

## The Market Economy

### At the end of this section a student will be able to:

- evaluate the economic role of consumers in an economy, explaining how positive and negative incentives influence consumer activity
- critique the assumption that consumers taking part in economic activity behave rationally
- construct a graphical representation of demand and supply in a market economy and critically
- analyse the role of the price mechanism in a market economy
- demonstrate how a change in the main determinants of demand and supply can affect changes in the price and quantity of goods and services
- examine how advances in technology can impact the market economy

### Role of Consumers in Society

- **To determine what goods and services are produced**
  - Consumers buy economic goods according to their individual demand. The total of all individual consumer demand is referred to as “aggregate demand”.
- **Provide information about habits, trends and preferences**
  - Business research consumer patterns to try and meet their demands. When a business comes up with a new idea they must use information they can gather from their target consumers to see if it will be a success. The habits and preferences of consumers force business to adapt their offerings to meet actual consumers demand.
- **Pay for economic goods**
  - When consumers pay for goods this the supplier can use that money to create wealth, employ people and invest which can lead to economic growth.
    - Economic goods have the following characteristic:
      - **They give utility**
        - They must give **satisfaction** or be **beneficial** to the consumer or else consumer would not buy them
      - **They must be transferrable**
        - It must be possible to transfer the good to others. Eg physical fitness is not transferable therefore it is not an economic good. Beauty and sporting talent are other examples of goods that are **not** economic goods
      - **They must be scarce and command a price**
        - If the good were not scarce in relation to demand for it then nobody would be willing to pay for it. For example air, sand at a beach are not economic goods

### Assumptions Economists Make about Consumers

- **The consumer has a limited income.**
  - The consumer’s income is not large enough to satisfy his/her needs and wants, therefore the consumer must choose between those goods he wishes to buy.

- **The consumer aims to get maximum satisfaction / utility from that income and will act rationally**
  - A consumer will spend his/her limited income in such a way that he/she will achieve the most satisfaction / best value for money. He will obey the principle of Equi-Marginal Returns.
  - Eg: If the person sees an identical commodity priced differently in two adjoining shops they will buy it at the lower price – this would be rational.
- **The consumer is subject to the law of diminishing marginal utility.**
  - As a consumer consumes additional units of a good his/her marginal utility for this good will eventually decline.

### **Consumer DO NOT always act rationally**

The following factors may undermine a consumer's ability to act rationally:

- **Following a fashion trend**
  - Consumers may not spend their money in a way that maximises utility when following a fashion trend, or when intentionally trying to be different from the group.
- **The paradox of choice**
  - When faced with too much choice a consumer may make choices which do not maximise their utility.
- **Value Consciousness**
  - Consumers may make purchases based on their values (e.g. environmental reasons) therefore not maximising utility
- **Habitual Behaviour**
  - Due to brand loyalty or habit a consumer may make purchases that do not maximise their utility
- **Incomplete information**
  - Consumers may make poor decision due to incomplete or poor quality information.
- **Rule of thumb**
  - Consumer may use simple aids like buying the “middle priced” item even though they are not maximising their utility
- **Anchoring behaviour**
  - This happens when a consumer places too much emphasis on a particular piece of information which may lead to irrational behaviour.
- **Influence of Marketing**
  - Marketing tools can prompt us to make emotional purchases that are not rational.

### **Utility**

Economists use the term **utility** to describe the satisfaction or enjoyment derived from the consumption of a good or service. If we assume that consumers act rationally, this means they will choose between different goods and services so as to maximize total satisfaction or total utility.

Consumers will take into consideration:

- How much satisfaction they get from buying and then consuming an extra unit of a good or service

- The price that they have to pay to make this purchase
- The satisfaction derived from consuming alternative products
- The prices of alternative goods and services

**Marginal Utility** is the change in total utility or satisfaction resulting from the consumption of one more unit of a good.

<i>No. of Sandwiches</i>	<i>Total Utility</i>	<i>Marginal Utility</i>
1	20	-----
2	65	45
3	135	70

**Note:** By definition MU is the addition to total utility got from the consumption of an extra unit of a good. Therefore, the MU of the first item is not normally shown as there was no consumption of the goods before the first one.

### Law of Diminishing Marginal Utility

- This law states that as a consumer consumes additional units of a good the marginal utility/ extra satisfaction derived from each additional unit consumed will eventually decline.

<i>No. of Sandwiches</i>	<i>Total Utility</i>	<i>Marginal Utility</i>
1	20	-----
2	65	45
3	135	70
4	160	35
5	180	20

In this example the LDMU sets in after the third sandwich is consumed or when the fourth sandwich is consumed as the marginal utility began to decrease.

Fill in the table below as a test:

<b>Number of units consumed</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Total Utility in units</b>	<b>30</b>	<b>65</b>	<b>85</b>	<b>100</b>	<b>110</b>	<b>115</b>
<b>Marginal Utility in units</b>	<b>30</b>					

Complete the table and state the point after which diminishing utility sets in.

- Assumptions underlying the LDMU
  - **Applies after a certain point called the origin.**
    - The origin is the minimum quantity of the commodity which can be used effectively and until this stage has been reached, marginal utility may not diminish. Eg drinking a whole can of coke as opposed to taking a sip.

