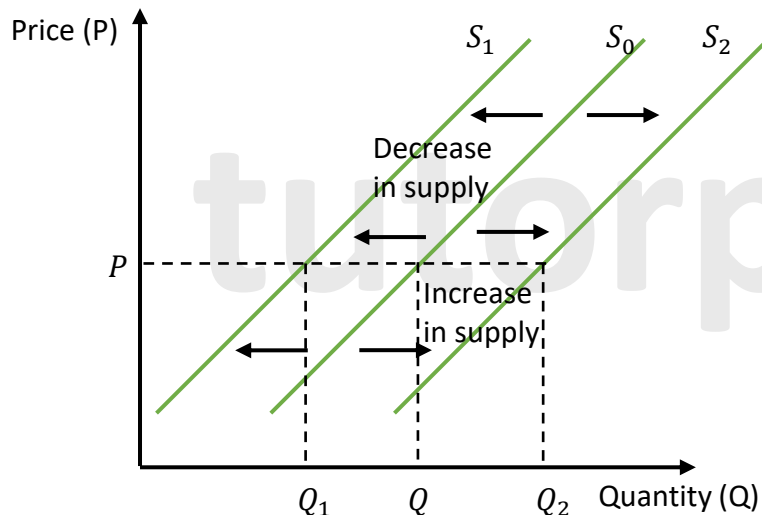
1.2.4 Supply



1.2.4 Supply

The conditions of supply

- There are certain factors that can **change supply** for a good or service, no matter what the price is. These are called the **conditions of supply**.
- When one of these factors changes, it causes the **entire supply curve to shift** – either to the **right** (increase in supply) or to the **left** (decrease in supply). This is different from just moving along the curve when the price changes.



Example:

Let's say the cost of a key resource (like steel for making cars) goes up. Since production costs are higher, the car manufacturer can't afford to make as many cars. This causes a **decrease in supply**.

- On the graph, the supply curve shifts **left** from S to S_1 .
- The price (P) stays the same, but the supply drops from Q units to Q_1 units.

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1.2.4 Supply

The conditions of supply

Here's a quick breakdown of the factors that **shift the supply curve** – not just move along it.

1. Costs of Production (COP)

- **What it means:** If the cost of raw materials or production changes, firms adjust their supply.
- **If COP Increases:** Supply **shifts left** ($S \rightarrow S_1$) – Firms produce less because costs are high.
- **If COP Decreases:** Supply **shifts right** ($S \rightarrow S_2$) – Lower costs encourage firms to produce more.

2. New Technology

- **What it means:** Better technology makes production faster and cheaper.
- **If Technology Improves:** Supply **shifts right** ($S \rightarrow S_2$) – Firms produce more efficiently.
- **If Technology Declines:** Supply **shifts left** ($S \rightarrow S_1$) – Outdated tech slows down production.

3. Change in the Number of Firms

- **What it means:** More firms in a market = more supply. Fewer firms = less supply.
- **If Firms Increase:** Supply **shifts right** ($S \rightarrow S_2$) – More firms mean more competition and output.
- **If Firms Decrease:** Supply **shifts left** ($S \rightarrow S_1$) – Fewer firms mean less supply.

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1.2.4 Supply

The conditions of supply

4. Indirect Taxes

- **What it means:** Taxes on goods (like VAT or specific taxes) increase costs for firms.
- **If Taxes Increase:** Supply **shifts left** ($S \rightarrow S_1$) – Higher costs = less supply.
- **If Taxes Decrease:** Supply **shifts right** ($S \rightarrow S_2$) – Lower costs = more supply.

5. Subsidies

- **What it means:** Government subsidies help reduce production costs for firms.
- **If Subsidies Increase:** Supply **shifts right** ($S \rightarrow S_2$) – Firms can afford to produce more.
- **If Subsidies Decrease:** Supply **shifts left** ($S \rightarrow S_1$) – Less financial help = less supply.

6. Weather

- **What it means:** For agricultural goods, supply often depends on weather conditions.
- **If the weather is good:** More crops are produced, and the supply curve shifts right ($S \rightarrow S_2$).
- **If the weather is bad:** Crop production falls, and the supply curve shifts left ($S \rightarrow S_1$).



1.2.4 Supply

The conditions of supply

Continue to the next page...

1.2.5 Elasticity of supply

Price elasticity of supply (PES)

The **law of supply** says that when prices go up, producers will supply more, and when prices fall, they supply less (*ceteris paribus* – "all else being equal"). But here's the kicker: economists don't just stop at that. They want to know **how much supply changes** when the price changes.

This is where **price elasticity of supply (PES)** comes in.

- **Price elasticity of supply (PES)** is the responsiveness in the supply for a good due to a change in its price. The formula to calculate it is:

$$PED = \frac{\% \text{ change in supply}}{\% \text{ change in price}} = \frac{\% \Delta S}{\% \Delta P}$$

To calculate a % change, use:

$$\% \text{ change} = \frac{\text{new value} - \text{old value}}{\text{old value}} \times 100$$



1.2.5 Elasticity of supply

Price elasticity of supply (PES)

Example 1

The price of *fresh strawberries* increases from £2.00 to £3.50 due to rising demand during summer. *Eco Farms*, a local strawberry producer, tries to increase their supply to meet the demand but only manages to grow a few more batches. Sales rise from 500 baskets to 525 baskets a week. Let's calculate the PES and explain what it tells us.

Answer on the next page.

1.2.5 Elasticity of supply

Price elasticity of supply (PES)

Example 1

The price of *fresh strawberries* increases from £2.00 to £3.50 due to rising demand during summer. *Eco Farms*, a local strawberry producer, tries to increase their supply to meet the demand but only manages to grow a few more batches. Sales rise from 500 baskets to 525 baskets a week. Let's calculate the PES and explain what it tells us.

Answer:

Step 1: Calculate the % change in Quantity Supplied (S)

$$\begin{aligned}\% \Delta S &= \frac{\text{New supply} - \text{Old supply}}{\text{Old supply}} \times 100 \\ \% \Delta S &= \frac{525 - 500}{500} \times 100 = +5\%\end{aligned}$$

Step 2: Calculate the % change in Price (P)

$$\% \Delta P = \frac{3.50 - 2.00}{2.00} \times 100 = +75\%$$

Step 3: Insert the values into the PES formula

$$\begin{aligned}PES &= \frac{\% \Delta S}{\% \Delta P} \\ PES &= \frac{5\%}{75\%} = 0.07\end{aligned}$$

Step 4: Explanation

The PES value of **0.07** tells us that strawberries are **highly price inelastic in supply**. Even though the price jumped significantly, the quantity supplied barely increased. Why? Fresh strawberries take time to grow, and farmers can't instantly produce more, even if prices rise.

