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Updated to 2017-19 Syllabus

CIE IGCSE ECONOMICS 0455

SUMMARIZED NOTES ON THE SYLLABUS

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1. The Basic Economic Problem

1.1 Economic Problem

- There are too few productive resources to make all the goods and services that consumers need and want.
- Finite resources and unlimited wants
- Scarcity of resources is the basic economic problem

1.2 Factors of Production

- Consumers are people or firms who need and want goods and services
- Resources or factors of production are used to make goods and services

LLCE

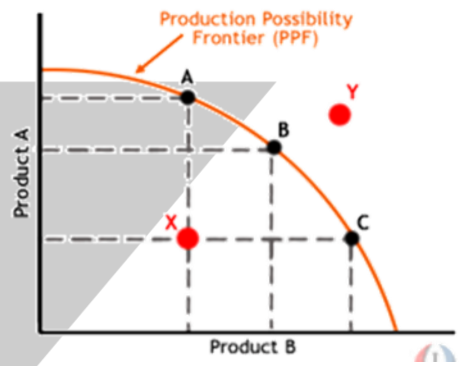
- **L**and: natural resources used in production (e.g. land)
- **L**abour: human effort used in production of goods/services (e.g. workers)
- **C**apital: the man-made resources that are used to produce goods/services (e.g. tractor)
- **E**nterprise: the skills and willingness to take the risks required to organize productive activities
- Entrepreneurs organize and combine resources in firms to produce goods and services
- Durable consumer goods last long while (e.g. furniture) non-durable consumer goods (e.g. food) do not
- Capital goods and semi-finished goods or components are used up in production

1.3 Opportunity Cost

- Opportunity cost is the cost of choosing between alternative uses of resources
- Choosing one use will always mean giving up the opportunity to use resources in another way, & the loss of goods & services they might have produced instead
- Problem of resource allocation is choosing how best to use limited resources to satisfy as many needs and wants as possible and maximize economic welfare
- Economics aims to find most efficient resource allocation
- **Example 1:** A person invests $10,000 in a stock
  - Could have earned interest by leaving $10,000 dollars in bank account instead
  - Opportunity cost of decision to invest in stock is the value of the potential interest
- **Example 2:** A city decides to build a hospital on vacant land it owns
  - Could have built school or sports centre
  - Opportunity cost is the value of the benefits forgone of the next best thing which could have been done

1.4 Production Possibility Curves & Choice

- Opportunity cost can be shown using a production possibility frontier (PPF)
- It shows the maximum combinations of goods and services that can be produced by an economy in each period of time with its limited resources
- A PPF shows all the combinations of possibilities, involving two goods or options
- Each combination is a **choice**
- Society can use all its scarce resources to produce this combination



2. Allocation of Resources

2.1 Market & Mixed Economic Systems

- Producers use market price to determine what is profitable
- Rising consumer demand for a product will tend to increase its price
- Producing more could earn producers more profit

Market Economic System

- Has a private sector only
- They produce a wide variety of goods and services if it is profitable to do so but only for those consumers that are willing and able to pay for them
- Market failures can cause scarce resources to be allocated to uses that are wasteful, inefficient or even harmful to people and the environment

Mixed Economic System

- Has a private sector & a public sector
- A government can try to correct market failures in a mixed economic system
- It can allocate scarce resources to provide goods and services that people need
- Can introduce laws and regulations to control harmful activities

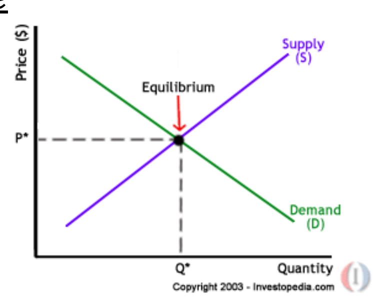
	MARKET ECONOMY	MIXED ECONOMY
Who decides what & how to produce?	Producer Consumer	Producer Consumer Government
Who controls most scarce resources?	Private sector	Private sector Public sector
How are resources allocated	Market demand	Market demand Government
Who are goods/services produced for?	Consumers with best ability to pay	Consumers with best ability to pay Government
Main advantages	• Wide variety of goods/services • Competition encourages development of new and more efficient products & processes	Same as market plus: • Government can intervene to correct serious market failures
Main disadvantages	• Serious market failure • Worthwhile but unprofitable goods not provided • Harmful goods may be available to buy readily	Same as market plus: • Taxes can be high • Public sector provision may be inefficient

2.2 Economic Sectors

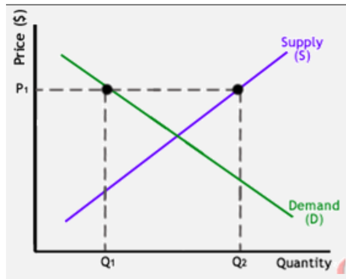
- **Primary:** produces natural resources e.g. mining
- **Secondary:** manufacturing industries and construction
- **Tertiary:** produce and supply services

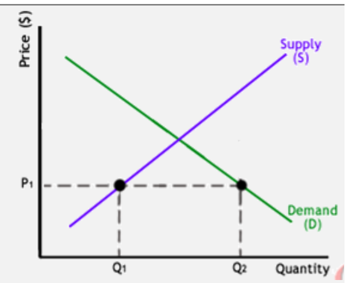
2.3 Equilibrium Price

- When supply & demand are equal the economy is said to be at equilibrium
- At this point, the allocation of goods is at its most efficient because amount of goods being supplied is the same as amount of goods being demanded & everyone is satisfied



EXCESS SUPPLY	EXCESS DEMAND
If the price is set too high, excess supply will be created within the economy and there will be allocative inefficiency	Excess demand when price is set below the equilibrium price. Since price is so low, too many consumers want the good while producers are not making enough of it

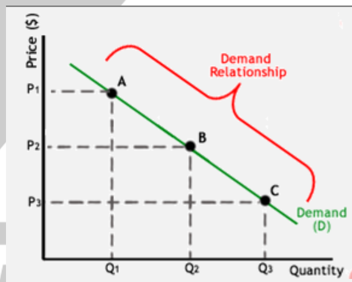




2.4 Demand & Supply

- Demand refers to how much of a product or service is desired by buyers
- Supply represents how much the market can offer

DEMAND CURVE



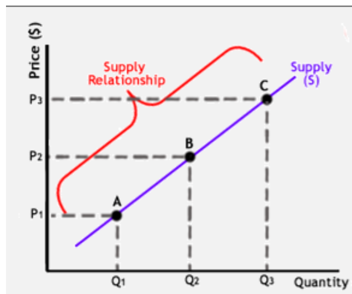
Higher price of good = less people demand that good

$$Price \propto \frac{1}{Demand}$$

FACTORS THAT AFFECT DEMAND

- Price
- Consumer tastes/preferences
- Consumer Income
- Prices of substitute/ complementary goods
- Interest rates (price of borrowing money)
- Consumer population (population increase = demand increase)

