

TOPIC 5

Dynamics of markets

To explain the market as a phenomenon (demand and supply) and the use of graphs to illustrate the establishment of prices and quantities.

3 weeks to cover content			
Week		Week	

Learners should cover the following:

<ul style="list-style-type: none"> • Description • Value, price and utility • Composition 	<ul style="list-style-type: none"> • Types of markets: <ul style="list-style-type: none"> - perfect markets - imperfect markets - world markets (the effects of electronics) 	<ul style="list-style-type: none"> • Prices: <ul style="list-style-type: none"> - demand - supply - price formation 	<ul style="list-style-type: none"> • Functions of markets: <ul style="list-style-type: none"> - bringing supply and demand together - allocating resources - self-regulatory
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Learners must first give a description of the following words in their notebook:

Vocabulary List

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Describe the term 'Market'

- A market is any place or any circumstances where buyers and sellers make contact or communicate with each other about the buying and selling of goods and services.

OR

- A market is an institution or mechanism that brings the buyers and sellers of a good or a service together.

OR

- A market is a place where buyer and sellers sell and buy goods and services.

The activities that take place in markets

1. Buyers and sellers exchange information.
2. Price and quantities are determined.
3. The amounts of goods and services that will be bought or sold are determined.

Value, Price and Utility

Value

- Value is the maximum amount of money a person is willing and able to pay for goods or services.
- Value is expressed in Rand and cents.
- Value of goods or services equals price multiplied by quantity ($\text{Value} = P \times Q$).

Price

- Price is the amount that is actually paid for a goods and/or services.
- The price is determined by both the demand for and supply of the goods and services.

Utility

- Utility is the degree of satisfaction that a household or consumer derives or expects to derive from the consumption of a good or service.

Utility

Description of the term: Utility

- Utility is the degree of satisfaction that a household or consumer derives or expects to derive from the consumption of a good or service.

Characteristics of utility

Utility differs from person to person

- Tastes and preferences differ from person to person and this means that people get different satisfaction from the same good.
- Person A likes burgers and derives more satisfaction from them. Person B who does not like burgers but like chicken derives less satisfaction from burgers but more satisfaction form chicken.

Utility is subjective

- Utility cannot be measured numerically.

Utility differs from time to time

- A light gives more utility in the night than in the day because the utility for a light decrease during the day.

Utility differs from place to place

- A consumer may derive a higher or lower utility for the same good at different places.
- The consumer may find more utility from a woolen jersey in cold areas but less utility for it near the equator.

Utility does not necessarily mean usefulness.

- E.g. cigarettes have utility to the smoker because it satisfies a want but it lacks usefulness because it is harmful to the health.

Measuring utility

Total Utility

Total utility is the utility derived from all the units that were consumed in succession.

Number of slices of bread	Total utility	Marginal utility
1	16	16
2	28	12
3	36	8
4	40	4
5	40	0
6	36	-4

John is consuming bread and he eats 7 slices of bread consecutively.

When he eats his 1 slice he derives 16 units of utility, 2 slices he derives 28 units of utility, 3 slices = 36 units of utility, 4 slices = 40, 5 slices = 40 and 6 slices = 36 units of utility.

Marginal utility

Marginal utility is the utility derived from the last additional (extra) unit of a given good that was consumed by the consumer.

Number of slices of bread	Total utility	Marginal utility	
1	16	16	} Positive Utility
2	28	12	
3	36	8	
4	40	4	
5	40	0	} Zero Utility
6	36	-4	} Negative Utility