1.2.5 Elasticity of supply

Interpreting PES values

PES = 0: Perfectly Price Inelastic

- **What it means:** Supply doesn't budge no matter how much the price changes.
- **Example:** A theatre with fixed seating – even if ticket prices skyrocket, there are still only a limited number of seats.

PES < 1: Price Inelastic

- **What it means:** Supply changes, but only a little compared to the price change.
- **Example:** Agricultural goods like wheat – farmers can't instantly grow more crops if prices rise.

PES = 1: Unit Price Elastic

- **What it means:** The percentage change in supply is exactly the same as the percentage change in price.
- **Example:** A factory producing custom-made furniture – if prices rise by 10%, supply also increases by exactly 10% as producers can match demand proportionally.

PES > 1: Price Elastic

- **What it means:** Supply responds a lot to even a small price change.
- **Example:** T-shirts – factories can quickly ramp up production if prices rise.

PES = ∞: Perfectly Price Elastic

- **What it means:** At a specific price, supply is unlimited, but if the price changes even slightly, supply drops to zero.
- **Example:** A theoretical scenario in international trade – if a country can sell as much as it wants at a fixed price but stops supplying if the price dips.

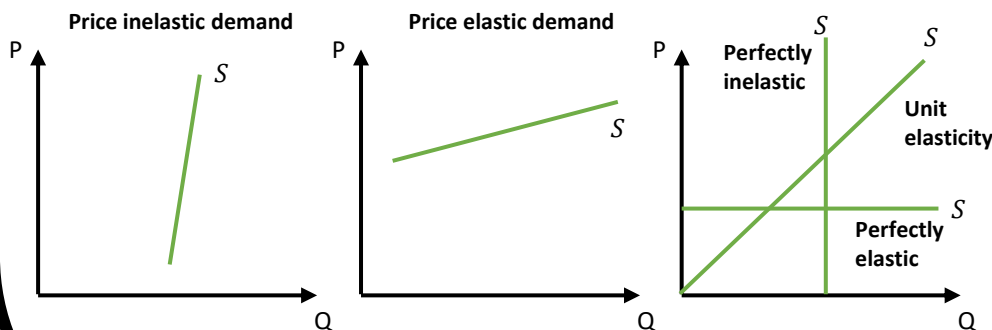
1.2.5 Elasticity of supply

Interpreting PES values

Summary:

- **PES = 0: Perfectly Price Inelastic** - Supply doesn't change at all (e.g., theatre seats).
- **PES < 1: Price Inelastic** - Supply changes a little (e.g., crops like wheat).
- **PES = 1: Unit Price Elastic** - Supply changes **exactly** in proportion to price changes (e.g., custom furniture).
- **PES > 1: Price Elastic** - Supply changes a lot compared to price changes (e.g., t-shirts).
- **PES = ∞: Perfectly Price Elastic** - Supply is unlimited at a fixed price but drops to zero if the price changes (e.g., a trade scenario).

The demand curves below show the difference elasticities:



1.2.5 Elasticity of supply

Factors that influence PES

1) Availability of Raw Materials:

If raw materials are scarce, supply will be **price inelastic** (low PES). If they're easy to find, supply becomes **price elastic** (higher PES).

- **Example:** If there's a sudden demand for chocolate, producers with easy access to cocoa beans can ramp up supply quickly. If cocoa beans are hard to get, supply stays low.

2) Storage:

If products can be stored easily, producers can increase supply quickly when prices rise. This makes PES **higher** (elastic).

- **Example:** Bottled water can be stored and released during a heatwave; fresh milk can't.
- If storage is difficult, PES will be **low** (inelastic).

3) Level of Spare Capacity:

If factories have spare capacity (extra production ability), producers can ramp up supply quickly, making PES **elastic**.

- **Example:** A bakery with spare ovens can bake more bread.
- If there's no spare capacity, supply will be **inelastic**.

4) Mobility of Resources:

If producers can quickly switch resources (like workers or machines) between products, supply will be more **price elastic**.

- **Example:** A clothing factory producing t-shirts can quickly switch to making hoodies if prices for hoodies rise.

1.2.5 Elasticity of supply

Factors that influence PES

5. Ease of Entry to an Industry:

If it's easy for new firms to enter the industry (low barriers like costs, regulations, or licenses), supply will be more **price elastic**.

- **Example:** Starting a homemade candle business requires little money and few resources, so new sellers can easily enter if candle prices rise.
- If entry is difficult (e.g., airplane manufacturing), supply will be **inelastic**.

6. Time Period:

- **Short Run:** Producers may struggle to respond quickly as it takes time to increase supply.
 - **Example:** Farmers can't grow extra strawberries overnight to meet sudden demand.
- **Long Run:** Over time, producers can adjust all their resources and increase supply.
 - **Example:** If electric cars become popular, car manufacturers can invest in new production plants to make more over time.



1.2.5 Elasticity of supply

Distinction between short-run and long-run in economics

In production, businesses rely on **factors of production**:

- **Land:** Natural resources like coal or water.
- **Capital:** Man-made tools like machines or trucks.
- **Labour:** Workers who make the magic happen.
- **Entrepreneurship:** The brains organising everything (hello, business owners).

Short-Run

The short-run is when at least **one factor of production is fixed** (you can't change it).

- **Example:** A bakery might hire more bakers to make more cakes, but they can't add another oven right away. The oven (capital) is fixed in the short-run. Supply tends to be relatively inelastic.

Long-Run

The long-run is when **all factors of production are variable**. Companies have the time to change everything – no limits.

- **Example:** A bakery can build a bigger kitchen, buy new ovens, and hire more bakers to double production when demand for cakes soars. Supply tends to be relatively elastic.

For **agricultural products**, supply doesn't change quickly, so supply is inelastic in the short term. Farmers can't magically grow more wheat overnight because the harvest depends on the **seasons**, you have to wait until summer or autumn for crops to grow. It's even trickier for things like milk or beef since raising animals takes years of nurturing and care.