SUPPLY CURVE



Higher price of good = higher quantity supplied

$$Price \propto Supply$$

FACTORS THAT AFFECT SUPPLY

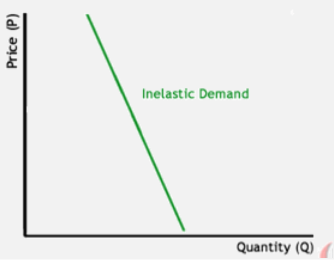
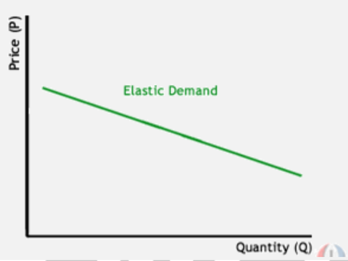
- Cost of factors of production
- Prices of other goods/services
- Global Factors
- Technology Advance
- Business Optimism/ Expectations

2.5 Effects of Change in Demand & Supply

- Forces of demand and supply establish the market price of a product
- Changes in demand and supply will cause changes in price
- Increase in demand will raise market price
  - This will signal producers to use more resources to supply more
- Increase in supply of product lowers market price
  - Enables more people to share increased supply due to lower costs

2.6 Price Elasticity of Demand

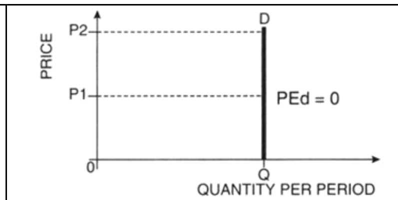
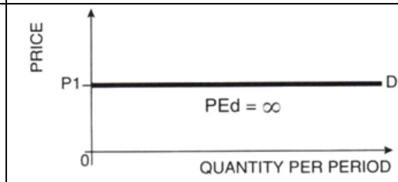
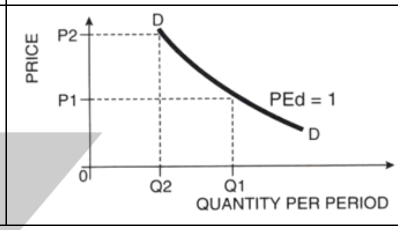
- **Definition:** The responsiveness of demand to a change in price

INELASTIC DEMAND	ELASTIC DEMAND
• **It has a PEd lower than 1** • The necessity of the product is high – it is either essential or habitual • A change in price has little effect on the change in demand	• **It has a PEd greater than 1** • The necessity of the product is relatively low • Demand would respond quickly and more drastically
	

$$PEd = \frac{\%\ change\ in\ quantity\ demanded}{\%\ change\ in\ price}$$

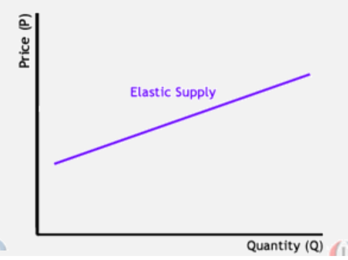
- When demand is price inelastic:
  - An increase in price would raise revenue
- When demand is price elastic:
  - A decrease in price would raise revenue
- Factors that affect PEd:
  - The number of substitutes
  - The period of time
  - The proportion of income spent on the commodity
  - The necessity of the product

Special Demand Curves

Perfectly price inelastic: demand remains constant whatever the price	
Infinitely price inelastic: there is unlimited demand but at only one price	
Unitary elasticity: revenue remains constant at every possible price	

2.7 Price Elasticity of Supply

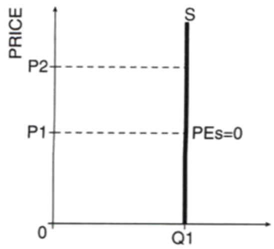
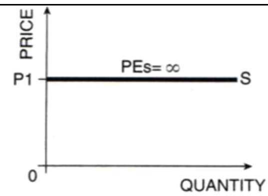
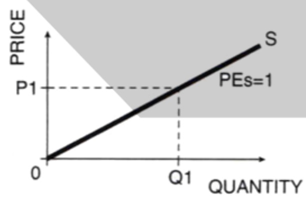
- **Definition:** The responsiveness of quantity supplied to a change in price

INELASTIC SUPPLY	ELASTIC SUPPLY
• **It has a PEs less than 1** • A large price change will have little effect on the amount supplied	• **It has a PEs more than 1** • A large price change will have a large effect on the amount supplied
	

$$PEs = \frac{\%\ change\ in\ quantity\ supplied}{\%\ change\ in\ price}$$

- Factors that affect PEs:
  - Time
  - Availability of resources
  - Supply available to meet demand
  - Spare production capacity available
  - Factor substitution available

Special Supply Curves

Perfectly price inelastic: supply remains constant whatever the price	
Infinitely price inelastic: there is unlimited supply but at only one price	
Unitary elasticity: A percentage change in price will cause an equal percentage change in quantity supplied	

2.8 Usefulness of Price Elasticity

Tax:

- Charge placed on production of good/service by the government.
- A tax will increase the cost of production to the producer
- Makes it more expensive to produce
- It is likely that the producer will produce less
- Therefore, the supply curve shifts to the left
- If people are really keen to buy the product (price inelastic) demand will stay fairly high (e.g. cigarette)
- So, if most people still buy the taxed good government can make more revenue

Subsidy:

- A subsidy is a payment made to producers to help reduce their costs of production
- It is made by the government to encourage producers to produce or supply a certain good or service
- It is likely that the producer will be encouraged to produce more
- Therefore, the supply curve will shift to the right

2.9 Market Failure

- Market failure occurs when the market mechanism fails to allocate scarce resources efficiently, so social costs are greater than social benefits

HOW MARKETS CAN FAIL	HOW A GOVERNMENT INTERVENES
• Only goods and services that are profitable to make will be produced • Services such as street lighting won't be provided as you are unable to separate it • Resources only employed if profitable – people may be left unemployed without an income • Harmful goods may be produced and sold freely • Producers may ignore environmental impacts • Monopolies dominate supply of products and charge high prices	• Produce merit goods such as education for the needy • It can provide public goods such as street lighting • Public sector can employ people and welfare benefits can be given to the needy • Laws to make goods illegal or high taxes to reduce consumption • Laws and regulations would protect natural environment • Monopolies can be broken up or regulated to keep prices low

2.10 Merits of the Market System

ADVANTAGES	DISADVANTAGES
• Gives producers incentive to produce goods that consumers want • Provides an incentive to acquire useful skills • Encourages producers and consumers to conserve scarce resources • Competition pushes businesses to be efficient • High degree of economic freedom	• May be unstable (unemployment, inflation) • Prices may give false/inadequate signals to producers • Markets do not work in some areas (public and merit goods) • Monopolistic industries may restrict output and raise prices • Large gap between rich and poor

2.11 Private & Social Costs & Benefits

- **Private Benefit/Cost:** costs/benefits the business or consumer receives from consuming/producing the good
- **External Benefit/Cost:** advantages/disadvantages society receives due to us of a certain good/service
- **Social costs** = Private costs + External costs
- **Social benefits** = Private benefits + External benefits
- Social **costs >** Social **benefits**, product is **uneconomic**
- Social **costs <** Social **benefits**, product is **economic**

2.12 Conflicts of Interest

Conserving Resources	Using Resources
• Conservationists argue that this generation should pass on to future generations at least as many resources as our own generation has inherited and not exploit everything	• Businesses and firms try to maximize profits and therefore want use as many resources they can get their hands on to do so
Public Expenditure	**Private Expenditure**
• Government can provide public goods and merit goods that the market would not produce. • Public sector workers may be more likely to spend money in a way that is fair to all	• Government can only guess how we would like to spend the money • When the government spends money, it can be wasteful.