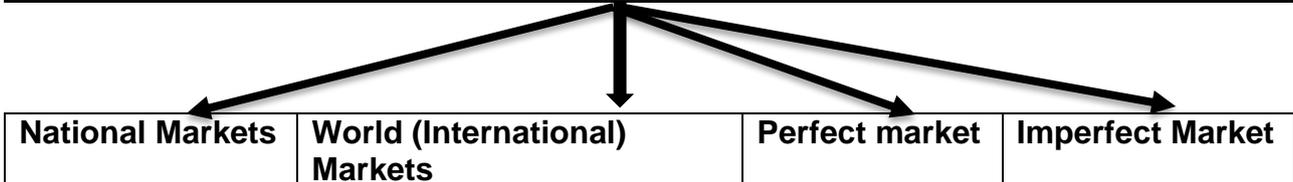
- From the above it is clear that up to the fourth slice of bread marginal utility is positive and total utility increases.
- When the fifth slice of bread is consumed the marginal utility is zero and the increase in total utility stops. This is the point of complete satisfaction.
- All the extra slices of bread consumed from six slices onwards will cause disutility and this means that there is a negative marginal utility. Total utility starts to diminish (decrease).
- John will derive no further satisfaction from eating six slices of bread or more consecutively because consuming too much bread at the same time will cause negative utility.

COMPOSITION OF MARKETS

Markets consists of:

Participants	<ul style="list-style-type: none"> • These are buyers and sellers/ suppliers of goods and services.
Communication:	<ul style="list-style-type: none"> • The interaction can be direct (face to face), through representation e.g. using an agent or indirect e.g. telephone, email, etc.
Commodity:	<ul style="list-style-type: none"> • These are the goods or services traded on the market.
Location:	<ul style="list-style-type: none"> • Location can be local, regional, national, international and cyber markets.

TYPES OF MARKETS



National markets

- Buyers are spread over a large geographical area or country e.g. JSE.
- In national markets, suppliers are found throughout the country and offer the same service to customers.

World markets (International markets)

- Buyers are spread throughout the world e.g. Airbnb which is a community marketplace for people to list and book accommodation all around the world
- In international markets, suppliers are found throughout the world and offer the same service to customers

PERFECT MARKETS

Definition of a perfect market

A perfect market is a market structure which has a large number of buyers and sellers who are not able to influence the price.

OR

A perfect market is a market where prices are determined by demand and supply.

OR

Perfect competition occurs when none of the individual market participants can influence the price of the product.

Examples of perfect markets

- Stock exchanges
- Foreign currency markets
- Central grain market
- Markets for agricultural product
- Wool markets

CHARACTERISTICS OF A PERFECT MARKETS

Number of buyers and sellers

- There are a large number of buyers and sellers.
- The market is big and no individual participant can affect the price through their own supply or demand of goods.
- Buyers and sellers are price takers.

Nature of product

- The goods or services supplied are homogeneous products, such as cups, plates, toothpaste, shoes and soaps, are usually are mass-produced products.
- The products on offer are all more or less the same (identical) in terms of quality, look, size, etc.
- The goods all serve the same purpose and are often easy to produce. This results in a large number of suppliers that compete for sales, which keeps prices low.
- It does not matter to the buyer where and from whom he/she buys the products.

Barriers to entry

- Sellers have unrestricted and easy entry and exit into the market.
- There is no legal, financial, technical, etc. restrictions which could hamper entry.
- Sellers can enter the market at will and they are able to sell their products just as easily as any other seller will, and they can also leave the market whenever they want to.

Information availability

- These markets have perfect or complete information.
- Buyers know exactly what each seller offers and what the price is.
- There is also full and complete information available to producers and consumers about market conditions.

No collusion

- No collusion exists between sellers.
- In a perfectly competitive market, every buyer and seller reacts independent of one another.
- Collusion activities are illegal in South Africa, according to the Competition Act of 1998.

Unregulated markets

- No government interference which could influence buyers and sellers.
- Decisions are left to individual sellers/producers and buyers.

Ability of suppliers to change prices

- The seller has no control over the prices, they are price takers.
- Sellers have to accept the prevailing market price. If they increase prices above prevailing market prices, they will not sell anything.
- In reality there are few perfect markets, however there are some sectors that “operated” as “perfectly competitive” markets, such as mining (for example, oil and gold), agriculture for example, (beef or maize) and the Johannesburg Stock Exchange (JSE).

