

# **Development Theory and Policy**

**For MSc. Students in Economics Department**

**PPM program**

**Debre Markos University**

**Course Code: DPPM 511**

**Credit Hours: 2**

**Classification: Core**

**Semester: Year 1, Semester I**

**Instructor: Arega Sh.(PhD.)**

# Course outline

## **1. Economic Development: Concept, Approaches and Measurement**

- 1.1. Conceptualization of Economic Growth and Development
- 1.2. Traditional and Modern Economic Measures
- 1.3. Basic Indicators and Holistic Measures of Development
- 1.4. Objectives of Development

## **2. Characteristics of Developing World**

- 2.1. Defining the Developing World and Structural Features
- 2.2. Basic Indicators of Development & Holistic Measures of Living Standards
- 2.3. Dominance and Structure of Informal Market and Vulnerability to Shocks
- 2.4. Dualism of Financial and Labor Market
- 2.5. Agrarian Based Economics and Transforming African Economics

# Course outline

## **3. Theories of Economic Growth and Development**

- 3.1. Classic Theories of Economic Growth and Development
- 3.2. Growth Models (Endogenous vs Exogenous; Balanced vs Unbalanced, and Inward Vs Outward Looking Growth)
- 3.3. Contemporary Models of Development and Underdevelopment
- 3.4. Empirical Applications of Development Models to African and Ethiopian Economy: Examinations

## **4. Economic Growth, Poverty, and Inequality**

- 4.1. Conceptualization of Income Distribution and Development
- 4.2. Measuring Inequality
- 4.3. Poverty, Inequality, and Social Welfare
- 4.4. Characteristics of High-poverty Groups
- 4.5. Policy Options on Income Inequality and Poverty

## **5. Factors of Development: More Focus on Population Theory**

- 5.1. Natural Resource Endowment
- 5.2. Population Growth and Labor Market
- 5.3. Capital Formation and Foreign Investment
- 5.4. Population Growth and Development: Causes, Consequences, and Controversies
- 5.5. Technological progress, Efficiency: Total Factor Productivity

# Economics as a Discipline

- Economics is the most powerful social science.
- Economists are constantly consulted by powerful people.
- Many economists themselves are in positions of power.
- Economics is a devoted social science to serve specifically a class interest.
- Economics has been a highly specialized field of knowledge since the mid-19<sup>th</sup> c.
- More than any other social knowledge, economics claims the status of “**science**” in terms of its **logical strictness** and **mathematical sophistication**.
- Economists are considered to be professional experts and they are heard with respect because they are thought to speak the scientific truth about the **economy, growth, employment, and development**.
- **Economics** is the most isolated **social science**.

# Chapter one

## **1. Economic Development: Concept, Approaches and Measurement**

- 1.1. Conceptualization of economic growth and development
- 1.2. Traditional and modern economic measures
- 1.3. Basic indicators and holistic measures of development
- 1.4. Objectives of development
- 1.5. Shortcomings of growth and development measures

# 1. Economic Development: Concept, Approaches and Measurement

## 1.1. Conceptualization of economic growth and development

- *Development can be seen as a process of expanding the real freedoms that people enjoy.* —Amartya Sen.
- **Development** means making a **better life** for everyone.
- **A better life** means, essentially meeting basic needs:-
  - sufficient food to maintain good health;
  - a safe, healthy place in which to live;
  - affordable services available to everyone;
  - being treated with dignity and respect.
- **Development** is a founding belief of modernity.
- **It** is the process of changing the world for the better.

## 1.1. Conceptualization of economic growth & development

- **Development**:-The process of improving **quality of all human lives** and **capabilities** by raising people's levels of **living, self-esteem & freedom**.
- In **development**, all the advancements in **science & technology, democracy & social organization, rationalized ethics & values**, fuse into a single humanitarian project of **deliberately & cooperatively producing** a better world for all.
- “**Development**” is fundamentally different from the more conventional concept “**economic growth**.”
- A major goal of **poor countries** is **economic growth**.

# 1.1. Conceptualization of economic growth & development

- The **two terms are not identical**.
- **Growth** may be necessary but not sufficient for development.
- **Economic growth** refers to increment in a country's production or income per capita.....
- **Economic development**:- refers to economic growth accompanied by changes in **output distribution** and **economic structure**.
- **Economic growth**:- means achieving a more massive economy producing **more goods** and **services** on the one side of the national account (GDP) and a larger total income on the other (GNI).
- But **economic growth** can occur **without touching problems** like **inequality** or **poverty** when all the increment goes to a few people.
- Indeed, **growth** has occurred in most **Western countries over the past 30 years** at the same time the **income inequality has widened**.



# 1.1. Conceptualization of economic growth & development

- Because of **social** and **environmental reasons**, growth is justified only when it **produces development** & **satisfies** essential needs.

## Components of Economic Growth

- **Three components** of economic growth are of **prime importance**:-
  - **1. Capital accumulation**, including all **new investments** on land, physical equipment, and human resources through improvements in **health, education, and job skills**.
  - **2. Growth in population** and hence eventual growth in the labor force.
  - **3. Technological progress**-new ways of accomplishing tasks.

# 1.1. Conceptualization of economic growth & development

- **Economic infrastructure:-** The amount of physical and financial capital embodied in roads, railways, waterways, airways, and other transportation and communications, water supplies, financial institutions, electricity, and public services such as **health** and **education**.
- **Capital accumulation:-** Increasing a country's stock of real *capital* (net *investment* in fixed assets).
- To increase the *production of capital goods* necessitates a reduction in the production of consumer goods.
- **Capital stock:-** The total amount of *physical goods* existing at a *particular time* that have been produced for use in the production of other goods and services.

## 1.1. Conceptualization of economic growth & development

- **Development pays attention** to the environments affected by **economic activity**, labor relations and conditions of the actual producers of wealth to produce growth.
- If growth affect the **environment**, and deadens working life, it is **not development**.
- If growth merely produces more junks rather than schools or clinics, it is **not development**.
- If growth merely concentrates **wealth in the hands of a few**, it is **not development**.
- If the growth process is controlled by a **few powerful people** rather than the many people who make it possible, **it is not development**.

# 1.1. Conceptualization of economic growth & development

- If growth subjecting the world's people to a nonstop bombardment of consumption inducement that invade every corner of life, it is **not development**.
- If growth is the outcome of **market processes** that no one controls-although a few people benefit-it is **not development**.
- Development is **optimistic**.
- It means **starting change at the bottom** rather than the **top**.
- It is improvement in a complex of linked natural, economic, social, cultural, and political conditions.
- It entails economic, social, and cultural progress, including, in the latter sense, finer ethical ideals and higher moral values.

## 1.2. Traditional and modern economic measures

- **Traditional economics:-** An approach to economics that emphasizes utility, profit maximization, market efficiency, and determination of equilibrium.
- **Political economy:-** The attempt to merge economic analysis with practical politics-to view economic activity in its political context.
- **It** is concerned with relationship between politics and economics, with a special emphasis on **role of power in economic decision making**.
- **Development economics** has a greater extent than **traditional neoclassical economics** or political economy.
- **It** is concerned with the economic, cultural, and political requirements for **rapid structural and institutional transformations** of entire societies.

## 1.2. Traditional and modern economic measures

- It tries to transform the fruits of **economic progress** to the broadest segments of the populations.
- It must focus on factors that **keep families, regions, and even entire nations** in poverty traps, *in which past poverty causes future poverty*.
- It tries to identify effective strategies for breaking **poverty trap**.
- Unlike the **more developed countries (MDCs)**, in the **less developed countries**:-
  - Most commodity and resource markets are highly imperfect.
  - Consumers and producers have limited information.
  - Major structural changes are taking place in both the society and the economy.
  - The potential for multiple equilibria rather than a single equilibrium is more common.
  - Disequilibrium situations often prevail (prices do not equate supply and demand).

## 1.2. Traditional and modern economic measures

- **Subsistence economy:-** It produces mainly for **personal consumption** and **the standard of living yields little** more than basic necessities of life-food, shelter, and clothing.
- In many cases, economic calculations are dominated by **political and social priorities** like unifying the nation, resolving tribal or ethnic conflicts, or preserving religious and cultural traditions.
- At the individual level, family, clan, religious, or tribal considerations may take precedence over private, self-interested utility or profit-maximizing calculations.

## 1.2. Traditional and modern economic measures

- Growth can be measure by GDP, GNP.....
- Monetary growth of GNI per capita minus the rate of inflation is used to measure the overall economic well-being of a population.
- How much of real goods and services is available to the average citizen for consumption and investment?
- In strictly economic terms, *development* has traditionally meant achieving sustained rates of growth of **income per capita** to enable a nation to expand its output at a rate faster than the growth rate of its population.
- HDI
- Other methods of measuring **development** and **growth** ....



## 1.3. Basic indicators & holistic measures of development

- **Development** is important because it produces an economy, and more broadly a society and culture, that determines how people live-in terms of income, services, life chances, education, and so on.
- It has three basic indicators:-
  - real income per capita adjusted for purchasing power;
  - health as measured by life expectancy, undernourishment, and child mortality;
  - and educational attainments as measured by literacy and schooling.
- The higher the per capita production or income, the more “developed” a country’s people are conventionally said to be, and the higher the annual growth rate per capita, the more rapidly a country is said to be developing.

## 1.3. Basic indicators & holistic measures of development

- An alternative summary measure that takes these into account is the **Human Development Index (HDI)** calculated by the United Nations Development Program (UNDP).
- This measure derives from concept of “**enlarging people’s choices,**” especially in terms of access to **knowledge, nutrition** and **health services**, security, leisure, and political and cultural freedoms.
- The HDI measures development in terms of:-
  - **longevity** (life expectancy at birth),
  - **knowledge** (adult literacy and mean years of schooling),
  - and **income sufficiency** (the proportion of people with sufficient resources for a decent life).

### **1.3. Basic indicators & holistic measures of development**

- In 2007–2008 the countries at the top of this index were, in order, Iceland, Norway, Australia, Canada, Ireland, Sweden, Switzerland, Japan, Netherlands, France, Finland, and the United States—all scoring over 0.9 out of a maximum of 1.0 (the United Kingdom ranked 16<sup>th</sup> and New Zealand 19<sup>th</sup> ; UNDP 2008).
- An HDI score below 0.5 represents low development, and 29 of the 31 countries in that category are located in Africa, the others being Haiti and Yemen.
- The lowest-ranked HDI countries are Sierra Leone, Burkina Faso, Guinea-Bissau, and Niger (UNDP 2008).

## 1.4. Objectives of development

- Development is both a physical reality and a state of mind in which society has, through some combination of social, economic, and institutional processes, secured the means for obtaining a better life.
- Whatever the specific components of this better life, development in all societies must have at least the following **three objectives**:-
- 1. *To increase the availability and widen the distribution of basic life-sustaining goods* such as food, shelter, health, and protection
- 2. *To raise levels of living*, including, in addition to higher incomes, the provision of more jobs, better education, and greater attention to cultural and human values, all of which will serve not only to enhance material wellbeing but also better individual and national self-esteem.
- 3. *To expand the range of economic and social choices* available to individuals and nations by freeing them from servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery.

# 1.4. Objectives of development

- Economic development is a process aiming at the promotion of the real national income of a country.
- It refers to the better utilization and full improvement of the resources in production process in different sectors of underdeveloped countries.
- Under – developed countries choose different objectives and initiate development for realizing the objectives.
- The following are some important and main objectives of economic development.
- **1. Increase in the level of national income:** it is the main objective of economic development.
- The level of national income could be increased by increasing the quantity and quality of various goods and services.
- Besides economic development is initiated for promoting the level of real national income of the country.
- **2. Increase in the investment:** Investment plays a significant role in the economic development of a country.
- So investment must be made in all important sectors.
- Investment in unimportant consumption sectors should be discouraged.
- More and more productive activities are carried on only when investment is made on large scale.

## 1.4. Objectives of development

- **3. Provision of employment:** Economic development aims at the elimination of unemployment problem.
- Qualified, talented, efficient and hard working persons must be provided employment in different spheres of productive activity.
- But it is very difficult for the government to provide jobs for all the unemployed persons.
- So, various means like self-employment schemes, rural electrification, roads and communications, transport etc have to be adopted for overcoming the dangers of unemployment problem in underdeveloped countries.
- **4. Removal of Poverty:** It is one of the important objectives of economic development.
- Economic development also aims at the removal of poverty and provision of social justice for all.

## 1.4. Objectives of development

- Power could be removed when the poorest persons in underdeveloped countries are provided with minimum needs like food, shelter, clothing, medicine etc.
- Programmes like adoption of the progressive taxation, economic power decentralization, key industry nationalization, special help to weaker sections etc have to be implemented with sincerity and honesty.
- **5. Self reliance:** Every country wants to achieve self-reliance and self-sufficiency in all matters.
- This objective could be achieved with herculean efforts of the people, government and social institutions.
- As economic development takes place, production in all sectors will increase.
- Exports will increase and imports will be minimized.
- Thus, there are several objectives of economic development.
- These objectives of economic development would be realized only with the adoption of a long term perspective plan.

## 1.4. Objectives of development **see the following data**

- In 1960 the 20% of the world's people living in the richest countries had 30 times the income of the 20% of the world's people living in the poorest countries; in 1973 the figure was 44 to 1; and in 1997 the ratio was 74 to 1 (United Nations Development Program 1999: 36–38).
- As statisticians find out more about it, the world is turning out to be even more unequal than was previously thought, both in terms of the differences among countries and the differences among groups of the world's people.
- National poverty rates in the low-income countries lie in the range of 45–70% of the population, while the percentage of people living on less than \$2 a day varies from 50% to 90%, depending on the country.



## 1.5. Criticisms of development measures [read more](#)

- We should immediately note two kinds of deficiencies in the official data on both growth and development.
- First, not only do these data vary greatly in reliability from country to country but also characteristics such as production, income, or education are, in reality, culturally specific rather than universal.
- Yet, national and international agencies report only that which can be measured using “conventional” accounting procedures.
- Whose conventions are used?
- Those of the First World market economies.
- Thus, GDP measures that part of production sold for a price in a formal market—but not products consumed within the family nor services exchanged informally.
- Thus, a major portion of the economic activity in many Third World countries is either ignored completely or simply estimated.
- Much of this unreported product results from women’s work for example, 60–80% of the food is produced in the “informal sector,” and 70% of informal entrepreneurs are women.
- All of this informal activity literally does not count when measuring the economy.

# **Chapter two**

## **2. Characteristics of Developing World**

**2.1. Defining the Developing World and structural features**

**2.2. Basic Indicators of Development & Holistic Measures of Living Standards**

**2.3. Dominance and Structure of Informal Market and Vulnerability to Shocks**

**2.4. Dualism of Financial and Labour Market**

**2.5. Agrarian Based Economics and Transforming African Economy**

## 2.1. Defining the Developing World & structural features

- It was common to think of **rich** and **poor** countries as separated by a wide gulf in the late 1940s and early 1950s.
- The rich included **Western Europe, the United States, Canada, Australia, New Zealand, and Japan**; the poor included **Asia, Africa, and Latin America**.
- The boundary between rich and poor countries, continuously increase and become even more blurred during the first decade of the 21<sup>st</sup> C.
- Today, an increasing number of the high-and upper-middle-income countries are **non-Western**.
- The fastest-growing countries are not necessarily the ones with the highest per capita GNP.
- Those countries considered to be poor in 1950 grew at about the same rate as rich countries during the subsequent three decades.
- A few of the poor countries (Taiwan, Singapore, South Korea, Malaysia, Thailand, and Mexico) in 1950 grew so much more rapidly than some higher-income countries (Argentina, Uruguay, Venezuela, and New Zealand) that the GNI per capita of countries of the world now forms a **continuum** rather than a **dichotomy**.

## 2.1. Defining the Developing World & structural features

- The classification of development used by the World Bank in 2003 divides countries into **four groups** on the basis of per capita GNI.
- These categories were roughly:-
  - low-income countries (\$1,000 or less),
  - lower-middle-income countries (\$1,001–3,000),
  - upper-middle-income countries (\$3,000–9,000), and
  - high income countries (\$9,000 or more).
- Each year, the boundary between categories rises with inflation, but few countries shifted categories between 1974 and 2003.
- Sometimes the high-income countries are designated as **developed countries** (DCs) or **the North**, and **middle- and low-income countries** as **developing**, **underdeveloped**, or **less-developed countries** (LDCs), or **the South**.

## 2.1. Defining the Developing World & structural features

- **Developing countries:-** Countries of Asia, Africa, the Middle East, Latin America, eastern Europe, and the former Soviet Union, that are presently characterized by low levels of living and other development deficits.
- Is used in the development literature as a synonym for less developed countries.
- Unlike developed countries, **developing economies** frequently do *not* have:-
  - a highly educated labor force
  - commercial farmers,
  - large numbers of responsive entrepreneurs,
  - a favorable climate for enterprise,
  - a high level of technical knowledge,
  - local ownership of industry,
  - heavy reliance on direct taxes for revenue,
  - a large number of export commodities,
  - an average income substantially above subsistence,
  - a well-developed capital market, or a high savings rate.

## 2.1. Defining the Developing World and structural features

### 1. Low per capita real income

- It is one of the most defining characteristics.
- They suffer from low per capita real income level, which results in low savings and low investments.
- It means the average person doesn't earn enough money to invest or save money.
- They spend whatever they make.
- It creates a poverty cycle that most of the population struggles to escape.
- The percentage of people in absolute poverty (minimum income level) is high in developing countries.

## 2.1. Defining the Developing World and structural features

### 2. High population growth rate/size

- They either have high population growth rates or large populations.
- They believe that more children could result in a higher labor force for the family to earn income.
- Higher birth rates and decreasing death rates through improved health care.

### 3. High rates of unemployment

- In rural areas, [unemployment](#) suffers from large seasonal variations.
- Unemployment is a more complex problem requiring policies beyond traditional fixes.

### 4. Dependence on primary sector

- Almost 75% of the population of low-income countries is rurally based.
- The manufacturing and services sector do have lower share in the overall economy.