3. The Individual as Producer, Consumer & Borrower

3.1 Functions of Money

- **Medium of exchange:** accepted as means of payment
- **Unit of account:** for placing a value on goods/services
- **Store of value:** can save money since it keeps its value
- **Standard for deferred payment:** borrowers are able to borrow money and pay back later

3.2 Need for Exchange

- Ancestor relied on direct swapping of goods and services
- Early form of exchange known as barter
- Bartering is the most inconvenient way to do business
- Main problems of bartering:
  - Fixing a rate of exchange
  - Finding someone to swap with
  - Trying to save a good for long period of time

3.3 Central Bank

- **Printing notes & minting coins** that are legal tender
- **Destroying torn notes & worn-out coins**
- **Setting interest rates**
- **Lender of last resort**: if a bank needs cash in a hurry, they can borrow from central bank
- **Supervising monetary policy:** heads of the central bank hold meetings with officials from other banks to determine interest rate and quantity of money in economy
- **Banker for commercial banks & the government:**
  - Government accounts & spending are carried out with central bank
  - Helps government to borrow money
  - Total amount government owes is national debt
- **Manage international financial system**: governments of different nations lending each other money

3.4 Stock Exchanges

- Institutions in which shares of stock are bought & sold
- A shareholder in a company is a part-owner of that company
- Shareholders receive a payment known as a dividend, which is their reward & share of company profits
- Shareholders are protected by limited liability
- Stock exchanges also protect shareholders
- Functions:
  - Helps companies sell their stocks or equities
  - Helps them to raise finance
  - Helps the public buy such stocks
  - Produce a market price for buying & selling of stocks
  - Indicator of how an economy is generally doing

3.5 Commercial Banks

- **Keeping money safe:** bank's vaults more secure than a safe box in a private house
  - Individuals and businesses can open bank account
  - Banks also keep other valuables in safe deposit boxes
- **Lending:**
  - **Loans:** borrowing fixed sum for set period of time but borrower must pay back interest
  - **Overdraft:** taking more than in account, but with interest
  - **Credit cards:** offered for users to buy goods and pay for them later; if payed back by a given date, no interest set, but if not, they are charged with a high rate of interest
  - **Mortgages:** banks lend firms and households big amounts of money, usually paid back over long periods of time
- **Means of Making Payment** – cheques so bank then transfers money to recipients that a person needs to pay
- **Providing Foreign Currency**

3.6 Changes in Earnings

- **Entry:** young employee will receive low earnings due to lack of work skills and experience; can become an apprentice or join a management training scheme to become more skilled

- **Skilled workers:** the more skilled a worker is, the more opportunities he has for increasing his earnings; bonuses will be given and higher rate of overtime paid
- **End-of-career employees:** if workers keep updating skills, they will continue to have opportunities to increase wages however when they stop this, their demand would fall & income would diminish, finally reaching a stop when retired

3.7 Difference in Earnings

WAGE DIFFERENTIAL	WHO EARNS MORE?	WHY?
Public/Private sector	Private sector workers	• Public sector workers better job security & more holidays
Male/Female	Male employees earn more	• Women may take breaks to raise children • Most female work part time or choose low-pay
Un/Skilled	Skilled workers paid more	• Skilled workers are more productive • Some specialist skills are in short supply
Employees in different industries	Agricultural workers paid less	• Agriculture has become more capital intensive; demand has declined • Manufacturing/service industry expanded • Shortage of labour with specialist skills

3.8 Trade Unions

- An organization of workers formed to promote & protect the interest of its members concerning wages, benefits & working conditions

Functions

- Negotiating wages & benefits with employers
- Defending employee rights and jobs
- Improving working conditions
- Improving pay and other benefits, including holiday entitlement, sick pay and pensions
- Encouraging firms to increase worker participation in business decision-making
- Developing skills of union members, by providing training and education courses
- Supporting members taking industrial action

Types of Trade Unions

- **General Unions:** represent workers across many different occupations
- **Industrial Unions:** represent workers of the same industry
- **Craft Unions:** represent workers with the same skill across different industries
- **Non-manual unions/Professional Unions:** represent workers in non-industrial and professional occupations

Collective Bargaining

- Process of negotiating wages and other working conditions between trade unions and employers
- A trade union will be in a strong bargaining position to negotiate higher wages and better conditions if:
  - It represents most or all of the workers in a firm
  - Union members provide goods/services that consumers need which have few alternatives

Industrial Action

- Industrial action is taken when collective bargaining fails to result in an agreement
- Taking industrial action can help a union force employers to agree to their demands
- **Industrial actions:**
  - **Overtime ban:** workers refuse to work more than their normal hours
  - **Work to rule:** workers deliberately slow down production by complying with every rule & regulation
  - **Go slow:** workers deliberately work slowly
  - **Strike:** workers protest outside their workplace to stop deliveries/non-unionized workers from entering

Impact of Trade Unions

POSSIBLE ADVANTAGES	POSSIBLE DISADVANTAGES
• Could help to bring about minimum working standards • Could help keep pay higher • Could help maintain Employment/enhanced job security • Could lead to improvement in health and safety	• Might cause lack of flexibility in working practices • Could be major problem as fashions change very quickly • Could lead to some firms going out of business • Workers made redundant • Workers will need to pay union membership fees

3.9 Specialization

- **Division of labour:** workers concentrate on a few tasks then exchange their product for other goods/services
- **Specialization:** production process broken up into a series of different tasks

ADVANTAGES FOR INDIVIDUAL	DISADVANTAGES FOR INDIVIDUAL
• Employees can make best use of their particular talents/skills and can increase them by repeating tasks • Employees can produce more output and reduce business costs • More productive employees can earn higher wages	• Doing same job or repetitive tasks is boring and stressful • Individuals must rely on others to produce goods and services they want but cannot produce themselves • Many repetitive tasks can now be done by machines, leading to unemployment of low-skilled workers

3.10 Spending, Saving and Borrowing

- **Disposable income:** amount of income left to spend or save after direct taxes have been deducted
- **Spending:** enables a person to buy goods/services to satisfy their needs/wants
- **Saving:** involves delaying consumption
  - As interest rates rise, people may save more
- **Borrowing:** allows a person to increase their spending; enabling them to buy goods they cannot afford now
- People with low disposable incomes may spend less in total than people with high incomes
- But will tend to spend all or most of their income meeting their basic needs
- Amount of income we earn tends to rise as we get older, until we retire, because:
  - Employees earn more in wages as they learn more skills and become more productive
  - Tend to save more as they get older and earn interest in saving
  - Entrepreneurs may become more experienced in business and can earn more profit
- **Young single people** tend to spend more on music and fashion
- **People with families** will spend more on their children & homes
- **Elderly people** may spend more on health care

