



Cambridge (CIE) A Level Economics



Your notes

Demand & Supply Curves

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An introduction to demand

- Demand is the amount of a good or service that a consumer is willing and able to purchase at a given price in a given time period
 - **Effective demand** is demand supported by the necessary purchasing power (the ability to pay)
 - If a consumer is willing to purchase a good, but cannot afford to, it is **not effective demand**
- A **demand curve** is a graphical representation of the **price** and **quantity demanded (QD)** by consumers
 - If the data were plotted, it would be an **actual curve**. Economists, however, use straight lines so as to make analysis easier
- **The law of demand** states that there is an inverse relationship between price and quantity demanded (QD), **ceteris paribus**
 - When the price rises, the QD falls
 - When the price falls, the QD rises

Individual and market demand

- **Market demand** is the combination of all the **individual demand** for a good or service
 - It is calculated by adding up the individual demand at each price level

The Monthly Market Demand for Newspapers in a Small Village

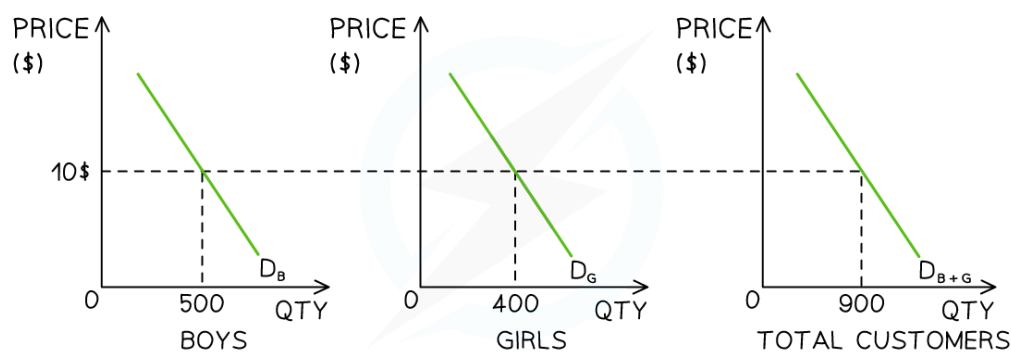
Customer 1	Customer 2	Market Demand
8	12	20

- **Individual and market demand** can also be represented graphically

Market demand for children's swimwear



Your notes



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Boys, girls and total customer demand curves for children's swimwear in July

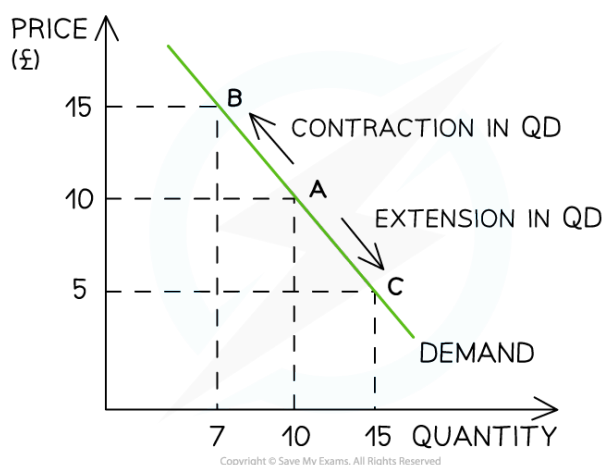
Diagram analysis

- A shop sells both boys' and girls' swimwear.
- In July, at a price of \$10, the demand for boys' swimwear is 500 units and girls' is 400 units
- At a price of \$10, the shop's **market demand** during July is 900 units

Movements along the demand curve

- If price is the only factor that changes (*ceteris paribus*), there will be a change in the quantity demanded (QD)
 - This change is shown by a **movement along the demand curve**

Movement along the demand curve



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A demand curve shows a contraction in quantity demanded (QD) as prices increase and an extension in quantity demanded (QD) as prices decrease

