A2 – ECONOMICS (9708)

MACRO

CHAPTER 1
Economic Growth, Standard of Living & Economic Development

Topics
Topic 1: Economic Growth
Topic 2: Standard of Living
Topic 3: Economic Development

TOPIC 1: ECONOMIC GROWTH

Lecture 1

Definition | Economic Growth: It is an increase in the real GDP (national output) of a country over a period of time.

1. TYPES OF ECONOMIC GROWTH

There TWO types of economic growth:

i) Short Run Economic Growth, which in the increase in the actual GDP in a year.

ii) Long Run Economic Growth This is the potential GDP over many years. Economic growth can be calculated with the following formulae:

$$\text{Rate of Economic Growth} = \frac{\text{GDP 2} - \text{GDP 1}}{\text{GDP 1}} \times 100$$

2. TYPES OF ECONOMIC GROWTH

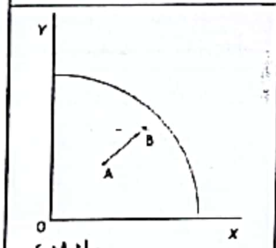
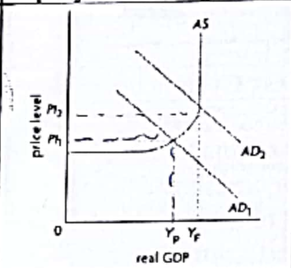
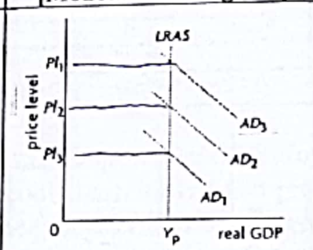
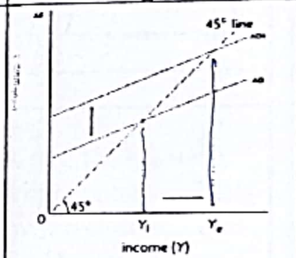
There are TWO types of Economic Growth:

1. Actual (Short-Run)
2. Potential (Long-Run)

1. ACTUAL / SHORT-RUN ECONOMIC GROWTH

Definition: This is called the increase in actual real GDP in a year. This can be shown by the following diagrams:

1. PPC
2. AD/AS Model [Keynesian Diagram]
3. AD/AS Model [Monetarists Diagram]
4. Keynesian-Cross Diagram
5. Business Cycle

1. PPC	2. AD/AS Model [Keynesian Diagram]	3. AD/AS Model [Monetarists Diagram]	4. Keynesian-Cross Diagram
 Utilize resouns			

1. Short-Run Causes

1. Expansionary Fiscal Policy 2 tools: taxes & govt spending

Firm and consumer have more income to reinvest

This involves reducing taxes and increasing govt. spending. These can include:

(1) If direct taxes are lowered it would result in more profits for companies which would increase investments (I) along with more salaries for workers which would increase consumption (C).

(2) Furthermore indirect taxes can also result in cheaper goods leading to greater demand.

(3) Along with that tariffs could be imposed on (lowered) foreign goods to protect domestic producers and reduce imports. Lower the imports higher would be the local demand and greater would be the economic growth. If tariffs & cost are reduced, there will lead to greater international trade & and increase the export potential

(4) Increase in govt spending will improve healthcare and education which will result in a better trained labour force and greater standard of living which can cause economic growth

2. Expansionary Monetary Policy

This involves reducing interest rates, increasing money supply and depreciating exchange rate. These can include:

(1) Interest is regarded as price of money. Lower the interest rate greater the demand. As it customers can easily borrow from the banks which would increase consumption (C), firms can also borrow cheaply. Both consumption n investment fall

(2) More the money supply customers and companies can spend more e.g. firms can buy expensive machinery, customers can buy luxuries more easily.

(3) Lowering the exchange rate would cause exports (X) to be cheaper and imports (M) to be expensive. The next effect would cause the AD to increase and result in economic growth.