3.11 Expenditure Patterns

INCREASE IN…	SPENDING	SAVING	BORROWING
Real income	↑	↑	↑
Direct tax	↓	↓	↕
Wealth	↑	↓	↑
Interest rates	↓	↑	↓
Availability of saving scheme	↓	↑	↓
Availability of credit	↑	↓	↑
Consumer confidence	↑	↓	↑

4. The Private Firm as Producer & Employer

4.1 Types of Business Organisations

Sole Trader

- Owned and controlled by one person

ADVANTAGES	DISADVANTAGES
• Sole trader is own boss • Chooses hours of work • Receives all profits • Easy to set up	• Full responsibility • Unlimited liability • Lacks capital for business growth

Partnership

- Legal agreement between two or more people to own/finance/run a business
- Unlimited liability unless it's a silent/sleeping partner
- **Sleeping/silent partner:**
  - Partner that provides money to be in partnership in return for a share of profits
  - Uninvolved in management of organization & has limited liability

ADVANTAGES	DISADVANTAGES
• Easy to set up • More capital • Partners bring new skills, ideas • Shared responsibility	• Disagreements • Can lack capital to finance growth

Joint Stock Companies

- **Controlling Interest:** a shareholder with more than 50% of shares holds; they can out-vote all other shareholders

- **Board of Directors:** elected by the many thousands of shareholders who manage business
- Two types:

PRIVATE LIMITED COMPANIES	PUBLIC LIMITED COMPANIES
• Only sells shares to people known to existing shareholders • Managed by Board of Directors	• Shares advertised & sold publicly on stock market through stock exchange to many investors • Managed by a BoD

ADVANTAGES	DISADVANTAGES
• Shareholders have limited liability • Receive dividends • Companies have a separate legal identity • Share sales can raise significant capital • PLCs can sell shares to many more investors on stock market	• Companies must publish annual accounts • Original business owners can lose control • Directors may run the business for their own interests rather than for shareholders

Cooperatives

- Owned & controlled by its members
- Each member has an equal share of ownership
- Worker co-ops are owned & controlled by their workers
- Consumer co-ops are owned by their consumers

ADVANTAGES	DISADVANTAGES
• Limited liability • Workers in worker co-ops take business decisions & share profits • Members of consumer co-ops enjoy profit dividends/lower prices	• Many consumer co-ops have been forced out of business by larger companies • Worker co-ops may be badly run

Public Corporations

- Owned and controlled by the government
- Some aim to make a profit while others will deliver public services

Ownership & Control	• Board of directors runs corporation • Committee monitors & investigates irregularities or complaints
Legal status	• Has a legal identity separate from its directors and the government
Finance	• From taxes & government revenues • From profits invested into corporation • Profits may be used by government

Multinationals

- Operates in more than one country
- Some of the largest companies in the world
- Governments often compete to attract multinationals
  - Can provide jobs, incomes, business knowledge, skills and technologies which can help other firms
  - Pay taxes on their profits to boost government revenue
- Headquarters are based in one country

ADVANTAGES	DISADVANTAGES
• Can reach many more consumers globally & sell far more than other types of businesses • Can minimize transport costs by locating plants in different countries to be near raw materials or big markets • Minimize wage costs by locating in countries with low wages • Can enjoy low average production costs	• Can switch profits to other countries to avoid paying taxes on profits • Can force smaller local firms out of business • May exploit workers in low wage economies • May use their power to get generous subsidies & tax advantages from the government

4.2 Privatization

- In the past, governments nationalized industries:
  - To control monopolies
  - For safety (e.g. nuclear industry)
  - To protect employment
  - To maintain a public service
- Privatization involves private sector firms taking over public sector activities in the following ways:
  - The sale of public sector assets
  - Joint ventures with private firms
  - Contracting out (giving private firms contracts)
  - Removing competition barriers

FOR PRIVATIZATION	AGAINST PRIVATIZATION
• If industries are forced to compete, prices will be lower & quality will improve • Wider variety of goods • Sale of shares raises government revenue & can be used to lower taxes	• Private sector organizations will not protect public services & may cut services & raise costs in long run • Privatized industries still dominate markets they supply; able to raise prices & cut services

4.3 Demand for "Factors of Production"

- **Demand for goods & services by consumers:** higher demand = more labour/capital firms will need
- **Price of labour & capital:** higher cost = less labour & capital demanded
  - Firms may also decide to substitute labour for more capital and vice versa
- **Productivity of labour & capital:** more output/revenue labour & capital help to produce, more profit they will generate over & above cost of employing them
- **Capital-intensive Production:** requires heavy capital investment to buy assets relative to sales or profits that assets can generate
- **Labour-intensive Production:** main cost is labour; cost is high compared to sales or value added by additional manpower

4.3 Productivity & Production

- **Productivity:** the ratio of output to input
- **Labour Productivity:**

$$Output\ per\ Labour = \frac{Total\ Output}{Number\ of\ Labour}$$

- **Capital Productivity:**

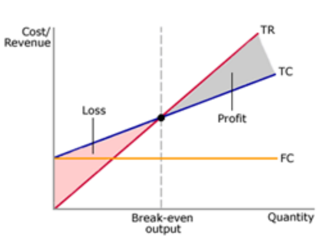
$$Value\ per\ Capital = \frac{Total\ Output\ Value}{Value\ of\ Capital}$$

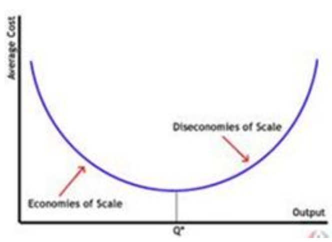
- Productivity refers to the efficiency of a business whereas production refers to output only

4.4 Costs, Revenues and Profits

- **Fixed costs:** don't vary with level of output e.g. interest on loans
- **Variable cost:** vary directly with level of output e.g. electricity
- **Breakeven:** where total revenue = total cost

$$Total\ Variable\ Cost = Variable\ Costs \times Output$$
$$\boldsymbol{Total\ Cost} = Total\ Variable\ Cost + Total\ Fixed\ Cost$$
$$\boldsymbol{Average\ cost} = (Total\ Cost)/Output$$
$$Total\ Revenue = Price\ Per\ Unit \times Quantity\ Sold$$
$$Profit\ or\ Loss = Total\ Revenue - Total\ Cost$$





4.5 Principle Goal

- Aim of production for most private sector firms is to make as much profit as possible
- Some productive organizations may have other motives:
  - **Public service:** aim to provide services people need but cannot pay for; costs funded by government
  - **Charity:** aim to aid people/animals in need or help protect environment; costs covered by donations
  - **Not for profit:** aim to make enough revenue to cover their cost; any surplus is re-invested

4.6 Competition

- **Competition** between firms is good for consumer as profit-seeking firms will compete to attract consumers
- **Price competition** involves using pricing strategies to attract consumers from rival producers
- **Non-price competition** includes offering better quality products than rival firms, improving customer services or by using persuasive advertising

Perfect Competition

- Businesses will charge same price, a minimum price they can charge without going out of business
- Price will be equivalent to the lowest average cost of producing goods
- Average cost of production would be same as average revenue for selling
- No firm would risk charging more than market price
- A business would be a **price taker**; the market price