- **It does not apply to Addictive goods.**
  - The consumer may gain increasing marginal utility by consuming each additional unit of an addictive good.
- **Time lapse between consumption of successive units. Sufficient time has not elapsed between the consumption of successive units.**
  - If a person eats a number of oranges, each additional orange consumed will give diminished marginal utility. However, if a person eats one on a Monday, one on a Thursday and one on Sunday, because of the time which has elapsed between the consumption of each extra orange marginal utility may not diminish.
- **‘Other factors’ affecting utility do not change.**
  - The law is based on the assumption that other factors which may affect a consumer’s utility do not change including income levels, the nature of successive units of the commodity; and the consumer’s taste for the commodity.
- **Commodities/Goods that do not comply with the LDMU**
  - **Medicine**
    - A person may get the same benefit from every dose. One’s marginal utility may not decline as more doses are taken
  - **Addictive goods eg: alcohol or cigarettes**
    - The consumer's marginal utility will decline because each extra unit consumed brings the consumer constant/increasing marginal utility

**Principle of Equi-Marginal Returns (Law of Equi-Marginal Utility)**

- The laws states that a rational consumer who wants to maximise utility will allocate their limited income so that the ratio of marginal utility to price is the same for all goods consumed.
- Consider an example where a consumer has a choice between two goods A and B which have prices Pa and Pb respectively.
- Total Utility will be maximised when the utility derived from the last euro's worth of A is equal to the utility derived from the last euro's worth of B.
- Total utility maximised when:

$$\frac{\text{Marginal utility of good A}}{\text{Price of good A}} = \frac{\text{Marginal utility of good B}}{\text{Price of good B}}$$

**Using the above solve the problem below:**

In equilibrium a consumer buys 8 bars of chocolate at €1.00 each and 12 sandwiches at €4.00 each. The marginal utility of the eighth bar of chocolate is 10 utils. Using the Equi-Marginal Principle of Consumer Behaviour calculate the marginal utility of the twelfth sandwich.

Show all your workings.

**Workings**

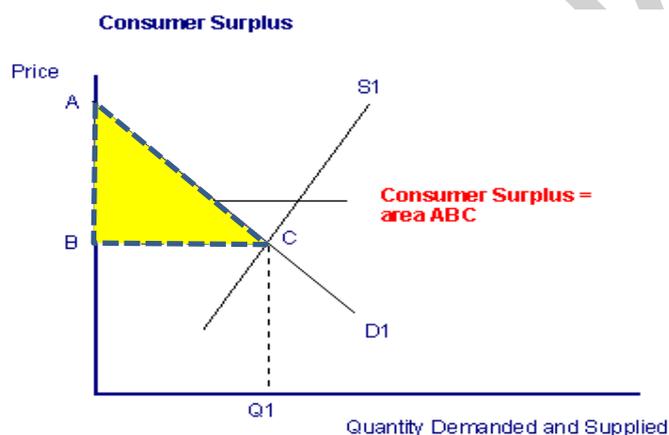
**Answer:**

---

**Consumer Surplus**

Consumer surplus is the difference between what consumers are **willing to pay** for a good or service (indicated by the position of the demand curve) and what they **actually pay** (the market price).

The level of consumer surplus is shown by the area under the demand curve and above the ruling market price



**Impact of Technology on Consumers**

- **Easy access to more information**
  - With the advent of the internet/smartphones/price comparison websites consumer have access to much more information that allows them to make better decisions. Eg pricespy, tripadvisor, trivago, skyscanner
- **Consumers subjected to targeted advertising**
  - Businesses are always trying to gather data about their potential customers. This data allows them to determine consumer preference and target them with personalised ads in-line with their preferences. Eg – ads appearing on social media feeds based on previous browser searches
- **Less tied to buying in their geographical location**
  - E-commerce means that consumers can research and buy products from all over the world.
- **Consumers more exposed to international trends**

- With the rise of social media and international influencers consumers can be exposed to more trends from across the globe
- **New payment methods available**
  - Consumers can use their phones to tap and go at pay points. Consumers could be more inclined to impulse buy as a result.

### **Influence on Consumer's choice - Incentives**

Economic incentives are offered to encourage people to make certain choices or behave in a certain way. They usually involve money, but they can also involve goods and services.

Positive economic incentives leave you better off if you do what was asked of you. These incentives benefit you in some way. They reward you with money or some sort of financial gain such as a better price, a free item, or an upgraded item. Restaurants use coupons, buy-one, get-one deals, Kid's Eat Free Night, and other incentives to encourage people to **choose** their restaurant. Shops offer sales, discounts, buy-one, get-one free and other incentives to get customers to **choose** their shop. Airlines give frequent flier miles as incentives for people to **choose** to fly with them.

Negative incentives leave you worse off financially by making you pay money. These incentives cost you money. Fines, fees can be negative economic incentives. They are called negative because they are things you don't want to get. "Buy a TV license or face fine/jail time"

Incentives affect our daily lives in many ways. A famous example is the analogy that if you hold a carrot in front of a donkey—offering it an incentive to move forward—and also thwack its rump with a stick—offering a disincentive to stand still—then likely it will start walking forward. Parents typically offer both rewards and punishments to encourage good behaviour and discourage bad behaviour by their children.

In economics, incentives may involve either cultural norms, or financial rewards and punishments. Cultural norms may offer incentives by rewarding with social acclaim those who help the needy, or may offer disincentives (negative incentives) by punishing those who engage in theft. Financial incentives may involve offering financial prizes or financial fines for good or bad behaviour, or often just a change in a price that ends up with your having to spend more or less for what you want to sell or buy.

Incentives and disincentives (negative incentives) are not guarantees of behavioural changes. But, they tend to induce behavioural changes by choice rather than by force. Your parents can tell you that you are forbidden to text your friends after 8 p.m. and if you do it, they'll take away your phone for a month. Or, they can dock your pocket money by €1 per text message after 8 p.m. Both kinds of incentive structure may grate on you but it will likely change your behaviour at least a small bit.

The most common economic incentive is something we take for granted every day: **Prices are incentives.**

For example, a rise in the price of any good is an incentive for us to back off from buying it as much as we used to. Perhaps we'll buy a different good instead. So, for example, a rise in the price of butter creates an incentive to buy less butter. Maybe we'll buy margarine instead. Or maybe we'll use butter more sparingly and simply buy it less frequently. Or, if I'm a baker, maybe I won't change my use of butter directly, but I'll cut back on buying something else to be able to keep buying butter. No matter what, though, the change in the price of butter creates an incentive for me to change my behaviour—my economic behaviour.

And buyers are not the only ones affected by and with revised incentives in the fact of a price change. If I raise dairy cows and sell them for milk, a rise in the price of butter may give me an incentive to breed more cows or sell more raw milk to butter producers who are willing to pay more than they used to, what with the increased price of butter they are receiving. I may even have an incentive to change the seed I plant so as to encourage my cows to produce milk more conducive to butter production.