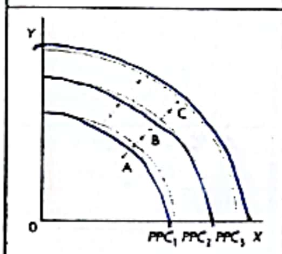
(4) Govt starts to reallocate it's resources and starts to utilize the non-productive assets. This can be done by employing unused resources

2. POTENTIAL / LONG RUN ECONOMIC GROWTH

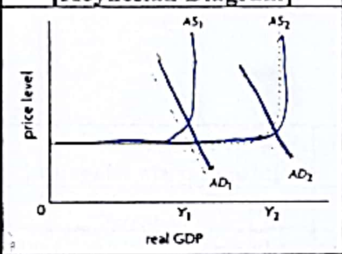
Definition: In the long run when the potential of a country to produce goods increases either by an increase in the quality or the quality of its factors of production which increases is productive capacity. This can be shown by the following diagrams:

1. PPC
2. AD/AS Model [Keynesian Diagram]
3. AD/AS Model [Monetarists Diagram]
4. Keynesian-Cross Diagram
5. Business Cycle

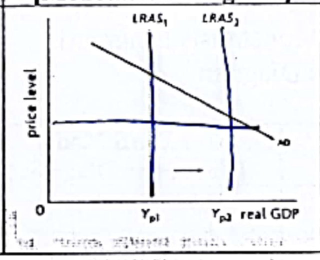
1. PPC



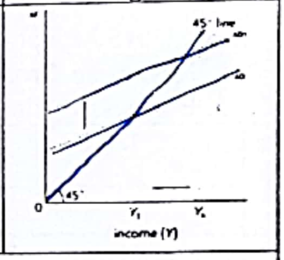
2. AD/AS Model [Keynesian Diagram]



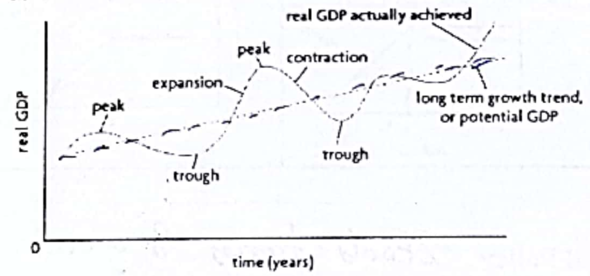
3. AD/AS Model [Monetarists Diagram]



4. Keynesian-Cross Diagram



5. Business Cycle



1. Increase in the quantity of resources Mention every fop separately

This happens when all the factors of production, namely Land, Labor, Capital increase, the productive capacity of the country will increase which will be a source of economic growth.
(1) When capital increases it results in reduction is average costs due to technical economies. This lower cost increases the production and hence higher AD.
(2) When the working population increase it increase the labor force and hence increase in national output. Due to better education and removal stigmas/stereotypes
(3) When land and raw material increases more goods can be produced, hence increasing the overall output. Happens with more exploration of raw materials and exploration tech.

(4) govts can consider to ease the process of establishing a business and encouraging enterprenear by giving startup loans

2. Increase in the productivity of resources

Technological improvements can increase the productivity of capital. Superior machines produce large quantities, bring the overall cost down. Furthermore, with labor training programs, education, better health the productivity of labor will also go up. Increased productivity in return increases the potential GDP.

3. Reallocation of resources enterprie

A country can raise its GDP by reallocation of resources from less productive to more productive sectors. Example: Shift from producing consumers to capital goods, because capital goods have a higher added value. Furthermore, they can move from low productive sectors like primary to high productive sectors like secondary and tertiary.

4. Supply-Side policies tends to boost AS in the longrun and increase the potential of the economy

These are the policies that increase the overall supply in the economy. Methods can include:
1. Improvement in education
2. Reforming trade unions to make labor markets more competitive
3. Privatization
4. Cut welfare payments to increase the incentive to work
5. Subsidies Merit and public good

5. Harrod-Domar Model of Economic Growth

This is a model of economic growth that emphases the importance of **savings and investment.** This model attempts to develop how equilibrium could be achieved in a growing economy. This model emphasized the importance of savings in the process of economic growth and concluded that a country seeking economic growth must first increase its flow of savings. However this model is less effective in LEDCs because:
1. Generation incomes is difficult and whatever is made is mostly used in consumption.
2. These economies have underdeveloped financial markets making it difficult for funds to be recycled.
3. Some governments keep the interest rates low to increase borrowing this leads to low savings.
4. These economies also lack entrepreneurs who can start businesses with these loans.