Diagram analysis



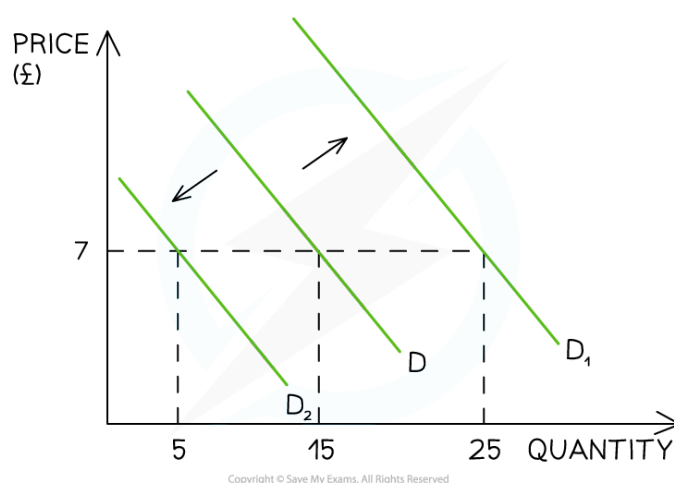
- An **increase** in price from £10 to £15 leads to a movement **up** the demand curve from point A to B
 - Due to the **increase** in price, the QD has **fallen** from 10 to 7 units
 - This movement is called a **contraction** in QD
- A **decrease** in price from £10 to £5 leads to a movement **down** the demand curve from point A to point C
 - Due to the **decrease** in price, the QD has **increased** from 10 to 15 units
 - This movement is called an **extension** in QD

The determinants of demand

- There are numerous factors that will **change the demand** for a good or service, **irrespective of the price level**
- Collectively, these factors are called the **determinants of demand** and include
 - Changes in real income
 - Changes in tastes/preferences/fashion/trends
 - Advertising and branding
 - Changes in the price of related goods (substitutes and complements)
 - Changes in the population size and structure
 - Future price expectations

Shifts of the entire demand curve

- Changes to each of the determinants of demand **shift the entire demand curve** (as opposed to a movement along the demand curve)



A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level

- For example, if a firm **increases** their **Instagram advertising**, there will be an **increase in demand** as more consumers become aware of the product
 - This is a **shift in demand** from D to D_1 . The price remains unchanged at £7 but the **demand has increased** from 15 to 25 units

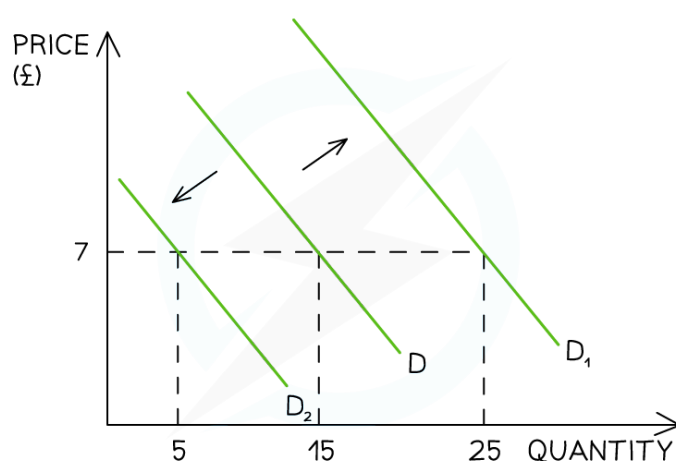


Your notes

Illustrating changes to the determinants of demand

1. A change in real income

- **Real Income** determines how many goods/services can be enjoyed by consumers
- In most cases, there is a **direct** relationship between income and demand for **goods and services**



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A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level

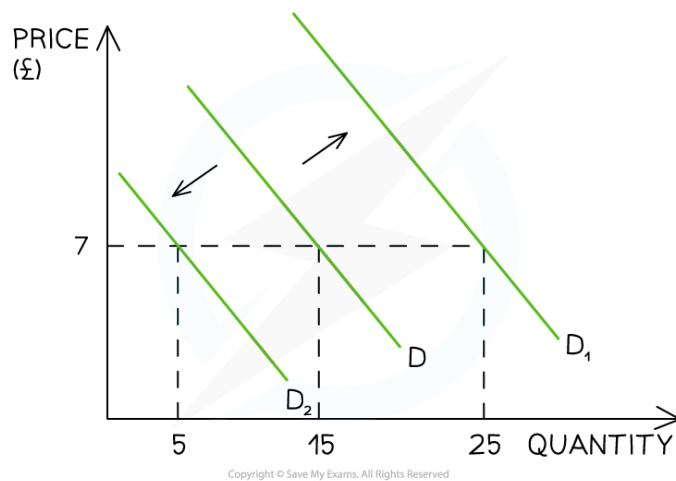
- **If income increases**
 - Demand increases and shifts right ($D \rightarrow D_1$)
- **If income decreases**
 - Demand decreases and shifts left ($D \rightarrow D_2$)