The moral is that every price change entails incentives for almost everyone in the economy. Though you may not think about it a lot, you probably make a lot of decisions every day that involve responding to your ever-changing personal incentives. Incentives matter, not only in your personal decisions but also across a whole economy, because often those incentives result in similar choices which accumulate across many individuals.

Taxes change prices. Thus, a change in tax rates affects incentives. Some economists argue that taxes should in fact be used with the express purpose of changing behaviour. For example, if a government decides it does not want its citizens to use plastic straws, it can do that by publicising the ill effects of plastic straw use, or by forbidding the use of plastic straws, or by taxing the use of plastic straws. Taxing the use of plastic straws, while it does not guarantee that there will be less use of plastic straws, does allow both buyers and sellers a degree of choice. Families with disabled children who need straws to drink at restaurants may still be able to find restaurants that offer paper straws. Restaurants that cater to traveling truck and car drivers who rely on straws to sip drinks while they drive can still decide what to do to serve their clientele.

**Watch:** [Incentives explained](#)

### **Consumer Sentiment Index**

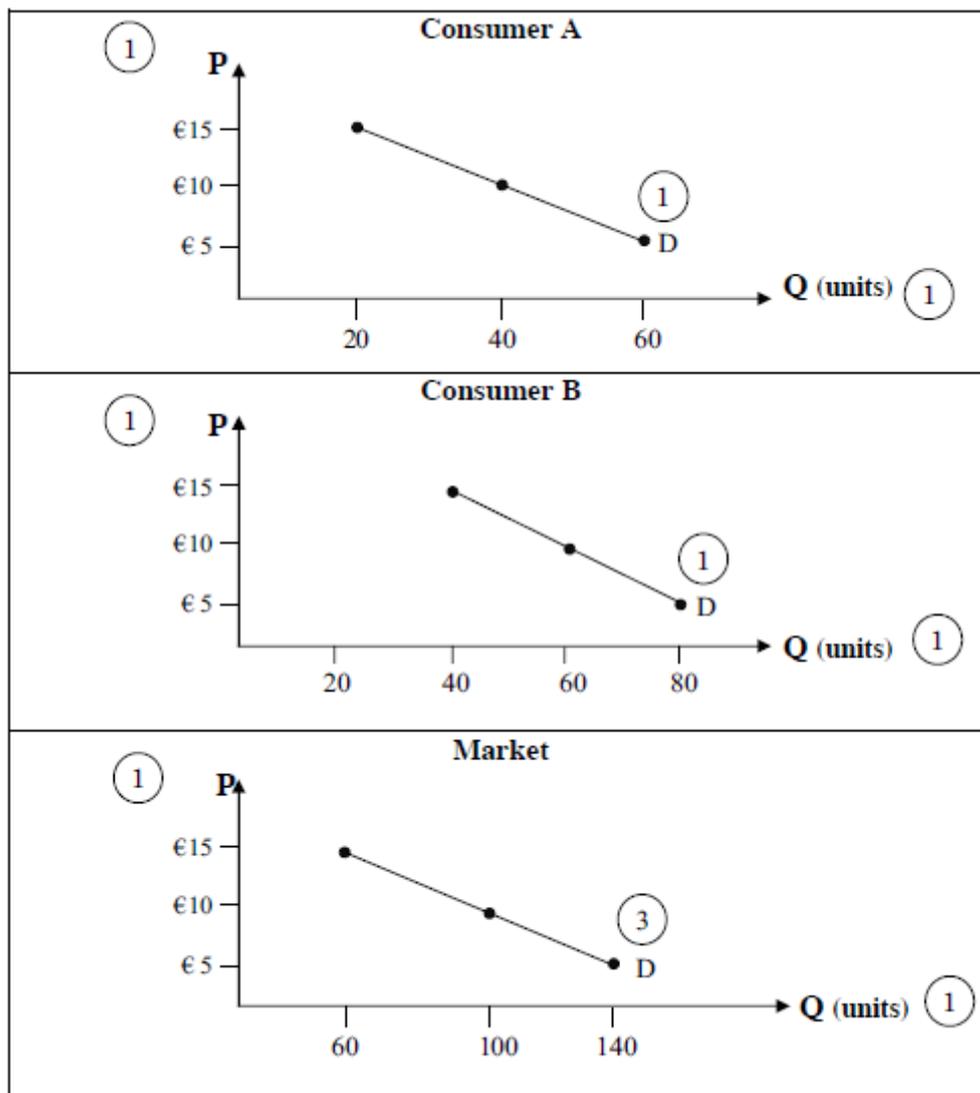
**Consumer sentiment** is an economic **indicator** that **measures** how optimistic consumers feel about their finances and the state of the economy. The index uses data collected by the ESRI for its monthly Consumer Survey. The monthly telephone survey collects information on people's views of the economic situation, the housing market and the savings environment. The data is used to track changes over time in people's views and experiences.

[Link to KBC website](#)

## Demand and Supply

### Individual Demand versus Market Demand

- **Demand** is the quantity of a good or service that consumers are willing and able to buy at a given price in a given time period.
- **Individual demand**
  - the quantity of a good an individual consumer demands at **different prices**.
- **Market/aggregate demand**
  - total quantity of a good that all consumers demand at **different prices**.



To derive the market demand add the quantity demanded by each individual consumer at each price to calculate the overall quantity demanded by the market at each price.

## Types of Demand

- **Effective demand**
  - Effective demand is demand **supported by the necessary purchasing power**. Where one wishes to have a good but also has the means to buy the good.
  - For example I might like a Bugatti Veyron, but my demand is not effective as I do not have the means to buy it.
  - In economics when we talk of "demand" we are really speaking of effective demand.
- **Latent demand**
  - This exists when there is willingness to buy a good or service, but where consumers lack the purchasing power to be able to afford the product.
- **Derived demand**
  - Where a factor of production (land, labour, capital and enterprise) is demanded not for its own use but for its contribution to the production process.
  - Labour is always in derived demand – the demand for teachers is derived from the demand for education services
  - The demand for steel is strongly linked to the demand for new vehicles and other manufactured products, so that when an economy goes into a recession, so we expect the demand for steel to decline likewise.