also due to difficulty of setting up an enterprice

Saving Investment

output and income Capital accumulation

Choic

(13)

2. Advantages and Disadvantages of Economic Growth

Advantages — Improvement of happiness	Disadvantages
1. Increased Standard of living: This leads to a in economy reducing in absolute poverty and more production of consumer goods which would encourage more consume choice. Increase SOL as more goods n services are being produced which enhance the choice for the consumer	1. Environmental Damage: This results from more pollution from factories, cars etc. Damage to the natural landscape by extracting minerals resources and in terms of depletion of non-renewable resources might harm the future growth potential and also put pressure on the government to solve this issue.
2. Improved Health Care and Education: Since the economy is growing the literacy rates increase, while infant mortality and death rates should fall. This increases the quality of labor force and also reduces the burden on the economy for health care in the long-run.	2. Opportunity Cost: If a country is on its PPC then reallocation to capital goods will lead to loss of consumer goods today. This would reduce the standard of living today since current consumption will fall.
3. Increased Tax Revenue: Since the output would be more the government will gain higher tax revenue from direct taxes and indirect taxes. Direct taxes will increase since firms and consumer's profits and incomes increase respectively. Furthermore, since more goods would be consumed more revenue would be gained from indirect taxes which can fund hospitals, schools and infrastructure in the economy and leads a more even distribution of income in the economy.	3. Unequal Distribution of Rewards: Growth will likely to result in changes in economic structure and ways of production, leading to some people becoming unemployed while others gain from work. Some workers might be in stress to learn new skills and longer working hours. This can result in rich might start getting richer and poor might start getting poor if reduction in taxes was used to achieve this growth.
4. Increased Business Confidence: This growth encourages business to take a positive view of the economy and to want to invest, innovate, and use more technology this would increase investment in the economy. Furthermore, consumers would spend more increasing the AD.	4. Lower Quality of Life: Due to rapid urbanization cities might get over crowded and with greater stress breakdown of family networks and might result in more income but poor quality of life. Furthermore, an excess of AD might lead to high level of inflation future adding to the problem.
5. Avoid Macroeconomic Problems: When people want higher standard of living they demand higher wages which can lead to BOP deficits, inflation and industrial disputes. However, if long-term policies are implemented then the AS shifts outwards and helps the economy to avoid such problems by increasing employment and output while reducing prices and the same time.	5. Imports Increases: Since people are earning more they might shift their demand from local products to imported ones resulting in a deficit in the ~~BOP~~. current account of BOP
	6. Low Foreign investment: Since employment is increasing wages tend to go up. This might result foreign firms from investing the home country fearing high cost of production. Initially, when the economy is growing the production cost is low but when it is booming it leads higher cost of production which result in poor standard of living, firms prefer not to invest due to high factor prices than short run

Due to govt policies supply side policies that improve standard in long run

Direct taxes reduce economic disparity. Indirect taxes especially on demerit goods can be used to provide merit and public goods

The country see more FDI as buying power of individuals therefore investment increase leading to stronger currency

In short run usually inflation, unemployment is being reduced however in the LR all objectives are being met simultaneously

Takes place in developing economies where sustainable growth methods are not implemented

In short run, consumer have to make a choice which good to consume

Initially, economies have to keep poor standard of living to enjoy growth in future

Usually when rich start getting richer and poor start getting poor

Evaluation of Economic Growth

So should countries pursue economic growth? The answer depends on the following variables:

1. What Costs and Benefits are involved (revenue earned from taxes vs environmental damage) can externalities be overcome?
2. Can opposing views be reconciled → Different economists view growth differently
3. Depends on which method is used to achieve economic growth. Can a country develop sustainable long run methods for growth
4. Availability of resources Depends on how much resources are not utilized, more beneficial than short run

To conclude the government can view this dilemma as constrained optimization. It can set constraints, level of environmental protection, minimum wages, maximum rates of depletion of non-renewable resources etc. It then seeks policies that will maximize growth while keeping within the constraints.