IMPERFECT MARKETS

Definition of Imperfect markets

An imperfect market is a market where no perfect conditions exist, one or a few sellers sell heterogeneous products and can therefore affect the price of a product.

CHARACTERISTICS OF IMPERFECT MARKETS

Number of buyers and sellers

- There is only one large supplier of a good or service (monopoly) or a few large suppliers (oligopoly).
- These producers have a direct influence on the price of the product, and are not held back by any competitors and are able to affect the price. Also there may be

many suppliers but one producer is able to significantly change the demand at the other producers (monopolistic competition).

Nature of product

- The goods or services supplied are heterogeneous or unique products.
- The products in the market are quite different from each other and consumers look for specific qualities of each product.
- The seller supplies products that are unique and have no close substitutes.
- These products may differ on price, feature or bonus offers. Sometimes products differ due to location or advertising.

Ability of suppliers to change prices

- The seller has control over the prices; they are price makers.
- The producers of the goods and services can set the prices and buyers are not able to bargain or affect the prices in a significant way.

Information availability

- These markets have imperfect information.
- Producers and consumers have incomplete knowledge about market conditions.
- It is not easy, and sometimes not possible, for buyers to know what all the prices of a product are within the market.

Barriers of entry

- Entry into the market is restricted or completely blocked so that new suppliers cannot enter the market.
- The seller is protected from competition through patents, licenses, control of resources and government restrictions.
- There are many examples of imperfect markets, these include Eskom, Telkom, DSTV, cellphone companies, petrol stations, restaurants, computer and car manufacturers.

Examples of imperfect markets

Monopolies	Oligopolies	Monopolistic competition
<ul style="list-style-type: none"> • Eskom • Transnet 	<ul style="list-style-type: none"> • MTN • Vodacom • Cell C • SAL • Toyota / Ford / BMW 	<ul style="list-style-type: none"> • Steers • KFC • Edgars • Foschini

World markets and effects of electronics

Description of the term: World markets

The activity of buying or selling of goods and services in all the countries of the world.

OR

It is the value of the goods and services sold world-wide.

Examples of commodities that are sold on the world market

- Coffee
 - Oil
 - Gold
 - Foreign currency
- All the consumers around the world pay the same price for these goods.

The role of technology in world markets

- Technology in communication and transport links the world.
- Communication sources are the computer (internet and Wi-Fi), telephone, faxes, cellular phones (smart phones), etc.
- Communication enables us to distribute knowledge both locally and internationally.
- Communication makes trade around the world easier.
- Sellers and buyers are linked and can get in touch quickly with each other.
- Information about prices changes in one part of the world and can easily be seen in other parts of the world.

PRICE

Description of Price

Price is the value at which goods and services will be purchased/sold.
Price is determined by the interaction of demand and supply.

DEMAND

Definition of Demand

- Demand refers to the quantity of goods and services that prospective buyers are willing to purchase at the given price within a given period of time.

Types of demand

Individual demand

- Individual demand is the demand of one person or one firm.