2. Change in consumer tastes and preferences

- If goods and services become more fashionable, then demand for them increases
- There is a **direct relationship** between changes in consumer preferences and demand



Your notes

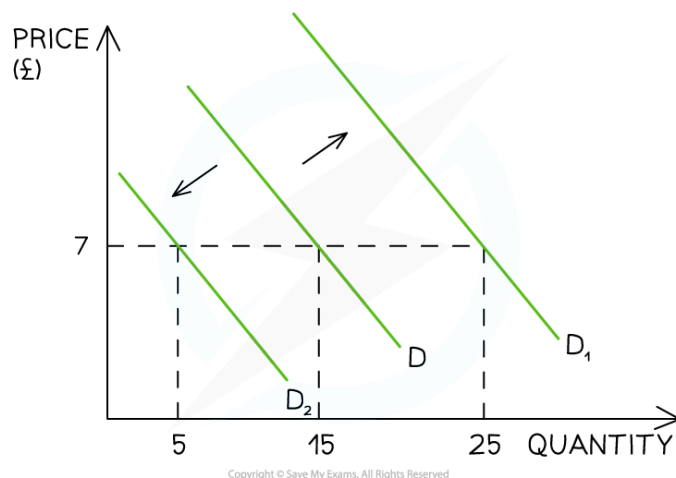


A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level

- **If preference for a product increase**
 - Demand increases and shifts right ($D \rightarrow D_1$)
- **If preference for a product decrease**
 - Demand decreases and shifts left ($D \rightarrow D_2$)

3. Improved advertising and branding

- If more money is spent on **advertising** or **branding**, then demand for goods and services will increase as more consumers become aware of the product
- There is a **direct** relationship between **branding or advertising and demand**



A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level

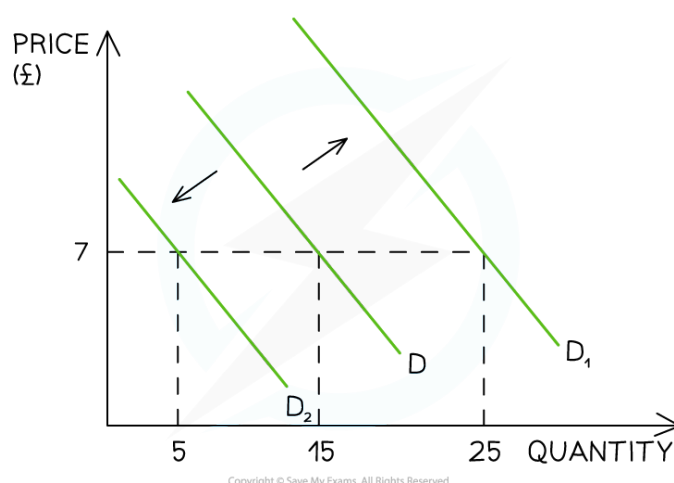
- **If advertising or brand awareness of a product increases**



- Demand increases and shifts right ($D \rightarrow D_1$)
- If advertising or brand awareness of a product decreases
 - Demand decreases and shifts left ($D \rightarrow D_2$)

4. Changes in the prices of substitute goods

- Changes in the price of **substitute goods** will influence the demand for a product/service
- There is a **direct relationship** between the **price of good A** and **demand for good B**
 - For example, the price of a Sony 60" TV increases so the **demand** for LG 60" TV increases