## 2.1. Defining the Developing World and structural features

### 5. Dependence on exports of primary commodities

- Since a significant portion of output originates from the primary sector, a large portion of exports is also from this sector.
- For example, [copper accounts for two-thirds of Zambia's exports.](#)
- [Coffee for Ethiopia, Uganda.](#)
- Political elites extract immediate rents and transfers rather than providing incentives for economic growth.
- With independence African leaders were in no position to pursue development; rather they struggle for survival instead of being a public force.
- African countries tends to be privatized, that is, appropriated to the service of private interests by the dominant faction of the elite.
- The dominant pattern in Africa, is a personalized relationship between patrons and clients, commanding unequal wealth, status, or influence, based on conditional loyalties and involving mutual benefits.
- Corruption is endemic to political life at all levels in Nigeria and many LDCs.
- Political leaders use funds at the disposal of the state for systematic corruption, from petty survival venality at the lower echelons of government to autocracy at the top.



## 2.1.1. Characteristics of the Developing World: Diversity within Commonality

- There are important historical and economic commonalities among developing countries that led to them to economic development problems.
- There is a great deal of diversity throughout **the developing world**, even within these areas of **broad commonality**.
- The wide range of **income, health, education**, and HDI indicators already reviewed is sometimes called a “**ladder of development**.”
- There are ten major areas of “**diversity within commonality**” in the **developing world**.

### Lower Levels of Living and Productivity

- There is a vast gulf in productivity between advanced economies and developing nations.
- There is a wider range among the developing countries.

## 2.1.1.Characteristics of the Developing World

### Lower Levels of Human Capital

- Human capital-health, education, and skills-is vital to economic growth and human development.
- There is great disparities in human capital around the world with regards Human Development Index.
- The developing world lagged behind developed countries in nutrition, health (life expectancy or undernourishment), & education (literacy).
- The under-5 mortality is 17 times higher in low-income countries than in high-income countries, although progress has been made since 1990.

### Higher Levels of Inequality and Absolute Poverty

- Globally, the poorest 20% of people receive just 1.5% of world income.
- The lowest 20% now approximately 1.4 billion people living in extreme poverty on less than \$1.25 per day at PPP.
- To bring income of those living on less than \$1.25 per day to the minimal poverty line would require less than 2% of the world's wealthiest 10% income.

## 2.1.1. Characteristics of the Developing World

- This implies that the scale of global **inequality** is immense.
- The enormous gap in per capita incomes between rich & poor nations is not the only manifestation of the huge global economic disparities.
- It is also necessary to look at the gap between rich and poor *within individual developing countries*.
- Very high levels of **inequality-extremes** in the relative incomes of **higher-** and **lower-income citizens**-are found in many middle income countries.
- In this regard, Latin American countries historically tend to be both **middle-income** and **highly unequal**.
- Extreme poverty is due to **low human capital** but also to **social** and **political** exclusion and **other deprivations**.

## 2.1.1. Characteristics of the Developing World

### Higher Population Growth Rates

- Global population has **skyrocketed** since the **industrial era**, from just under **1 billion in 1800** to **1.65 billion in 1900** and **to over 6 billion by 2000**.
- **Rapid population growth** in recent decades, mostly centered in the **developing world**.
- The **developed countries** have birth rates near or even below replacement (**zero population growth**) levels.
- The low-income developing countries have very high birth rates.
- More than 5/6 of all the people in the world now live in developing countries.
- Both **older people** and **children** are often referred to as an economic **dependency burden** (usually defined as citizens between the ages of 15 and 64).

## 2.1.1. Characteristics of the Developing World

### Greater Social Fractionalization

- Low-income countries often have ethnic, linguistic, and other forms of social divisions, sometimes known as **fractionalization**.
- This is sometimes associated with civil strife and even violent conflict, which can lead developing societies to divert considerable energies to working for political accommodations
- It is one of a variety of governance challenges many developing nations face.
- Many of the factors associated with poor economic growth performance in sub-Saharan Africa are low schooling, political instability, underdeveloped financial systems, and insufficient infrastructure, can be statistically explained by high ethnic fragmentation.

## 2.1.1. Characteristics of the Developing World

- In **low-income countries**, there are **66** children under 15 for each 100 working-age (15–65) adults, while in middle-income countries, there are **41** and in **high-income countries** just **26**.
- In contrast, low-income countries have just **6** people over 65 per 100 working-age adults, compared with **10** in middle-income & **23** in **high-income ones**.
- Thus the total dependency ratio is 72 per 100 in low-income countries and 49 per 100 in high income countries.
- But in rich countries, older citizens are supported by their lifetime savings and by public and private pensions.
- In contrast, in developing countries, public support for children is very limited.
- So dependency has a further magnified impact in developing countries.

# 2.1.1. Characteristics of the Developing World

## **Larger Rural Populations but Rapid Rural-to-Urban Migration**

- One of the hallmarks of economic development is a shift from agriculture to manufacturing and services.
- In developing countries, a much higher share of the population lives in rural areas.
- Although modernizing in many regions, rural areas are poorer and tend to suffer from missing markets, limited information, and social stratification.
- A massive population shift is also under way as hundreds of millions of people are moving from rural to urban areas, fueling rapid urbanization, with its own attendant problems.
- Recently, more people live in cities than in rural areas. But sub-Saharan Africa and most of Asia remain predominantly rural.

## **Lower Levels of Industrialization and Manufactured Exports**

- One of the most widely used terminologies for advanced economies is the “industrial countries.”
- Industrialization is associated with high productivity, incomes and national economic power.
- It is obvious that most developing-country governments have made industrialization their priority, with a number of prominent success stories in Asia.

# 2.1.1.Characteristics of the Developing World

## Adverse Geography

- Many analysts argue that geography must play some role in problems of agriculture, public health, and comparative underdevelopment more generally.
- Landlocked economies, common in Africa, often have lower incomes than coastal economies.
- Developing countries are primarily **tropical** or **subtropical**, and they commonly suffer more from **tropical pests** and **parasites**, **endemic diseases** such as malaria, water resource constraints, and extremes of heat.
- A great concern going forward is that global warming is projected to have its **greatest negative impact on Africa** and **South Asia**.



## **2.2. Basic Indicators of Development & Holistic Measures of Living Standards**

### **2.2.1. Basic Indicators of Development**

- Three basic indicators of development:-
- Real income per capita adjusted for purchasing power;
- Health as measured by life expectancy, undernourishment, and child mortality; and
- Educational attainments as measured by literacy and schooling.
- PPP is calculated using a common set of international prices for all goods and services.
- Simply, PPP is defined as the number of units of a foreign country's currency required to purchase the identical quantity of goods and services in the local developing country market as \$1 would buy in the United States.
- Generally, prices of non-traded services are much lower in developing countries because wages are so much lower.
- Clearly, if domestic prices are lower, PPP measures of GNI per capita will be higher than estimates using foreign-exchange rates as the conversion factor.

## 2.2.1. Basic Indicators of Development

- In addition to **average income**, it is necessary to evaluate a nation's **average health** and **educational** attainments, which reflect core capabilities.
- Basic indicators of health (life expectancy, the rate of undernourishment, the under-5 mortality rate, and the crude birth rate).
- **Life expectancy** is the average number of years newborn children would live if subjected to the mortality risks prevailing for their cohort at the time of their birth.
- **Undernourishment** is consuming too little food to maintain normal levels of activity; it is what is often called the problem of hunger.

## 2.2.1. Basic Indicators of Development

- **Economic development** refers to economic growth accompanied by changes in output distribution and economic structure.
- These changes may include:-
  - ❖ an improvement in the material well-being of the poorer half of the population
  - ❖ a decline in agriculture's share of GNP
  - ❖ a corresponding increase in the GNP share of industry and services;
  - ❖ an increase in the education and skills of the labor force;
  - ❖ substantial technical advances originating within the country.
- Growth involves a stress on quantitative measures (height or GNP), whereas development draws attention to changes in capacities.
-

## 2.2.1. Basic Indicators of Development

- The following questions about a country's development: -
  - ❖ What has been happening to poverty?
  - ❖ What has been happening to unemployment?
  - ❖ What has been happening to inequality?
- If **all three** of these have become less severe, then beyond doubt this has been a **period of development for the country concerned**.
- Economic development can refer not only to the *rate* of change in economic wellbeing but also to its *level*.
- We commonly use **development indicators** such as life expectancy, per capita calorie supplies, and primary and secondary school enrollment rates), natural handicaps, and low economic diversification.

-

## 2.2.1. Basic Indicators of Development

### The Physical Quality Of Life Index (PQLI)

- It is alternative measure of welfare, which combines three indicators –**infant mortality rate**, **life expectancy** (at age one, to not overlap with infant mortality), and **adult literacy rate**, the ability to read and write in any language (in percentage).
- The **first two variables** represent the effects of nutrition, public health, income, and the general environment.
- Life expectancy is positively correlated with GNP per capita through:-
  - the impact of GNP on incomes of the poor and public spending, especially on health care....
- **HDI** “a process of enlarging people’s choices. The most critical ones are to lead a long and healthy life, to be educated and enjoy a decent standard of living”

## 2.2.2. Holistic Measures of Living Levels and Capabilities

### The Traditional Human Development Index

- The most widely used measure of the comparative status of socioeconomic development is the *Human Development Reports*.
- The HDI attempts to rank all countries on a scale of 0 (lowest human development) to 1 (highest human development) based on three goals:
- *longevity* as measured by life expectancy at birth,
- *knowledge* as measured by a weighted average of adult literacy (2/3) and gross school enrollment ratio (one third), and
- *standard of living* as measured by real per capita gross domestic product adjusted for the differing PPP of each country's currency to reflect cost of living and for the assumption of **diminishing marginal utility** of income.
- The HDI reminds us that by *development* clearly mean **broad human development**, not just higher income.
- Many countries, such as some of the higher-income oil producers, have been said to have experienced “growth without development.”
- Health and education are inputs into the national production function in their role as components of **human capital**, meaning productive investments embodied in persons.

# 2.3. Dominance and Structure of Informal Market and Vulnerability to Shocks

## 2.3.1. Dominance and Structure of Informal Market

- **Underdeveloped Markets**
- **Imperfect markets** and **incomplete information** are far more prevalent in developing countries, wherein the financial markets have worked less efficiently.
- In many developing countries, legal and institutional foundations for markets are **extremely weak**.
- Some aspects of **market underdevelopment** are that they often lack:-
  - (1) a **legal system** that enforces contracts and validates property rights;
  - (2) a **stable** and **trustworthy** currency;
  - (3) an **infrastructure** of roads and utilities that results in low transport and communication costs so as to facilitate interregional trade;
  - (4) a well-developed and efficiently regulated system of banking and insurance,
  - (5) broaden and formal credit markets access that select projects to fund on the basis of relative economic profitability and enforce rules of repayment;
  - (6) substantial **market information** for **consumers** and **producers** about prices, quantities, and qualities of products and resources as well as the creditworthiness of potential borrowers; and
  - (7) **social norms** that facilitate successful long-term business relationships.

## 2.3.1. Dominance and Structure of Informal Market

- These seven factors, along with:-
  - the existence of **economies of scale**,
  - thin markets for many products due to limited demand and few sellers,
  - widespread externalities in production and consumption, and
  - poorly regulated common property resources.....
- **markets are often highly imperfect.**
- Moreover, information is limited and costly to obtain, thereby cause goods, finances, and resources to be misallocated.
- Small externalities can result into large distortions in an economy and present the real possibility of an underdevelopment trap.
- The extent to which these **imperfect markets** and **incomplete information** systems justify a more active role for government.
- **Their** existence remains a **common characteristic of many developing nations** and an important factor contributing to the state of underdevelopment.



## 2.3.2. Vulnerability to Shocks

- The most frequent cause for the collapse in growth is an inability to deal with **consequences of external shocks** i.e, in terms of **trade declines** or reversals in **capital flows**.
- Maintaining macroeconomic stability during external shocks (for example, from oil price increases in 1973–74 and 1979–80 and American dollar depreciation in the late 1980s), thus **restraining inflation** and **avoiding external debt crises**.
- Dependence on **one** or **two exports** makes these countries especially **vulnerable** to **external price shocks**.
- Endowing the economy with resilience against shocks requires **strengthening the rule of law, solidifying democratic institutions, establishing participatory mechanisms**, and organizing social safety nets.
- When such institutions are in place, the **macroeconomic** and **other adjustments** needed to deal with **adverse shocks**.
- What is required to **sustain growth** should not be confused with what is required to **initiate it**?

## 2.3.2. Vulnerability to Shocks

- **External debt accumulates** with international balance on goods, services, finally result in **deficits**.
- **LDC international deficits** increased from a **series of global shocks**, including the 1973 to 1974 and 1979 to 1980 **oil price rises**.
- Moreover, the **recession** of the **industrialized countries**, 1980–83, and continuing slow growth in the 1980s (with sharply falling commodity prices, slowed export expansion).
- Deficits increased throughout the 1990s until mid-1998 through 2003, as borrowers paid down debts.
- Many of the **poorest countries** adversely affected by **external shock** or **growth deceleration**.
- In 1986–87, the IMF initiated **structural adjustment** loans for LDCs experiencing **unanticipated external shocks**.

## 2.3.2. Vulnerability to Shocks

- **Policy** is aimed at producing **economic growth**, and in low-income countries **economic activity** is constrained predominantly by **lack of investment**.
- Basically just the remedy is to **get international financial entities** to invest more.
- Then, what is expected from the developing countries is to reduce interest to foreign investors.
- Thus, the **country receiving foreign investment** may effectively investing.
- The sub-Saharan is not only vulnerable to **external price shocks** and **debt crises** that destabilized the **global economy** in the late 20<sup>th</sup> C. but also is plagued by **increasing food deficits**, **growing rural poverty**, **urban congestion**, and **falling real wages**.
- Reform and liberalization, often imposed by the IMF and World Bank were also source of economic problem for developing nations .

## 2.4. Dualism of Financial and Labour Market

- **Dualism** is the coexistence of two situations or phenomena (one desirable and the other not) that are mutually exclusive to different groups of society E.G., extreme poverty and prosperity, modern and traditional economic sectors, growth and stagnation, and higher education among a few amid large-scale illiteracy.
- **It** is a concept widely discussed in **development economics**.
- It represents the existence and persistence of substantial and even increasing divergences between rich and poor nations and rich and poor peoples on various levels.
- The concept of dualism continues to be based on the notion of a "meaningful" asymmetry between two sectors, agriculture and non-agriculture.
- It is in this sense that **organizational dualism** is an important feature of the **labor market**.

## 2.4. Dualism of Financial and Labour Market

- In the concept of dualism between **rural** and **urban** sectors, the labor market functions in different ways in the **two sectors**.
- In the dual economy models is that the **real wage rates** in rural areas have a floor and as a consequence **unemployment** is substantial in **rural labor markets**.
- Given the **abundance of labor** and the relative scarcity of cooperating factors, mainly finance and land, which result into problem of **underemployment**.
- It is a situation in which **productive employment** opportunities are limited not because of lack of capacity, effective demand, technological & resource constraints.
- Success in this case is defined as the **end of labor surplus** and consequently the end of organizational dualism in the labor market.

## 2.5. Agrarian Based Economics and Transforming African Economics

- **Structural-change theory** focuses on mechanisms by which **underdeveloped economies** transform from a heavy emphasis on **traditional subsistence agriculture** to a more **modern, urbanized**, and **industrially diverse manufacturing** and **service economy**.
- Two well-known representative examples of the structural-change approach are:-
  - the “two-sector surplus labor” theoretical model of W. Arthur Lewis
  - the “patterns of development” empirical analysis of Hollis B. Chenery.

### 1. The Lewis Theory of Development

#### Basic Model

- It is one of the best-known early theoretical models of development that focused on the **structural transformation** of a primarily subsistence economy
- It was formulated by Nobel laureate W. Arthur Lewis in the mid- 1950s and later modified, formalized, and extended by John Fei and Gustav Ranis.
- It became the general theory of the development process in surplus-labor developing nations during most of the 1960s and early 1970s,
- It is sometimes still applied, particularly to study the recent growth experience in China and labor markets in other developing countries.

## 2.5. Agrarian Based Economics and Transforming

- In this model, the underdeveloped economy consists of **two sectors**:
  - A traditional, overpopulated rural subsistence sector characterized by zero marginal labor productivity.
  - It is a sector with **surplus labor**
  - The surplus labor can be withdrawn from the traditional agricultural sector without any loss of output to a high-productivity modern urban industrial sector
  - The labor from the subsistence sector is gradually transferred.
- The primary focus of the model is on both the **process of labor transfer** and **growth of output and employment in the modern sector**.
- The modern sector could include **modern agriculture**, this sector “**industrial**” as a shorthand.
- Both labor transfer and modern-sector employment growth are brought about by output expansion in that sector.
- The speed with which **this expansion occurs** is determined by **the rate of industrial investment** and **capital accumulation in the modern sector**.
- Investment made possible by **the excess of modern-sector profits** over wages on the assumption that capitalists reinvest all their profits.

## 2.5. Agrarian Based Economics and Transforming

- Finally, Lewis assumed that wage in the urban industrial sector is constant, that is a premium over a fixed average subsistence level in the traditional agricultural sector.
- At the constant urban wage, the rural labor supply curve to the modern sector could be **perfectly elastic**.
- This process of **self-sustaining growth** & employment expansion is assumed to continue **until all surplus rural labor** is absorbed in the **new (industrial) sector**.
- Additional workers can be withdrawn from the **agricultural sector** only at **a higher cost of food production lose** since the declining labor-to-land ratio
- This means marginal product of rural labor is **no longer zero**.
- This is known as the “Lewis turning point.”
- Thus, the labor supply curve becomes positively sloped as modern-sector wages and **employment continue to grow**.
- Then, economic structural transformation will have taken place, with **balance of economic activity** shifting from traditional rural agriculture to modern urban industry.