4.7 Monopolies

- Firms with monopolistic powers control at least 25% of the market share
- Able to influence price; **price makers**
- Can restrict competition with artificial barriers to entry & other pricing strategies

OLIGOPOLY	PURE MONOPOLY
• Handful of firms dominate market supply • To avoid price wars, firms act together to maximize their profits • Set market price high by restricting combined market supply • A cartel is a formal agreement between firms to control market supply & price	• One firm controls entire market supply • May use predatory pricing to force competing firms out • Other firms deterred from competing due to lack of capital

Advantages of Monopolies

- Avoids duplication & wastage of resources
- Economics of scale; benefits can be passed to consumers
- High profits can be used for research & development
- Monopolies may use price discrimination which benefits the economically weaker sections of the society
- Monopolies can afford to invest in latest technology & machinery to be efficient & avoid competition

Disadvantages of Monopolies

- May supply less & charge higher prices
- May offer less consumer choice and lower quality products than if they had to compete with other firms
- May have higher production costs because they are poorly managed
- Restrict competition using barriers to entry

Barriers to Entry

NATURAL	ARTIFICIAL
• Cost savings from large scale production • Lots of capital equipment that other firms can't afford • Large customer base built up over years • Developed advanced products or processes that are protected by patents	• Predatory pricing strategies to force smaller firms out • Preventing suppliers from selling materials & components to other firms by threatening to switch to rival suppliers • Forcing retailers to stock & sell only their product

4.8 Sizes of Firms

- **Number of employees:** less than 50 are classed as small
- **Amount of capital employed:** large firms invest a lot in fixed assets such as machinery & equipment
- **Market share:** relative size of firms compared by percentage share of total market supply/revenue
- **Organization:** large firms may be divided into many departments & be spread over many locations

Large Firms

ADVANTAGES	DISADVANTAGES
• Can enjoy significant economies of scale • Increase notoriety, sell on larger markets • Can draw talent from around the world to work for them	• If it gets too big, firm may experience diseconomies of scale • Going public may make the company become subject to a hostile takeover

Small Firms

ADVANTAGES	DISADVANTAGES
• Size of market is small • Consumers like tailored goods/services • Governments provide help	• Markets cannot raise enough capital to expand their business

4.9 Integration

- Growth often involves integration with other firms
- **Takeover:** a company acquires ownership & control of another company by purchasing its shares
- **Merger:** two or more firms agree to form an entirely new company & issue new shares

Types of Integration

- **Horizontal integration:** occurs between firms at the same stage of production producing similar products
- **Vertical integration:** occurs between firms at different stages of production
  - **Forward:** taking over firm at later stage of production
  - **Backward:** integration is the opposite
- **Lateral integration or conglomerate merger:** occurs with firms at same stage of production but different products

4.10 Economies and Diseconomies of Scale

Economy of Scale	Diseconomy of Scale
Cost savings due to increased scale of production • **Financial:** larger firms often have access to cheaper sources of finance • **Marketing:** larger firms employ specialists to buy best quality materials in bulk at discounted prices & spread advertising costs • **Technical:** larger firms invest in specialized production equipment, highly skilled workers; develop new products • **Risk-bearing:** ability to spread risk over many investors & reduce market risks by selling range of products in different locations	*Rising costs because a firm has become too large* • **Management:** larger firms must manage so many different departments in different locations, making communication/ decision-making difficult • **Labour:** demotivated workers lead to decrease in productivity due to boring, repetitive tasks • **Agglomeration:** company takes over or merges with too many other firms producing different products, making it hard for business owners and managers to co-ordinate all activities

5. Role of Government in an Economy

AS A PRODUCER	AS AN EMPLOYER
• Produce essential goods & services e.g. health care & education • Supply merit goods • Supply public goods e.g. road repairs/lights • Control natural monopolies; they may take over companies providing necessities e.g. electricity or water	• People work directly for the government as civil servants, e.g. tax collectors • Employees in public sector: ○ Secure employment ○ State pension • Money earned by government employees is mainly spent in national economy

5.1 Government Aims

- Main objectives:
  - Achieve low and stable rate of inflation in general levels of price
  - Achieve high and stable level of employment; low unemployment
  - Encourage economic growth in national output and income
  - Encourage trade & secure favourable balance of international transactions
- Additional objectives:
  - Reduce poverty & inequalities in income & wealth
  - Reduce pollution & waste; sustainable growth

5.2 Demand-Side Policies

POLICY	ABOUT
Expansionary Fiscal Policy	Reducing taxes to boost demand, so employment and output rises. May be used to **reduce recession**.
Contractionary Fiscal Policy	Increasing taxes to reduce demand, so employment and output rises. May be used to **reduce price inflation**.
Contractionary Monetary Policy	May be used to **reduce price inflation** by increasing interest rates charged by the central bank. This means commercial banks will also raise interest to encourage more savings.
Expansionary Monetary Policy	May be used **during a recession** to & employment by cutting interest rates

5.3 Supply-Side Policies

- Supply-side policies aim to increase economic growth by raising productive potential of economy
- An increase in the total supply of goods & services will require more labour & other resources to be employed
- It will reduce market prices & provide more goods & services to export

INSTRUMENT	EFFECT
Tax Incentives	Reducing taxes on profits and small firms can encourage enterprise. It can also encourage investments in new equipment.
Subsidies/ Grants	To reduce production costs and help firms fund research and development of new technologies.
Education and Training	Teaching new/existing workers new skills to make them more productive.
Labour Market Regulations	Include minimum wage laws to encourage more people into work, and legislation to restrict the power of trade unions.
Competition Policy	Regulations that outlaw unfair trading practices by monopolies and other large, powerful firms.
Free Trade Agreements	Removing barriers to international trade allow countries to trade their goods and services more freely and cheaply
Deregulation	Removing old, unnecessary and costly rules and regulations on business activities

5.4 Conflicting Aims

- Spending more money to stimulate growth can lead to rising prices because of increased demand
- If spending is reduced to stop inflation, this will lead to a fall in growth
- If government tries to create full employment, labour becomes increasingly scarce
- Employers must compete more strongly to attract labour
- They raise wages, which leads to wage inflation
- If the government tries to redistribute income, richer workers may feel that they are unfairly penalized for working hard & may decide to migrate
- This may slow down economic growth

5.5 Taxes

Reasons to Tax

- To finance public expenditure; building schools and infrastructure
- To discourage certain activities; e.g. taxes on cigarette
- To discourage import of goods; tariffs are import taxes and can be levied as a % of value of imports or a set tax on each item
- To redistribute income from the rich to the poor
- To achieve other macro-economic objectives

TYPES OF TAXATION	DESCRIPTION	EXAMPLES
Progressive Tax	Tax rate rises with income; higher income = higher tax	Income tax
Regressive Tax	Tax rate falls with income; higher income = lower tax	Indirect taxes
Proportional Tax	Everyone pays same effective tax rate	Corporate income tax