A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level

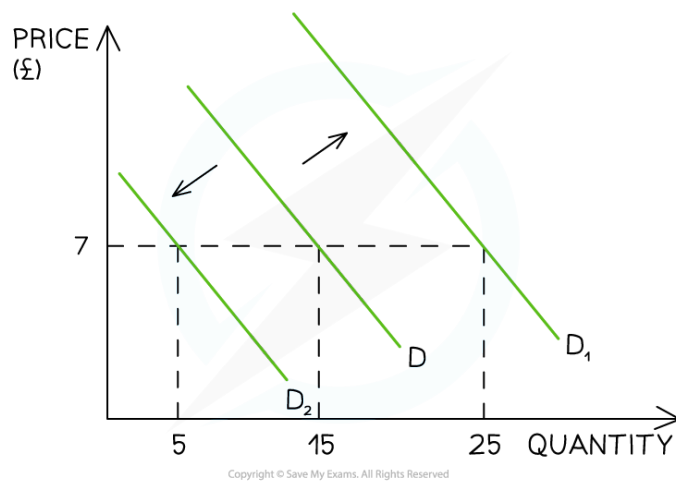
- If the price of good A increases
 - Demand for good B increases and shifts right ($D \rightarrow D_1$)
- If the price of good A decreases
 - Demand for good B decreases and shifts left ($D \rightarrow D_2$)

5. Changes in the prices of complementary goods

- Changes in the price of **complementary goods** will influence the demand for a product or service
- There is an **inverse relationship** between the **price of good A** and **demand for good B**
 - For example, the price of printer ink increases so the **demand** for ink printers decreases



Your notes

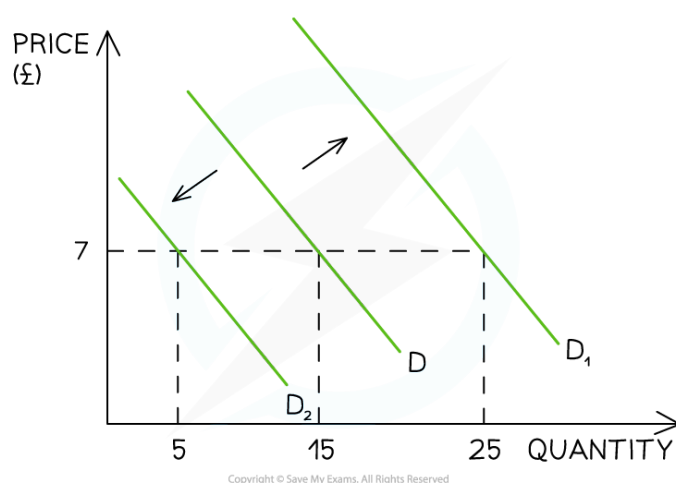


A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level

- **If the price of good A increases**
 - Demand for good B decreases and shifts left ($D \rightarrow D_2$)
- **If the price of good A decreases**
 - Demand for good B increases and shifts right ($D \rightarrow D_1$)

6. Changes in population size or distribution

- If the **population size** of a country changes over time, then **demand** for goods and services will also change
- There is a **direct relationship** between the changes in population size and demand
- Demand will also change if there is a change to the **age distribution** in a country, as different ages **demand different goods and services**
 - For example, an ageing population will buy more hearing aids



A graph that shows how changes to any of the conditions of demand shifts the entire demand curve left or right, irrespective of the price level



Your notes

- If the population increases
 - Demand increases and shifts right ($D \rightarrow D_1$)
- If the population decreases
 - Demand decreases and shifts left ($D \rightarrow D_2$)



Examiner Tips and Tricks

The difference between a **movement along the demand curve** and a **shift in demand** is essential to understand

When **price changes** (ceteris paribus), there is a movement along the demand curve resulting in a change to **quantity demanded**, which is a **contraction** or **extension**

When a **condition of demand changes**, there is a **shift** of the entire demand curve, resulting in a **change to demand**, which is an **increase** or a **decrease in demand**



An introduction to supply

- Supply is the amount of a good or service that a producer is willing and able to supply at a given price in a given time period
- A **supply curve** is a graphical representation of the **price** and **quantity supplied** by producers
 - If the data were plotted, it would be an actual curve. Economists, however, use straight lines so as to make analysis easier
- The supply curve is **upward sloping**, as there is a **positive relationship** between the price and quantity supplied (QS)
 - Rational **profit maximising producers** would want to supply more as prices increase in order to **maximise** their profits
- The **law of supply** states that there is a positive (direct) relationship between quantity supplied and price, **ceteris paribus**
 - When the price rises, the QS rises
 - When the price falls, the QS falls