## Law of Demand

- The law of demand describes the inverse relationship between price and quantity demanded
- **The Law of Demand states that an increase in price leads to a decrease in quantity demanded, or a decrease in price leads to an increase in quantity demanded, ceteris paribus**
  - Example: If price of a bar chocolate increased by 5c per bar then quantity demanded or purchased would fall.
- **Ceteris paribus assumption**
  - This means “all other things being equal”
  - Many factors affect demand. When drawing a demand curve, economists assume all factors are held constant except one – *the price of the product itself*. Ceteris paribus allows us to isolate the effect of one variable on another variable
- **Exceptions to the law of demand**
  - **Giffen Goods**
    - They tend to be staple goods in low income economies where very little choice exists. As the price falls, real incomes increase and consumers buy less of these goods and purchase more of better quality goods. As the price rises consumers have less income to spend on other types of goods so they tend to devote more of their income to these goods.
    - For example potatoes during the famine in Ireland. Even though the price rose demand increased as people stopped buying other items and purchased their only source of carbohydrates.
  - **Snob items / Goods of Conspicuous Consumption**

- A rise in price makes these goods more exclusive, and therefore more attractive to those who have the incomes to purchase them. A fall in price may lead to a fall in quantity demanded as they may no longer appear as exclusive to the rich and are still outside the price range of the poor.
- **Goods the purchase of which is influenced by expectations as to future prices/Speculative purchasing**
  - If prospective consumers think that prices are likely to be even higher in the future, the current level of demand may not fall even if prices increase. If a person is considering buying a house the possibility that prices are likely to be even higher in the future will probably stimulate demand at current prices.
- **Goods of Addiction**
  - Consumers become so addicted to the drug that in order to get the same 'buzz' from consumption of the drug, demand for the commodity may increase, even when the price of the commodity increases.

### **Factors that Influence Demand**

- **Price of the good**
  - Generally, as the price of a good falls consumers will buy more of that good as consumers are getting more value/satisfaction for their euro (equi-marginal returns)
  - Changes in price alone cause extensions and contractions in demand. All other factors listed bellows causes increases and decreases in demand
- **The prices of complementary and substitute goods**
  - **Complementary Goods**
    - Goods which are consumed together / are used in conjunction with one another. If the price of a complementary good rises then demand for this good falls - Example: Computer consoles and software/games; cars and petrol.
  - **Substitute Goods**
    - Goods which could replace each other in use
    - If the price of a substitute good rises then demand for this good rises, as it has become relatively cheaper.
    - Price of Coca Cola increases, quantity demanded for Pepsi increases
- **The income of the consumer**
  - For most goods (normal goods) as income rises the demand increases and vice versa e.g. smaller quantities of goods are bought when a person becomes unemployed.
  - Types of Goods:
    - **Normal Goods**
      - These have a positive income effect, **other things being equal**. As real income\* rises quantity demand rises
    - **Inferior Goods**
      - These have a negative income effect, **other things being equal**. As real income rises quantity demand falls

\*real income refers to the purchasing power of the income. It is one's income adjusted for inflation.

- **The consumers' tastes or preference for a commodity**

- When a commodity comes into fashion or into season there is an increase in the quantity demanded at each price. Advertising attempts to influence taste in favour of the good.
- **The expectations concerning future prices/ future availability of income**
  - If a consumer expects that future prices are likely to be greater than they are at present, then there will be an increase in the demand for the good at each price.
- **Government regulations**
  - If the government initiates a programme to curtail consumption of a particular product then it may affect the demand for a good e.g. a health education campaign to curtail cigarette consumption.
- **Unplanned factors**
  - If there was a sudden heatwave this may result in an increase in the demand for suncream / ice cream etc.

### **Substitution Effect vs Income Effect**

- **Substitution effect**
  - When the price of a good rises customers may shift to cheaper substitutes to maximise utility. The substitution effect is always positive. i.e. it always behaves in the same way. When the price of a product rises, consumers will demand less of it and switch to cheaper substitutes.
- **Income effect**
  - When the price of a good falls it means that the consumer's real income will rise. The income effect can be positive or negative. It does not always behave in the same way. When a consumer's real income increases they buy more normal goods but less inferior goods.
- **Question:**
  - A consumer spends all income on two goods, Good A and Good B. Both goods are normal goods but they are not complementary goods. The price of Good A is reduced and the price of Good B remains unchanged. The consumer continues to spend all income on the two goods. Distinguish between the substitution effect and the income effect of the price reduction in Good A.

#### **Substitution Effect**

- Demand for Good A Increases
- Good A is now relatively cheaper. Hence the consumer is getting increased marginal utility for this good.

#### **Income Effect**

- Demand for Good A Increases
- Consumer has additional income, due to the reduction in price of Good A. As Good A is a normal good the demand for this good will increase.

- Question:

A fall in the price of a consumer product has both a substitution effect and an income effect.

- (i) Explain the underlined terms.
- (ii) If the price of an **inferior** product falls (all other things being equal) will more or less of the product be purchased? Explain your answer with reference to the substitution effect and the income effect.

(i)

Substitution effect	Income effect
When the price of a good rises customers may shift to cheaper substitutes to maximise utility.	When the price of a good falls it means that the consumer's real income will rise.

(ii)

Price of inferior product falls	Substitution effect	Income effect
Effect on demand	Demand will rise	Demand will fall
Explanation	The consumer is getting more marginal utility for this good now that it is cheaper.	Because the good is an inferior good, demand will fall as the consumer will buy less as income has increased.