Direct Taxes

- Levied on income or wealth of an individual/company
  - **Personal income tax:** levied on income including on interest payments on saving
  - **Payroll tax:** including personal income taxes & social security contributions
  - **Corporation tax:** levied on company profits, smaller companies have lower tax to encourage enterprise
  - **Capital gains tax:** tax on any gain in value from sale of assets held by individuals/companies
  - **Transfer taxes:** applied to transfer of assets from one person to another

ADVANTAGES	DISADVANTAGES
• Major source of tax revenue • Many are progressive; help reduce inequalities • Take in to account people's ability to pay	• Income taxes can reduce work incentive • Taxes on profits reduce profit available for reinvestment • Can cause tax evasion

Indirect Taxes

- Added to prices of goods/services
  - **Ad valorem taxes:** levied as percentage of price of good/service; necessities (food) may be exempt
  - **Tariffs:** custom duties applied to price of imported goods; protects local firms from oversea competition
  - **Excise duties:** applied to specific goods e.g. cigarette
  - **User charges:** such as tolls for a bridge/motorway

ADVANTAGES	DISADVANTAGES
• They are cheap for a government to collect • Wide tax base • Can be used to discourage consumption/production	• Cost of collecting taxes falls to businesses • They are regressive • Tax revenues are less certain • They add to price inflation

5.6 Government Influence

Regulations

- Rules imposed by a government backed up by penalties
- Can be laws governing actions of private firms & individuals
- Inspections by qualified inspectors make sure that the businesses are complying with regulations
- Failure to do so can mean fines/loss of the license
- Examples of Regulations:

Methods of production	Management of waste/pollution. Rules protecting health/safety of workers.
Setting Up A New Business	Paperwork for filling in such as rules protecting shareholders and paying tax.
Product Standards	Quality of food products, labelling of contents of a product.
Disclosure of Information	Companies must produce reports to shareholders.
Supply of Harmful Products	Health warnings on cigarettes.

- Governments may introduce laws and regulations known as competition policy and can involve:
  - Imposing fines on firms who abuse market power
  - Forcing oligopolies & monopolies to break up into smaller competing firms
  - Setting maximum prices firms can charge customers
  - Taking monopolies into public ownership

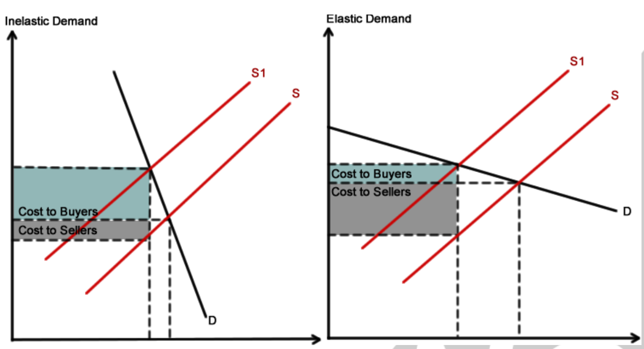
ADVANTAGES	DISADVANTAGES
• Improve efficiency & redistribute income • Regulate firms where there are monopolies • Limit effect of externalities • Possible to strike balance between interest of private firms & consumers	• Over-regulated: spend too much time & money complying with regulations & cannot concentrate on running business • Loss of competitiveness because of cost of complying with rules & regulations

Subsidies

- Incentives provided by the government to individuals & households to carry out desired activities
- Other reasons for subsidies include:
  - To encourage the production of goods of natural importance
  - To encourage development of new products and industries
  - To provide support for industries that are in decline and that are major employers of labour
  - To protect domestic industries against foreign competition
- When a supplier receives a subsidy, it will be encouraged to produce more for the market
- Leads to a shift to the right of the supply curve

Taxation

- Taxes discourage certain activities & raise revenue
- Is a cost to business & causes supply curve to shift left
- **Incidence** of tax refers to who pays the majority of a tax
  - **Elastic good:** incidence of tax mainly falls on seller
  - **Inelastic good:** incidence of tax mainly falls on buyer



6. Economic Indicators

6.1 Consumer Price Index

- An index of prices of goods & services typically purchased by urban consumers
  - Compiled & published monthly by the government
  - Provides a relatively accurate indication of average price level of products in an economy
- Weightings are based upon the importance of the item in average expenditure
  - The greater the proportion spent on an item, the higher the weighting
- **Base year:** first year with which the prices of subsequent years are compared
- **Inflation rate:** percentage change in annual CPI

$$CPI\ in\ Year\ x = \frac{Weighted\ Average\ Price\ in\ Year\ x}{Weighted\ Avereage\ Price\ in\ Base\ Year} \times 100$$

- **Main uses of CPI:**
  - A macro-economic indicator of price inflation in an economy
  - A price deflator to 'deflate' value of wages and incomes by impact of price inflation
  - To index-link income payments so their purchasing power increases at the same rate as inflation

6.2 Inflation

- General & sustained increase in the level of prices of goods/services in an economy over a period of time

Causes

- **Demand-pull Inflation:** caused by total demand rising faster than total output, causing market prices to rise
- **Cost-push Inflation:** cost of production increases, so firms try to pass cost to consumers through higher prices
- **Imported Inflation:** results from rising prices of goods and services imported overseas, can occur due to:
  - Increase in costs of overseas production
  - Fall in exchange rate of currency of importing country
- **Hyperinflation:** extremely high rates of inflation result in money failing to be a good store of value
- **Personal & economic consequences:**
  - Inflation **reduces the purchasing power** of money
  - Inflation **reduces the real value** of savings
  - Inflation **reduces the real value** of loans
  - Inflation **boosts tax revenues** as they are a % of price
  - Inflation **increases government spending** as it will also have to pay more for goods/services it buys
  - Inflation **reduces company profits**; especially if it is caused by rising costs or a reduction in demand
  - Inflation **causes unemployment**; as prices rise, demand will fall, firms sell less, make less profit, cut production & size of labour to reduce costs

6.3 Deflation

- A decrease in general price level of goods and services and occurs when the inflation rate falls below 0%
- **As things become cheaper:**
  - Spending stops to wait until prices to fall further
  - Firms start making less revenue
  - Firms start to produce less as less is demanded
  - Employers begin to hire fewer workers; redundant
  - Causes economy to eventually go bust

Consequences

- Economy falls into **recession**
- Firms sell fewer goods/services & **lose profits**
- Firms **reduce workforce**, leading to **unemployment**
- **Household incomes fall**; debts rise causing **bankruptcy**
- Demand, output and demand for labour continue to fall

6.4 Employment & Unemployment

INDICATOR	RECENT TRENDS
Labour force	• Risen as world population has grown
Participation Rate: labour force as a proportion of total population of working age	• Risen in many countries especially among females as it is now socially acceptable • Poverty and rising living costs in developing countries has forced many women to work
Employment by Industry: Number of people employed in different industrial sectors	• Employment in services has been growing while employment in agriculture and other primary sector industries has fallen
Employment Status: Number of full-timers, part-timers or with temporary contracts	• Most employees work full-time • Part-time employees have grown rapidly, especially among female employees
Unemployment: Number of people registered as being without work	• Tends to rise during economic recessions • Almost half the unemployed are young unskilled workers
Unemployment Rate: Unemployment as a proportion of labour force	• Relatively stable in the recent years but did increase in 2008 during a global financial crisis