1.2.6 Price determination

Equilibrium

In a **free market**, prices are set by the **interaction of demand and supply**. Here's how it works:

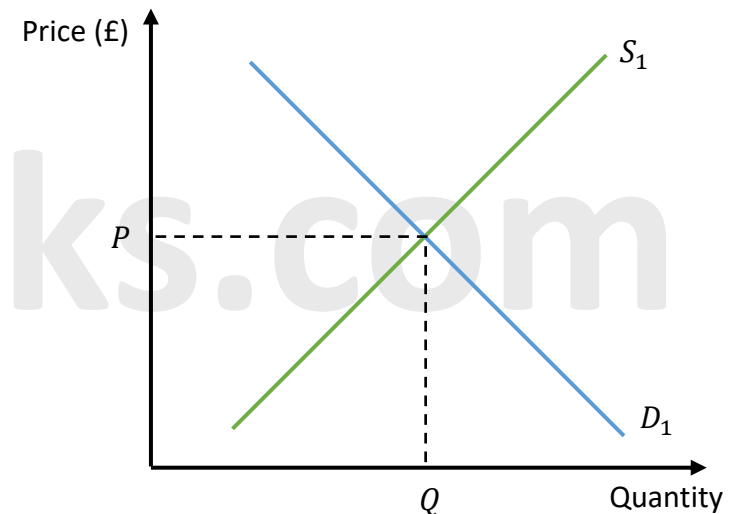
- A **market** is any place (physical like a shop, or virtual like Amazon) where **buyers** and **sellers** come together to exchange goods and services.
- Buyers and sellers agree on a **price**:
 - Buyers show their agreement by **purchasing** the product.
 - If buyers don't like the price, they simply **don't buy it** – this is called **consumer sovereignty**, where buyers have the power to decide what gets produced by spending their money.
- Over time, **sellers adjust prices** to find the perfect balance:
 - The price where **supply** meets **demand** is called the **equilibrium price**.
 - At this price, sellers sell enough to feel satisfied with the **quantity** of sales, and buyers are happy because they feel the price matches the **value** or **utility** they get from the product.

1.2.6 Price determination

Equilibrium

Equilibrium is when everything in the market balances out perfectly: **demand = supply**. At this sweet spot, the price is called the **market clearing price** because sellers are able to sell all their stock at a rate that works for them and buyers. Therefore:

- **Equilibrium means there is a balance in the market, with no tendency for price or output to change.**



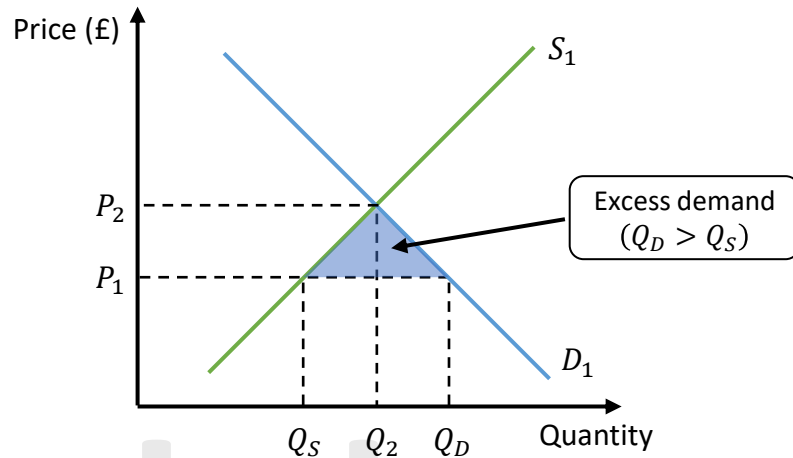
If the price goes **above P**, there's **excess supply** (too much stock and not enough buyers). If the price goes **below P**, there's **excess demand** (buyers want more than sellers can offer).

Markets naturally adjust over time to move back to equilibrium, where everything settles perfectly.



1.2.6 Price determination

Excess Demand

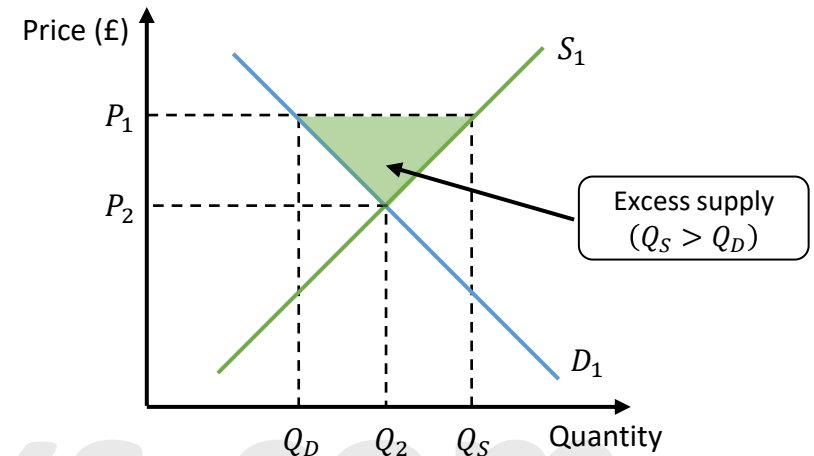


When the price is set too low, below the equilibrium point, we get something called **excess demand**. Here's what happens:

- At price P_1 , suppliers are only willing to provide Q_S , but customers are demanding way more (Q_D). This creates a **shortage**, shown by the blue triangle in the diagram.
- In response to the shortage, businesses realise they can charge more since people are eager to buy. So, they raise the price to P_2 .
- As prices go up, two things happen: more suppliers jump in to provide goods (an **extension in supply**) and some buyers start dropping out because it's now too pricey (a **contraction in demand**).
- Eventually, supply matches demand at Q_2 , and the market finds its balance again - **equilibrium restored**.

1.2.6 Price determination

Excess Supply



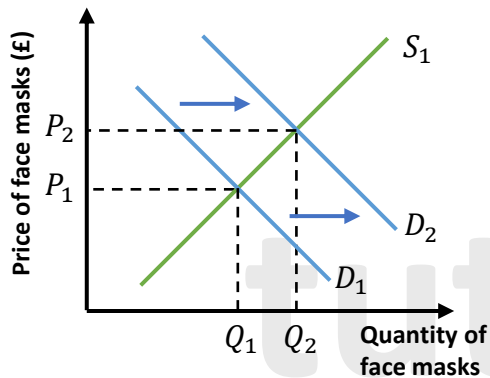
When the price is set too high, above the equilibrium point, we get **excess supply**. Here's what's happening:

- At price P_1 , suppliers are ready to provide Q_S , but consumers only want Q_D . This leads to an oversupply, shown by the green triangle in the diagram.
- What happens when stores have too much unsold stock? **Sales!** To clear the excess goods, businesses lower their prices.
- As prices fall, two things occur: more customers jump in to buy (an **extension in demand**) and suppliers produce less because it's no longer as profitable (a **contraction in supply**).
- Eventually, the market finds its sweet spot again at P_2 and Q_2 and **equilibrium is restored**.