Market demand

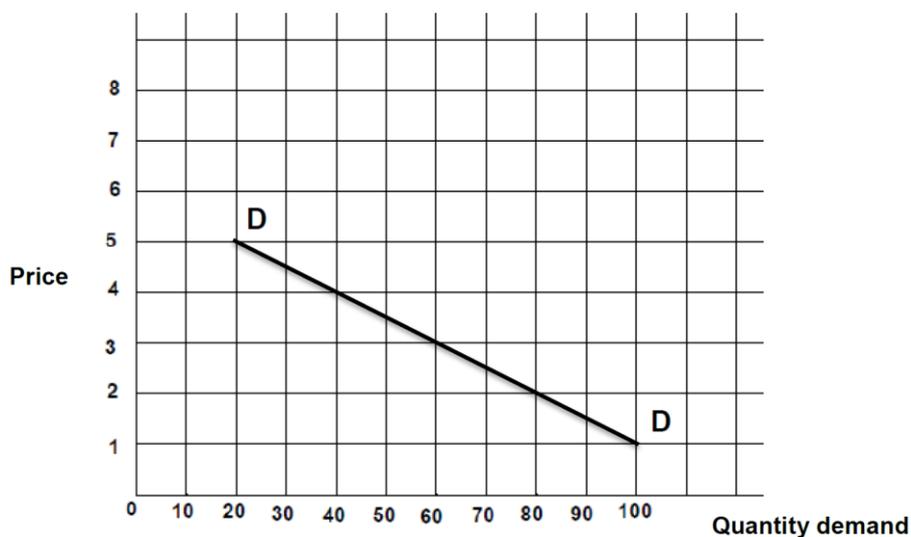
- Market demand is the total quantity demanded by all consumers.

Demand schedule for Coca Cola at a school tuck-shop

PRICE OF ONE CAN OF COCA- COLA	QUANTITY DEMANDED (CANS OF COCA COLA)
R1.00	100
R2.00	80
R3.00	60
R4.00	40
R5.00	20

A graphical presentation of the demand for Coca Cola

Demand Curve



The law of demand

- As the price of a product increases the quantity demanded for the product decreases and as the price of the product decreases the demand for the product increases, *ceteris paribus*.
- This inverse relationship is known as the law of demand

The Principle of Ceteris Paribus

- The demand curve is a simplified way of indicating the relationship between quantity demanded and price.
- This is based on the assumption that all other determinants are constant (***ceteris paribus***).

Demand Curve

- A demand curve indicates the quantity of a product that is demanded at different prices.
- It slopes down from top left to bottom right. This indicates that the demand curve has a negative slope (gradient).
- It is the result of the inverse relationship between the price of a product and the quantity demanded of the product.

Factors that influence demand and quantity demanded

The price of the product

- Consumers are willing and able to buy more at lower prices, *ceteris paribus*.

The price of complements

- If the price of one complementary product increases, consumers will demand less of this product and use less of the other complementary product.

The price of substitutes

- If the price of a product increases, consumers will demand less of this product and instead demand more of its substitute.

The income of the consumer

- The higher the income of a consumer, the more money is available to spend on goods and the more the consumer will spend, *ceteris paribus*.

The tastes and preferences of consumers

- If a consumer prefers A to B, he will tend to buy more A than B, *ceteris paribus*.

The size of the household

- The larger the household, the greater the demand will be, *ceteris paribus*.

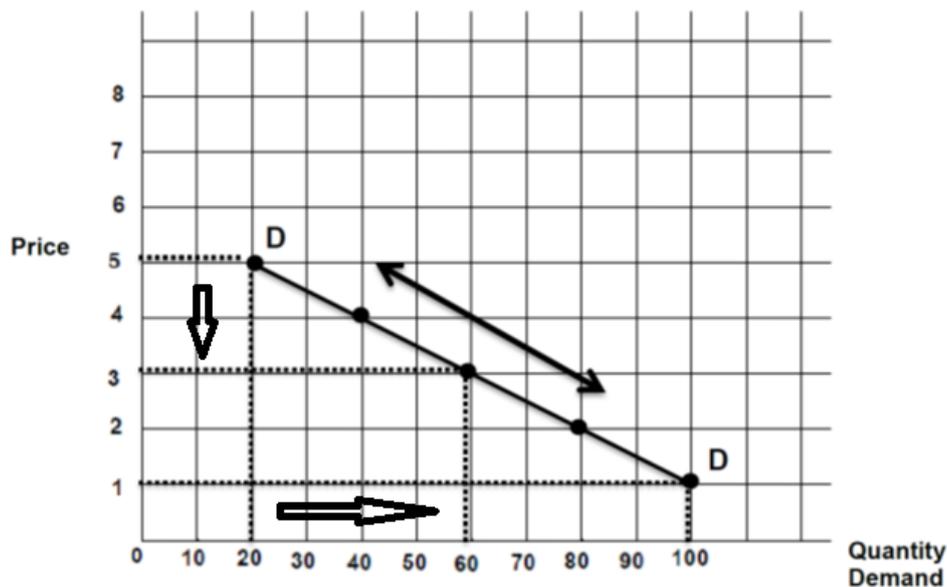
Expected changes in prices

- If consumers expect a price to change in the future, this influences their demand for the product concerned.