# 2.5. Agrarian Based Economics and Transforming

## 2. Structural Change and Patterns of Development

- Like the Lewis model, this model of structural change focuses on the **sequential process of transformation** of an underdeveloped economy that transform over time to permit **new industries** to replace **traditional agriculture** as the engine of economic growth.
- Unlike *Lewis*, this model argued that increased savings & investment are perceived as **necessary** but not **sufficient** conditions for **economic growth**.
- In addition to **capital accumulation**, (**physical** and **human**), a set of interrelated economic structure changes are required for the **transition** from a traditional economic system to a modern one.
- These structural changes involve virtually **all economic functions**, including the **transformation of production** and **changes in the composition of consumer demand**, international trade, and resource
- Moreover, changes in **socioeconomic factors** such as urbanization and, growth and distribution of a country's population.

## 2.5. Agrarian Based Economics and Transforming

- Empirical **structural-change analysts** emphasize on both **domestic** and **international constraints** on development.
- **Domestic constraints** include resource endowment, physical and population size as well as institutional constraints like government policies & strategies.
- **International constraints** on development include access to external capital, technology, and international trade.
- Differences in development level among developing countries are largely ascribed to these **domestic** and **international constraints**.
- The international constraints make the transition of currently developing countries differ from that of **now industrialized countries**.
- Developing countries have access to opportunities created by the industrial countries as **sources of capital, technology, and manufactured** imports as well as **markets for exports**.
- They can make the transition at an even faster rate than that achieved by the industrial countries during their early period of development.
- Thus, unlike model, **the structural-change model** recognizes that developing countries are part of an **integrated international system** that can promote or hinder their development.

# Chapter Three

## 3. Theories of Economic Growth and Development

3.1. Classic Theories of Economic Growth & Development

3.2. Growth Models (Endogenous Vs Exogenous; Balanced Vs Unbalanced, & inward Vs Outward Looking Growth)

3.3. Contemporary Models of Development & Underdevelopment

3.4. Empirical Applications of Development Models to African & Ethiopian Economy: Examinations Class

## 3.1. Classic Theories of Economic Growth & Development

- “**Economic development** is a process of transforming an economy from rural and agriculture dominated to urban, industrial, and service dominated type” .
- It seems strange that there can be entirely different theories of development.
- *Why can't dedicated intellectuals just make up their minds, agree on the best theory, and then tell the world what policies to pursue?*
- It is because **development theories** reflect the **political positions**, places where they developed, philosophical perspective, and whether they are predominantly economic, sociological, anthropological, historical, geographic, and so on.
- Probably the most important of these is the *politics* of development theory.
- Some theories may be generally designated as “conventional.”
- These **conventional theories** accept basic capitalist structure as the best kind of society there could ever be-as **natural, inevitable**, and **essentially unchangeable**, as the only kind of society that can persist since capitalism bases human nature.

# 3.1. Classic Theories of Economic Growth & Development

- Such theories tend to emphasize **economic growth** over **development**.
- Conventional theories often accept the accumulation of wealth by a few and social inequality, for them, is the inevitable price of progress.
- They are centered on the discipline of economics.
- Classical economics also developed in conflict with an earlier set of ideas called mercantilism.
- Mercantilism lasts from the 15<sup>th</sup> C. to the early to mid-19<sup>th</sup>
- It was a system of ideas, institutions, politics, and economic practices that supported the absolutist (all-powerful) state and the ruling monarchical and aristocratic classes of the early capitalist period.
- It's political policy aimed at increasing national power.
- National power, it was realized, rested on economic means rather than the bravery of a country's citizenry or the spirit of its people.
- Production was understood in the modern way, as the application of labor to natural resources.

## 3.1. Classic Theories of Economic Growth & Development

- The period 1600–1850 can be seen as one long class struggle between the landed nobility and the new bourgeoisie for control of the state, control over ideas, and control over the economy and its products.
- Classical economics was one element in this struggle.
- Under mercantilism, a country was considered prosperous when it had a favorable balance of trade, resulting in an increased inflow of gold and silver.
- To achieve this balance, trade was controlled by the state, manufacturing was protected, regulated, and encouraged as a source of trading power.
- Economic development transforms a traditional dual-system society into a productive framework in which every one contributes and from which receive benefits accordingly.
- Economic development occurs when all segments of the society benefit from the fruits of economic growth through economic efficiency and equity.

# 3.1. Classic Theories of Economic Growth & Development

- Classical economics refers to a period of mainly British economic thought stretching from the publication of book *The Wealth of Nations* in 1776, to the publication of John Stuart Mill's *Principles of Political Economy* in 1848.
- It originated modern theories of growth and development.
- Under the **agricultural revolution**, technical change was occurring in terms of innovations in **crop rotations** and **production techniques**.
- *“It is not from the benevolence of the butcher, brewer or baker that we expect our dinner, but from regard to their own interest.”*
- So, a modern economy worked best through the interaction of inherently self-interested individuals.
- *The cost of something was made up from the labor that went into making it.*
- *The utility (usefulness) of a thing did not determine its price.*
- Rather, “labor is the real measure of the exchangeable value of all commodities”

### 3.1. Classic Theories of Economic Growth & Development

- The amount of labor used to produce commodities determined **values**, with the whole amount of money from the sale of the product belonging to the laborer.
- Capital originated in savings from these revenues.
- **Capital** could then be used to **hire additional workers**, who also **produced value**.
- When capital accumulated in the hands of capitalists and “they naturally employ it in setting to work industrious people”.
- The price (exchangeable value) of a commodity in more advanced societies came to be made up of three parts:-
  - wages -----going to workers
  - profits -----factory owners
  - rents ----- landowners.
- “**Natural prices**” determined in this way (**wages + profits + rent**) were brought into their proper relation with **market prices** by the pressure of competition.



### 3.1. Classic Theories of Economic Growth & Development

- **Accumulation of capital** and **its employment** in mechanized production might eventually be slowed down by a **scarcity of workers** and **high wages**.
- Smith thought that **overall population growth** too responded to **market incentives**.
- With more children born when wages were high, so that over the long term economic growth could continue without labor shortages.
- Thus, **economic growth**, for Smith, depended on **capital accumulation**, which in turn depended on **savings** from the **revenues** derived from working hard
- All this grounded in the virtues of **frugality** and **self-discipline**.
- **Economic growth** also supposed a culture rooted in morality, a system of natural liberty that respected the “higher virtues”.
- There should be no **artificial impediments** to trade, markets, and exchange.

### 3.1. Classic Theories of Economic Growth & Development

- Smith's economics tried to explain why **some nations prospered**, became **wealthy**, or experienced economic growth.
- Smith found the technical answer in what he called the “**division of labor**”, breaking the **total labor effort** of society into **specialized components**.
- Smith thought that relatively free trade organized through networks of markets would lead to an efficient allocation of productive resources (land, labor, capital).
- A society activated by self-interest needed a regulating (controlling, organizing) medium.
- Regulation was to be provided *not* by the **state**, which in Smith's day was still committed to the interests of the **noble landowners**.
- Rather, regulation came from competition among free individuals acting as buyers and sellers in the **marketplace**.

### 3.1. Classic Theories of Economic Growth & Development

- The web of self-regulating markets was an “**invisible hand**” organizing the economy efficiently and yet also transforming private self-interest into **public virtue**.
- Hence, market competition, led to **productivity** and **growth** without **state interference**.
- Self-interested competitive behavior **directed resources to where they could best and most profitably be used**.
- Thus, all classes shared in the benefits of progress.
- “*Natural liberty implied free competition, free movement of workers, free shifts of capital, and freedom from government intervention*”
- For Smith, markets were virtuous institutions of **social efficiency** and the key drivers of **invention**, **innovation**, and **risk taking**.

• “ገብያ የሚሰጠውን እናቶ አይሰጠውም”

# 3.1. Classic Theories of Economic Growth & Development

## Utilitarianism

- During the early 19<sup>th</sup>C., political economy changed in **style**, but not in essential substance.
- Bentham declared that **nature** placed humans under the governance of two sovereign “**masters**”: **pleasure**, which **made all people happy**, and **pain**, which **everyone hated**.
- Amounts of utility could be measured by **degrees of happiness**.
- Government’s objective should be to enable the **greatest possible happiness of the community** governed.
- The happiness of the individual was increased in proportion as the person’s **sufferings** were **lighter** and fewer and enjoyments greater and more numerous.
- The care of enjoyments ought to be left almost entirely to the individual.
- The principal function of government was to **guard against pain**.
- Governments did this by creating rights that are conferred on individuals:- rights of personal security, protection for honor, property, receiving aid if need.
- Human liberty meant freedom from **external restraint** or **compulsion**.
- Liberty was the absence of **restraint**, and to the extent that individuals were not hindered by others they had liberty and were free.
- Law that restricts liberty was evil.
- Law is necessary for social order, and good laws essential to good government.

# 3.1. Classic Theories of Economic Growth & Development

## Ricardian calculations

- ❖ A British millionaire trader in securities during the day, Ricardo wrote the book, *Principles of Political Economy and Taxation*.
- ❖ Like Smith, Ricardo saw the economic world as **tending to expand**, with **capitalists accumulating capital** that originated from **profits**.
- ❖ “*Supply created its own demand*” as producers employed and paid workers who, by spending, generated consumption and formed demand.
- ❖ Ricardo added a critical dimension to the theory of **economic growth**.
- ❖ With an **expanding population** and increased food demand, the margins of agricultural production would expand,
- ❖ This bring lesser fertile land into cultivation, increasing the cost of grain, yet increasing returns to landlords owning the better lands, earning them differential rents.
- ❖ In the early 19<sup>th</sup> C. British landlords were protected from foreign agricultural competition by a system of **Corn Laws** (in 1815).
- ❖ These laws imposed tariffs on imported grains, with the amount of the tariff dependent on the foreign price.
- ❖ Producing in accordance with **comparative advantage** and trading freely across borders **generated economic growth**.
- ❖ This insight was **Ricardo's contribution** to the classical economics.

# 3.1. Classic Theories of Economic Growth & Development

- Ricardo's liberal principle of **free trade** is reproduced in contemporary economics textbooks and is a basic component of **contemporary economic growth theory**.
- *“The principle of **comparative advantage** makes real incomes higher in all places, while ill-designed tariffs or quotas reduce efficiency and incomes.”*  
**Paul Samuelson.**
- He calls this principle the *“**unshakable basis for international trade.**”*
- In *Principles of Political Economy*, published in 1848, Mill (1909 ) argued that the **principles of competition** were the bases of **economic laws**.
- They could be outlined with **precision** and **given universal validity** by an **abstract science of economics**.
- Mill argued that due to lower **law of diminishing returns**-in manufacturing productivity and growth could transcend almost without limit.
- Hence, **economic growth** was naturally led by **industry** rather than **agriculture**.
- **Capitalism and growth were viewed as proceeding together in relative harmony.**
- Based on their value systems, **societies** could decide to **redistribute wealth** through **state intervention**, said Mill.
- So, there could be an **ethical economic growth**-similar to development.

# 3.1. Classic Theories of Economic Growth & Development

## Neoclassical Economics

- ❖ During the last half of the 19<sup>th</sup>C. economics changed from being “**political economy**,” to being “**economic science**”.
- ❖ Economics became a **specialized scientific discipline** fascinated by calculus, algebra, and plane geometry and increasingly removed from social concerns.
- ❖ The central **theme** of economics changed from the **growth of national wealth** to the role of margins in the **efficient allocation of resources**.
- ❖ The marginalist movement in economics began in earnest when three theorists-W. S. Jevons, Carl Menger, and Léon Walras-**independently & almost simultaneously** developed the idea of “**marginal utility**.”
- ❖ Jevons emphasized not the total utility induced by consuming all of a commodity but the final (marginal) degree of utility induced by a very small increment in consuming.
- ❖ With partial exceptions (Walras), this early version of **neoclassical** economics did not extend the marginal principle to the “factors of production” (resources, labor, capital, etc.) used in the manufacture of the exchanged commodities.



### 3.1. Classic Theories of Economic Growth & Development

- A second generation of marginalist neoclassical economists created the concept of **marginal productivity** in a theory of rational production.
- The basic idea is that production is **efficient** if a given quantity of outputs cannot be produced with less inputs.
- Neoclassical economics leads to the conclusion that markets are **generally competitive**, do **not tend toward monopolies**,
- Market processes usually result in optimum levels of production and allocation.
- This school of thought implies that there are relatively limited instances when government should intervene to promote economic ends, other than encouraging market competition, providing adequate schooling, and encouraging savings and investment.



## 3.2. Growth Models (Endogenous Vs Exogenous; Balanced Vs Unbalanced, & Inward Vs Outward Looking Growth)

### 3.2.1. Endogenous Vs Exogenous Growth Model

- **Endogenous growth model** assumes that a persistent GNI growth is determined by governing system of the production process rather than by **forces outside the system**.
- Principal motivations of this theory is to **explain growth rate differentials across countries** and a **greater proportion of the growth** observed.
- **Endogenous growth** model seeks to explain the factors that determine the GDP growth rate.
- It is exogenously determined in the **Solow neoclassical growth equation**.
- **Endogenous growth models** bear some structural resemblance to their neoclassical counterparts.
- They differ considerably in their underlying assumptions and the conclusions drawn.
  - ❖ The most significant differences stem from discarding the neoclassical assumption of **diminishing marginal returns to capital investments**.
  - ❖ Permitting increasing returns to scale in **aggregate production**
  - ❖ Frequently focus on role of externalities in determining rate of return on capital investments.

## 3.2.1. Endogenous Vs Exogenous Growth Model

### Endogenous growth theory (new growth theory)

- **Economic growth** generated by factors **within the production process** (e.g., increasing returns or induced technological change).
- **Many endogenous growth theories** can be expressed by the **simple equation  $Y = AK$** , as in the Harrod-Domar model.
- Where,  $A$  represents factors that affect technology, and  $K$  includes both **physical** and **human capital**. **No diminishing returns**
- Investments in **physical** and **human** capital can **generate external economies** that improve productivity, which offset diminishing returns.
- The net result is **sustained long-term growth**.
- The **new growth theory** emphasizes importance of savings and human capital investments for achieving rapid growth.
- **National growth rates remain constant** and differ across countries, depending on **national saving rates** and **technology levels**.
- **It has no tendency for per capita income levels poor countries to catch up the rich countries with similar savings and population growth rates.**
- A serious consequence of these facts is that a temporary or prolonged recession in one country can lead to a permanent increase in the income gap between itself and wealthier countries.

# 3.2.1. Endogenous Vs Exogenous Growth Model

## Romer endogenous growth model

- An **endogenous growth model** in which **technological spillovers** are present.
- Economy wide **capital stock positively** affects output at the industry level, so there may be **increasing returns to scale** at **national level**.
- This model addresses **technological spillovers** (one industry's productivity gains lead to positive effect on the other) that is **industrialization process**.
- It is relevant model for **developing countries**.
- The model begins by assuming that growth processes derive from **the firm** or **industry level**.
  - The **industry individually produces** with **constant returns to scale**
  - The model consistent of **perfect competition**;
- In those points it matches assumptions of the **Solow model**.
- *But Romer departs from Solow by assuming that the economy wide capital stock,  $\bar{K}$  positively affects output at the industry level, so that there may be increasing returns to scale at the economy level.*
- It is valuable to think of each firm's capital stock as including its **knowledge**.
- The knowledge part of the firm's capital stock is essentially a **public good**.
- It is like  $A$  in the Solow model, that is **spilling over instantly to the other firms in the economy**.

## 3.2.1. Endogenous Vs Exogenous Growth Model

- As a result, this model treats **learning by doing** as “learning by investing.”
- In Romer’s model growth might depend on **investment rate** (as in Harrod-Domar model).
- In order to concentrate on issues concerning industrialization.
- Formally,  $Y_i = AK_i^\alpha L_i^{1-\alpha} \bar{K}^\beta$
- Then the **aggregate production function**:  $Y = AK^{\alpha+\beta} L^{1-\alpha}$
- Let us assume that  $A$  is constant rather than rising over time; *i.e.*, if no **technological progress**.
- With a little calculus, it can be shown that the resulting growth rate for **per capita income** in the economy would be:-

$$g - n = \beta n / (1 - \alpha - \beta)$$

- Where:-  $g$  is the **output growth rate** and  
 $n$  is the **population growth rate**.

## 3.2.1. Endogenous Vs Exogenous Growth Model

- Without spillovers, like Solow model with constant returns to scale,  $\beta = 0$ , then **per capita growth** would be zero (**without technological progress**).
- However, with Romer's assumption of a **positive capital externality**, ( $\beta > 0$ ), we have that  $g - n > 0$  and  **$Y/L$  is growing = endogenous growth**
- It is not driven **exogenously** by **increases in productivity**.
- If we allow **technological progress**, so that  $\lambda$  in the **Solow model** is **greater than zero**, growth would be **increased to that extent**.
- More formally, the **Solow neoclassical growth model** uses an aggregate production function;

$$Y = K^a (AL)^{1-a}$$

- Because the technological progress rate is given exogenously, the Solow neoclassical model is sometimes called an “exogenous” growth model, to be contrasted with the **endogenous growth approach**.
- As to **traditional neoclassical growth theory**, **output growth** results from either of the three factors:-
  - ❖ **increases in labor quantity and quality** (through population growth and education),
  - ❖ **increases in capital** (through saving and investment), and
  - ❖ **improvements in technology**.

# Read

- **Closed economies** (those with no external activities) with lower savings rates, grow more slowly in the short run than those with high savings rates and tend to converge to lower per capita income levels.
- **Open economies** (those with trade, foreign investment, etc.), however, experience income convergence at higher levels as capital flows from rich to poor countries where capital-labor ratios are lower and thus returns on investments are higher.
- Consequently, by impeding the inflow of foreign investment, the heavy-handedness of many developing countries' governments, according to neoclassical growth theory, will retard growth in the economies of the developing world.
- In addition, openness is said to encourage greater access to foreign production ideas that can raise the rate of technological progress.