1.2.6 Price determination

Using supply and demand diagrams to explain real-world price and quantity changes

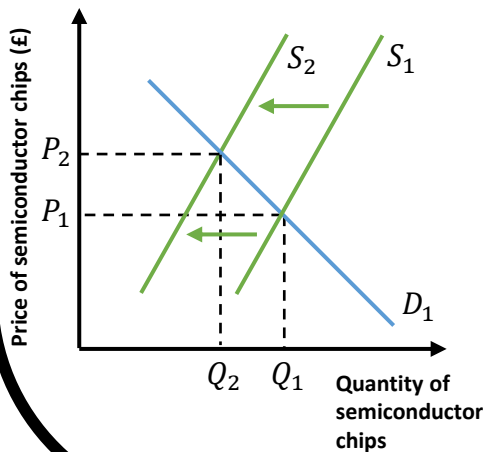
Markets are constantly shifting due to changes in demand and supply. These changes can throw the market out of balance, creating *disequilibrium* until things settle again. Let's explore these concepts with real-life examples:



Demand increases (Higher Prices)

Example: Face masks during COVID-19

Demand surged, shifting from D_1 to D_2 , creating a shortage at P_1 . Prices rose to P_2 , which reduced demand slightly and attracted more suppliers, forming a new higher equilibrium, at a higher price and quantity. More masks became available as supply expanded.



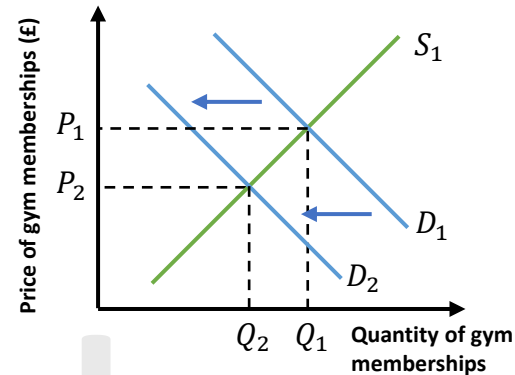
Supply decreases (Higher Prices)

Example: The semiconductor chip shortage disrupted supply for tech products and cars.

Supply shrank from S_1 to S_2 , causing shortages at P_1 . Prices increased to P_2 , reducing demand and motivating producers, creating a new equilibrium with higher prices but fewer chips available.

1.2.6 Price determination

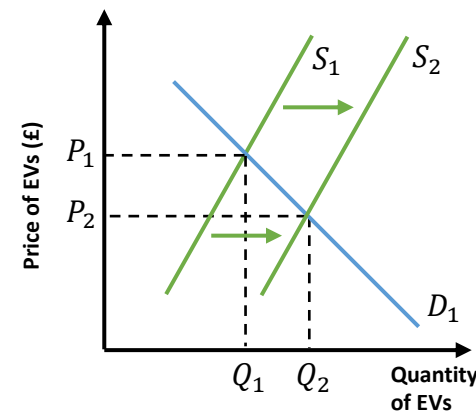
Using supply and demand diagrams to explain real-world price and quantity changes



Demand decreases (Lower Prices)

Example: Gyms see a New Year demand surge, but it drops by March as enthusiasm fades.

Demand fell, shifting from D_1 to D_2 , creating an excess capacity at P_1 . Prices drop to P_2 as companies offer special deals and lower membership prices. This forms a lower equilibrium price and fewer memberships overall.



Supply increases (Lower Prices)

Example: As electric vehicles (EV) technology improved and more car manufacturers entered the market, the supply of EVs grew rapidly.

Supply expanded, shifting from S_1 to S_2 , creating a surplus at P_1 . Sellers reduced EV prices to P_2 , making them more affordable to a wider audience. This forms a lower equilibrium price with higher quantities of EVs sold as more consumers switched to EVs.

1.2.7 Price mechanism

Functions of the price mechanism

- **Price is simply the value at which goods or services are exchanged.**

But here's where it gets interesting: the **price mechanism** is like the invisible referee of the market. It decides how prices change based on supply and demand, helping the market settle at a new equilibrium. It's the key player in resource allocation in a market economy. Here's how it works:

Rationing Device:

- Resources are limited, and price decides who gets what.
- When something is scarce, the price rises. This limits access to those willing to pay the most, balancing supply and demand.
- **Example:** Imagine concert tickets for a popular artist. Prices soar, and only the biggest fans (or highest bidders) snag seats.

Incentive Device:

- Higher prices motivate producers to create more because they see bigger profits ahead.
- Similarly, rising prices can cover extra costs for increased production.
- **Example:** If electric car demand shoots up, car companies ramp up production because they can charge more and earn more.



1.2.7 Price mechanism

Functions of the price mechanism

Signalling Device:

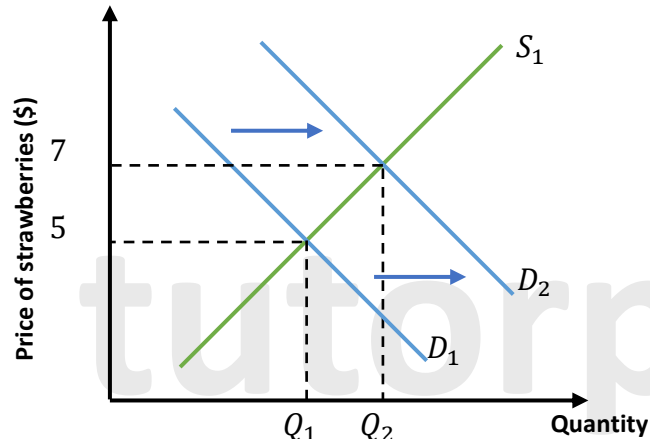
- Prices send signals to businesses about market conditions.
- **Example:** A sudden rise in coffee demand raises its price, signalling coffee producers to grow more beans. If demand drops, prices fall, telling producers to scale back.