The weather conditions

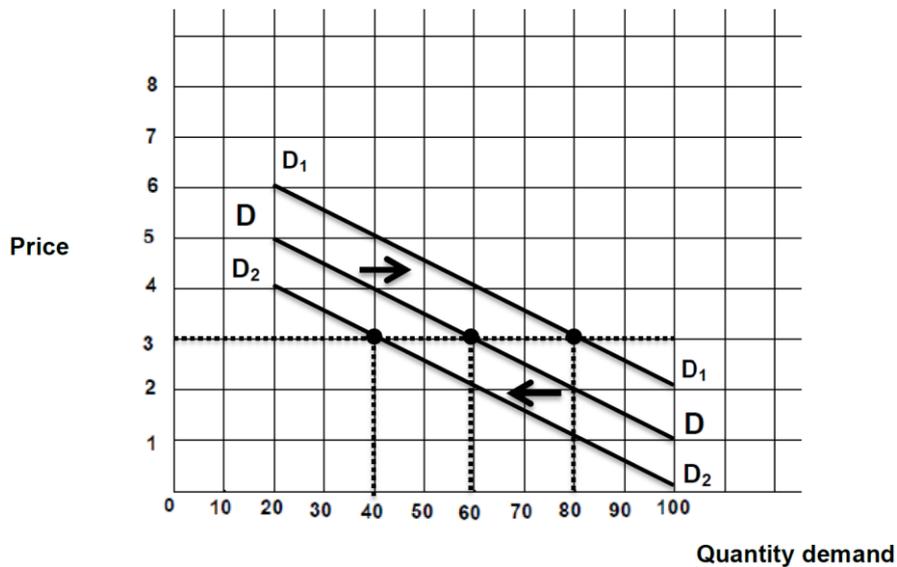
- Demand for a product differs during the year depending on the season.

Movement ALONG the demand curve



- Show the price-quantity demand relationship.
- If the price is R5, the demand for the product is 20 units, if the price drop to R3 the quantity demand will increase to 60 units and if the price decrease further to R1 the quantity demand will increase to 100 units.
- This represents a movement along the demand curve.

Shift of the demand curve



- A change in any factor other than price will cause the demand curve to shift to the right or the left.
- **Shift to the right – quantity demanded increase**
- For example: The market demand for umbrellas increases due to the winter rainy weather. This will cause an increase in the quantity demanded for umbrellas. The demand curve will shift to the right.
- **Shift to the left - quantity demanded decrease**
- For example: The market demand for umbrellas decreases in the summer. This will cause a decrease in the quantity demanded for umbrellas. The demand curve will shift to the left.

Reasons why the quantity demand increase/shift to the right

- An increase in the income of consumers
- An increase in the size of the population
- Quantity demanded increase because of advertising, fashion, climate change, consumer tastes.

Reasons why the quantity demand decrease – shift to the left

- A decrease in income
- Population size decreases
- Advertising, fashions, climate change, consumer tastes.