## 3.2.2. Balanced Vs Unbalanced Growth Model

- A major development debate from the 1940s through 1960s concerned **balanced** Vs **unbalanced growth**.
- The **balanced model** assume that **all sectors grow at the same rate** and same attention to all sectors (industry, agriculture, & services).
  - ❖ What are the relative merits of strategies of **gradualism** Vs a **big push**?
  - ❖ Is **capital** or **entrepreneurship** the **major limitation to growth**?

### Balanced Growth

- The synchronized **application of capital** to a wide range of **different industries** is called **balanced growth**.
- Ragnar Nurkse (1953) considers this strategy the only way of escaping from the **vicious circle of poverty**.
- He does not consider the expansion of **exports promising**, because the **inelastic price elasticity of demand** for the LDCs' predominantly **primary exports**.



## 3.2.2. Balanced Vs Unbalanced Growth Model

### Big Push Thesis

- Those synchronized application of capital to **all major sectors** support the **big push thesis**, arguing that a strategy of **gradualism** is fated to failure.
- It is analogous to a **car being stuck in the snow**:- it will not move with a gradually increasing push; it needs a **big push**.
- **Factors** that contribute to **economic growth**, such as **demand** and **investment in infrastructure**, do not increase smoothly but are subject to **sizable jumps** or **indivisibilities**.
- These benefits **spill over to society as a whole**, or to some member of it, **rather than to the investor concerned**.
- Greater output stimulates the demand for inputs.
- **Indivisibility in infrastructure** such as is in infrastructure, such as power, transport, and communications.....
- This basic social capital reduces costs to other industries.



## 3.2.2. Balanced Vs Unbalanced Growth Model

### Indivisibility in demand.

- It arises from *interdependence of investment decisions*; i.e, a prospective investor is uncertain about market for his output.
- There are numerous **subsistence agricultural laborers** whose work adds nothing to total output (marginal productivity is equals zero).
- If some of them shift to factories, **their wages would increase**.
- If the newly employed workers spend their income on output of the industry where they are employed, **then market will be created**.
- The risk of **not finding a market reduces the incentive to invest**, then firms may probably abandoned their investment.
- The **new producers may create customers** and create additional markets through increased incomes.
- Complementary demand reduces the risk of not finding a market.
- Reducing interdependent risks increases the **incentive to invest**.

## 3.2.2. Balanced Vs Unbalanced Growth Model

### The Murphy–Shleifer–Vishny Model (1989)

- Domestic agriculture or exports may not be sufficient for industrialization, so these **economies need large domestic markets**.
- Sales must be high enough to cover **fixed setup costs**.
- In 19<sup>th</sup> C., the US surpassed England in the range of consumer products it manufactured using **mass production techniques** .
- American producers offered standardized mass-produced utilitarian items, largely bought by relatively well-off farmers and other middle classes.
- Colombia's tobacco export failed result in widespread economic destruction, as incomes went to a **few plantation owners** who spent on luxury imports.
- From 1880 to 1915, the coffee exports boom grown on small family enterprises **benefited large numbers demanding domestic manufactures**.
- For **industrialization**, incomes from the **leading sector** must be **broadly distributed**, providing demand for manufactures.

## 3.2.2. Balanced Vs Unbalanced Growth Model

### Critique on Balanced Growth

- It emphasizes a varied package of industrial investment at the expense of investment in agriculture, especially exports.
- A country cannot grow rapidly if it fails to **specialize towards most efficient production**.
- **Recent experience indicates that LDCs cannot neglect agricultural investment if they are to feed their population, supply industrial inputs, and earn foreign currency.**
- The recent demand for primary product exports increased so that their value grew as fast as GNP.
- Furthermore, infrastructure is not so indivisible in **balanced growth** model.
- Large infrastructure facilities, although perhaps economical at high levels of *economic development*, are not essential for LDC growth.
- Some critics argue that the resources required for carrying out **balanced growth** are so vast that a country can not invest on all the required.

# Critique on Balanced Growth

- In fact, farm workers with zero marginal labor productivity are not available.
- LDCs may not obtain the required capital, skilled labor, and materials for such wide industrial expansion?
- We cannot forget that although new industries may be complementary on the demand side, they are competitors for limited resources on the supply side.
- Advocates of balanced growth assume LDCs start from scratch.
- In reality every developing country starts from a position that reflects previous investment decisions.
- Thus, at any time, there are **highly desirable investment programs** not balanced in themselves but well integrated with existing **capital imbalances**.
- Perhaps major discredited of the balanced growth model was the widespread evidence in 1960s & 1970s that LDCs were growing rapidly—without attempt of **massive investments**.

## 3.2.2. Balanced Vs Unbalanced Growth Model

### Hirschman's Strategy of Unbalanced Growth Model

- Hirschman (1958) develops the idea of **unbalanced investment** to complement existing imbalances.
- He runs that deliberately **unbalancing the economy**, in line with a predesigned strategy, **is the best path for economic growth**.
- He argues that **the big push thesis** may make interesting reading for economists, but it is gloomy news for the LDCs.
- They do not have the skills needed to launch such a **massive effort**.
- Major problem in LDCs is not savings, but the **decision to invest by entrepreneurs, the risk takers and decision makers**.
- Investment is dependent on the amount and nature of existing investments.
- He believes that poor countries need a development strategy that spurs investment decisions.

# Hirschman's Strategy of Unbalance Growth Model

- Since resources and abilities are limited, **a big push** is sensible only in **strategically selected industries** within the economy.
- Growth spreads from one sector to another (similar to *Rostow's concept of leading and following sectors*).
- Investment should not be left solely to individual entrepreneurs in the market.
- Profitability of d/t investment projects may depend on the order in which they are undertaken.
- *If left to the market, a private investor will invest in the truck factory. Later on, as a result of this initial investment, returns on a steel investment increase to 10%, so then the investor invests in steel. Assume, however, that establishing a steel factory would increase the returns in the truck factory in the next period from 10 to 16%.*
- Society would be better off investing in the steel factory first, and the truck enterprise second, rather than making independent decisions based on the market.

# Hirschman's Strategy of Unbalance Growth Model

- Planners need to consider interdependence of one investment project with another so that they maximize overall *social* profitability.
- They need to make the investment that spurs the greatest amount of new investment decisions.
- Investments should be on industries that have strong linkages, including **backward linkages** to sell inputs to the industry, & **forward linkages** to buy output.
- *The steel industry, with backward linkages to coal and iron production, and forward linkages to the construction and truck industries, has good investment potential.*
- Government investment in transport and power will increase productivity and thus encourage investment in other activities.
- *Planners trying to maximize linkages shall not want to hamper imports too much, because doing so will deprive the country of forward linkages to domestic industries using imports.*
- *In fact, officials may encourage imports until they reach a threshold in order to create these forward linkages.*
- *Once these linkages have been developed, protective tariffs will provide a strong inducement for domestic entrepreneurs to replace imports with domestically produced goods.*



# Read.....

- Hirschman fails to stress the importance of agricultural investments.
- According to him, agriculture does not stimulate linkage formation so directly as other industries.
- However, empirical studies indicate agriculture has substantial linkages to other sectors; moreover, agricultural growth makes vital contributions to the nonagricultural sector through increased food supplies, added foreign exchange, labor supply, capital transfer, and larger markets.
- What constitutes the proper investment balance among sectors requires careful analysis.
- In some instances, imbalances may be essential for compensating for existing imbalances.
- By contrast, Hirschman's unbalanced growth should have some kind of balance as an ultimate aim.
- Generally, the concepts of *balance* and *imbalance* are of limited value. To be helpful, their meanings need to be defined carefully in specific decision-making contexts.



### 3.2.3. Inward Vs Outward Looking Growth

- Relationship b/n developing countries' growth rate & industrialization strategies adopted was evaluated from 1963-1985 period.
- Higher growth rates were hypothesized to be the result of more open or outward-looking development policies.
- A cross-section study was conducted using data for 21 developing countries.
- Nations were grouped into **four categories**:- **strongly outward, moderately outward, moderately inward & strongly inward-looking.**
- Combined growth rates of the countries within the **four groups** was compared for **two different time periods**: 1963-1973 and 1973-1985.
- **Higher growth rates** were achieved the **more outward oriented** the nation's development strategy.

### 3.2.3. Inward Vs Outward Looking Growth

- The following quantitative and qualitative indicators criteria to classify a nation's market orientation:- effective protection rate, use of direct controls (quotas and import licensing), use of export incentives, and degree of exchange rate overvaluation.
- The estimation results show that the more liberal a nation's trade and **industrialization policies**, the greater was the **efficiency of investment** and **industrialization level**.
- The impact of **trade policy orientation** on investment efficiency and **industrial development level** was found to be **more important** than its impact on exports in explaining economic growth.
- When the performance for the various groups were compared for the two periods, **the outward-looking nations** better able to cope with **effects of the oil shocks** and **world-wide economic downturn**.
- Despite the world trade growth decline, **outward-looking nations** **maintained higher levels of growth** and **efficiency** than inward-looking ones.

## 3.2.3. Inward Vs Outward Looking Growth

- **Outward-oriented development strategy** is one that encourages free-trade, multinational companies, open system of communications, and free movement of capital, labour, enterprises, and students.
- **Inward-oriented development strategy** is one that encourages indigenous “learning by doing” in manufacturing and the development of indigenous technologies appropriate to local endowments.
- This strategy also usually involves trade restrictions, labor movement restrictions, communication restrictions and keeping multinational companies away.
- Basically inward-oriented development strategy is an **interventionist strategy** where **government actively intervenes** in the market to achieve a set of **desirable economic objectives**.
- The government plays an active role in manipulating markets and allocating resources.
- **Import Substitution** is an economic policy that recommends a developing country to **substitute imported goods** with locally produced goods.
- **Import substitution** is part of **inward-oriented development strategy**.
- This usually involves:-
  - (i) government selecting certain industries to be promoted,
  - (ii) providing subsidies to support these industries, and
  - (iii) imposing high tariff barriers to protect domestic producers.

### 3.2.3. Inward Vs Outward Looking Growth

- Advocates of Import Substitution believe that developing countries should initially substitute imported simple consumer goods (like shoes and clothing) with domestically produced goods.
- This is the first stage of import substitution.
- In the second stage, the country should substitute a wide range of more sophisticated manufactured items with local products.
- Local products from both stages should be protected from competition abroad by high tariffs and low quotas on imports.
- In the long run, import substitution strategy prescribes diversification to achieve "balanced growth" through exploiting economies of scale, positive externalities of learning by doing and increase local competition.
- Basically, put in this way, import substitution strategy amounts to infant-industry argument for protection from trade.
- **Infant-industry protection** is an economy policy that provides temporary protection of a newly established domestic industry until it is sufficiently competitive in the world market.

## 3.2.3. Inward Vs Outward Looking Growth

- Infant-industry protection is also part of inward-oriented development strategy.
- **Export-led growth** is one that encourages efficiency and growth through free trade and competition.
- It exploits a bigger world markets to achieve economies of scale.
- It also highlights the economic costs of distorted prices and cost-effects of protection.
- It also refers to the economic success of East Asian economies.
- Economic growth is achieved by focusing on increasing exports and thus export revenue.
- Export revenue is an injection to the domestic economy and increases national income.
- A country should produce and export goods that it has comparative advantage.
- Export-led growth is part of outward-oriented development strategy.

### 3.2.3. Inward Vs Outward Looking Growth

- This trade policy debate started in the early 1950s.
- **Inward-oriented development** strategy was adopted by many developing countries in the 1950s and 1960s.
- As to Sachs developing countries that were newly independent did not want to rely on their past colonial masters and substituting imports from developed nations for locally produced goods became attractive.
- Arthur Lewis in his structural change model explains that growth occurs when the modern manufacturing sectors are set-up to exploit surplus labour from the traditional sector.
- Thus, industrialization was synonymous to development in that era.
- Stiglitz and Charlton argued that developing nations observe the Great Depression of 1930s in the developed economies and how rapid capital accumulation in Soviet Union led to double-digit growth rates.
- *Many developing countries including Chile, India, Ghana, Peru, Brazil, Mexico, Argentina, Ecuador, Pakistan, Indonesia, Nigeria, Ethiopia, and Zambia pursued import substitution in the 1950s, 1960s and 1970s.*

### 3.2.3. Inward Vs Outward Looking Growth

- *Promoting industries that a country possesses no current comparative advantage appears to be illogical but proponents of import substitution believe that comparative advantage is dynamic and can be developed over time towards more desirable industries with appropriate industrial and trade policy.*
- This also make sense when primary goods industry has limited long term growth due to a falling terms of trade.
- Economic growth in Latin America that adopted import substitution averaged 6% in the 1970s.
- **Opponents** of this policy point out that domestic protection led to overspending by government and inefficient industries.
- These governments borrowed heavily from world capital markets in 1970s leading to huge foreign debt which they eventually could not pay back in the early 1980s.
- In fact, the growth rate was almost zero in the 1980s.

## 3.2.3. Inward Vs Outward Looking Growth

- The **counter-argument** states the Latin America's failure was not due to import substitution but attributed to:-
  - (i) a demand shock to developing country export due to global recession,
  - (ii) a fall in commodity prices and adverse terms of trade shock,
  - (iii) an interest rate shock as US Federal Reserves raised interest rate, and
  - (iv) a capital supply shock as foreign banks were no longer willing to lend to these countries.
- **Outward-oriented development strategy** became more popular from the late 1970s.
- This follows the observation that Japan within a few decades was able to raise itself from a war-torn country into the second largest economy in the world.
- Japan economic success was followed by South Korea, Taiwan, Hong Kong and Singapore.
- Thailand, Indonesia, Malaysia and China also adopted similar strategy and enjoyed sustained growth rates.
- According to Blink and Dorton in Economics Course Companion, a country that pursues export-led growth strategy adopt trade liberalization, free capital movement, a floating exchange rate, investment in the provision of infrastructure and minimized government intervention in the market.



### 3.2.3. Inward Vs Outward Looking Growth

- These are basically **market-led** policies that maximizes the working of the free market forces.
- **Market-led strategies** are policies that maximize the operation of market forces and at the same time minimizes the role of government in the economy.
- Korea and Japan supports large domestic corporate conglomerates like Samsung, Daewo, Sony and Mitsubishi and restricted the flow of FDI which was less than 5% of GDP in the period 1987-1992 while Singapore and Malaysia actively attracts large foreign multinational corporations and FDI that reached more than 30% of GDP in 1992.
- Although Korea, Japan and Singapore have floating exchange rates, China and Malaysia had their currencies pegged to the USD until recently.
- **Having said so**, these countries share certain features.
- As to Sachs, East Asian countries started with high human resources (higher adult literacy 70% compared to 38% in sub-Saharan Africa in 1980) and high cereal yield which allowed capital accumulation (i.e. high rates of investment in physical and human capital).

## 3.2.3. Inward Vs Outward Looking Growth

- East Asian countries had better infrastructure due to a denser population, more irrigated land that facilitated trade as well as raising agricultural productivity, and lower fertility rate that reduced the pressure of demographic trap (Sachs).
- Governments of these countries also play a critical role in the economy.
- According to Stiglitz and Charlton in Fair Trade for All, "Governments acted as catalysts which helped markets by providing the requisite physical and institutional infrastructure, by remedying market failures, and by promoting savings and technology" .
- Not only these East and South East Asian countries do not follow the free market prescription, they also did not follow the orthodox free trade prescription,
- In fact, the governments of Asian countries pursued a two-track policy of protecting infant-industries which are not ready to compete globally and promote industries that could export competitively in the world markets.
- Proponents of orthodox free market economic model argue that these government interventions are harmful to economic growth and at best irrelevant.
- On the other hand, Stiglitz and Charlton write that to date no successful developing country has pursued a purely free market approach to development.

### 3.3. Contemporary Models of Development & Underdevelopment

- After more than a half century of attempting to encourage modern development, we have learned that development is both possible and extremely difficult to achieve.
- Thus an improved understanding of impediments and catalysts of development is of the utmost importance.
- Since the late 1980s, significant strides have been made in the analysis of economic development & underdevelopment.
- Development is far from a hopeless cause; we know it can be done.
- Theory helps us think systematically about how to organize our efforts to help achieve development—a goal second to none in its importance to humanity.
- **Underdevelopment as a Coordination Failure**
- A newer school of thought on problems of economic development
- Coordination failures occur when agents' inability to coordinate their actions leads to an outcome that makes all agents worse off.
- This can occur when actions are complementary, *i.e.*,
- Actions taken by one agent reinforces incentives for others to take similar actions
- This circumstance can, under some circumstances, lead to multiple equilibria.

## 3.3. Contemporary Models of Development & Underdevelopment

### Starting Economic Development: The Big Push

- Sometimes market failures lead to a need for public policy intervention
- The Big Push: A Model, 6 assumptions
  - One factor of production
  - Two sectors
  - Same production function for each sector
  - Consumers spend an equal amount on each good
  - Closed economy
  - Perfect competition with traditional firms operating, limit pricing monopolist with a modern firm operating
- Conditions for Multiple Equilibria
- A big push may also be necessary when there are:
  - Intertemporal effects
  - Urbanization effects
  - Infrastructure effects
  - Training effects
- Why the Problem Cannot be Solved by a Super-Entrepreneur?