1.2.7 Price mechanism

The price mechanism in the context of different types of markets

- Local Market 🍓

Imagine a bustling farmer's market in California where fresh strawberries are in high demand. Let's break down what happens when people start craving more strawberries:



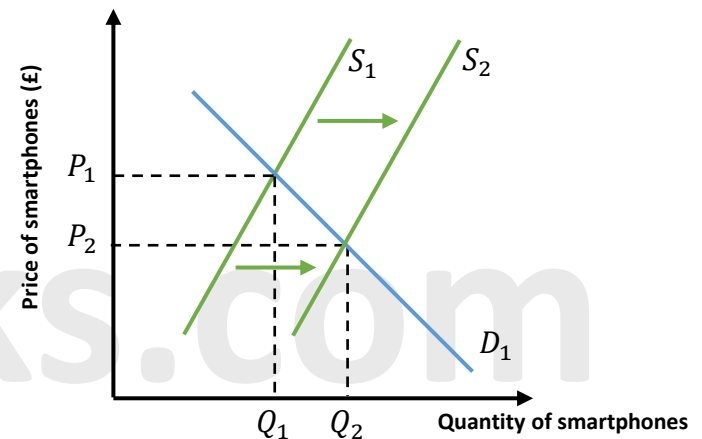
- Demand Surge:** A health trend sparks an increase in strawberry demand, shifting the demand curve from D_1 to D_2 . Prices jump from \$5 to \$7 per pound.
- Rationing Effect:** The higher price ensures that only those willing to pay \$7 can purchase the limited strawberries, helping allocate this valuable resource.
- Incentive to Produce:** Farmers are motivated to grow more strawberries because they can earn more per pound. This leads to an increase in supply from Q_1 to Q_2 .
- Signals to Other Farmers:** The rising price and demand signal other farmers to start growing strawberries, boosting the overall market supply.

1.2.7 Price mechanism

The price mechanism in the context of different types of markets

- National Market 📱

The US smartphone market is fiercely competitive. In 2021, advancements in production technology reduced manufacturing costs for smartphones:



- What happened?** Producing smartphones became cheaper, leading to an increase in supply. The supply curve shifted from S_1 to S_2 .
- Impact on prices?** With more smartphones in the market, prices dropped from P_1 to P_2 .
- How did the market respond?** Lower prices attracted more buyers, increasing the quantity demanded from Q_1 to Q_2 .

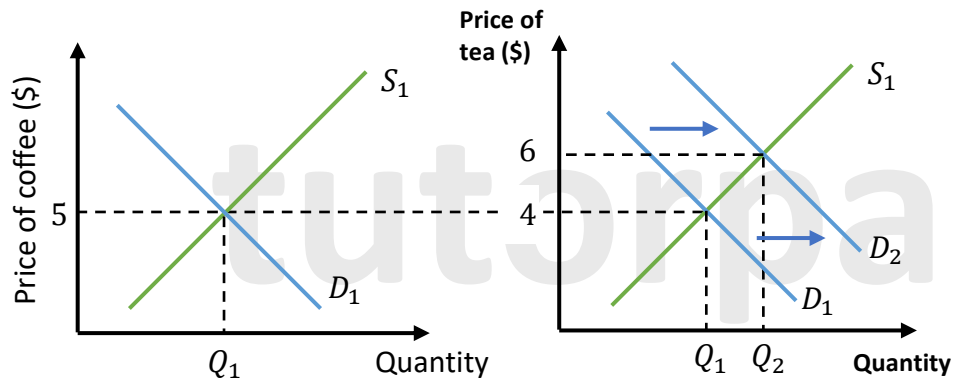
Result? More affordable smartphones for consumers and a thriving market where supply and demand found a new balance.

1.2.7 Price mechanism

The price mechanism in the context of different types of markets

- **Global Market** 🍵

Imagine the global market for coffee and tea. Coffee farmers in Brazil have been producing coffee steadily, selling it at \$5 per kilogram. Meanwhile, tea, mostly grown in India, has been priced at \$4 per kilogram for years. Suddenly, due to a rise in health trends favouring tea, global demand for tea skyrockets.



What happened?

- **Demand for tea increased** from D_1 to D_2 , causing its price to jump from \$4 to \$6 per kilogram.
- The higher price **rationed** tea, meaning only those willing to pay \$6 could buy it.



1.2.7 Price mechanism

The price mechanism in the context of different types of markets

- **Global Market** 🍵

How did producers respond?

- The higher price **incentivised tea producers** in India to plant more tea bushes and allocate more resources to tea farming. This resulted in an **extension of supply** from Q_1 to Q_2 .
- The price hike **signalled to coffee farmers in Brazil** that tea was now more profitable. Many considered switching parts of their coffee plantations to tea to meet the growing demand and take advantage of higher profits.

This example shows how the price mechanism works across global markets, motivating farmers to adjust their production to changes in demand while ensuring resources are directed where they are most needed.

1.2.7 Price mechanism

Tips and Tricks

Explaining the differences between the three functions of the price mechanism can feel tricky, but here's an easy way to think about it:

- **If demand or supply shifts**, the market is sending a **signal** to consumers or producers.
- **If there's movement along a curve**, that's the **incentive function** kicking in.

Whenever you're tackling questions about the price mechanism, just remember one golden rule: **it's all about self-interest**. This makes it much easier to explain each function.

For example:

- Lower prices **incentivize consumers** to buy more because they can stretch their income further.
- On the flip side, higher prices **incentivize producers** to switch their resources to more profitable products.



1.2.7 Price mechanism

Tips and Tricks

Continue to the next page...

1.2.8 Consumer and producer surplus

The distinction between consumer and producer surplus

Consumer surplus is the little bonus consumers get when they pay less than they were willing to spend.

Example: You're ready to shell out £50 for a new video game, but the store's running a sale, and it costs only £40. Boom, You've saved £10. That's your consumer surplus.

- **Consumer surplus is the difference between the price the consumer is willing to pay and the price they actually pay.**

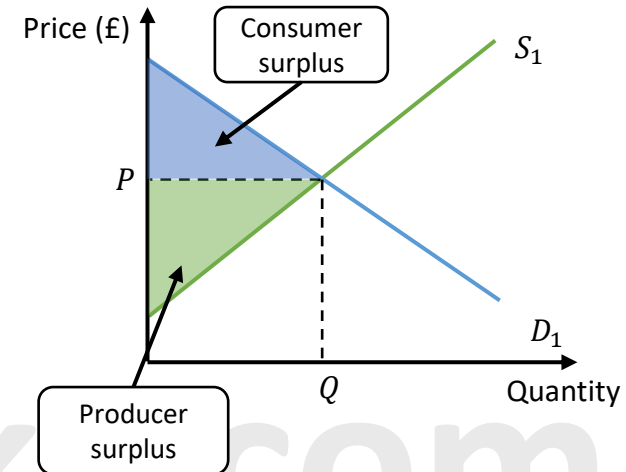
Producer surplus is the extra cash producers earn when they sell for more than their minimum price.