SUPPLY

Define the term "Supply"

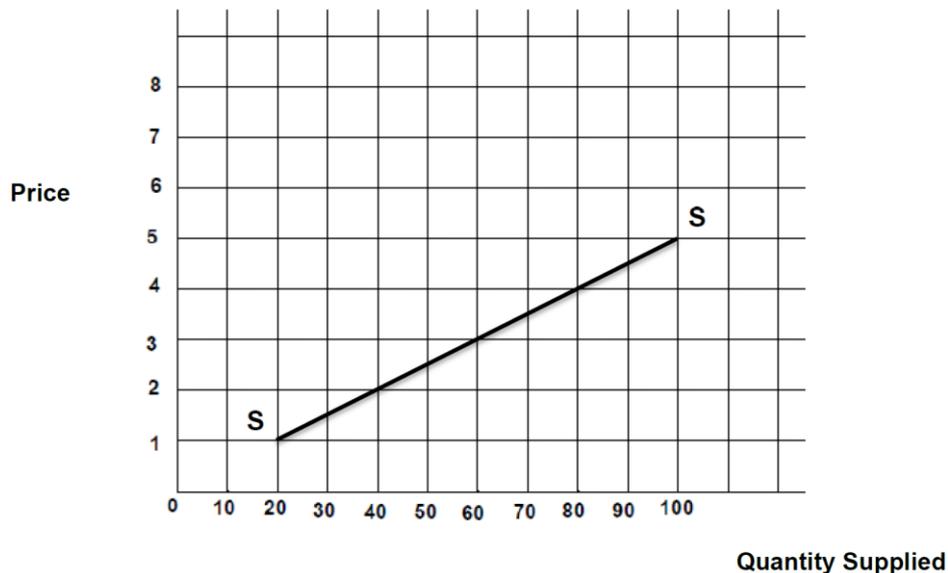
Supply is the quantity of a good or service that producers plan to sell or are willing to sell at each possible price during a specific period of time.

Supply Schedule

PRICE OF ONE CAN OF COCA COLA	QUANTITY SUPPLIED (CANS OF COCA COLA)
R1.00	20
R2.00	40
R3.00	60
R4.00	80
R5.00	100

A graphical presentation of the supply of Coca Cola at school's tuckshop

SUPPLY CURVE



The law of supply

- As the price of the product increases the quantity supply of the product will increase and as the price of the product decreases the quantity supply will decrease, *ceteris paribus*.
- There is a direct relationship between the quantity supplied and price.

The principle of *ceteris paribus*

- The supply curve is a simplified way of indicating the relationship between quantity supplied and price.
- This is based on the assumption that all other determinants are constant (***ceteris paribus***).

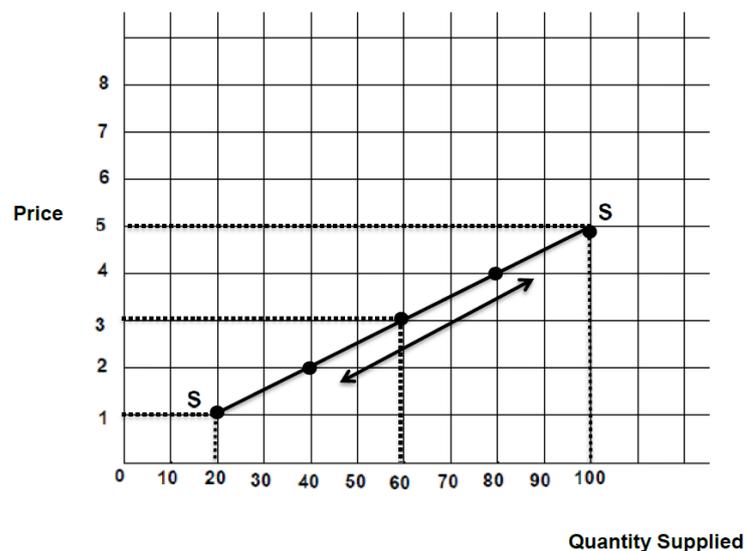
Supply Curve

- A supply curve indicates the quantity of a product that is supplied at different prices.
- It slopes up from top left to bottom right. This indicates the curve has a positive slope.
- It shows the result of the direct relationship between the price of a product and the quantity supplied of the product.