### 3.3. Contemporary Models of Development & Underdevelopment

- Super Entrepreneur?
  - Capital market failures
  - Cost of monitoring managers- Asymmetric Information
  - Communication failures
  - Limits to knowledge
  - Lack of any empirical evidence that would suggest this is possible
- In a Nutshell: Big Push Mechanisms
  - Raising total demand
  - Reducing fixed costs of later entrants
  - Redistributing demand to later periods when other industrializing firms sell
  - Shifting demand toward manufacturing goods (usually produced in urban areas)
  - Help defray costs of essential infrastructure (a similar mechanism can hold when there are costs of training, and other shared intermediate inputs)

### 3.3. Contemporary Models of Development & Underdevelopment

- Further Problems of Multiple Equilibria
  - Inefficient Advantages of Incumbency
  - Behavior and Norms
  - Linkages
  - Inequality, Multiple Equilibria, and Growth
- Michael Kremer's O-Ring Theory of Economic Development
  - The O-Ring Model
    - Production is modeled with strong complementarities among inputs
    - Positive assortative matching in production
  - Implications of strong complementarities for economic development and the distribution of income across countries

### 3.3. Contemporary Models of Development & Underdevelopment

#### Economic Development as Self-Discovery

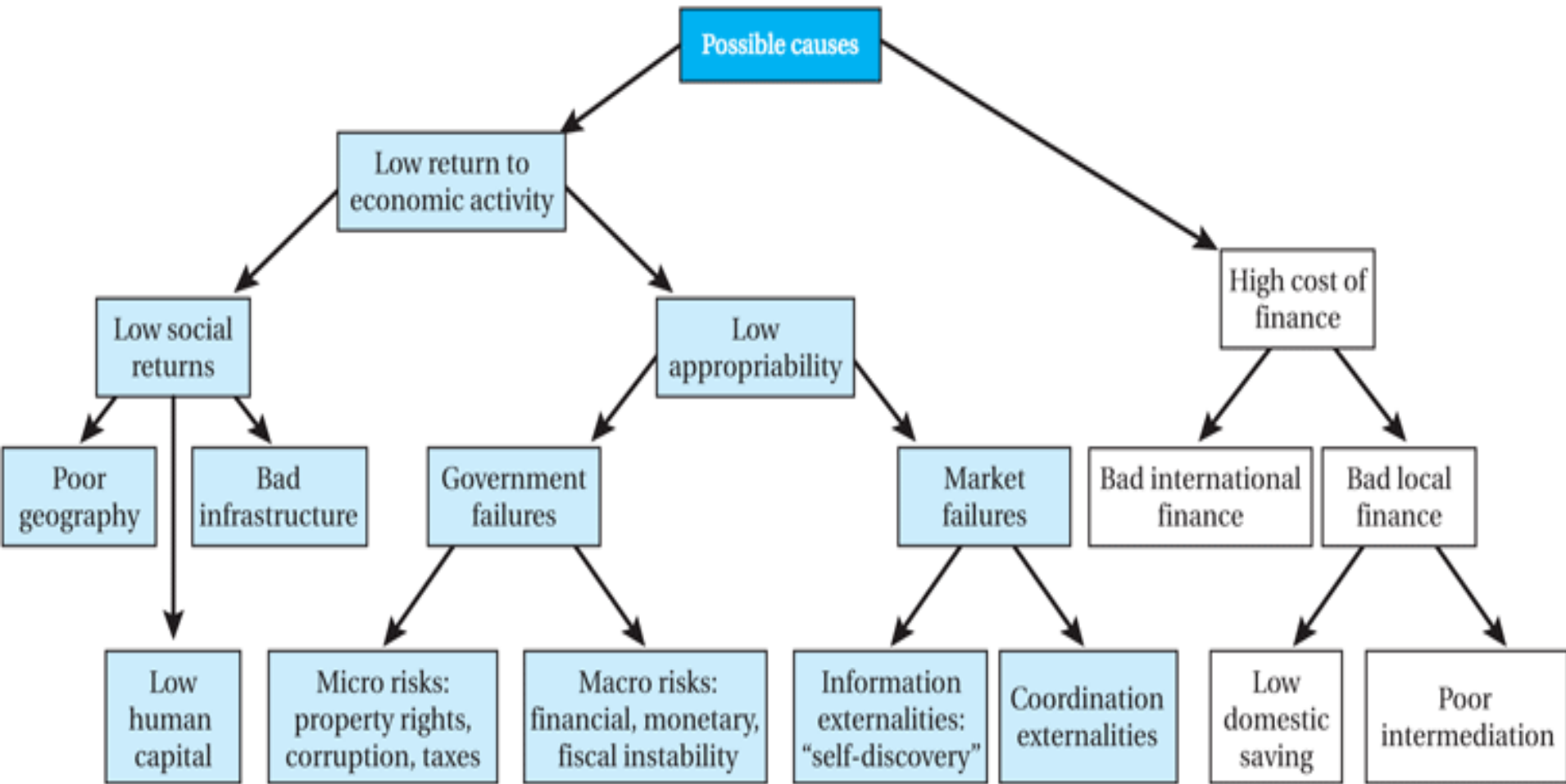
- Hausmann and Rodrik: **A Problem of Information**
- Not enough to say developing countries should produce “labor intensive products,” because there are thousands of them
- Industrial policy may help to identify true direct and indirect domestic costs of potential products in which to specialize by:
  - Encouraging exploration in the first stage
  - Encouraging movement out of inefficient sectors and into more efficient sectors in the second stage
- Three building blocks of the theory; and case examples of their reasonableness in practice:-
  - Uncertainty about what products can be produced efficiently
  - Need for local adaptation of foreign technology
  - Imitation can be rapid

### **3.3. Contemporary Models of Development & Underdevelopment**

- The Hausmann-Rodrik-Velasco Growth Diagnostics Framework
- Focus on a country's most binding constraints on economic growth
- No “one size fits all” in development policy
- Requires careful research to determine the most likely binding constraint



Figure 4.3 Hausmann-Rodrik-Velasco Growth Diagnostics Decision Tree  
*Problem: Low levels of private investment and entrepreneurship*



Source: Ricardo Hausmann, Dani Rodrik, and Andrés Velasco, "Getting the diagnosis right," *Finance and Development* 43 (2006), available at <http://www.inf.org/external/pubs/ft/fandd/2006/03/hausmann.htm>. Reprinted with permission.

### 3.4. Empirical Applications of Development Models to African and Ethiopian Economy: Examinations

- Economic development is difficult to achieve. It has been impossible for some countries (e.g., Nigeria, Sudan), but accomplished by others (e.g., S. Korea, Singapore)
- The success or failure of economic development policies can be explained by the “principal-agent” model.
- **Principal:**
  - Government
- **Agents:**
  - Households
  - Private-sector firms
  - Public agencies
  - Government-owned enterprises
  - International companies

### 3.4. Empirical Applications of Development Models to African and Ethiopian Economy: Examinations **READ**

- An effective principal is needed to coordinate actions taken by agents and achieve an optimal outcome, making all agents better-off.
- Coordination failure occurs when the principal fails to induce agents to coordinate their actions, which leads to an outcome that makes all agents worse-off.
- During the 1950s a “development economics” emerged that was different from neoclassical and Keynesian economics.
- It focused specifically on developing countries, and it had greater practicality in terms of a more immediate policy orientation.
- Development economics assumed that economic processes in developing countries were distinct from those of developed countries, as the structuralists argued.
- But gradually mono-economics (the position that all economies work in similar ways and that neoclassical economics was universally applicable) came back in, although “getting the prices right” (the standard neoclassical remedy to making an economy efficient) was acknowledged to be more difficult in the developing world.

### 3.4. Empirical Applications of Development **READ.....**

- Also while population, technology, institutions, and entrepreneurship were exogenous (assumed to be outside the system) in neoclassical economics, they were endogenous (within the system) for development economics—indeed, these were often the main factors requiring economic explanation.
- The position of development economics eventually became not that neoclassical economics was inapplicable to Third World development, but that it needed to be extended to problems of income distribution, poverty, and basic needs, or to be modified because the unemployment problem was not of the Keynesian variety (Meier 1984).
- The result was a hybrid development economics, a melange of ideas, part structuralist, part neoclassical, part Keynesian, part pragmatic.
- Some of the main positions of structuralist development economics were as follows:-
- 1. ***Dualistic development***: the idea that a modern commercial sector developed alongside a traditional subsistence sector, resulting in a dual economy in poor countries. The two sectors differed in terms of the growth process and conditions in labor markets (Lewis 1955; Higgins 1968; Todaro 1971).
- 2. ***Mobilizing domestic resources***: the idea was to find ways of increasing the savings rate and mobilizing domestic savings (through banks and other financial institutions), making domestic funds available for productive investment in poor countries.

## 3.4. Empirical Applications of Development **READ.....**

- 3. ***Mobilizing foreign resources***: however, there might remain a “savings gap” and a “foreign exchange gap,” which could be filled from external sources through public financial aid, loans, private foreign investment, and nonmonetary transfers of managerial and technological knowledge.
- 4. ***Industrialization strategy***: industrialization should produce, often in labor-intensive, capital-saving ways, the simple producer and consumer goods required, particularly by rural people.
- 5. ***Agricultural strategy***: progress in agriculture was thought essential for providing food and raw materials, yielding savings and tax revenues for development elsewhere in an economy, and earning foreign exchange, with farmers forming a market for industrial goods.
- 6. ***Trade strategy***: development economists were originally divided on whether free trade increased international inequalities or could contribute to the development of primary exporting countries. Increasingly they favored export promotion of semi-manufactured and manufactured goods and the “liberalization” of trade regimes (that is, low tariffs).
- 7. ***“Human resource” development***: the accumulation of material capital was to be paralleled by investment in “human capital”— that is, improving the quality of people as productive agents, changing abilities and skills, even modifying motivations and values (hence, an interaction with modernization theory).
- 8. ***Project appraisal***: with investment resources scarce in developing countries, there was a particular need for the rational allocation of capital and thus for development project appraisals by governments and international agencies like the World Bank (Meier 1984).
- 9. ***Development planning and policymaking***: some development economists voiced criticisms of the market mechanism as ineffective, unreliable, or irrelevant to the problems faced by developing countries. They found a need to supersede markets with state planning.

### 3.4. Empirical Applications of Development **READ.....**

- There to be an “agrarian excess population” amounting to 25% of the population that was totally or partly unemployed—a “waste of labor.”
- This waste could be solved either by transporting workers toward capital (emigration) or bringing capital toward labor (industrialization).
- Since emigration and resettlement would present special difficulties, industrialization was necessary.
- Rodan’s thesis was seen as applicable to the problems of many Third World countries and came to be known as the “big push” theory, implying the need for a coordinated expansion and the intervention of the state in development planning.
- The basic idea was that investment was restricted by the small size of the market in poor regions, but a number of projects begun simultaneously in different industries might provide markets for one another.



## 3.4. Empirical Applications of Development **READ.....**

- So, there was a need for a broad attack to get an economy out of its vicious cycle of poverty: “A wave of new investments in different branches of production can economically succeed, enlarge the total market and so break the bonds of the stationary equilibrium of underdevelopment” (Nurkse 1953).
- This was also known as “balanced growth,” in the sense that a whole set of complementary investments would be made.
- This approach was countered by the theory of unbalanced growth, formulated by Albert Hirschman.
- For Hirschman, development was a “chain of disequilibria,” and the task of development policy was to maintain tensions, disproportions, and disequilibria.
- Hirschman attacked the balanced growth thesis, arguing that problems of industrialization did not require a simultaneous solution, as claimed by Rosenstein-Rodan, Nurkse, and others.
- Indeed, new industrialization processes in the underdeveloped countries needed solutions that were essentially different from those undertaken by the older industrial countries.
- Instead of emphasizing obstacles to economic progress, like land tenure systems, family structure, administrative instability, lack of savings, and so on, Hirschman stressed the need for inducement mechanisms.
- In his view, the fundamental problem of development consisted in generating and channeling human energies in a desired direction.
- He found the big-push theory to be unrealistic in that it relied on resources (like investment capital) that poor countries had in short supply.

## 3.4. Empirical Applications of Development **READ.....**

- For Hirschman (1958), the greatest shortage in poor countries was entrepreneurship, or the ability to perceive opportunities and make investment decisions.
- The notion of unbalanced growth was based on creating situations where people were forced to make investment decisions by deliberately unbalancing different sectors of the economy.
- If certain parts of the economy are made to grow (by state investment, for instance), shortages in other sectors will force investments for their growth.
- The initial unbalancing should be done in an activity that has strong backward and forward linkages (Ilchman and Bhargava, 1966).
- In Hirschman's conception, backward linkages corresponded to the stimuli going to sectors that supplied the inputs required by a particular activity, whereas forward linkages were the inducement to set up new activities utilizing the output of the proposed activity.
- The main source of development would be activities with high-potential linkage effects, mainly backward ones.
- The idea that industrial development should (and in fact would) proceed largely through backward linkages was quite revolutionary at the time: instead of doing things in the conventional way, industrial development would work its way from the "last touches" to intermediate and basic industry.
- Industrialization of certain leading sectors would pull along the rest of the economy.



### 3.4. Empirical Applications of Development **READ.....**

- In a related conception, Gunnar Myrdal (1963) thought that orthodox economic theories were “never developed to comprehend the reality of great and growing economic inequalities and of the dynamic processes of underdevelopment and development.”
- This was because conventional economic theories were based on the assumption of stable equilibrium—where equilibrium, once disturbed, is reestablished by secondary changes in the opposite direction.
- He also thought that development analysis could not be restricted to interactions among purely “economic” variables, ignoring “noneconomic” factors.
- Instead, Myrdal thought, most processes exhibit characteristics of “circular and cumulative causation” so that a small initial change amplifies over time to become a substantial trend: “In the normal case a change does not call forth contradicting forces but, instead, supporting changes, which move the system in the same direction but much further.
- Because of such circular causation a social process tends to become cumulative and often to gather speed at an accelerated rate” (Myrdal 1963).

### 3.4. Empirical Applications of Development **READ.....**

- Applying circular and cumulative causation to regional growth processes, Myrdal thought that market forces widen interregional differences, causing rich regions to grow richer, and poor ones poorer.
- This divergence stems from two sources: “backwash effects” that retard growth in poor areas, such as a lack of external economies, a brain drain, and capital flight; and “spread effects” of momentum in a center of economic expansion, again operating through external trade, capital movement, migration, and other favorable changes that weave themselves into the cumulating social process by circular causation.
- Depending on which set of effects predominates in a region, the cumulative process could evolve upward, as in the “lucky” rich regions, or downward, as in the “unlucky” poor regions (Myrdal 1963).
- In underdeveloped countries, the spread effects are weak relative to the backwash effects.
- In such a situation, international trade becomes the medium through which market forces tend to result in increased inequalities.
- In neoclassical economics, by comparison, with its assumption of diminishing marginal returns, capital would have relatively high returns in a poor region, migrating from rich regions to poor.
- Myrdal disputed this contention, arguing that capital is attracted to rich regions, where external economies produce increasing returns (Myrdal 1963).

### 3.4. Empirical Applications of Development **READ.....**

- Several of the unbalanced growth theorists drew on Francois Perroux's (1955) notion of "growth poles," referring to investments in propulsive industries (the pole) in strategically located centers that induce growth by firms in technologically related industries through the formation of backward and forward linkages with the propulsive industries.
- Perroux saw growth in an economy as stemming from the effects of disequilibrium and domination, and necessarily occurring unevenly.
- To quote Perroux (1955): "Growth does not appear everywhere at the same time; it appears at points or poles of growth with varying intensity; it spreads along various channels and with differing overall effects on the whole economy."
- The growth pole was described primarily in terms of a complex of industries, using one another's inputs and outputs (for example, the steel and machinery industries) and dominated by a propulsive or stimulant industry, the engine of development by virtue of its capacity to innovate and to stimulate, as well as to dominate, other industries (Parr, 1999).
- This led to an interest in geography and regional planning between 1965 and 1975 in the deliberate formation of propulsive growth centers in poor regions.
- The growth-pole strategy typically focused investment at a limited number of locations (usually as part of a deliberate effort to modify a regional spatial structure) in an attempt to encourage economic activity and thereby raise levels of income and welfare within a region (for example, Semple, Gauthier, and Youngman 1972).

### 3.4. Empirical Applications of Development **READ.....**

- Economic geography also had an interest in cumulative causation as a process that caused uneven development in space.
- Here the leading work by Allan Pred asked: Why do some cities grow more rapidly than, and at the expense of, other cities? Of several causes, Pred thought, initial advantage was probably most important.
- By initial advantage he meant processes like inertia and the temporal compounding of advantages and that, once concentration is initiated, it is self-perpetuating.
- The clustering of economic activity at selected locations created an agglomerative effect (firms get benefits when locating near one another), attracting new economic activity by serving as either national or regional centers for information accumulation or dissemination.
- Innovations made in cities have a neighborhood effect due to “distance decay” (that is, they affect nearby areas more), and so some places are more innovative than others.
- The more important the innovative center, the more rapid the economic growth.
- As the process evolved, a hierarchical structure emerged among the various urban places, essentially linked by the constant interchange of information.
- Again, let us follow this tendency in economic thought to the present.
- These ideas were picked up and elaborated in the “new economic geography” and the “new trade theory” of the 1990s outlined by such economists as Paul Krugman, Michael Porter, and Anthony Venables.

### 3.4. Empirical Applications of Development **READ.....**

- For Krugman, economic geography, or uneven regional development, is central to the process by which national economic prosperity and trade are created and maintained.
- Krugman's theory differs from the Ricardian theory of comparative advantage in that he finds specialization and trade driven by increasing returns and economies of scale rather than by comparative advantage—gains from trade arise because production costs fall as the scale of output increases.
- In this view, economic specialization is, to some extent, a historical accident.
- Yet, once a pattern of specialization is established, it gets “locked in” by the cumulative gains from trade.
- There is thus a strong tendency toward “path dependence” (the tendency for economic outcomes to follow the path of previous outcomes rather than to rely totally on current conditions) in the patterns of specialization and trade between countries—so, history matters.

### 3.4. Empirical Applications of Development **READ.....**

- An economy's form is determined by contingency, path dependence, and the initial conditions set by history and accident.
- Because of forward and backward linkages, once an initial regional advantage is established, it may cumulate over time (as with Pred).
- However, when change in regional fortunes occurs, it will be sudden and unpredictable (Krugman 1995; Martin and Sunley 1996).
- Note that the Krugman model differs from that of new growth theory discussed earlier; whereas Krugman thinks that the original cause of growth in a place is relatively unimportant, emphasizing path dependence instead (that is, momentum that keeps on going), Romer stresses the role of ideas in starting and continuing a local growth process.
- Development economics was increasingly divided on such crucial issues as the efficacy of the market (neoclassicism) or the need for state planning (Keynesianism).
- At the same time, development economics was subject to a number of criticisms from the perspective of conventional established economics that undercut its scientific validity and led to its temporary demise.