Example: A farmer is happy to sell apples for £2 a kilogram, but a high demand means they can sell for £3/kg. That extra £1 per kilogram is their producer surplus.

- **Producer surplus is the difference between the price the supplier is willing to produce their product at and the price they actually produce at.**

1.2.8 Consumer and producer surplus

The distinction between consumer and producer surplus



What does the diagram say?

- The **consumer surplus** is the shaded area above the equilibrium price (P) and under the demand curve.
- The **producer surplus** is the shaded area below the equilibrium price and above the supply curve.

Why does equilibrium matter?

- At **equilibrium**, the market runs smoothly, and both consumer and producer surpluses are **maximised**. This sweet spot creates the **social/community surplus**, which benefits everyone.
- If the market is out of balance (**disequilibrium**), these surpluses shrink, and everyone's less happy.

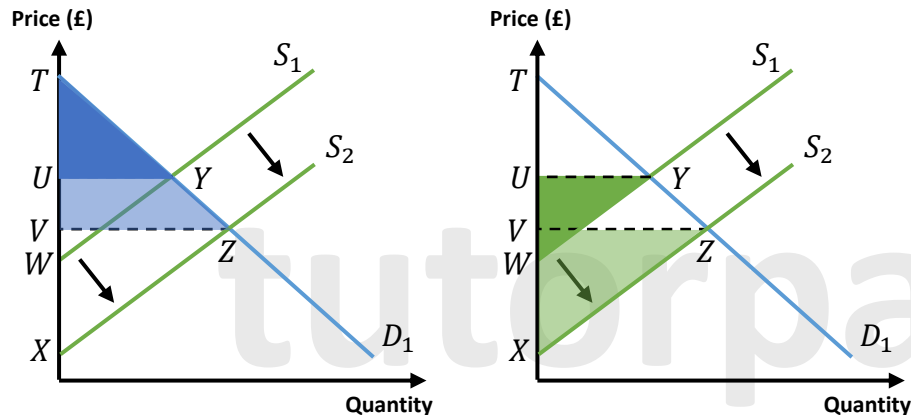


1.2.8 Consumer and producer surplus

How changes in supply and demand might affect consumer and producer surplus

When the supply or demand of a product changes, it has a ripple effect on both consumers and producers.

An increase in supply



What Happens Before the Supply Change?

- **Consumer surplus** is shown as **UYT**.
- **Producer surplus** is shown as **UYW**.
- Together, these form the **social surplus** (the total benefit to society), represented by **TYW**.

1.2.8 Consumer and producer surplus

How changes in supply and demand might affect consumer and producer surplus

What Happens After the Supply Increases?

- When supply grows from **S₁** to **S₂**, it pushes the price down, benefiting consumers.
- **Consumer surplus** expands to **VZT** because they're paying less and buying more.
- **Producer surplus** shifts to **VZX** as they sell more, even though the price per unit is lower.
- **Social surplus** grows to **TZX**, meaning the entire market benefits from this increased efficiency.

The Bottom Line

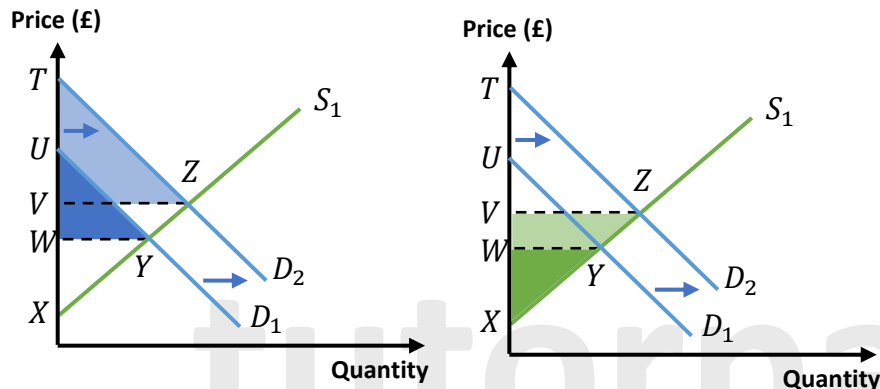
- Both **consumer surplus** and **producer surplus** get bigger when supply increases, creating a win-win situation for everyone. Lower prices and higher quantities leave consumers happier and producers selling more overall.



1.2.8 Consumer and producer surplus

How changes in supply and demand might affect consumer and producer surplus

An increase in demand



Before the Demand Increase

- **Consumer surplus** was the area WYU.
- **Producer surplus** was the area WYX.
- Combined, the total market benefit, or **social surplus**, was UYX.

1.2.8 Consumer and producer surplus

How changes in supply and demand might affect consumer and producer surplus

After Demand Rises

- Demand shifts from D_1 to D_2 , meaning more people want the product.
- **Consumer surplus** expands to VZT, as consumers are still willing to pay for more despite higher prices.
- **Producer surplus** grows to VZX, thanks to higher prices and more sales.
- The total benefit (social surplus) now covers the entire area of TZX.

What It All Means

- With more demand, both producers and consumers gain more overall. Producers enjoy bigger profits, and consumers still find value in the product.

Tip: For multiple-choice questions on surplus, highlight the original area, mark the new area, and show the increase or decrease. Annotate the diagram for clarity.



1.2.9 Indirect taxes and subsidies

A tax is a mandatory charge by the government to fund public services and programs. There are two main types: direct and indirect taxes.