If positive substitution effect is greater than the negative income effect then demand for the product will increase.

or

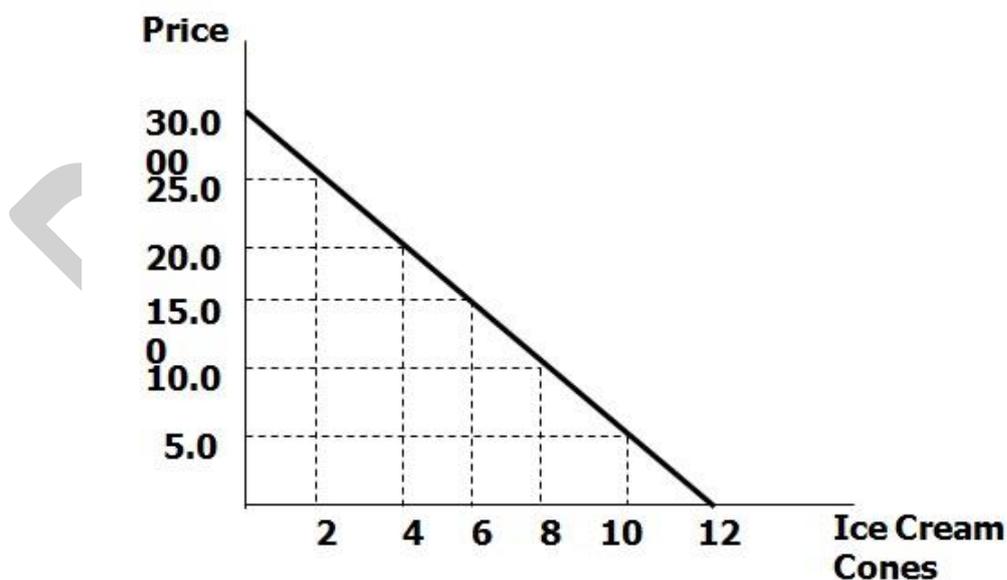
If negative income effect is greater than positive substitution effect then demand for the product will decrease.

## Demand Curve

- **Demand Schedule:** a table that shows the relationship between the price of a good and the quantity demanded.

Price of Ice Cream Cone	Quantity of Cones Demanded
0.00	12
5.00	10
10.00	8
15.00	6
20.00	4
25.00	2
30.00	0

- **Demand Curve:** a graph of the relationship between the price of a good and the quantity demanded.

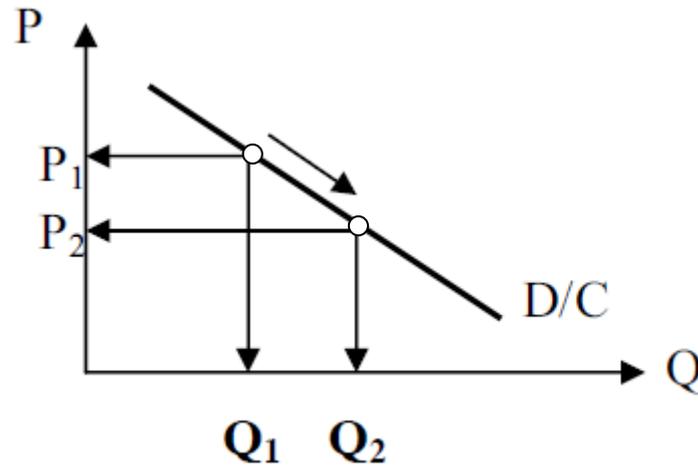


The reason a person's demand curve for a normal good slopes downward:  
 As the price of a good falls the consumer buys more of this cheaper good, because the marginal utility per euro spent on this good increases and the consumers always aim to maximise his/her total utility.

- **Movement along a demand curve versus a shift in demand**

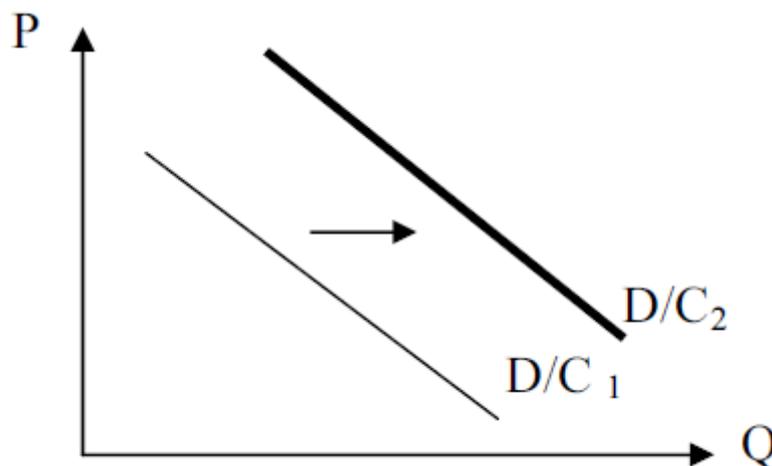
- Movement along a demand curve (extensions and contractions)::

- Caused by a change in the selling price of the good itself, *ceteris paribus*/all other things being equal.



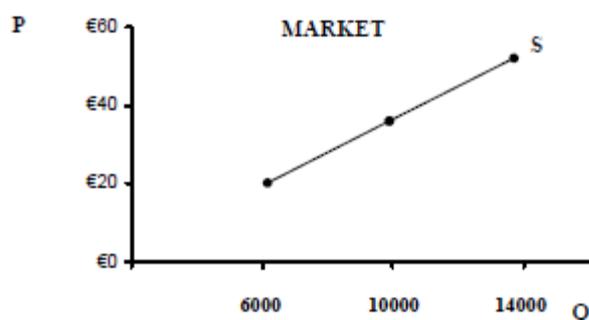
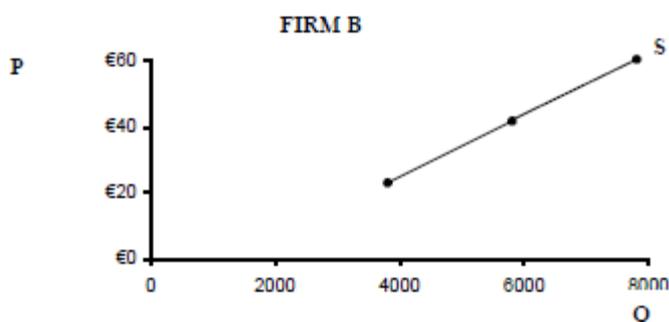
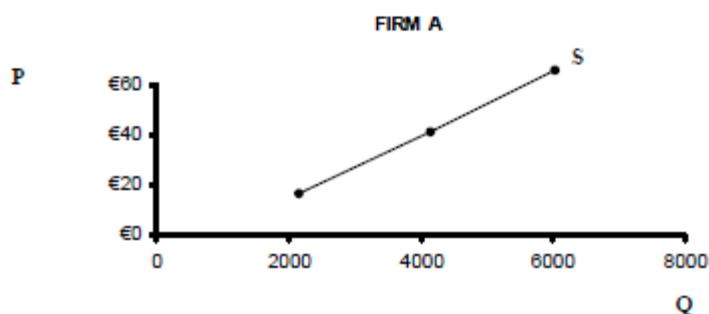
- Shift in a demand curve (increases and decreases):

- If any of the factors other than the price of the good itself change this will result in a shift in the demand curve.