# 4. Economic Growth, Poverty and Inequality

4.1. Conceptualization of Income Distribution and Development

4.2. Measuring inequality

4.3. Poverty, Inequality, and Social Welfare

4.4. Characteristics of high-poverty groups

4.5. Policy Options on Income Inequality and Poverty



## 4.1. Conceptualization of Income Distribution and Development

- **Simon Kuznets**' hypothesis :-With rising per capita income, income inequality rises first and then starts declining after a threshold income level has been crossed.
- **Policy implication of Kuznets' hypothesis**:- Intervention needed to improve income distribution & alleviate poverty of the population.
- In late 1980s, UNDP implemented **Human Development** as a measurable concept.
- As a core concept, **Human Development** encompasses three basic dimensions.
- The **HDI**, which is an aggregation of component indices, is a macro measure of development for a given community.
- Other dimensions like **Gender discrimination, Environment & Ecology, Human Rights, Governance** etc. are also thought to be ingredients of **Human Development**.
- Originally, **Poverty** used to be viewed as **uni-dimensional** relating to **inadequacy of income / consumption**.



# 1. Conceptualization of Income Distribution & Development

- **Absolute Poverty** count the number of persons in a given community having income /consumption below a **threshold level**.
- Now **Poverty** is recognized to be **multidimensional**.
- One may define **Poverty** in respect of each dimension separately and a comprehensive overall measure of poverty may be defined.
- To the extent, components of **Human Development** constitute poverty dimensions, **Poverty & Human Development** become closely related notions.
- In the world income distribution the larger share controlled by the top percentiles gives the graph its “champagne glass shape.”
- For example, a large majority of people in the top 20% of the global income distribution live in the rich countries.
- Most of those in the bottom 60% live in sub-Saharan Africa and Asia.

# 1.1. Conceptualization of Income Distribution & Development

- Despite the availability of better quality datasets the literature has failed to reach a consensus on whether and how inequality matters for development outcomes.
- Unlike previous findings that demonstrate a **negative relation** between **inequality** and **development**, others find a **positive relationship** (Forbes, 2000), a **zero relationship** between them (Barro, 2000).
- Banerjee and Duflo (2003) highlight the **non-linear relationship between inequality and growth** to reconcile these divergent findings.
- At the same time, they are careful to acknowledge that these are correlations and that causality is hard to sort out.
- Here economists measure inequality most commonly using the **Gini coefficient** or, in some cases, the income share of the median quintile.
- A successful strategy of poverty reduction must promote rapid and **sustained economic growth**.

## 4.1. Conceptualization of Income Distribution & Development

- The challenge for growth policy makers is to allow the poor to participate fully in the opportunities.
- This includes policies to make **labor markets work better**, remove **gender inequalities** and **increase financial inclusion**.
- Asian countries are increasingly tackling this agenda of **‘inclusive growth’**.
- Future growth will also need to be environmentally sustainable.
- Improved management of water and natural resources is required, together with movement towards low carbon technologies by both developed and developing countries.
- With the proper institutions, growth and environmental sustainability may be seen as complements, not substitutes.
- The central lesson from development research and policy is that economic growth is the most effective way to pull people out of poverty and deliver a better life.
- Rapid and sustained growth is the single most important way to reduce poverty.

## 4.1. Conceptualization of Income Distribution & Development

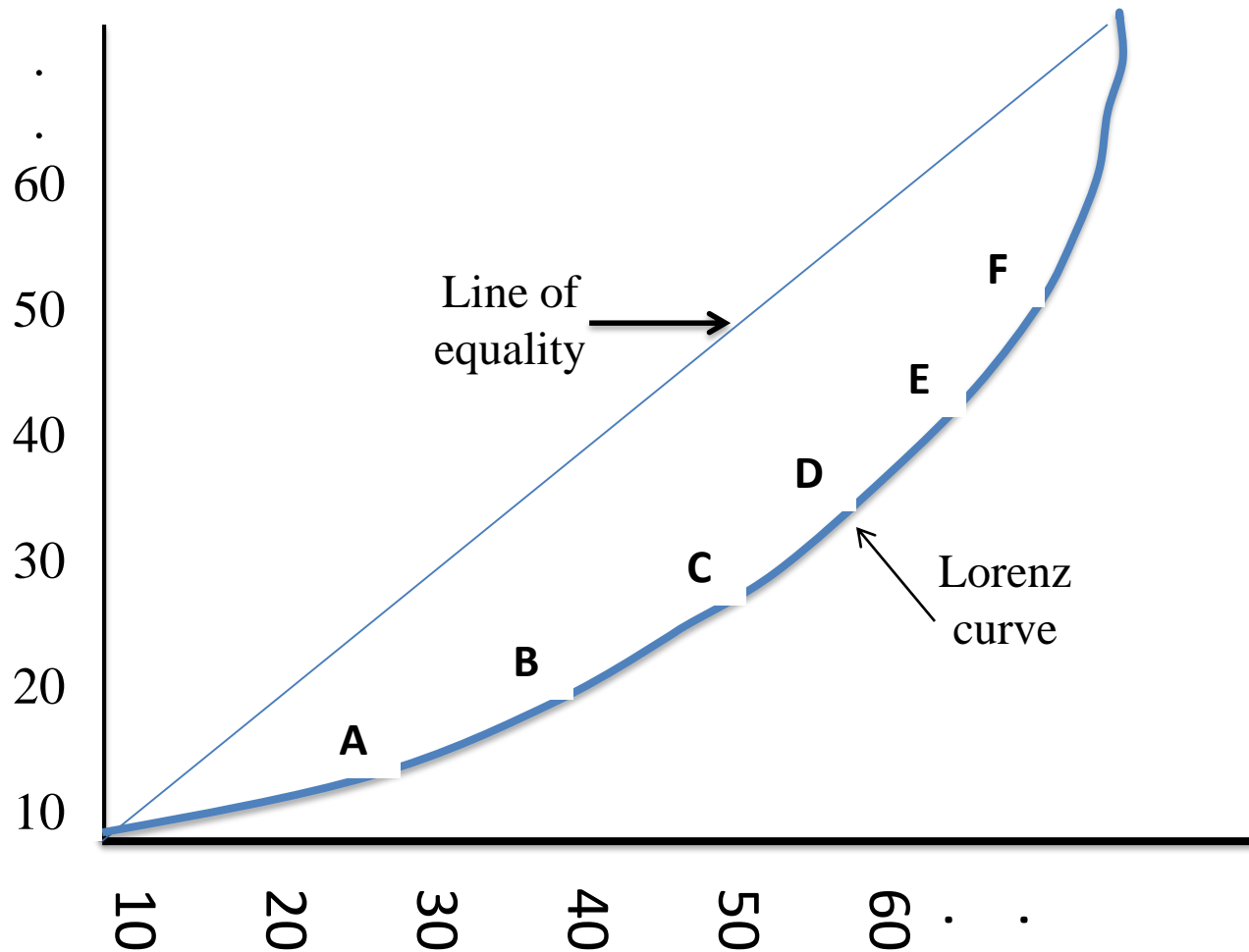
- The positive link between growth and poverty reduction is clear.
- The impact of the distribution of income on this relationship—in particular, whether higher inequality lessens the reduction in poverty generated by growth—is less clear.
- Initial levels of income inequality are important in determining how powerful an growth on reducing poverty.
- Countries with higher inequality exhibit lower levels of human capital and poor institutional quality.
- There are plausible reasons why poverty emerges as a more important factor for economic development.
- Poverty hurts human capital in credit access, poverty traps consign economies to low levels of underdevelopment, allows the wealthy to subvert institutions and by reducing productivity hurts incomes.

## 4.2. Measuring income inequality

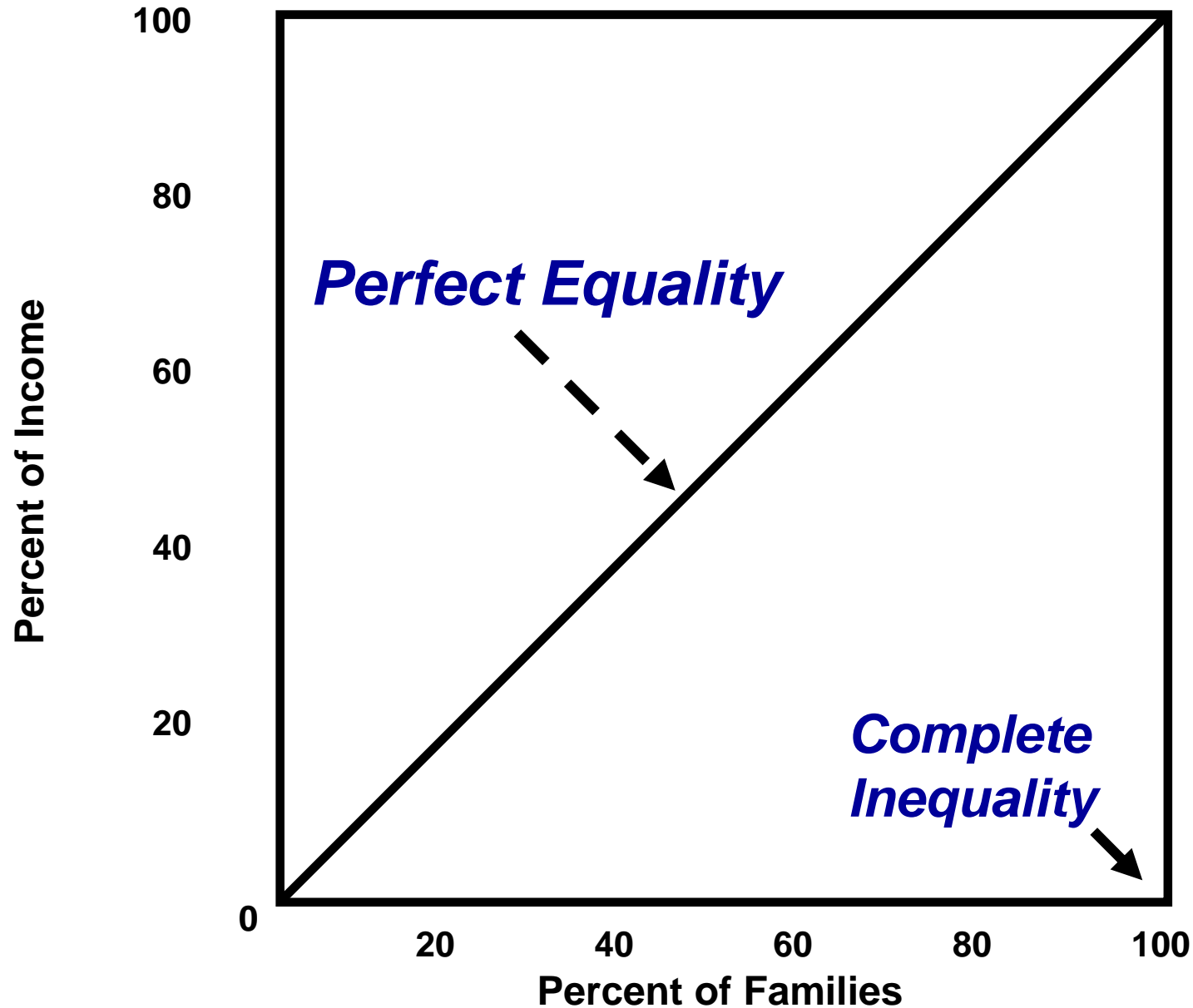
- **Gini coefficient:** An aggregate numerical measure of income inequality ranging from 0 (perfect equality) to 1 (perfect inequality).
- It is measured by dividing the area b/n the perfect equality line and the Lorenz curve by the total area lying to the right of the equality line.
- The higher the coefficient value, the higher the income inequality distribution.
- The **Kuznets ratio**, has often been used as a measure of the degree of inequality between high- and low-income groups in a country.
- To provide a more detailed breakdown of the size distribution of income decile (10%).
- Gini Coefficients is an aggregate measures of inequality.
- A final and very convenient shorthand summary measure of the relative degree of income inequality in a country.
- In fact, the Gini coefficient for countries with highly unequal income distributions typically lies between 0.50 and 0.70, and countries with relatively equal distributions lie 0.20 to 0.35.
- In the “Lorenz criterion”, whenever one Lorenz curve lies above another, then the economy corresponding to the upper curve is more equal than that of the lower curve.

## 4.2. Measuring income inequality

- Lorenz Curve



# The Lorenz Curve – degree of income inequality



## 4.2. Measuring income inequality

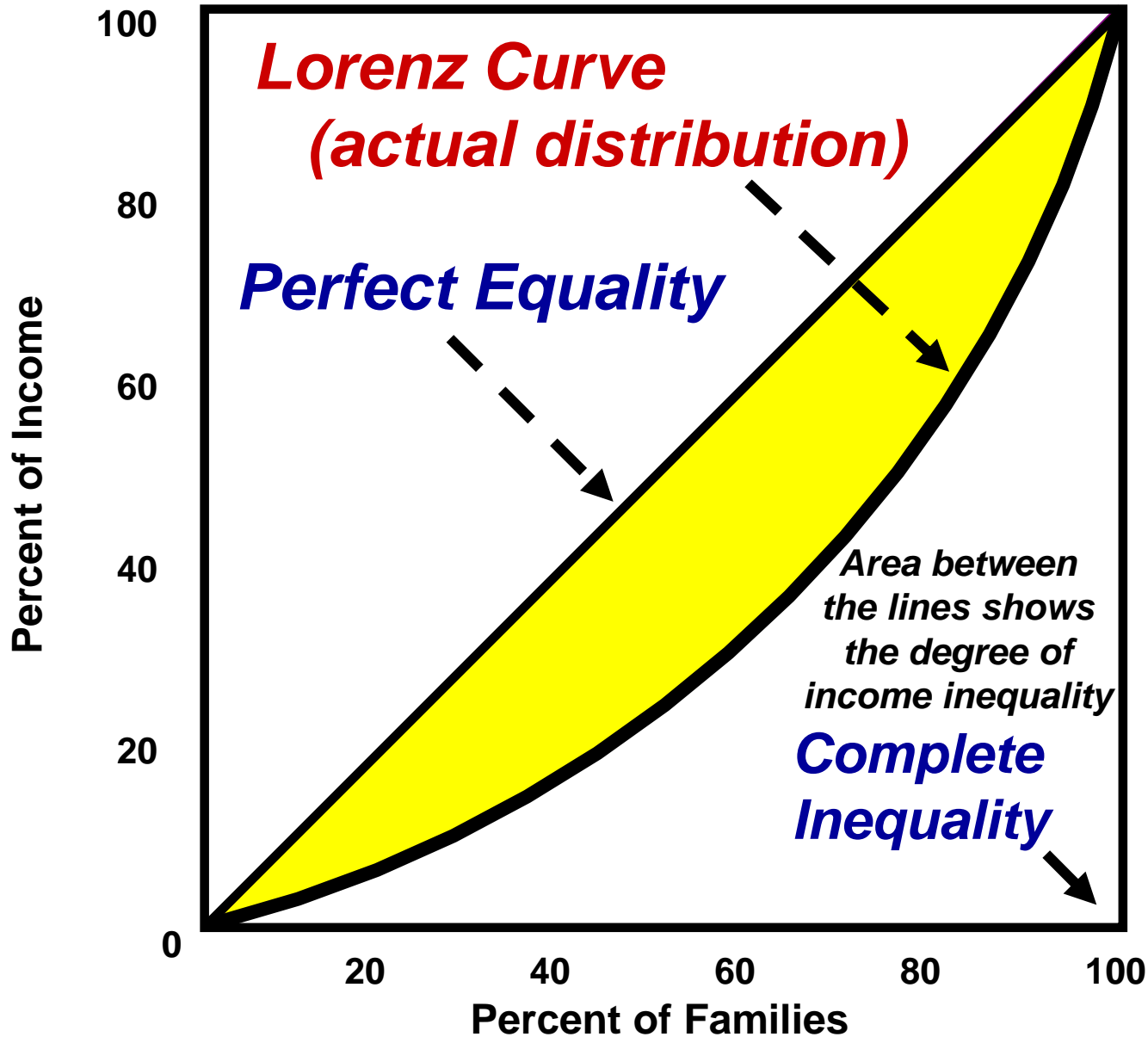
- The more the Lorenz line curves away from the diagonal (line of perfect equality), the greater the degree of inequality represented.
- The extreme case of perfect inequality (if one person receives all the national income & everybody else receives nothing) would be represented by the congruence of the Lorenz curve with the bottom horizontal & right-hand vertical axes.
- Thus economy *A* may unambiguously be said to be more equal than economy *D*.
- Economists usually distinguish between two principal measures of income distribution for both analytical and quantitative purposes: -
- The personal or **size distribution of income** and the **functional or distributive factor** share distribution of income.
- **Size Distributions:-** The **personal or size distribution of income** is the measure most commonly used by economists.
- It simply deals with **individuals** or households and the total incomes they receive.



## 4.2. Measuring inequality

- A common method is to divide the population into successive **quintiles** (fifths) or **deciles** (tenths) according to ascending income levels and then determine what proportion of the **total national income** is received by each income group.
- **Income inequality:** The disproportionate distribution of total national income among households.
- A common measure of **income inequality** is the ratio of the incomes received by the top 20% and bottom 40% of the population.
- This ratio, sometimes called a **Kuznets ratio**, has often been used as a measure of the **degree of inequality** between high- and low-income groups in a country..
- **Lorenz curve:-** A graph depicting the variance of the size distribution of income from perfect equality.