Lecture 1

5) Depends on rate of growth as well; Also is it planned or unstable one. A steady rate of growth is more beneficial than an unstable but rate of growth

TOPIC 2: STANDARD OF LIVING

Lecture 2

Definition | Standard of Living: Standard of living is the level of happiness citizens of a nation are enjoying or standard of living is the level of well-being of a nation. The are several methods to **measure standard of living and economic development:** add → Nominal GDP - Total value of goods n services being produced in an economy. Country with high nominal GDP had to be enjoy higher standard of living due to more variety and employment in the country however, this figure is misleading because it doesn't take into account the rate of inflation and does not consider the population

1. Real GDP per Capital
2. Net Economic Welfare (NEW) or Measurable Economic Welfare (MEW)
3. Human Development Index
4. Number of Consumer Durables per person
5. Human Poverty Index
6. Multidimensional Poverty Index
7. Qualitative Factors

1. Real GDP per Capital

Definition: Real GDP per capita is a measurement of the total economic output of a country divided by the number of people and adjusted for inflation. It's used to compare the standard of living between countries and over time. It is better than simple GDP because it takes **inflation** and **population** into consideration. It can be calculated with the following formulae:

$$\text{Real GDP per Capita} = \frac{\text{Real GDP (GDP Adjusted for Inflation)}}{\text{Population}}$$

Problems comparing national income figures between countries

Problem	Factors
1. Common Currency exchange rate fluctuation same different in the	The income figures of each country have to be converted into a common currency. It can be difficult deciding what value to use, because the value of exchange rate is often changing all time.
GDP 2. Different accounting techniques different ways to calculate GDP	Accounting techniques vary between countries which can alter the way in which income is calculated.
3. Price Levels	It is important to take price level into account as well as nominal income figures. A country may have less average income but also lower prices.
4. Composition of output consumer v capital	The composition of output may vary considerably. One country may be spending on defense, another may be producing consumer goods. The one with consumer goods would have a higher standard of living.
5. Barter	Some economies have much more barter and a greater black economy (illegal) than others. Hence the output in the barter one might be more but it won't be recorded.

Hidden and illegal economy not shown in GDP which might undervalue the figure

2. Net Economic Welfare (NEW) or Measurable Economic Welfare (MEW)

Definition: Net Economic Welfare (NEW) is an adjusted measure of GDP that includes not only consumption and investment items but also all monetary and non-monetary factors that contribute directly to economic well-being.

Additions (+)	Subtractions (-)
1. Value of Leisure Time: Working fewer hours to get satisfaction from leisure 2. Unpaid Jobs: These include cooking meals 3. Income Inequality 4. Illegal Goods: These include selling of drugs 5. Legal Goods: These include carpenter doing work without reporting to the government.	1. Congestion 2. Pollution 3. Depletion of natural resources 4. Crime 5. Traffic accidents

→ One of the most reliable ways to measure standard of living

3. Human Development Index
Definition: The Human Development Index (HDI) is a statistic composite index of
(i) Life expectancy / Healthcare
(ii) Education / Literacy rate
(iii) GDP per capita income indicators,
These variables are used to rank countries into four tiers of human development. A country scores a higher HDI when the lifespan is higher, the education level is higher, and the GDP per capita is higher and is generally classified to have a higher standard of living. However The Human Development Index has been criticized on a number of grounds, including alleged lack of consideration of technological development or other qualitative variables like income distribution, human rights, environmental issues and cultural differences.

4. Number of Consumer Durables per person
Definition: Consumer durables are a category of consumer products that do not have to be purchased frequently because they are made to last for an extended period of time (typically more than three years). Example: TVs, Cars, Mobiles etc. Since consumer durables usually represent big-ticket items, both consumers and businesses will typically make these purchases only when they are confident they can afford them. During a period of economic growth, when consumers have more confidence in the economy, there's an increased demand for durable goods which will mark a higher standard of living.