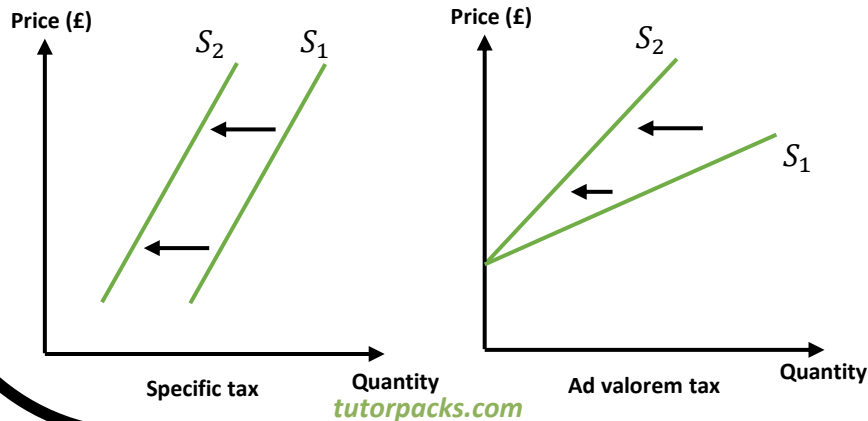
Direct taxes are taken directly from individuals or organizations, usually on income. Examples include personal income tax and corporation tax (on company profits).

Indirect taxes are applied to goods and services when purchased, essentially taxing spending. These come in two forms:

- **Specific tax:** A fixed amount per unit, like £0.50 sugar tax on a bottle of fizzy drink or £1 on every litre of petrol.
- **Ad valorem tax:** A percentage of a good's price, like a 20% VAT on clothes.

When an indirect tax is introduced, it increases the price of goods or services. This shifts the supply curve upward and left (decreasing supply).

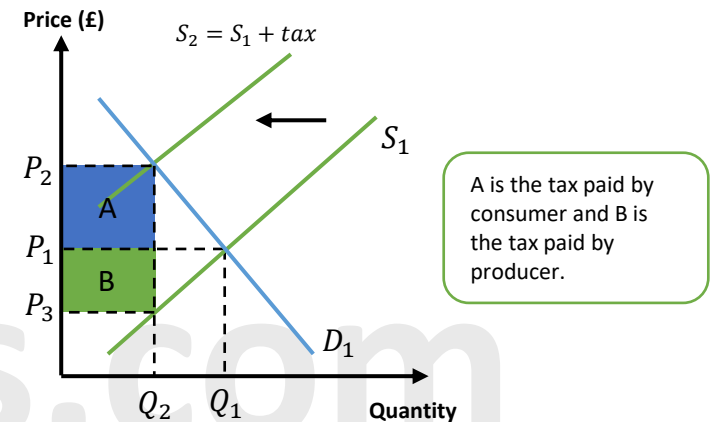
- **Specific tax** creates a parallel shift in the supply curve.
- **Ad valorem tax** pivots the supply curve, with the shift increasing as prices rise.



1.2.9 Indirect taxes and subsidies

The incidence of taxes on consumers and producers

When the government places a specific tax on a demerit good (like fizzy drinks or cigarettes), here's what happens:



- **Supply Curve Shifts:** The supply curve shifts left from S_1 to S_2 by the exact amount of the tax. This is because the tax increases the cost of producing or selling the good.
- **Higher Prices for Consumers:** The price you pay as a consumer goes up from P_1 (before the tax) to P_2 (after the tax). Ouch, your wallet feels it.
- **Lower Prices for Producers:** Producers actually receive less money for their goods now, they're left with P_3 , which is lower than P_1 .
- **Government Gets Revenue:** The government collects tax revenue, calculated as $(P_2 - P_3) \times Q_2$. This money might go toward public health campaigns or similar initiatives.



1.2.9 Indirect taxes and subsidies

The incidence of taxes on consumers and producers

Who Pays the Tax?

- Consumers bear part of the tax, shown by area A (the top rectangle in the diagram).
- Producers also take a hit, shown by area B (the lower rectangle).

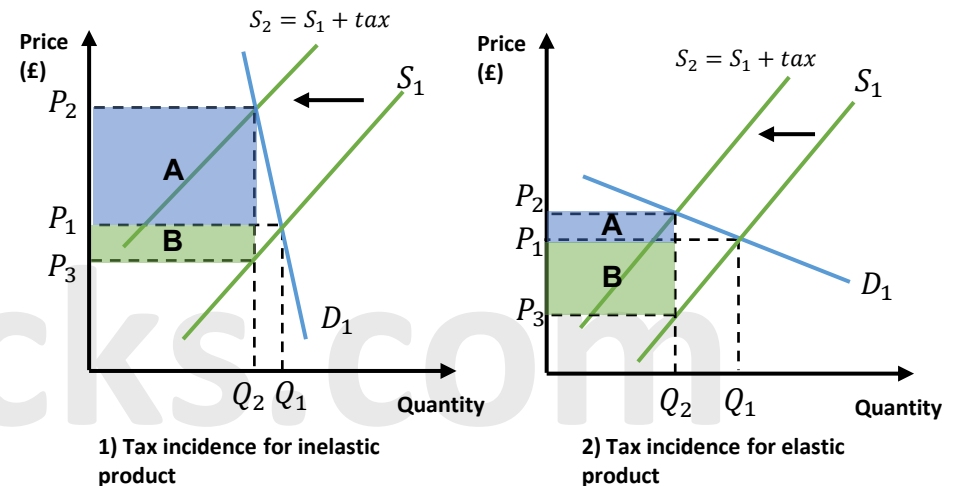
Quantity Falls: The quantity demanded drops from Q_1 to Q_2 because higher prices mean fewer people buy the product.

Impact on Producers: If the drop in quantity sold is big enough, producers might be forced to make tough decisions, like cutting jobs.

1.2.9 Indirect taxes and subsidies

The impact of PED on tax sharing

When the government adds a specific tax to a product, the cost gets split between consumers and producers. How much each pays depends on **Price Elasticity of Demand (PED)**, basically, how much buyers react to price changes.



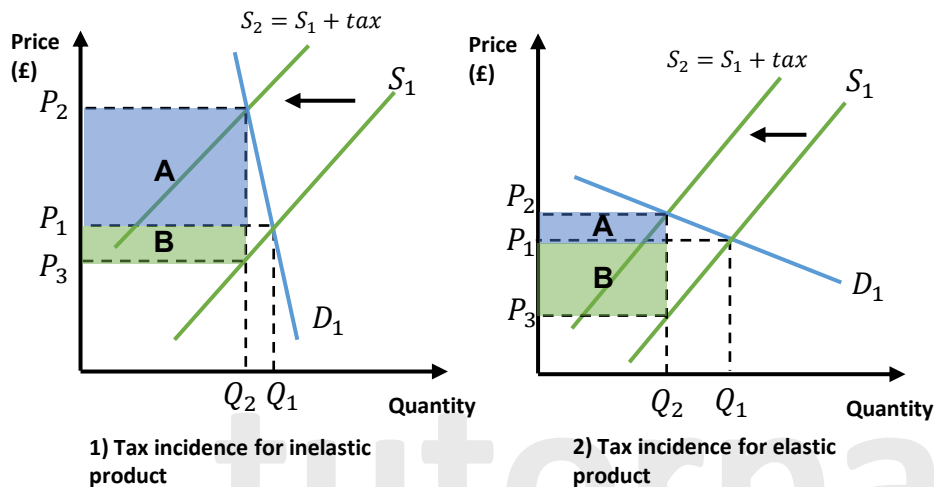
What happens?