# The Lorenz Curve – degree of income inequality



# The Lorenz Curve – degree of income inequality

100

***Lorenz Curve***

**Gini Ratio**

**Numerical Measure of Overall Dispersion of Income**

$$\text{Gini Ratio} = \frac{\text{Area Between Lorenz Curve and Diagonal}}{\text{Total Area Below the Diagonal}}$$

Perc

40

20

0

20

40

60

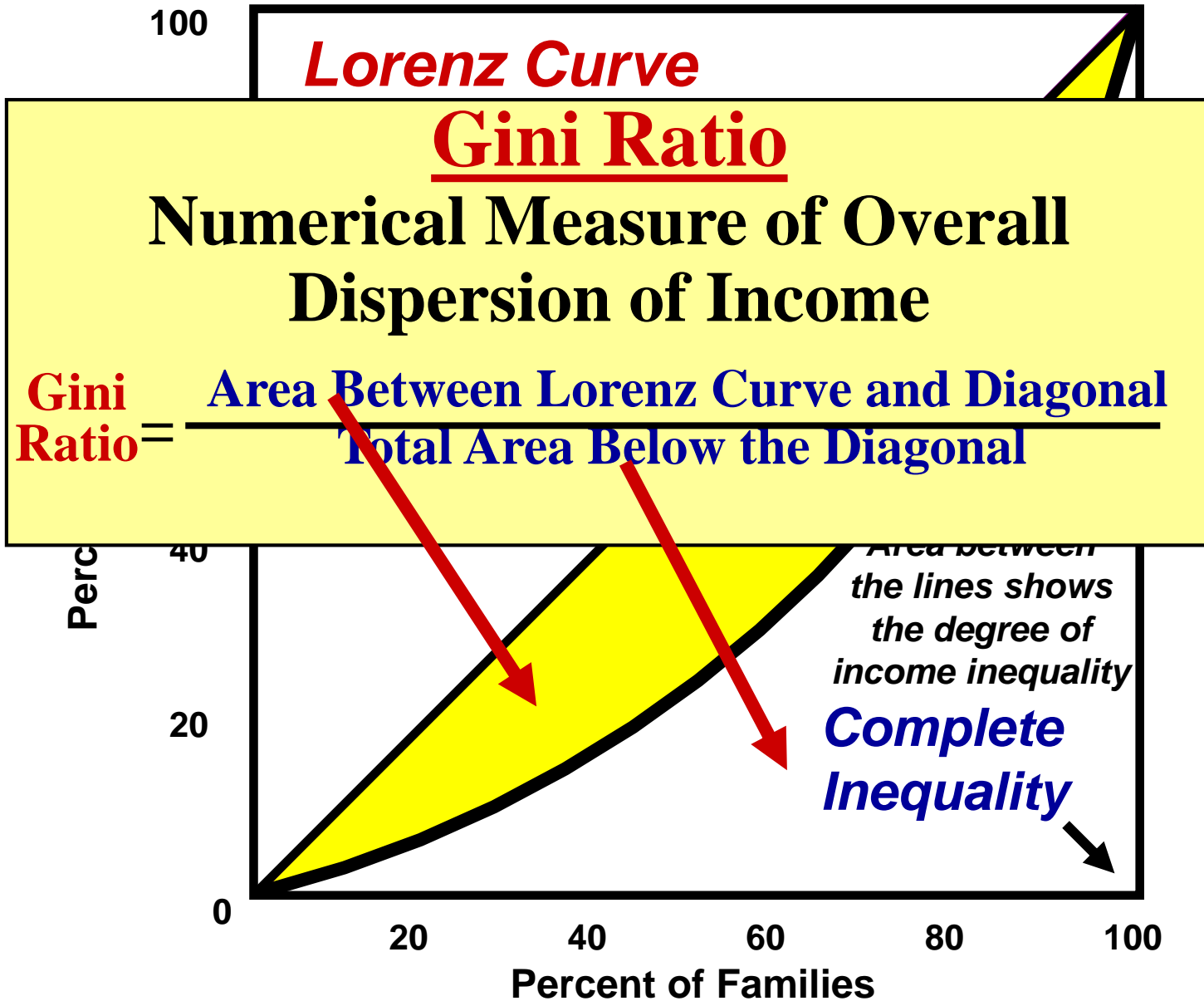
80

100

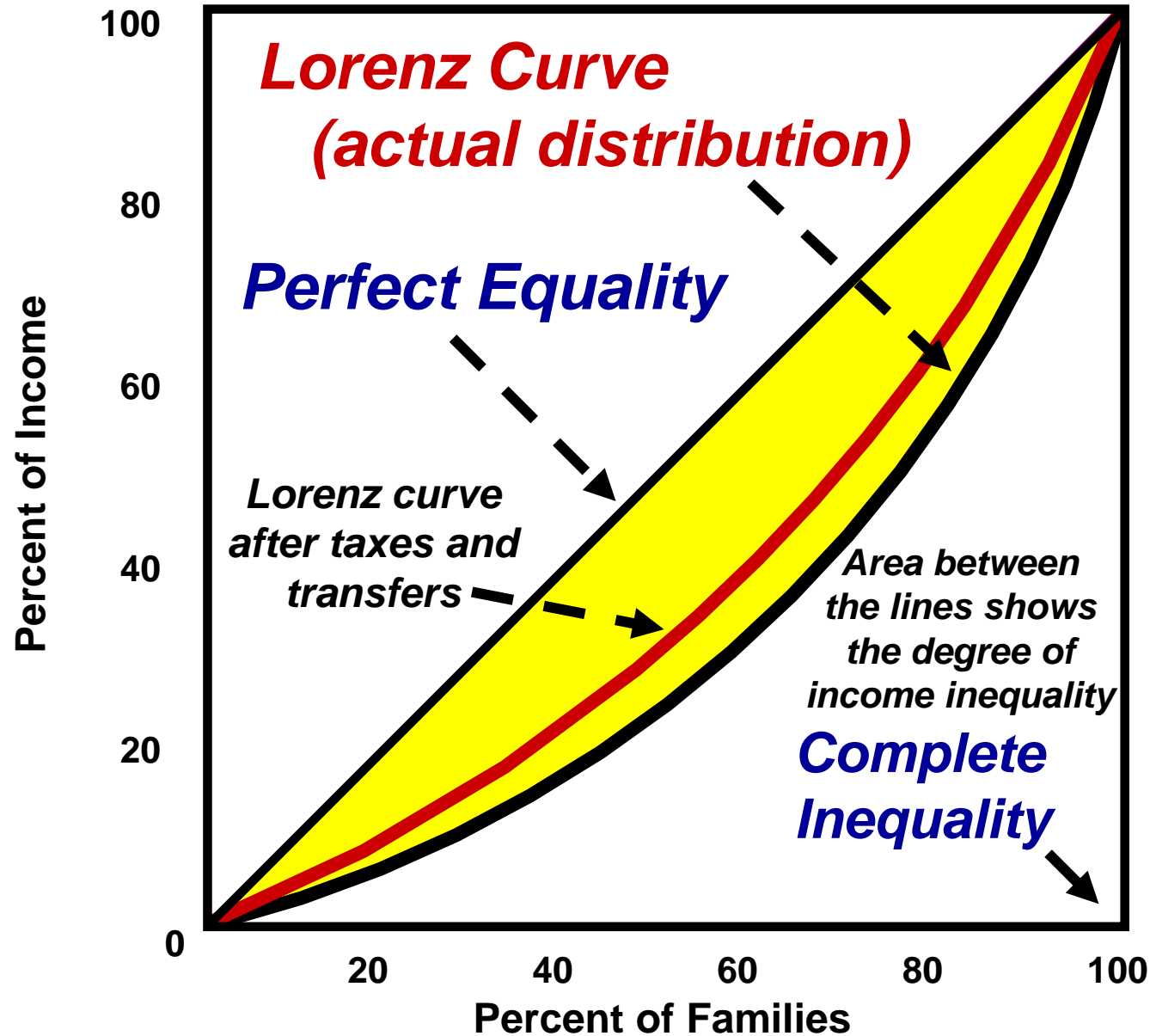
Percent of Families

*Area between the lines shows the degree of income inequality*

***Complete Inequality***



# The Lorenz Curve – degree of income inequality



# Causes of Inequality

- **Individual**

- Ownership of resources – housing, land, etc.
- Qualifications
- Motivation
- Skills
- Ability
- Family size

- **National**

- Factor endowments (land, labour, capital)
- Size and quality of labour force
- Climate
- Stage of economic development
- Economic Power – ability to be able to dictate terms with suppliers, buyers, etc.

# Some possible causes for growing inequality

1. Greater Demand for Highly Skilled Workers
2. Demographic Changes
3. International Trade, Immigration, Decline in Unionism
4. The Great Recession of 2007
5. The hollowing out of the American Economy (**outsourcing**)
6. Globalisation
7. Sectoral and structural change
8. Earnings inequality within sectors
9. Political

## 4.3. Poverty, Inequality, and Social Welfare

- **Absolute Poverty:** A situation where individuals do not have access to the basic requirements of life – food, shelter, clothing.
- **Relative Poverty:** A situation where individuals are excluded from being able to take part in what are considered the normal, acceptable standards of living in a society.
- Difficulties of drawing the line between those ‘in poverty’ and those outside.
- What do we mean by food, clothing and shelter?
- Is living in a sewer a form of shelter?
- Does having some clothing mean that you are not experiencing absolute poverty?
- In the UK – low income threshold – 60% of the median income.
- This means 12.5 million people living below this level – a poverty line?
- Links between ‘low pay’/poverty line and health, crime, education levels, social problems.
- The latter also represents a significant ‘social cost’ (negative externality) to the government

# 4.3. Poverty, Inequality, and Social Welfare

## Poverty Trap

- Where those on the poverty line may not benefit from getting paid work—they might be better off staying on benefits.

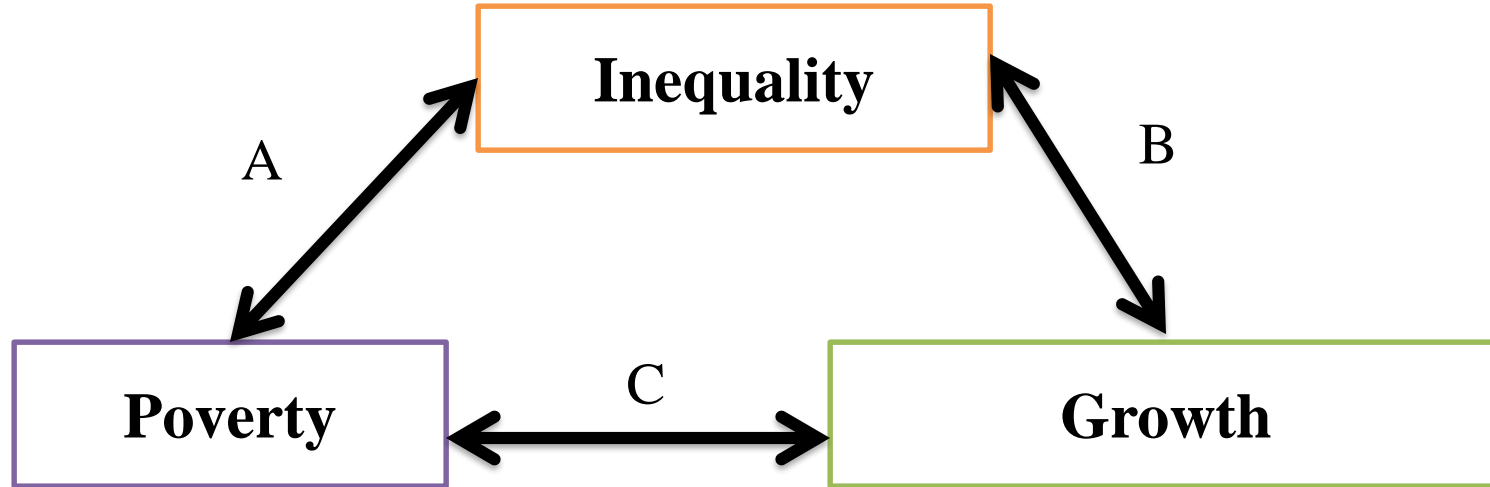
## The Economics of Poverty

### Poverty Defined – 2006

- A condition in which a person or family does not have the means to satisfy basic needs for food, clothing, shelter, and transportation.
- Means – current earned income, transfer payments, past savings, and property owned
- **Poverty, inequality** and **growth** interact with one another through a set of **two-way links**.
- Some of these links can be explored separately, but often **one influences another causing indirect effects**.
- Inequality can indirectly influence poverty as inequality affects growth (B) and growth in turn influences poverty.



# The Poverty, Inequality and Growth Triangle



## Is growth good for the poor?

- A lower average income and a lower rate of economic growth when inequality is high.
- With inequality above the poverty line is that extreme income disparities undermine social stability and solidarity.
- High inequality facilitates *rent seeking*, including actions such as excessive lobbying, large political donations, bribery...
- Countries with extreme inequality have undergone upheavals or extended civil strife that have cost countless lives and set back development progress by decades.
- With high inequality, politics focus often on supporting redistribution of the existing wealth rather than on policies to increase its size.
- Finally, **extreme inequality** is generally viewed as **unfair**.

# Is growth good for the poor? READ

- Simon Kuznets suggested that in **early stages of economic growth**, income distribution will tend to **worsen**; it will improve in later stages.
- Explanations as to why inequality might worsen during the early **stages of economic growth** are numerous.
- They almost always relate to the **nature of structural change**.
- In accordance with the Lewis model early growth may be concentrated in the **modern industrial sector**, where employment is limited but **wages and productivity are high**.
- Alternatively, **returns to education** may first rise as the **emerging modern sector demands skills** and then fall as the supply of **educated workers increases** and supply of unskilled workers falls.
- Inequality can be **gradually reduced** through well-implemented policies to promote **pro-poor growth over time**.

# Is growth good for the poor? READ

- It is not the rate but also the **character of economic growth** (how it is achieved, who participates, which sectors prioritized, what institutional arrangements are designed and emphasized, etc.) that determines the degree to which growth is not **improving living standards** for the poor.
- Clearly, it is **not necessary for inequality to increase for higher growth** to be sustained.
- Are the reduction of poverty and the **acceleration of growth** in conflict? Or are they complementary?
- Traditionally, a body of opinion held that **rapid growth** is bad for **the poor** because they would be bypassed and marginalized by the structural changes of **modern growth**.
- There had been considerable concern **in policy circles** that the public expenditures required for poverty reduction would entail a **reduction in the rate of growth**.

# Is growth good for the poor? READ

- Concentrated efforts to lower poverty would slow growth rate paralleled the arguments that countries with lower inequality would experience slower growth.
- In particular, if there were redistribution of income or assets from rich to poor, even through progressive taxation, the concern was expressed that savings would fall.
- However, while the middle class generally has the highest savings rates, the marginal savings rates of the poor, when viewed from a holistic perspective, are not small.
- Moreover, the poor tend to spend additional income on improved nutrition, education for their children, improve housing conditions, and other expenditures that, especially at poverty levels, represent investments rather than consumption.
- There are at least five reasons why policies focused toward reducing poverty levels need not lead to a slower rate of growth.

# Is growth good for the poor? READ

- First, *widespread poverty creates conditions wherein the poor have no access to credit*, are unable to finance children's education.
- In the absence of physical or monetary investment, the poor have many children as a source of old-age financial security.
- These factors cause per capita growth to be **less than** what it would be if there **were greater equality**.
- Second, unlike the historical experience of the **now developed countries**, *the rich in many contemporary poor countries are generally not frugal or they have the desire to save and invest substantial proportions of incomes in the local economy*.
- Third, the *low incomes (poor), which are manifested in poor health, nutrition, and education, can lower their economic productivity and thereby lead directly and indirectly to a slower-growing economy*.
- Strategies to raise the incomes and levels of living of the poor would therefore contribute not only to their material well-being but also to the productivity and income of the economy as a whole.

# Is growth good for the poor? READ

- Fourth, *raising income levels of the poor will stimulate an overall increase in the demand for locally produced necessity products* like food and clothing, whereas the rich tend to spend more on imported luxury goods.
- Rising demand for local goods provides a greater stimulus to locally produced, local employment, and local investment.
- This would result in rapid economic growth and a broader popular participation growth.
- Fifth *a reduction of mass poverty can stimulate healthy economic expansion by acting as a powerful material and psychological incentive to widespread public participation in the development process.*
- By contrast, wide income disparities and substantial absolute poverty can act as powerful material and psychological disincentives to economic progress.
- They may even create the conditions for an ultimate rejection of progress by the masses, impatient at the pace of progress or its failure to alter their material circumstances.
- Thus, it can be concluded that promoting rapid economic growth and reducing poverty are **not mutually conflicting objectives**.

# Is growth good for the poor? READ

- Over the past 30 years, China has experienced the highest growth rate in the world and also the most dramatic reductions in poverty.
- Moreover, poverty reduction is possible without rapid growth. But whatever the causality, it is clear that growth and poverty reduction are entirely compatible objectives.
- **Michael Roemer and Mary Kay Gugerty** (1997) examined the question of whether economic growth tends to reduce poverty, where poverty is measured by the incomes of the poorest 20% and 40% of a population.
- Using the most recent data, an increase in the rate of GDP growth translates into a direct one-for-one increase in the rate of growth of average incomes of the poorest 40%.

## Is growth good for the poor? **READ**

- GDP growth of 10% per year is associated with income growth of 10% for the poorest 40% of the population.
- For the poorest 20% the elasticity of response is 0.921; GDP growth of 10% is associated with income growth of 9.21%.
- These results give strong support to the proposition that growth in per capita GDP can be and usually is a powerful force in reducing poverty.
- Sound macroeconomic policies and openness to the world economy may be important in reducing poverty.
- These policies operate mainly through the effect on **economic growth**: countries with **better macroeconomic policies** grow faster, and this **growth alleviates poverty**.



# Poverty and inequality

- What kinds of economic and other policies might governments in developing countries adopt to reduce **poverty** and **inequality** while maintaining or even accelerating economic growth rates?
- Moderating the size distribution of incomes in general and raising the income levels of people living in poverty, it is important to understand the various determinants of the distribution of income in an economy.
- What ways government intervention can alter or modify their effect?
- There are four broad areas of possible government policy intervention, which correspond to the following four major elements in the **determination of a developing economy's distribution of income**.