Factors that influence Quantity Supplied

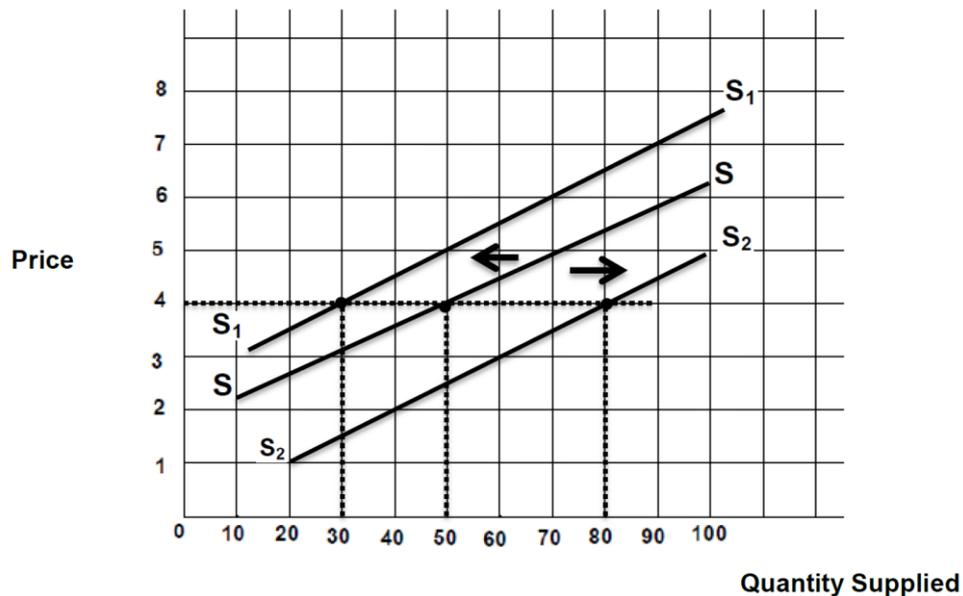
- The price of the goods or services
- The price of alternative goods and services
- The price of factors of production
- The state of the technology

Movement ALONG the Supply curve



- A change in the price of a product leads to a movement along the supply curve.
- Show the price - quantity supplied relationship.
- If the price is R1, the quantity supplied of the product is 20 units. If the price increases to R3 the quantity supplied increase to 60 units and if the price increase to R5 the quantity supplied will increase to 100 units.
- This represents the movement along the supply curve.

Shift of the supply curve



- A change in any factor other than price will cause the supply curve to shift to the right or the left.
- **Shift to the right – quantity supplied increases**
- For example: More businesses enter the market. More goods and services on the market. There is an increase in the quantity supplied of goods and services. The supply curve shifts to the right.
- **Shift to the left – quantity supplied decreases**
- For example: Business closes down and leaves the market. Less goods and services are supplied on the market. The supply curve shifts to the left.

Reasons why the quantity supplied increases / shift to the right

- More businesses enter the market.
- The cost of factors of production decrease (e.g. wages, natural resources, etc. becomes cheaper).
- The use of new cost-saving and improved technology.
- Stable workforce with no political and workers disruptions.
- Fertile soil, favourable weather conditions, etc.