5. Human Poverty Index → Lower the Rank, the Best
Definition: The Human Poverty Index (HPI) was an indication of the standard of living in a country, developed by the United Nations (UN) to complement the Human Development Index (HDI). The HPI concentrates on the deprivation in the three essential elements of human life already reflected in the HDI: longevity (Probability at birth of not surviving to 40), knowledge (Adult literacy) and health care (improved water and children who are underweight). The HPI is derived separately for developing countries (HPI-1) and a group of select high-income OECD countries (HPI-2) to better reflect socio-economic differences and also the widely different measures of deprivation in the two groups.

6. Multidimensional Poverty Index Lower the Better
Definition: The Multidimensional Poverty Index (MPI) was developed in 2010 by the Oxford Poverty & Human Development Initiative (OPHI) and the United Nations Development Program and uses different factors to determine poverty beyond income-based lists. It replaced the previous Human Poverty Index. It complements traditional income-based poverty measures by capturing the severe deprivations that each person faces at the same time with respect to education, health and living standards. The MPI assesses poverty at the individual level. If someone is deprived in a third or more of ten (weighted) indicators, the global index identifies them as 'MPI poor', and the extent – or intensity – of their poverty is measured by the number of deprivations they are experiencing. The MPI can be used to create a comprehensive picture of people living in poverty, and permits comparisons both across countries, regions and the world and within countries by ethnic group, urban/rural location, as well as other key household and community characteristics. Their indicators include:

Dimension	Indicators
1. Health	1. Child Mortality 2. Nutrition
2. Education	1. Years of Schooling 2. School Attendance
3. Living Standards	1. Cooking fuel 2. Toilet 3. Water 4. Electricity 5. Floor 6. Assets

7. Qualitative Factors of Standard of Living

Factors	Description
1. Hidden informal or underground economy	These terms refer to economic activity that is not declared and so will not be included in the official GDP data. Hence this should be calculated to get a proper understanding of the economy.
2. The level of Literacy	Total number of literate persons in a given age group, expressed as a percentage of the total population in that age group. Hence higher the literacy greater the SOL.
3. Government Spending	It is difficult to calculate the government spending because it is not always easy to value the output of something that is not sold in the market. Hence higher the govt. spending greater would be the SOL.
4. Sustainability	A country that is experiencing high level of economic growth would be experiencing increased SOL in the short-run but if it is not conserving its resources this would lead to natural resources being depleted in the long-run with higher pollution and lower SOL in the future.
5. Unequal Distribution of Income	The greater the distribution of income in the country higher would be the SOL.
6. Products Produced	The composition of the GDP will also indicate the SOL. A country producing more military goods would have a lower standard of living as compared to a country that is producing more merit goods.
7. Contrast between consumer and capital goods	A rise in the SOL will come as a result of an increase in consumer goods available. However it should be noted that in the short-run the country must produce capital goods to make this happen.
8. Quantity and Quality of Output	GDP only measures the quantity. The quality of output should always be taken into consideration.
9. Effect of Exchange Rate	It is necessary to take into account the effect of changes in the exchange rates between countries which would otherwise distort any comparison. Economists achieve this through the purchasing power parities.
10. Working hours and working conditions	The way that output is produced should also be taken into considerations. Example: A country's output may have increased substantially but only at a accost of a significant increase in working hours and a deterioration in working conditions.
11. Political Freedom	Political freedoms and civil/human rights also need to be taken into account when assessing the quality of life in different parts of the world.

Lecture 2

TOPIC 3: ECONOMIC DEVELOPMENT

Lecture 3

Definition | Economic development: It is the process by which a nation improves the economic, political, and social well-being of its people. Key classifications of countries:

Classification	Description
1. LECDs Low economy developed	Low and middle-income countries are often referred to as developing economies or less economically developed countries (LEDCs). In these countries, the per capita income is low and standard of living is generally poor.
2. MEDCs	High income countries are often referred to as developed economies or more economically developed countries (MEDCs). In these countries GDP per capital is high and there is high degree of economic prosperity.
3. Dual Economies	This is the one in which a traditional mainly rural sector co-exists with a modern mainly urban sector.
4. BRICS	BRICS is a grouping acronym that refers to the countries of Brazil, Russia, India and China, South Africa which are all deemed to be at a similar stage of newly advanced economic development.
5. Tiger Economies	These are group of newly industrialized economies in East Asia who have experienced rapid economic growth. These economies produced high quality products through specialization and achieve massive EOS. This enabled them to enjoy a period of export led growth.