## Individual Supply versus Market Supply

- **Individual supply:**
  - the quantity of a good an individual firm is willing to supply at different prices.
- **Market/aggregate supply**
  - the total quantity of a good that all firms are willing to supply at different prices.



- To derive the market supply we add the quantity supplied by each individual firm at each price to calculate the overall quantity supplied to the market at each price.

## Law of Supply

- The law of supply states that there is a positive relationship between the price of a good and the quantity supplied of that good i.e. if the price rises / quantity supplied rises and if price falls quantity supplied falls, ceteris paribus (all other things being equal).

## **Factors that Influence Supply**

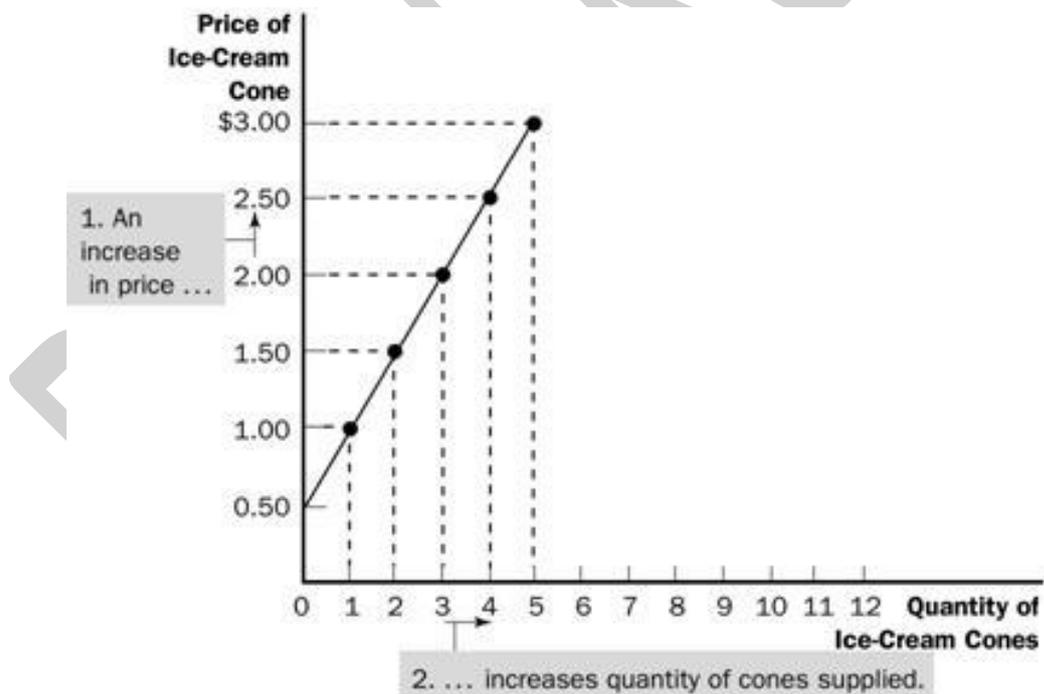
- **Price of the good**
  - Generally, as the price of a good rises producers will supply more of that good as it is more profitable to do so.
  - Changes in price alone cause extensions and contractions in supply. All other factors listed bellows causes increases and decreases in supply
  -
- **The cost of producing the product.**
  - If there is an increase in costs of factors of production, which a firm uses in the production of their good, then it will be more costly to manufacture the good. They will not continue to supply the same quantity of the good at the old prices – there will be a reduction in the **quantity supplied**.
- **The state of the firm's production technology.**
  - As new machinery is invented the factors of production become more efficient. It becomes possible to increase the output of the labour force even though the payments they receive remain the same. Technical progress will reduce production costs / increase the productivity of the firm (more output per worker). The supply curve shifts out to the right (at each level of price there will be an increase in the supply).
- **The price of related goods.**
  - If there is an increase in the selling price of other goods, which the manufacturer could produce through using his existing factors of production, he may switch from producing the present commodity to that for which the price has increased.
- **Unplanned factors.**
  - There may be changes in the quantity supplied, which were never intended by the producer. Examples include agriculture – due to changes in the weather; diseases etc. In industry there may be shortages of raw materials, strikes etc.
- **Taxation / Subsidy.**
  - If the government were to reduce the rates of taxation on the raw materials used in the manufacture of a commodity, this represents a reduction in the cost of production and hence quantity supplied would increase. If a subsidy is granted on the raw materials or on the labour employed by the firm, this has the effect of reducing costs and thereby resulting in an increase in the quantity supplied.
- **Number of sellers in the industry.**
  - If the number of firms in the industry decreased e.g. due to rationalisation then the overall quantity supplied to the market would decrease.
- **Objectives of the firm.**
  - If the objectives of the firm changed from that of profit maximisation to a deliberate reduction in output by firms in the industry then quantity supplied would fall.

**Supply Curve**

- **Supply Schedule:** a table that shows the relationship between the price of a good and the quantity supplied.

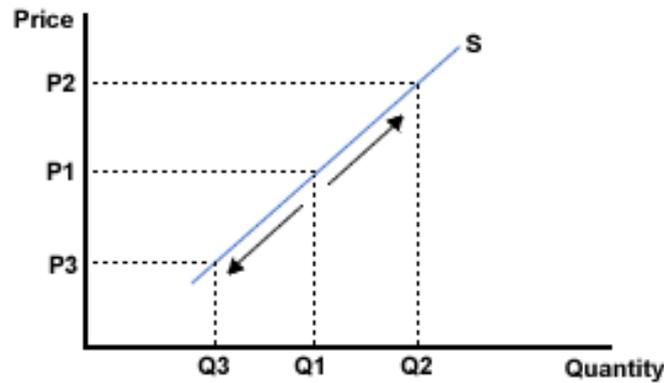
Price of Ice Cream Cone	Quantity of Cones Supplied
\$0.00	0
\$0.50	0
\$1.00	1
\$1.50	2
\$2.00	3
\$2.50	4
\$3.00	5

- **Supply Curve:** a graph of the relationship between the price of a good and the quantity supplied.