Types of Unemployment

- **Cyclical Unemployment:** occurs during recession due to falling consumer demand & incomes
  - Firms reduce output & lay off workers
- **Structural Unemployment:** caused by changes in industrial structure of an economy
  - Entire industries close due to a permanent fall in demand for their goods/services
- **Frictional Unemployment:** refers to short-lived unemployment; e.g. moving to different job
- **Seasonal Unemployment:** occurs because consumer demand for goods/services changes with seasons; e.g. no job for ski instructor when/where there is no ice

Consequences of Unemployment

PERSONAL	ECONOMICAL
• Loss of income and reduced ability to buy goods & services • Unemployed people de-skill if long out of work • Unemployed people may become depressed & ill • Strain on family relationships & health services	• Unemployment is a waste of human resources • Fewer goods & services produced • Total output & income in economy is lower • Government tax revenues also lower • People in work may have to pay more taxes • Government spending on welfare may rise

6.5 Output

- **Gross Domestic Product (GDP)** is the main measure of total value of all the goods and services produced in a given period of time
- An increase in prices will increase **nominal GDP** but this is measured in current dollars thus includes inflations

$$Real\ GDP = \frac{Nominal}{CPI} \times 100$$

$$Real\ GDP\ Per\ Capita = \frac{Real\ GDP}{Number\ of\ Population}$$

- If economy has an extremely rich person & everyone else is poor, it brings up the Real GDP per capita

6.6 Economic Growth

- Economic growth is when there is an increase in real output over time, i.e. increased GDP & national income
- Important as it increases the standard of living
- **Economic Recession:** a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP growth, real personal income, employment, industrial production, & wholesale-retail sales

6.7 Human Development Index (HDI)

- Used by the United Nations to make comparisons of human & economic development in different countries
- Combines three different measures for each country
  - Standard of living, measured by average incomes
  - Being educated, measured by adult literacy rate
  - Living a long healthy life, measured by life expectancy
- Single index with a value between 0 and 1
- Greater than 0.8 = high human development
- Less than 0.5 = low human development

7. Developed & Less Developed Economies

7.1 Classifications

- **Developed Economy:** advanced/industrialized economy; has a relatively high average income per person, a well-developed road & rail network, modern communication systems, produces a wide variety of goods & services, has a stable government & legal system; a healthy and educated population
  Examples: Norway, England, France, Japan
- **Less Developed/Developing Economy:** low level of economic development, low average income per person, under-developed transport and communications systems, relies on agriculture for many jobs and incomes; low levels of healthcare & education provision
  Examples: Africa, Central American, the Caribbean
- **Rapidly Developing/Emerging Economies:** countries that are quickly developing their industries, workforce skills & living standards, but are not yet fully developed
  Examples: China, India, Brazil

7.2 Poverty

ABSOLUTE	RELATIVE
• Number of people living below a certain income threshold or number of households unable to afford certain basic goods & services • Occurs when people do not have access to basic food, clothing and shelter	• Measures extent to which a household's financial resources falls below an average income level. • Occurs when people are poor relative to other people in the country; unable to participate fully in normal activities of society they live in

7.3 Alleviating Poverty

- Governments will use policies to help alleviate poverty in their country, or in another country:

POLICY	WHY IS IT NEEDED?	WHAT ARE THE PROBLEMS?
Food aid	Poor farming methods produce insufficient food	Free food supplies can force farmers out of business
Financial aid	LEDCs lack capital to invest in an industrial base, modern machinery and infrastructure	Loans have to be repaid sometimes with interest
Tech aid	LEDCs lack access to modern machinery, equipment and knowledge of modern production methods	Most people lack skill to use modern technology; instead of using machinery, more jobs are needed to employ people
Debt relief	Relieving LEDCs of debt will allow them to use money for economic development instead	May encourage LEDCs to borrow more money or money may be misused by corrupt governments
Removing overseas trade barriers	LEDCs may have natural supplies, can be exported for money	MEDCs will force down their price
Economic Advice	Governments in LEDCs lack economic knowledge	Advice not enough; LEDCs need more capital & stability

7.4 Population Growth

- The **natural rate of increase** in population is the difference between birth and death rates

	LEDCS	MEDCS
Birth rate	High	Low
Death rate	High but falling	Low
Natural rate of increases	High and rising	Low or negative

Varying Birth Rates

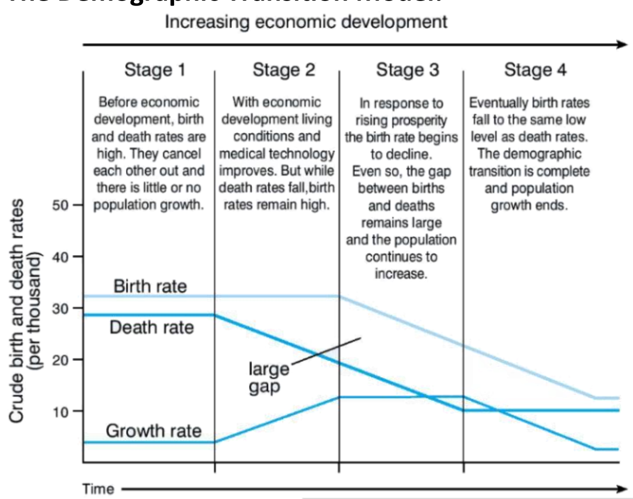
- LEDCs have:
  - Large families to help produce food & work for money
  - High infant mortality rate
  - Low supply of contraceptives/forbidden to use them
- In MEDCs, people marry later in life so birth rates fall

Varying Death Rates

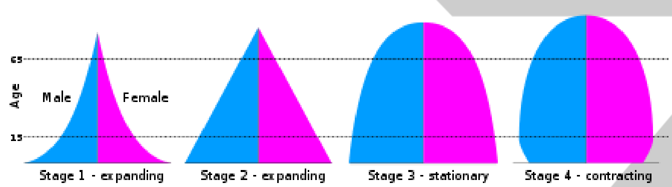
- MEDCs have:
  - Better food, housing, hygiene & high life expectancy
  - Fatty foods, smoking and lack of exercise has increased rates of diabetes, cancer & heart disease
  - Improved medicine & healthcare; prevents many diseases & increased life expectancy
- LEDCS have:
  - Widespread diseases which lower life expectancy
  - Natural disasters, famines, wars

7.5 Population Structure

- **The Demographic Transition Model:**



- This shows that population growth occurs in stages
- **Population Pyramid:** a type of graph that shows the age and sex structure of the country



- Stage 1: high birth rate; high death rates; short life expectancy; less dependency (since there are few old people and children must work anyway)
- Stage 2: high birth rate; fall in death rate; slightly longer life expectancy; more dependency due to more elderly
- Stage 3: declining birth rate; declining g death rate; longer life expectancy; more dependency
- Stage 4: low birth rate; low death rate; highest dependency ratio; longest life expectancy

STRUCTURAL FEATURE	LEDCS	MEDCS
Age Distribution	Children <15 are 40-50%, people >60 are less than 5%	High average age & up to 25% >60
Geographic Distribution	Many live in rural areas but now more are moving to urban	Most live in cities; increased pollution & congestion
Occupational Distribution	Most work in primary, up to 90%	Most work in tertiary, few in primary