Individual and market supply

- Market supply** is the combination of all the **individual supply** for a good or service
 - It is calculated by adding up the individual supply at each price level

The Monthly Market Supply of Bread from 4 Bakeries in a Small town

Bakery 1	Bakery 2	Market Supply
500	400	900

Individual and market supply curves

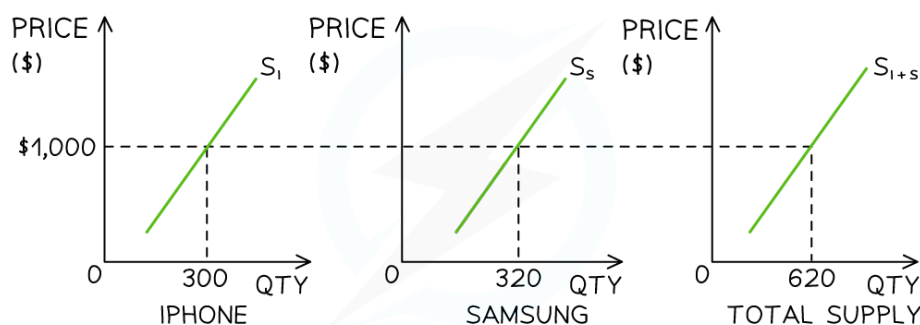


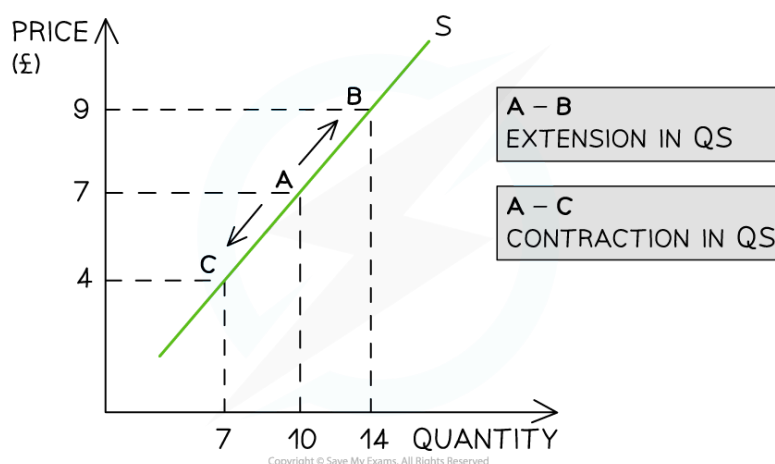


Diagram analysis

- In New York City, the market supply for smartphones in December is predominantly a combination of iPhone and Samsung supply
- At a price of \$1000, the supply of iPhones is 300 units and the supply of Samsung phones is 320 units
- At a price of \$1,000, the **market supply** of smartphones in New York City during December is 620 units

Movements along the supply curve

- If **price** is the only factor that changes (**ceteris paribus**), there will be a change in the **quantity supplied (QS)**
 - This change is shown by a **movement along the supply curve**



There is an extension in quantity supplied (QS) as prices increase and a contraction in quantity supplied (QS) as prices decrease

Diagram analysis

- An **increase** in price from £7 to £9 leads to a **movement up** the supply curve from point A to B
 - Due to the **increase** in price, the quantity supplied has **increased** from 10 to 14 units
 - This movement is called an **extension in QS**
- A **decrease** in price from £7 to £4 leads to a **movement down** the supply curve from point A to C
 - Due to the **decrease** in price, the quantity supplied has **decreased** from 10 to 7 units

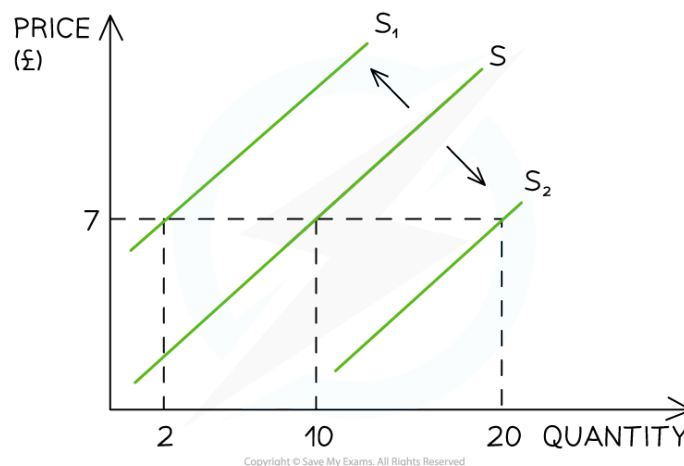
- This movement is called a **contraction in QS**