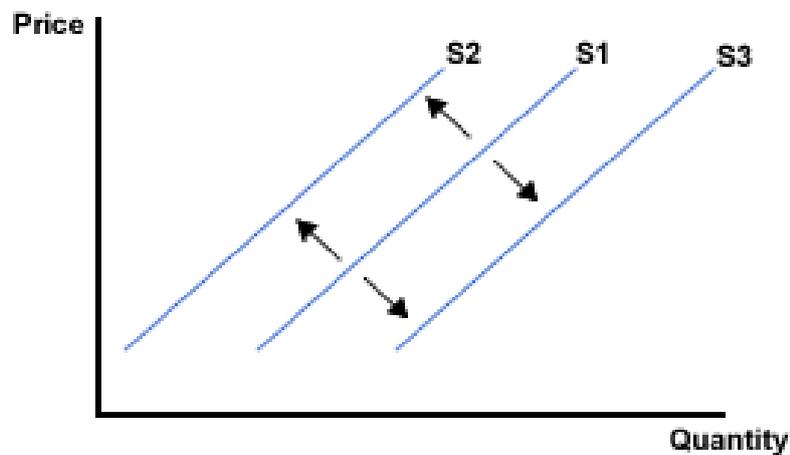


- **Movement along a supply curve versus a shift in supply**

- Movement along a demand curve (extensions and contractions):
  - Caused by a change in the selling price of the good itself, ceteris paribus/all other things being equal.

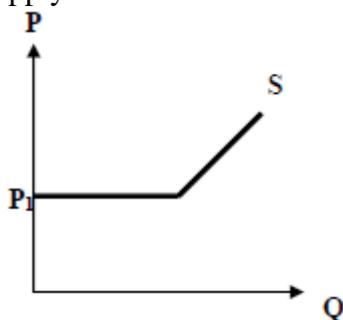


- Shift in a supply curve (increases and decreases):
  - If any of the factors other than the price of the good itself change this will result in a shift in the supply curve.



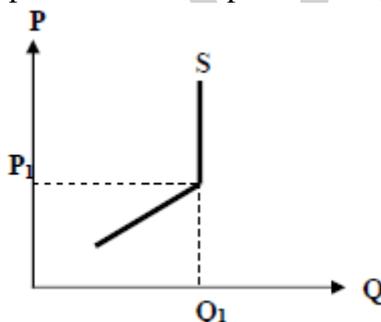
## Alternate Supply Curves

- A firm is willing to increase supply as price rises, but there is a minimum price below which the firm will not supply at all.



- Below P1 nothing is supplied
- At prices above P1 as price increases, quantity supplied increases.
- An example of this would be the supply of labour

- A firm can supply only up to a maximum production capacity.



- As price increases up to P1 output increases up to a maximum level Q1.
- As price increases above P1 quantity supplied will not increase.
- Examples include an ESB power plant or a mining plant. Output is limited by the plant's capacity

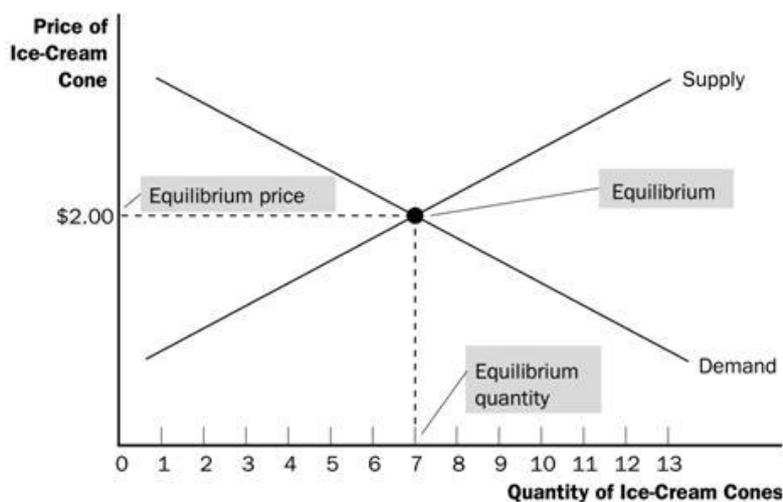
- The product is fixed in supply (e.g. perishable good) and a firm is operating in the short run.



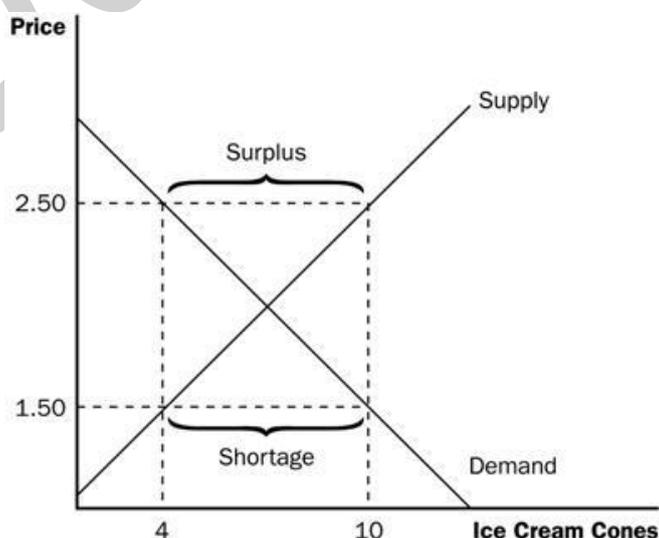
- Any change in price will not bring about any change in supply.
- Entire daily supply must be sold, regardless of the prevailing price because the commodity cannot be held over for sale the following day.
- Examples include the supply of fresh fish, the supply of land, the seating capacity of a stadium

## Equilibrium

- **Definition of equilibrium:** where quantity demanded equals/meets quantity supplied and there is no tendency for prices to change.
  - **Equilibrium price:** the price that balances quantity supplied and quantity demanded. The equilibrium price is often called the "market-clearing" price because both buyers and sellers are satisfied at this price
  - **Equilibrium quantity:** the quantity supplied and the quantity demanded at the equilibrium price.