Reasons why the quantity supplied decreases / shift to the left

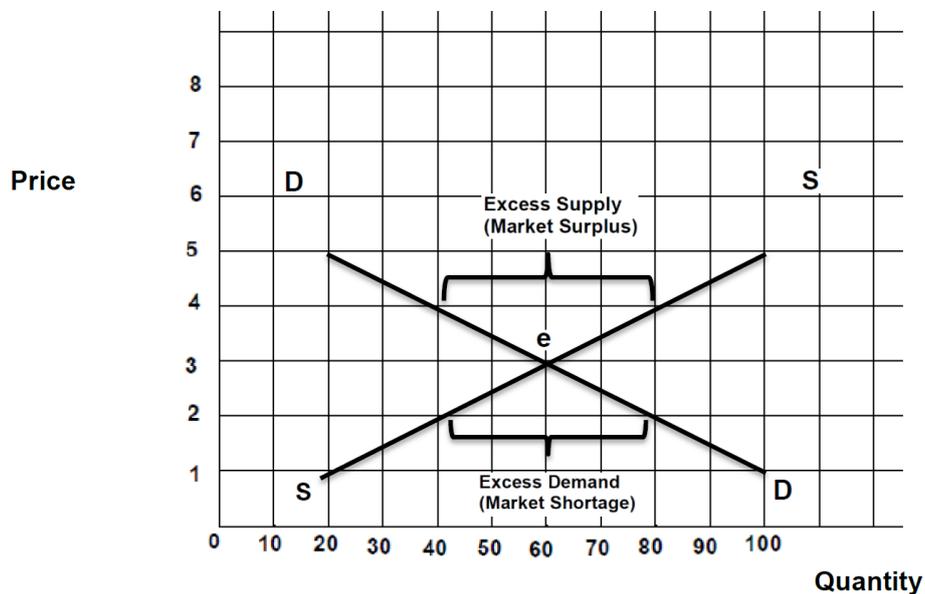
- Business exit the market.
- The cost of factors of production increase (e.g. wages, natural resources, etc become more expensive).
- The use of old inefficient and cost increasing technology.
- Unstable work force with many disruptions, work stoppages, labour unrest, shortage of raw materials, etc.
- Extreme weather conditions, e.g. droughts, storms, floods.

PRICE FORMATION

DEMAND AND SUPPLY CURVES

PRICE OF COCA COLA	QUANTITY DEMANDED (CANS OF COCA COLA)	QUANTITY SUPPLIED (CANS OF COCA COLA)
R1.00	100	20
R2.00	80	40
R3.00	60	60
R4.00	40	80
R5.00	20	100

DEMAND AND SUPPLY CURVE



- The vertical axis shows 'Price' and the horizontal axis is called 'Quantity'.
- D = quantity demanded for goods and services and S = quantity supplied of goods and services.
- e = equilibrium point, is where Quantity demanded is equal to Quantity Supplied
- The equilibrium price = R3 and the Equilibrium quantity = 60 units of the goods.
- At R2 the quantity demanded for the good is 80 units and the quantity supplied of the good is 40 units.
The quantity supplied is more than the quantity demanded.
At R2 there is an excess demand (market **shortage**) on the market.
- At R4 the quantity demanded is 40 units of the good and the quantity supplied of the goods is 80 units.
The quantity supplied is more than the quantity demanded.
At R4 there is an excess supply (market **surplus**) on the market.

THE FUNCTIONS OF MARKETS

Bringing demand and supply together:

- A market brings buyers (demand) and sellers (supply) together and forces them to settle on an appropriate price for a product that reflects the value of that product to the consumer.
- Buyers compete with buyers against sellers for the lowest prices.
- Sellers compete with sellers to get the highest price they can.
- Buyers compete against sellers for the best deal.
- All this competition helps to keep prices relatively stable in the long run.

Allocating resources:

- If there are enough buyers for a product, then resources (land, labour, capital and entrepreneurship) will be allocated to make that product.
- The market shows the producers what consumers want, and how much they will buy.
- If the demand for a product decreases, then so will the supply.
- In this way the market determines what is going to be produced.
- This is known as the allocating function.
- This allocation of resources to the various goods and service is determined through the price.
- If the price of a resource increases, producers will look for alternative resources.

Self-regulation:

- A market is able to guide and control itself in order to determine best prices and the best way to use resources (including time, money, labour and materials) through the simple supply and demand mechanism.
- It does not need guidance or rules imposed on it (although society sometimes does limit the market).
- If prices are too high, buyers will stop buying the product and because demand decreases, price falls and because of the price decrease some of the producers will leave the market and others will reduce production.
- In this way the market will reflect what people want and ultimately suppliers will supply whatever the consumer demands.