Your notes

Determinants of supply

- There are several factors that will **change the supply** of a good or service, **irrespective of the price level**
- Collectively, these factors are called the **determinants of supply and include:**
 - Changes to the costs of production
 - Changes to indirect taxes and subsidies
 - Changes to technology
 - Changes to the number of firms
 - Weather events
 - Future price expectations
 - Goods in joint and competitive supply
- Changes to any of the conditions of supply **shift the entire supply curve** (as opposed to a movement along the supply curve)



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A graph that shows how changes to any of the conditions of supply shift the entire supply curve left or right, irrespective of the price level

Diagram analysis

- If a firm's cost of production increases due to the increase in price of a key resource, then there will be a **decrease in supply** as the firm can now only afford to produce fewer products
- This is a **shift in supply** from S to S₁. The price remains unchanged at £7 but the **supply has decreased** from 10 to 2 units

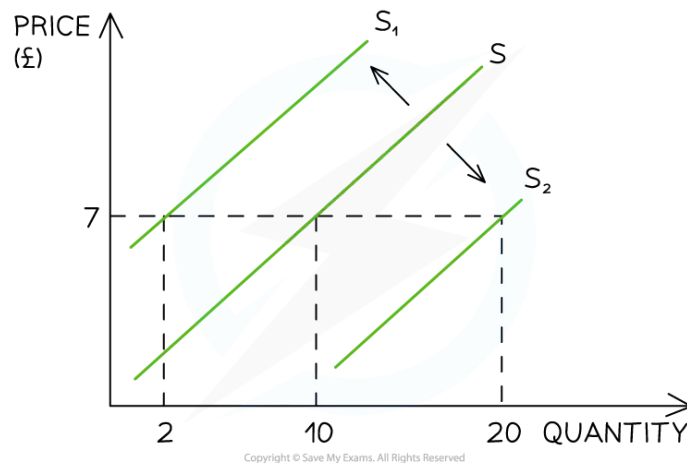
Illustrating changes to the determinants of supply



Your notes

1. Changes to the costs of production

- If the price of **raw materials** or other **costs of production** change, firms respond by changing supply.



Changes to the conditions of supply shift the entire supply curve

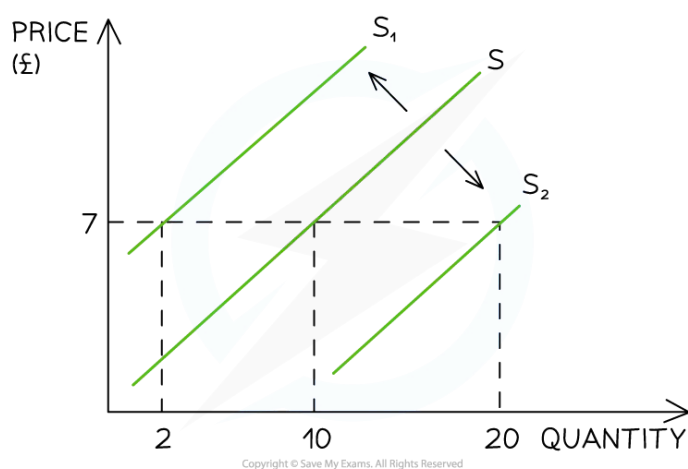
- **If costs of production increase**
 - Supply decreases and shifts left ($S \rightarrow S_1$)
 - For example, rising aluminium prices increase bicycle production costs in Malaysia, causing supply to fall
- **If costs of production decrease**
 - Supply increases and shifts right ($S \rightarrow S_2$)

2. Changes to indirect taxes

- Any change to **indirect taxes** changes the **cost of production** for a firm and impacts supply