- If the actual market price is higher than the equilibrium price, there will be a surplus of the good. A surplus is a situation in which quantity supplied is greater than quantity demanded. To eliminate the surplus, producers will lower the price until the market reaches equilibrium.
- If the actual price is lower than the equilibrium price, there will be a shortage of the good. A shortage is a situation in which quantity demanded is greater than quantity supplied. Sellers will respond to the shortage by raising the price of the good until the market reaches equilibrium.



- **Diagrams to show Changes in Market Demand and Equilibrium Price**

- The outward shift (increase) in the demand curve from D1 to D3 (on the right above) causes an expansion along the supply curve and
- This increase in demand could be due to increased incomes, successful advertising campaign, changing tastes in favour of the product.
- Equilibrium moves from E1 to E2
- Equilibrium price rises from P1 to P3
- Equilibrium quantity increases from Q1 to Q3.
- Firms in the market will sell more at a higher price and therefore receive more total revenue.
- The reverse effects will occur when there is an inward shift of demand (on the left above)
- Demand and supply factors are usually assumed to be independent of each other although some economists claim this assumption is no longer valid!
- Equilibrium price represents a trade-off for buyer and seller – higher prices are good for the producer (higher revenues and profits) but they make the product more expensive for the buyer

- **Diagrams to show Changes in Market Supply and Equilibrium Price**

- A shift in the supply curve does not cause a shift in the demand curve. Instead we move along (up or down) the demand curve to the new equilibrium position.
- The equilibrium price and quantity in a market will change when there are shifts in both market supply and demand. Two examples of this are shown in the next diagram:
- In the left-hand diagram above, we see **a decrease of supply** together with **a decrease in demand**. Both factors lead to a fall in quantity traded, but the rise in costs forces up the market price.
- The second example on the right shows **an increase in demand** from D1 to D3 but a much bigger **increase in supply** from S1 to S2. The net result is a fall in equilibrium price (from P1 to P3) and an increase in the equilibrium quantity traded in the market from Q1 to Q3.

- **NB – Drawing Diagrams**

- When drawing diagrams do the following:
  - Draw them big
  - Label the axis Price (Y) and Quantity (X)
  - Label Demand and Supply Curves D1 and S1
  - Label the equilibrium point E
  - Label the equilibrium price on the Y axis
  - Label the equilibrium quantity on the X Axis
  - When drawing new demand and supply curves label them D2 or S2.
  - Use arrows to show which way the new curve is moving in relation to the original

- **NB – Explaining Diagrams**

- When explaining diagrams or changes to diagrams you must:
  - State how the curves have moved. E.g. demand has increased and shifted to the right
  - Explain why the curves have moved. E.g. This is as a result of.....
  - State what has happened to the equilibrium point. E.g. Equilibrium point has moved from E1 to E2.
  - State what has happened to the price. E.g. The equilibrium price has dropped from P1 to P2.
  - State what has happened to the quantity. E.g. The equilibrium quantity has increased from Q1 to Q2
- **Diagrams are a simplification of reality!**
  - We tend to use supply and demand diagrams to illustrate movements in market prices and quantities – this is known as **comparative static analysis**
  - The reality in most markets and industries is more complex. For a start, many businesses have imperfect knowledge about their demand curves – they do not know precisely how consumer demand reacts to changes in price or the true level of demand at each and every price
  - Likewise, constructing accurate supply curves requires detailed information on production costs and these may not be readily available

### **Price Mechanism in a market economy**

Adam Smith, one of the founding fathers of economics, once described the price mechanism as the “invisible hand of the price mechanism”. The hidden hand of the market operating in a competitive market, through the pursuit of self-interest, allocates resources in society’s best interest, according to Smith. This remains the central view of free-market economists who believe in the virtues of an economy with minimal government intervention.

One of the features of a market economy system is that decision-making is **decentralised** i.e. there is no single body responsible for deciding what is to be produced and in what quantities. The price mechanism is a term used to describe the means by which millions of decisions taken by consumers and businesses interact to determine the allocation of scarce resources between competing uses.

- **Signalling function**
  - Prices perform a signalling function - they adjust to demonstrate where resources are required, and where they are not. Changes in price provide information to the producers and consumers about the changing conditions of a market. **Price** changes send contrasting messages to consumers and producers about whether to enter or leave a market.
  - Prices rise and fall to reflect scarcities and surpluses
  - Rising prices give a signal to consumers to reduce demand or withdraw from a market completely, and they give a signal to potential producers to enter a market.
  - Conversely, falling prices give a positive message to consumers to enter a market while sending a negative signal to producers to leave a market.

- **Incentive function**
  - An incentive is something that motivates a producer or consumer to follow a course of action or to change behaviour.
  - Higher prices provide an incentive to existing producers to supply more because they provide the possibility of more revenue and increased profits.
  - Higher prices act as an incentive to raise output because the supplier stands to make a better profit.
  - When demand is weaker in a recession then supply contracts as producers cut back on output.
  - The incentive function of a price rise is associated with an extension of supply along the existing supply curve (and of a contraction in supply when prices fall).
  
- **Rationing function (allocates scarce resources)**
  - Due to scarcity, not everyone is able to buy everything they want.
  - Prices serve to ration scarce resources when demand in a market outstrips supply.
  - When there is a shortage, the price is driven up – leaving only those with the willingness and ability to purchase the product. Be it the demand for tickets among Ireland supporters for a rugby match versus New Zealand, or the demand for a rare antique, the market price acts as a rationing device to equate demand with supply
  - The effect of such a price rise is to discourage demand, conserve resources, and spread out their use over time. The greater the scarcity, the higher the price and the more the resource is rationed.

Watch [this](#)