Transfer — Higher Output → Less efficient, healthcare low

1. CHARACTERISTICS OF DEVELOPED AND DEVELOPING ECONOMICS

1. Real GDP per Capita

Definition: Real GDP per capita ~~is a measurement of the total economic output~~ of a country divided by the number of people and adjusted for inflation. It's used to compare the standard of living and economic development between countries and over time. It is better than simple GDP because it takes inflation and population into consideration. Developed economies tend to produce more tertiary sector output which are of high economic value as a result these economies tend to have a higher GDP per capita as compared to developing economies which reply on primary sector output which is of low economic value.

2. Population Growth

of death children ... Brazil

Birth rate and death rates are two key factors in population growth. As countries develop, health and education services improve, leading to lower birth and death rates. Also important is the infant mortality rate. Improved health care will lead to a decline in infant mortality rate. The greater the difference between birth and death rate the higher is the population growth. This difference is called the natural increase.

The developed countries have low birth and death rates with only a small increase, whereas developing countries have high birth and death rate and large increase in population.

Note: Recently two groups of countries have been identified as having going beyond the developing state. There are BRICS countries (Brazil, Russia, India, China, South Africa) and the MINT countries (Mexico, Indonesia, Nigeria, and Turkey). Their birth rate are higher than developed countries but less than the developing.

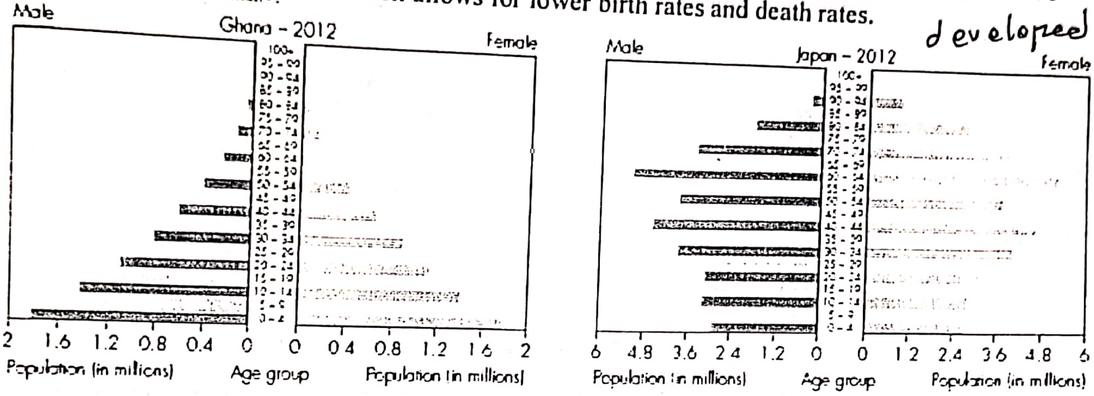
In addition, migration plays a part in determining population growth. In many developing countries there is often a net outflow, emigration of people seeking employment and higher SOL in other countries, whereas in countries such as the USA there is net inflow or immigration.

3. Population Structure

This shows the population of country by male and female and different ages. It is commonly shown as a population pyramid. Developing countries have a wide base indicating a large young population, while developing countries have more people 65 years and over. This is because developed countries have better health care and education which allows for lower birth rates and death rates.

Low birthrate and low death rate shows better healthcare facilities

developed



High birth rate high death rate show poor healthcare facilities

4. Income Distribution

Income distribution is the smoothness or equality with which income is dealt out among members of a society. If everyone earns exactly the same amount of money, then the income distribution is perfectly equal. In developing countries there is a wide gap between the richest and the poorest. The rich usually have a large percentage of money income (e.g. 40%) whereas the poor have approx. (10%).