Your notes



Changes to the conditions of supply shift the entire supply curve

■ **If indirect taxes increase**

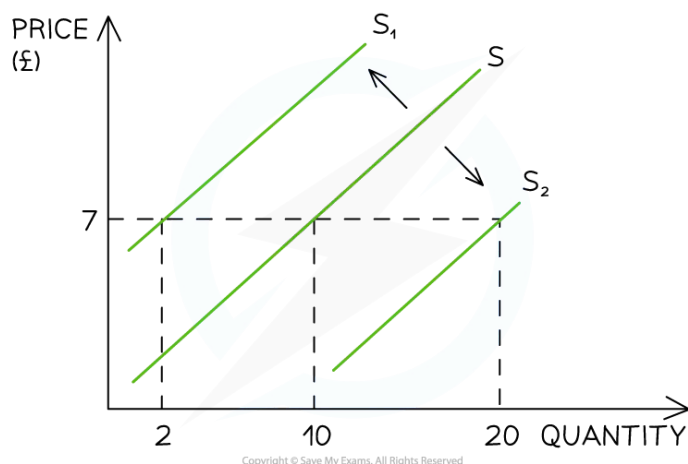
- Supply decreases and shifts left ($S \rightarrow S_1$)
- For example, a higher sugar tax in Thailand raises costs for soft drink producers, reducing supply

■ **If indirect taxes decrease**

- Supply increases and shifts right ($S \rightarrow S_2$)

3. Changes to subsidies

- Changes to **producer subsidies** directly impact the **cost of production** for the firm



Changes to the conditions of supply shift the entire supply curve

■ **If subsidies increase**

- Supply increases and shifts right ($S \rightarrow S_2$)

■ **If subsidies decrease**

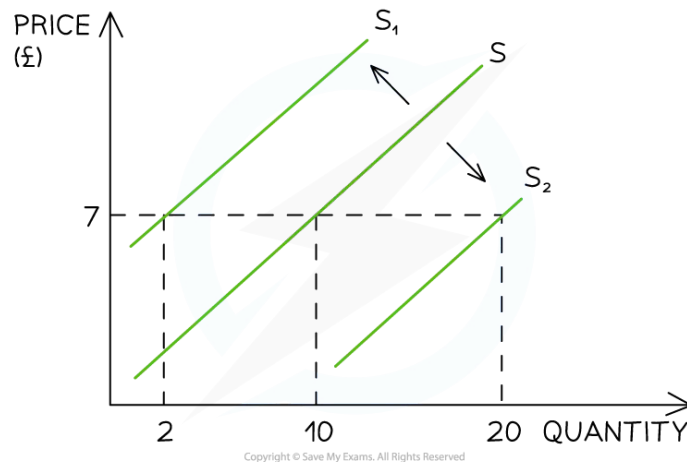
- Supply decreases and shifts left ($S \rightarrow S_1$)
- For example, the removal of farming subsidies in Argentina reduces agricultural output



Your notes

4. Changes to the state of technology

- New technology increases **productivity** and **lowers costs** of production
- **Ageing technology** can have the opposite effect



Changes to the conditions of supply shift the entire supply curve

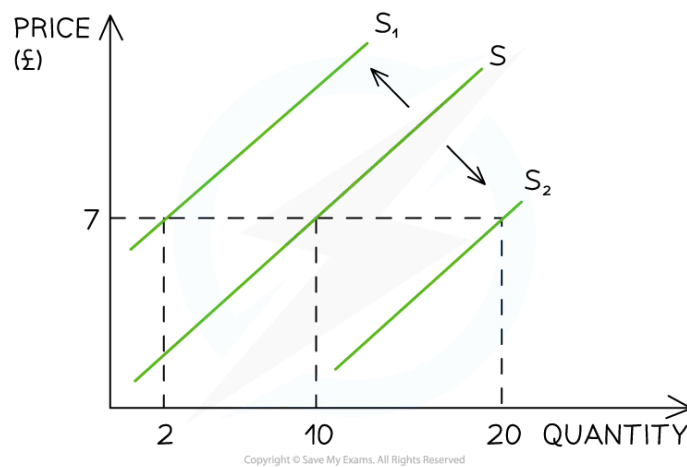
- **If technology improves**
 - Supply increases and shifts right ($S \rightarrow S_2$)
 - For example, new irrigation systems in Morocco help farmers produce more crops with less water
- **If technology worsens**
 - Supply decreases and shifts left ($S \rightarrow S_1$)