- The tax makes the supply curve shift left ($S_1 \rightarrow S_2$) in both scenarios.
- Prices increase to P_2 , and the quantity sold drops to Q_2 .
- The tax revenue (areas $A + B$) goes to the government.



1.2.9 Indirect taxes and subsidies

The impact of PED on tax sharing



Two scenarios:

1. Inelastic Products (e.g., Cigarettes)

- People still buy these, even when prices rise.
- **Consumers pay most of the tax (Area A)**, while producers cover a small portion (Area B).
- The price increases a lot ($P_1 \rightarrow P_2$), but the quantity sold barely changes ($Q_1 \rightarrow Q_2$).

2. Elastic Products (e.g., Fast Food)

- People easily switch to alternatives if prices rise.
- **Producers absorb more of the tax (Area B)**, because passing it all to buyers would lose customers.
- The price goes up a little ($P_1 \rightarrow P_2$), but the quantity sold drops significantly ($Q_1 \rightarrow Q_2$).

1.2.9 Indirect taxes and subsidies

The impact of PED on tax sharing

What It All Means:

- If demand is **inelastic** (steep curve), consumers bear most of the tax.
- If demand is **elastic** (flatter curve), producers take on more of the cost.

Tip:

- Use **PED** to analyse how taxes affect producers, consumers, and the government.
- Ask yourself: Is the product **elastic** (responsive to price changes) or **inelastic** (less responsive)? If it's unclear, think about PED factors like substitutes or necessity.
- Make a clear judgment and explain your reasoning.

1.2.9 Indirect taxes and subsidies

Subsidies

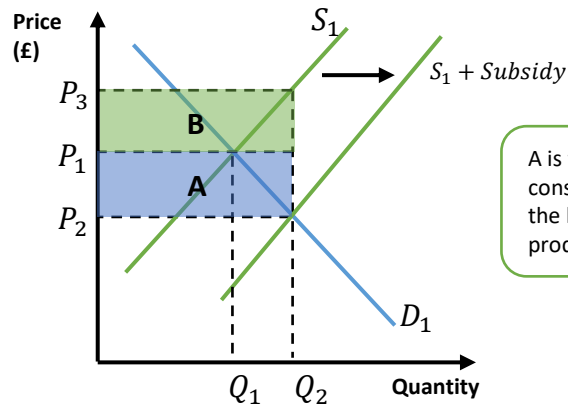
A subsidy is like a financial boost, usually from the government, to help businesses produce more of something. This extra production can lower prices, making things cheaper and better for everyone.

Take farmers, for example. Governments often give them subsidies to grow more crops, like wheat or corn. With the extra money, farmers can plant more, harvest more, and supply more food. As a result, food prices go down, which is great for families at the grocery store.

The cash usually goes straight to the farmers, but since they grow more and prices drop, shoppers get to enjoy the benefits too.

- **So, a subsidy is a grant, usually provided by the government, to encourage suppliers to increase production of a good or service, leading to a fall in its price**

When the government gives a subsidy, it shifts the supply curve. This helps increase the quantity and lowers the price for consumers. But how much everyone benefits depends on the product's **PED (Price Elasticity of Demand)**, basically, how much people's buying habits change when prices drop.



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1.2.9 Indirect taxes and subsidies

Subsidies

- **Before the subsidy:** The price and quantity are at a certain point (P_1 and Q_1).
- **After the subsidy:** The government's help shifts the supply curve, leading to lower prices (P_2) and more products in the market (Q_2).
 - If the product has a **high PED** (people buy a lot more when prices drop), the quantity demanded increases significantly. Consumers get a bigger share of the benefit because they're very responsive to the lower price.
 - If the product has a **low PED** (people don't change their buying habits much), producers end up keeping more of the subsidy benefits because demand doesn't jump as much.

Who benefits?

- **Consumers:** They pay a lower price (area marked as A in the diagram).
- **Producers:** They get a higher price (P_3) from consumers plus extra money from the government (this area is marked as B in the diagram).

What does the government pay? The government covers the total subsidy cost, which is the area marked as A + B in the diagram. This is the money they spend to make the subsidy happen.

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1.2.10 Alternative views of consumer behaviour

In theory, people, businesses, and governments are supposed to make smart decisions, ones that maximise happiness, profit, or overall wellbeing. But let's face it, life's not that simple. Here's why people often stray from "rational" behaviour:

Consideration of the influence of other peoples behaviours (We're Swayed by Others)

- People aren't always independent thinkers; we're often influenced by what everyone else is doing.
- For example, you might buy the latest phone, not because you need it, but because all your friends have one and you don't want to feel left out.
- Ever bought something just because it went viral on social media? That's the "herd mentality" at play. It can even cause big problems, like overhyped concert tickets selling out in minutes, driving prices way up, just because everyone's rushing to buy them.

The importance of habitual behaviour (We're Creatures of Habit)

- Habits can lock us into routines, even when better options are available.
- Imagine someone who always orders the same meal at a restaurant, even though they'd probably enjoy trying something new. Why? It's just easier to stick to what they know.
- Another example: People sticking to old energy providers or phone plans, even if switching would save them money. They simply don't think about it because it's become automatic.



1.2.10 Alternative views of consumer behaviour

We Struggle With Math and Self-Control

- Not everyone's great at comparing prices or thinking about long-term consequences.
- A shopper might grab a bigger box of cereal because they assume "bigger is better," without checking if it's actually a better deal (spoiler: it might not be).
- And then there's self-control, like splurging on that fancy coffee every morning instead of brewing it at home. Sure, it's small, but those costs add up over time.

Please see the '1.2 How Markets Work Worked Examples' pack for exam style questions.

For more revision notes, tutorials, worked examples and more help visit www.tutorpacks.com