7.6 Dependency

- **Dependency ratio:** number of economically dependent people relative to the economically active population in an economy
- **Dependent:** people who are too young, too old or too ill to work, school and college

$$Dependency\ ratio = \frac{Total\ Poulation}{Working\ Population}$$

Dependency Ratio

LEDCS	MEDCS
• High and rising • High BR; more children and young people • Low life expectancy, poor skills & education • Lack of industrial base • Migration to MEDCs • Reduced workers	• Low but rising • Low BR & DR; more old & retired people • Life expectancy is high • Net inward migration increases pressure on housing, education, healthcare & welfare

- **Ageing Population:** when proportion of old dependents is increasing
  - Occurs because life expectancy increases, but also because birth rates start to fall
  - This happens in stage 5 of the DTM; in very developed countries
- **Implications of Ageing Population:**
  - May be a shortage of workers
  - Less tax payers so government receives less money
  - Old people get sick easier
  - Pressure on hospitals and medical care
  - Pensions can get expensive
  - More care homes needed
- **Young Population:** Refers to young dependents mostly
  - Occurs because infant mortality rates increase, and birth rates are already high
  - Typically occurs in stage 2/3 of DTM, in countries that are beginning to develop more
- **Implications of Young Populations:**

TOO FEW	TOO MANY
• Closure of child related services; fewer jobs • Less consumers and taxpayers in the future • An increase in the age of the population • Birth rates fall below minimum	• Child care needed so parents can work • Taxes for public schools from government • Increased dependency ratio • Creation of teaching and nursing jobs

8. International Aspects

8.1 Specialisation

- Countries specialize in production of those goods and services in which they have an absolute advantage or comparative advantage over other regions or countries
- A country has an **absolute advantage** if it can produce a given amount of a good or service with far less resources and therefore at an absolute cost advantage over any country
- A country has a **comparative advantage** in the production of a good or service if it can produce it at a lower opportunity cost relative to other countries

8.2 Visible and Invisible Trade

- **Visible trade** is the selling and buying of natural of natural resources, parts and components of goods in production, and finished products.

$$\text{Balance of Visible Trade} = \text{Value of Visible Exports} - \text{Value of Visible Imports}$$

- **Invisible trade** is the selling and buying of services.

$$\text{Balance of Invisible Trade} = \text{Value of Invisible Exports} - \text{Value of Invisible Imports}$$

- **Imports:** money flows out of the country – negative impact
- **Exports:** money flows into the country – positive impact
- $\text{Exports} > \text{Imports} \Longrightarrow \text{Aggregate Demand Increases}$
- $\text{Exports} < \text{Imports} \Longrightarrow \text{Aggregate Demand Decreases}$

8.3 Balance of Payments

- The balance of payments of a country records all financial transactions between the country and all others
- It consists of three main accounts:

Current Account	Capital Account	Financial Account
Payment for visible and invisible imports and exports, plus net income flows and transfers	Payments involving the sale for capital goods or fixed assets such as buildings and machinery	Investments flows including loans and loan repayments, and the sale of shares

8.4 Structure of the Current Account

- **Visible trade account:** the difference between the export revenue and import spending on physical goods, e.g. cars, washing machines
- **Invisible trade account:** measures the difference between export revenue from and import spending on services, e.g. banking, insurance and tourism
- **Income flows:** e.g. interest, profit and dividends flowing in and out of the country
- **Current transfers:** e.g. grants for overseas aid.

Balance of Payments Deficit	Balance of Payments Surplus
• Money flowing out greater than in. • Current + Capital + Financial is negative.	• Money flowing in greater than out. • Current + Capital + Financial is positive.

8.5 Trade Deficit

- Means people are buying more imports and may be spending less on products made by domestic firms
- Deficit may be a symptom of a declining industrial base
- Foreign exchange for the national currency is likely to fall
- Increases prices of imports and cause imported inflation

Reducing Trade Deficit

- Contractionary fiscal policy, by reducing taxes and cutting government expenditure can reduce total demand for imports
- Raising interest rates can attract an inflow of savings from overseas, and reduce borrowing by consumers which they might otherwise spend on imports
- Trade barriers can be used to restrict imported goods
- Allow the exchange rate to depreciate
- A large deficit will cause foreign exchange rate of national currency to fall
- Imports will become more expensive but exports will be cheaper for overseas consumers to buy
- As consumer demand for imports falls and overseas demand for export rise, the trade deficit will disappear

8.6 Exchange Rate

- Exchange rate is the price of a country's currency in terms of another country's currency
- Most countries have a floating exchange rate, which means no set value for their currency compared with any other currency
- Currency is a commodity thus the value of a currency is totally dependent on demand and supply of that currency in the foreign exchange market.
- An appreciation in the value of currency means its exchange rate against other countries has risen
- A depreciation in the value of currency means its exchange rate against other countries has fallen

8.7 Exchange Rate Fluctuations

- Demand for a currency comes from foreign money flowing into the country. If demand rises, the currency's value will rise in relation to the other currency
- Supply of the currency comes from domestic money flowing out of the country. If supply rises, the currency's value will fall

A currency might depreciate because:	A currency might appreciate because:
• There is a balance of payments deficit • Demand for other currencies rises as domestic consumers buy more imports • Interest rates fall relative to other countries • People move their savings to bank accounts overseas • Inflation rises relative to other countries. This makes exports more expensive and demand for them, and the currency needed to buy them, falls • People speculate that the currency will fall in value and they sell their holdings of the currency	• There is a balance of payments surplus • Demand for the currency rises as overseas consumers buy more exports • Interest rates rise relative to other countries • This attracts savings from overseas residents • Inflation is lower than in other countries so exports will be cheaper and overseas demand for them, and the currency required to pay for them, will rise • People speculate that the currency will rise in value and they buy more of the currency

8.8 Trade Protection

- **Tariffs:** tax on imports to raise its price and make them more expensive than local goods to stop people buying them
- **Subsidies:** grant given to an industry by government so industry will lower its prices encouraging consumers to stop buying foreign imports by making home-produced goods cheaper
- **Quota:** limit on number of imports allowed into country per year, reducing quantity of imports without changing their prices
- **Embargo:** complete ban on imports of certain goods. An embargo may be used to stop imports of drugs

8.9 Merits of Free Trade

FOR CONSUMERS	TO PRODUCERS	TO GOVERNMENTS
• Cheaper products • Better products • Workers more productive • International Trade • Increased competition from international companies • Lower Prices – Better Qualities	• Larger markets • Economies of scale • More produced, lower average per unit cost • International trade increases number of products you make	• Exports increase jobs, GDP, incomes • But imports take them away

8.10 Protection

ARGUMENTS FOR	ARGUMENTS AGAINST
• Protection of a young industry • To prevent unemployment • To prevent dumping • Because other countries use barriers to trade • To prevent over-specialization	• Other countries will retaliate with trade barriers • It protects inefficient domestic firms • The loss of domestic jobs from overseas competitions will only be temporary • Trade barriers have increased the gap between rich and poor countries

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