5. Change in the number of firms in the industry

- The **entry and exit** of firms into the market has a direct impact on the supply
- If ten new firms start selling building materials in Hanoi, the supply of building material will **increase**



Your notes



Changes to the conditions of supply shift the entire supply curve

■ **If the number of firms increases**

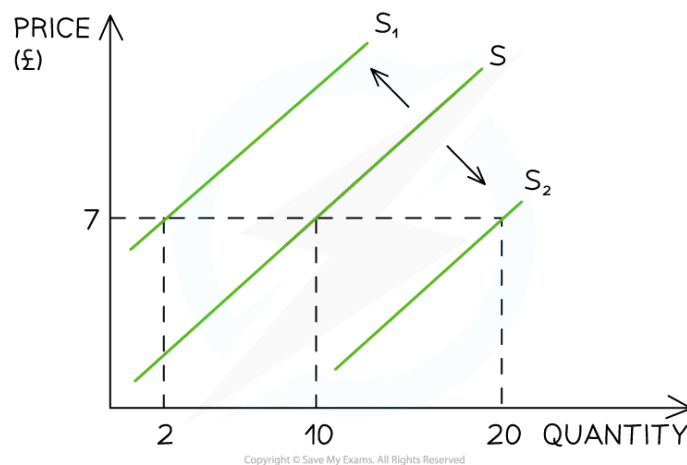
- Supply increases and shifts right ($S \rightarrow S_2$)

■ **If the number of firms decreases**

- Supply decreases and shifts left ($S \rightarrow S_1$)
- For example, several electronics factories close in South Africa due to constant power outages, reducing supply

6. Weather events

- Droughts or flooding can cause a **supply shock** in agricultural markets
- A drought will cause **supply to decrease**
- Unexpectedly good growing conditions can cause supply to increase



Changes to the conditions of supply shift the entire supply curve

- **If the weather is good**

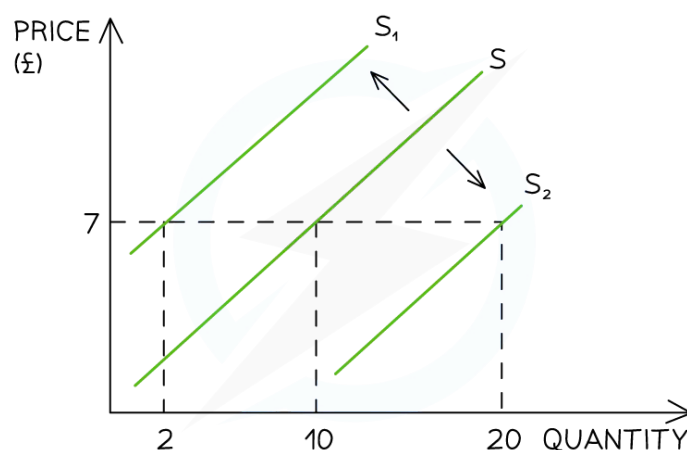


Your notes

- Supply increases and shifts right ($S \rightarrow S_2$)
- For example, ideal monsoon rains boost rice production in India
- **If the weather is bad**
 - Supply decreases and shifts left ($S \rightarrow S_1$)
 - For example, severe drought in Kenya reduces the coffee harvest, lowering supply

7. Future price expectations

- If firms expect the price of a good or service to **increase in the future**, they will **hold back supply now** to sell later at a higher price
- If firms expect the price of a good or service to **decrease in the future**, they will **sell more now** before prices fall



Changes to the non-price determinants of supply shift the entire supply curve

- **If prices are expected to rise in the near future**
 - Supply decreases and shifts left ($S \rightarrow S_1$)
- **If prices are expected to fall in the near future**
 - Supply increases and shifts right ($S \rightarrow S_2$)



Examiner Tips and Tricks

Make sure that you explain each condition as its own point before linking it to the **cost of production**, e.g. a change in indirect taxation

A common error by students is to explain that a **subsidy** shifts the demand curve for electric vehicles to the right. A subsidy will shift the **supply curve** to the right. The

lower price, will cause a **movement along the demand curve** (extension of quantity demanded) to create a new market equilibrium



Your notes