One way of comparing this is using the **Gini Coefficient**. The developed countries have lower level of income inequality (lower Gini coefficient) where in developing countries there is a high level if income inequality (higher Gini Coefficient). It should be noted that once countries are developing rapidly like BRICS countries initially there is high level of income inequality but in the long run it improves. **(Kuznets curve)**

5. Economic Structure

As countries develop, the primary sector becomes less important in terms of contribution to GNP and employment and secondary and tertiary sectors become more important. In developed economies the tertiary sector has continued to grow while secondary sector has declined. This is because developed countries want to move towards the most productive tertiary sector and tend to outsource production to developing economies where there are cheap factors of production.

6. Employment Composition

In developing countries, a high portion of their employment is in the primary sector. As countries develop their industry employment increases in the secondary sector and once it reaches high development it into the tertiary sector. The reasons are that economic development not only leads to greater demand for services such as education and health but also greater mechanization and automation of manufacturing this leading to greater employment in that sector.

Developing economies tend to export more material and import secondary and tertiary

7. External Trade

Developing countries rely heavily on exports of primary products, but as they grow they start to specialize in manufactured products. This is because terms of trade of primary goods tend to worsen against manufactured goods so these countries receive a lower price for exports and pay a higher price for imports, while the supply and demand for primary products are generally inelastic.

While developing countries exports usually primary and are usually reliant on one export the developed countries tend to export secondly and tertiary and have a lot of variety. Example: China's 90% exports are manufactured goods whereas Nigeria 95% exports are petroleum.

developed X → exports secondary and tertiary

8. Urbanization

It is the increase in the population of people living in towns and cities. The portion of people who live in rural areas tend to be higher in developing countries that the developed ones. Furthermore usually in developing countries there is a lot of rural-urban migration which can put pressure on the resources in the urban areas.

9. Dependency

Many developing countries have become dependent on developed countries. This is mainly because of MNCs as although these companies bring embayment however they destroy the local businesses which leads to less production by the local firms. This leads to the country being dependent on these firms and suffer long-run economic drains when these MNCs shift profits back to their home countries.

10. External Debt

Developing countries have high level of external debt and debt repayments as a percentage of their GDP. This is because they usually don't produce enough and have to borrow from organizations like World Bank and IMF to fulfil their needs. Whereas developed countries tend to fund their growth options with their resources however if they take a loan it is usually a small percentage of their GDP. due to this the interest payment of developing economics are high, leading to less money available to spend in the country

11. Social

Economically developing countries have greater social problems. These include high crime rates, poor quality of water, lack of jobs. This is because the governments are usually focused on fulfilling the basic needs that there is less concentration on human development. Whereas for developed countries the governments usually try to subsidies important areas like education, police, etc. which results a higher quality of life. This can be seen by HDI. Developed countries have a higher HDI whereas developing ones are low in it.

Summary of the LEDCs and MEDCs

Features of LEDCs	Features of MEDCs
1. Less GDP per capita	1.High GDP per capita
2. Low life expectancy	2. High life expectancy
3. Low Literacy rates	3. High Literacy rates
4. High population growth	4. Low population growth
5. Poor Infrastructure	5. Better Infrastructure
6. Low foreign direct investment	6. High foreign direct investment
7. Poor health care	7. Good health care
8. Low Labor Productivity	8. High Labor Productivity
9. High Public Debt	9. Low Public Debt
10. Reliance of Primary output	10. Reliance of Secondary and Tertiary output
11. Corruption	11. Low Corruption / Strong law enforcement
12. Low HDI	12. High HDI
13. High degree of income inequality	13. Low degree of income inequality

Problems to achieve development for developing countries

Factor	Description
1. Poor Natural Resources	This results in low productivity in the primary sector and less quality products lead low value added goods.
2. Lack of investment	Low investment leads to low output which leads to low productivity. Low output will mean low incomes and when incomes are low this will lead to less savings hence investment continues to fall. This creates a vicious cycle of poverty.
3. Lack of developed financial markets	A shortage in terms of number and range of financial institutions tends to discourage saving and make it more difficult to channel funds from savers to borrows.
4. Lack of human capital	As the labor is not trained and due to less output there not only unemployment it leads to lower productivity and the country won't be able to take benefit from foreign direct investment.
5. High Population	A country with a high birth rate will have to devote resources to hospitals and schools which could have been used by the industry.
6. Foreign Debt	Developing countries take loans to meet their expenditures. This drains economy's reserves and taxes might be raised to pump in more revenue to the government.
7. Disadvantage in International Trade	Developing countries export primary products these are not only less value added but the supply is also not reliable as they are dependent on weather conditions etc. This leads to the country being vulnerable to changes in the international market.

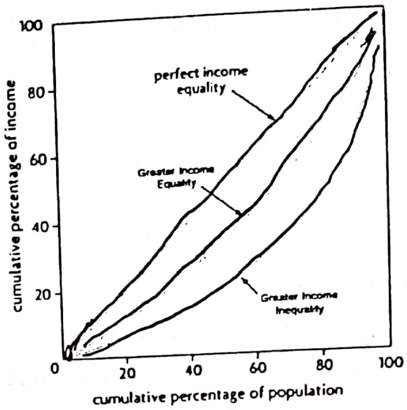
Since the banking system is not refined, the economy does ecounter issues like lack of basic generation and idea creation

Policies to increase development

Policy	Description
1. Increase Agricultural Productivity	As the agricultural products are produced this will also lead to an increase in capital goods like tractors. This will lead to more production and lower costs for other industries which can make exports more competitive.
2. Export-oriented industrialization	This revolves around removing trade barriers so that the local firms are forced to become more efficient. However this might destroy the local industry if the foreign competition is too strong.
3. Attracting foreign direct investment	This involves inviting multinationals which would allow the country to not only gain more tax revenue, employment and better technology but might also attract other MNCs in the future.
4. Developing Tourist market	This industry has high income elasticity of demand. This can result in large amount of foreign exchange flowing in the country.
5. Population Control	By controlling birth rate the country can reduce its dependency ratio however it should be remembered that these programs are not easy and take time to implement.
6. Borrowing from Abroad	The country can borrow from developed countries or international organizations like IMF and World Bank to stimulate economic growth. However they will only work if the money is spent on developmental projects and the country generates revenue otherwise it would accumulate large amount of foreign debt.
7. Foreign Aid	Foreign Aid (grants, loans at low interest rates for education and technical services can assist the development if it is used in high productive projects.

1. Lorenz Curve

Definition: A Lorenz curve is used to show the degree of income inequality in an economy. In general, the closer a Lorenz curve is to the diagonal representing perfect income equality, the greater is the equality in income distribution.



-> Stay closer to perfect income inequality

-> If far from curve, income inequality is worse

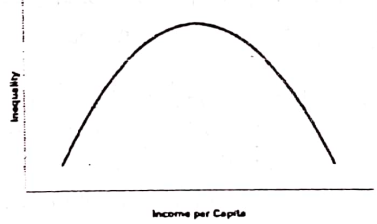
2. Gini Coefficient

Definition: The Gini coefficient is a summary measure of income inequality, and in a Lorenz diagram is the ratio of the area between the diagonal and the Lorenz curve, to the total area under the diagonal. It has a value between 0 and 1:

1. The closer the value is to 0, the greater the income equality
2. The closer the value is to 1, the greater the income inequality

3. Kuznets curve This curve shows that initially when the economy develops the inequality tends to increase. However, with passing of time, the govt will tend to redistribute the benefit and restore equality

Definition: A Kuznets curve graphs the hypothesis that as an economy develops, market forces first increase and then decrease economic inequality. Kuznets curve diagrams show an inverted U curve, although variables along the axes are often mixed and matched, with inequality or the Gini coefficient on the Y axis and economic development, time or per-capita incomes on the X axis



The Kuznets curve implies that as a nation undergoes industrialization – and especially the mechanization of agriculture – the center of the nation's economy will shift to the cities. As internal migration by farmers looking for better-paying jobs in urban hubs causes a significant rural-urban inequality gap (the owners of firms would be profiting, while laborers from those industries would see their incomes rise at a much slower rate and agricultural workers would possibly see their incomes decrease), rural populations decrease as urban populations increase. Inequality is then expected to decrease when a certain level of average income is reached and the processes of industrialization – democratization and the rise of the welfare state – allow for the benefits from rapid growth, and increase the per-capita income. Kuznets believed that inequality would follow an inverted "U" shape as it rises and then falls again with the increase of income per-capita.

Lecture 3