# Poverty and inequality

- 1. *Altering the functional distribution*:- the returns to labor, land, and capital as determined by **factor prices**, **utilization levels**, and the consequent shares of national income that accrue to the **owners of each factor**.
- 2. *Mitigating the size distribution*:- the functional income distribution of an economy translated into a size distribution by knowledge of how ownership and control over **productive assets** and **labor skills** are concentrated and distributed throughout the population.
- The distribution of these asset holdings and skill endowments ultimately determines the distribution of personal income.

# Poverty and inequality

- 3. *Moderating (reducing) the size distribution at the upper levels:-* Progressive taxation of personal income and wealth.
- Such taxation increases government revenues, but decrease the share of **disposable income of the very rich**.
- The government revenues may be invested on human capital and rural and other lagging infrastructure needs, thereby promoting inclusive growth.
- 4. *Moderating (increasing) the size distribution at the lower levels:-* through **public expenditures** of tax revenues to raise the incomes of the poor either directly (e.g. **conditional** or **unconditional cash transfers**).
- Indirectly (through public employment creation such as local infrastructure projects or the provision of primary education and health care).
- Such public policies raise the real income levels of the poor above their personal income, may build the capabilities and assets of people living in poverty.

# Poverty and inequality

- Inequality and poverty affect each other directly and indirectly through their link with economic growth.
- Poverty can be reduced through income increment, distribution, or through a combination of both.
- Small income distribution changes can have a large effect on poverty.
- Evidence predominantly suggests that inequality is bad for growth.
- The World Development Report 2000<sup>1</sup> concludes that better distribution is possible without an economic growth reduction.
- In other words there is no inevitable trade-off between equity and efficiency.
- On the contrary, lower inequality can create faster growth.
- Low inequality can benefit the poor in two ways: by increasing overall growth and average incomes, and by letting them share more.
- Conversely, if income distribution was equitable may experience slow growth and even slower poverty reduction if inequality is high.

# 4.4. Policy Options on Income Inequality & Poverty

## Conditions for Rural Development

- Three conclusions drawn regarding the necessary conditions for the realization of a **people-oriented agricultural and rural development strategy**.

### Land Reform

- ***Conclusion 1:** Farm structures and land tenure patterns must be adapted to the dual objectives of increasing food production and promoting a wider distribution of the benefits of agrarian progress, allowing further progress against poverty.*
- Agricultural and rural development that benefits the poor can succeed only through a joint effort by the government and *all* farmers, not just the large farmers.
- A first step in any such effort, especially in Latin America and Asia, is the provision of secured tenure rights to the individual farmer.
- The small farm family's attachment to their land is profound.
- It is closely bound up with their innermost sense of self-esteem and freedom from coercion.
- When they are driven off their land or they are gradually impoverished through accumulated debts, not only is their material well-being damaged, but so is their sense of self-worth.
- **Land reform.** A deliberate attempt to reorganize and transform agrarian systems with the intention of fostering a more equal distribution of agricultural incomes and facilitating rural development.

## 4.4. Policy Options on Income Inequality & Poverty

- **Supportive Policies**

*Conclusion 2: The full benefits of small-scale agricultural development cannot be realized unless government support systems are created that provide the necessary incentives, economic opportunities, and access to needed credit and inputs to enable small cultivators to expand their output and raise their productivity.*

- Though land reform is essential in many parts of Asia and Latin America, it is likely to be ineffective and perhaps even counterproductive unless there are corresponding changes in rural institutions that control production (e.g., banks, moneylenders, seed and fertilizer distributors), in supporting government aid services (e.g., technical and educational extension services, public credit agencies, storage and marketing facilities, rural transport and feeder roads), and in government pricing policies with regard to both inputs and outputs.
- Even where land reform is less necessary but where productivity and incomes are low (as in parts of Africa and Southeast Asia), this broad network of external support services, along with appropriate governmental pricing policies related to both farm inputs and outputs, is an essential condition for sustained agricultural progress.

## 4.4. Policy Options on Income Inequality & Poverty

- **Integrated Development Objectives**
- **Conclusion 3:** *Rural development, though dependent primarily on small-farmer agricultural progress, implies much more. It encompasses;-*
- *(a) efforts to raise both farm and nonfarm rural real incomes through job creation, rural industrialization, and other nonfarm opportunities and the increased provision of education, health and nutrition, housing, and a variety of related social and welfare services;*
- *(b) a decreasing inequality in the distribution of rural incomes and a lessening of urban rural imbalances in incomes and economic opportunities;*
- *(c) successful attention to the need for environmental sustainability—limiting the extension of farmland into remaining forests and other fragile areas, promoting conservation, and preventing the harmful misuse of agrochemicals and other inputs;*
- *(d) the capacity of the rural sector to sustain and accelerate the pace of these improvements over time.*
- The achievement of these four objectives is vital to national development.
- More than half of the population of the developing world is still located in rural areas.
- By restoring a proper balance between urban and rural economic opportunities and by creating the conditions for broad popular participation in national development efforts and rewards, developing nations will have taken a giant step toward the realization of the true meaning of development.

## 4.4. Policy Options on Income Inequality & Poverty

### Eight essential conditions for strong growth

- Specific country analysis of the **binding constraints on growth** and the policy actions likely to overcome them is essential in forming a growth strategy.
- Based on research from sub-Saharan Africa shows, ‘the diverse history, opportunities and current growth conditions in African countries, is a country-specific task.’
- While there is no ‘**one right answer**’ in terms of policy, there is wide agreement on the essential, to underpin a successful growth strategy in **low-income countries**.
- It is possible to narrow the scope of the process of searching for the most binding constraints and deciding what to do about them.
- There are some areas that need to be addressed, even if the way of addressing them depends on **individual circumstances**.
- Growth is ultimately about investment in capital and labour and improving the productivity of these factors of production through the processes of **innovation** and **technological absorption**.
- The most pertinent question for low-income regions, is how to boost the low levels of investment and productivity growth.
- Common binding constraints that may need to be addressed include:



# **The eight essential conditions for strong growth**

- **I. Physical capital**
- **II. Human capital**
- **III. The rule of law**
- **IV. Competitive markets**
- **V. Macroeconomic stability**
- **VI. Infrastructure facilities**
- **VII. Openness to trade and investment**
- **VIII. Increased agricultural productivity**

## 4.4. Policy Options on Income Inequality & Poverty

- **I. Physical capital:** Growth requires investment in physical capital – the plants, machinery, raw materials, etc. that are central to production – and investment at all scales requires financial capital. Every country that has achieved sustainable growth has managed a significant increase in the levels of both domestic and foreign investment as a percentage of GDP.
- Significant technology is usually embodied in capital goods such as plants and machinery that help to support a country's move up the technological ladder.
- Restricted or expensive access to finance is a brake on such investment, particularly for small and medium-sized enterprises and for the informal sector.
- A well-functioning financial sector enhances economic growth through ensuring that capital is not left idle, that it is directed to where it is most beneficial, and that risks are borne efficiently.
- The quality of investment matters alongside the quantity. Poorly targeted subsidies have the capacity to hamper growth by redirecting capital away from where it is most productive.
- **II. Human capital:** Investment in education and skills can be as important as investment in machinery and plants in delivering growth. Investment in this 'human capital' is especially appealing as it directly leads to improved human development as well as helping to drive growth.
- The costs of this investment are both direct (for example, the cost of school equipment and books) and indirect (the opportunity costs of the wages lost from remaining in education).

## 4.4. Policy Options on Income Inequality & Poverty

- Amelioration of these, together with raising the return on education (the wages for skilled workers) is likely to increase educational investment.
- A wide range of labour skills are needed to catalyse and sustain economic growth, including education at all levels from primary schools through to universities, and including technical and vocational training as well as ‘learning by doing’.
- Unfortunately, progress in overcoming shortages of skilled and trained manpower in the world’s poorest countries has been disappointingly slow.
- Although basic education is widely considered to be critical for reducing poverty, there is emerging evidence that secondary and higher education are more significant in raising long-term growth rates and income levels as they play a key role in the creation and application of new knowledge and technologies.
- This effect occurs primarily through people’s improved capabilities to absorb technological advances.
- **III. The rule of law:** The business environment needs to have safeguards that ensure that the returns of investment will be collected by investors.
- Political instability, corruption and crime can all threaten potential returns and make investment unattractive and thus damage the prospects for growth.
- The cost of crime and the cost of security as a percentage of sales are particularly high in low-income regions such as sub-Saharan Africa.

## 4.4. Policy Options on Income Inequality & Poverty

- Recent surveys of the investment climate in low-income countries identify the costs of legal enforcement of contracts and compliance with regulation as having the biggest negative impact on business profitability.
- Strengthening the capacity of relevant public institutions for protecting property rights can often therefore be important.
- Equally, evidence from Africa suggests that particular attention should be given to the prevention of corruption.
- As well as curtailing domestic investment, poor property rights are likely to divert foreign investment elsewhere.
- This may substantially reduce the scope for technology transfer that will increase productivity and ultimately growth.
- **IV. Competitive markets:** Competition typically ensures that consumers are able to obtain more goods at lower prices than under a monopoly.
- Judicious use of regulation will help foster a competitive environment.
- It is important that this is applied by an independent body that is not susceptible to capture by any particular interest group.
- While certain industries (such as utilities) do not readily lend themselves to competition due to the vast cost savings they possess if they are large, this does not apply in most cases.

## 4.4. Policy Options on Income Inequality & Poverty

- Governments need to ensure that they do not themselves reduce open and fair competition, either wittingly or unwittingly.
- This may happen as a result of pandering to entrenched vested interests, or it may come from institutional hurdles such as expensive and time-consuming procedures to regulate business.
- It is vital to ensure that businesses are able to enter and exit markets with relative ease, and that there are opportunities for business innovation.
- It is by this route that firms and industries can increase their productivity, which in turn drives long-term growth.
- **V. Macroeconomic stability**
- Investors make decisions based on the rate of return they expect to receive and the riskiness of the investment project: the higher the risk, the higher the required rate of return.
- A stable macroeconomic environment is crucial to reducing the risks associated with investment.
- This applies as much to human capital as it does to physical capital: people are less likely to want to bear the costs of education when there is a greater risk that they will be unemployed on completion.
- A stable macroeconomic environment includes monetary policy that delivers low and stable inflation, effective management of government tax and spending to deliver public services; and an exchange rate regime that is not excessively distorted or volatile.

# 4.4. Policy Options on Income Inequality & Poverty

- **VI. Infrastructure**
- Investors need good access to knowledge, to inputs of capital, labour and raw materials, and to markets.
- This requires transport infrastructure, as well as the provision of a regular supply of electricity and other utilities.
- In Africa, transport and energy make up the largest proportion of indirect costs for businesses, weighing heavily on the competitiveness of firms in most African countries.
- In addition to transport infrastructure, communication infrastructure is crucial in disseminating information about prices and markets across a wide area. In this respect, the spread of mobile communications has been revolutionary.
- In recent years, limited banking services have even become available using mobile telephones in many parts of the developing world.
- **VII. Openness to trade and investment**
- No country has grown on a sustained basis in recent times without successfully integrating into global markets. There are two facets to this: integration into goods markets and integration into input markets, notably integration into financial capital.

## 4.4. Policy Options on Income Inequality & Poverty

- Openness of a country's goods markets enables growth, facilitating technology transfer, increasing competition and benefiting consumers.
- In the past, some countries have followed a policy of 'import substitution', deliberately shielding their industries from international markets to allow them to develop.
- The success of such policies has been mixed: governments often protected industries that were not sustainable without protection. As protection has costs in terms of lost growth, such policies were harmful.
- The relationship between open capital markets and growth is less clear.
- Capital market integration allows smoothing of living standards, risk-sharing among countries and technology transfer from the developed world.
- The challenge in both of these areas is the way in which openness is achieved.
- Proper sequencing and pacing of reform is needed to smooth the adjustment for domestic producers.
- This is especially important for capital market integration.
- Hasty liberalization of capital markets facilitated many financial crises over the past decade, which significantly curtailed growth.

## 4.4. Policy Options on Income Inequality & Poverty

- **VIII. Increased agricultural productivity**
- Low-income countries typically have large agricultural sectors.
- Productivity increases in agriculture often serve as the catalyst for growth, as well as having strong effects on reducing poverty due to the high numbers of people involved in these sectors.
- Adapting or developing technologies and improving agricultural markets for seed, fertilizer and agricultural outputs will help this process.
- For many poor African countries, agriculture will be the centerpiece of their efforts to achieve growth, poverty reduction and food security for the foreseeable future.
- A key challenge is to make agriculture more worthwhile by raising its profitability through technological innovation.
- This will be critical if poor regions such as Africa are to embark on a successful ‘green revolution’ to raise agricultural productivity and release labor for more diversified, higher productivity activities such as manufacturing.
- Policy achievements and shortfalls How have developing countries performed in recent years against the eight essential conditions for strong growth? Most have been successful in providing greater macroeconomic stability.
- Inflation and public sector deficits are down, and growth has responded to this improved policy environment, although fiscal challenges remain on both tax and public expenditure.
- The only caveat to this is that international financial crises can have particularly pronounced effects in developing countries.
- Success is much more mixed on the other seven conditions.
- This is reflected in country circumstances that constrain the private sector.



# 5. Factors of Development

5.1. Natural resource endowment

5.2. Population growth and labor market

5.3. Capital formation and foreign investment

5.4. Population Growth and Development: Causes, Consequences, and Controversies

5.5. Technological progress, Efficiency: Total Factor Productivity

# 5.1. Natural resource endowment

- As noted by James Speth, the executive director of the United Nations Development Program, “Poverty is no longer inevitable.
- The world has the material and natural resources, the know-how and the people to make a poverty-free world a reality in less than a generation.
- This is not woolly idealism but a practical and achievable goal.”
- A large fraction of the world’s people still rely on local natural resources for most of their income and consumption.
- Developing countries are no exception to this rule.
- Some are rapidly ascending through the income rankings as they expand their industrial capacities.
- Some are very populous yet deficient in both natural resources and human skills, at least in large regions of the country.
- Others are sparsely populated yet endowed with abundant mineral and raw material resources.
- Yet others are small and economically weak, still having at present neither adequate human capital nor the material resources on which to base a sustained and largely self-sufficient strategy of economic and social development.

# 5.1. Natural resource endowment

- China, like much of the rest of East Asia, has a relatively poor endowment of natural resources.
- Many development specialists have concluded that this lack is actually more of a benefit than a drawback.
- Natural resource abundance encourages political infighting for control over the revenues, while manufacturing success is more important when you don't have natural resources to fall back on.
- It requires more initiative and more efforts to upgrade technology and skill.
- In many countries, the poor have been losing control of some of their traditional natural resource commons, including forests, fields, and fishing areas, to new private property rights arrangements or to corrupt public land management.
- This trend is being widely resisted by communities and their supporters in NGOs, agencies, and local governments.
- Many of the rural poor lacking access to adequate farmland or to resources for earning adequate livelihoods from nature, such as access to forests, cattle to graze, or boats and equipment for fishing, have seen few gains or suffered setbacks.

•

# 5.1. Natural resource endowment

- Basic needs resource scarcity-especially shortages of food, fertile land, and water-may contribute to conflict or ongoing risks of conflict; for example, the UN concluded that the crisis in Darfur had water and other natural resource scarcity at its root.
- Clashes among pastoralist groups in northern Kenya are often attributed to drought and to water scarcity more generally.
- The presence of high value exportable resources such as diamonds, oil, and hardwood, without accepted or enforceable rules for how their benefits will be distributed, also appears to be an underlying factor in violent conflict.
- Paul Collier argues that what he terms the conflict trap “shows how certain economic conditions make a country prone to civil war, and how, once conflict has started, the cycle of violence becomes a trap from which it is difficult to escape.”
- He finds that countries are prone to civil war when faced with low income, slow growth, and dependence on primary commodity exports.
- Countries highly dependent on natural resources, as well as those experiencing high rates of deforestation and soil degradation or low per capita availability of arable land and fresh water, have higher risks of conflict.

## 5.1. Natural resource endowment

- But low rainfall may matter primarily because it leads to lower growth, particularly in agricultural economies.
- Climate change may exacerbate existing problems.
- A 2009 study found that historically in Africa, a 1°C rise in temperature leads to a 4.5% increase in civil war in the same year; the authors concluded that projections of future temperature trends imply a 54% increase in armed conflict incidence by 2030, with “an additional 393,000 battle deaths.”
- Though only rarely if ever does (worsening) resource scarcity *directly* cause violent conflict, it is likely an important *compounding* factor in many cases
- Resources not usually thought of as exportable may be becoming more so.
- As water grows scarcer-with current problems of receding shorelines of inland bodies of water, aquifer depletion, salination, and projected future problems due to climate change-the price of water is rising, and in response, exports of water are beginning.

## 5.1. Natural resource endowment

- Botswana shows that mineral wealth can be a benefit in a country that has the appropriate political development in place.
- Botswana has experienced by far the highest rate of growth in sub-Saharan Africa: 8.4% per year over the 1965–1990 period and a still-high 6.0% in 1990–2005.
- It is one of 13 countries identified by the Spence Commission as having ever experienced a 25-year period averaging at least 7% growth-and the only one in Africa.
- According to the UN Development Program, Botswana's per capita income increased nine-fold from 1970 to 2010.
- Since its independence, Botswana has gone from being among the poorest countries in the world to one with a greater PPP per capita income than Thailand or Brazil and similar to that of Malaysia and Turkey

# 5.1. Natural resource endowment

- What explains Botswana's remarkable success?
- This is a case in which the benefits of direct foreign investment for spurring growth are very clear.
- Moreover, success has been based on both favorable geography (huge diamond deposits) and favorable institutions (relatively effective protection of private property, rule of law, checks and balances, and good incentives for government to play a constructive role).
- Effective governance matters; as noted by the 2008 Spence Commission, "Botswana has a tradition of long-term planning guided by a vision for the future direction of the economy."
- When all these elements are present, conditions for development are particularly auspicious.
- Botswana's diamond wealth is vast, and hence the experience of Botswana shows that the "curse of natural resources" does not haunt all countries equally.
- Although diamonds have been a dictator's best friend in countries such as the Democratic Republic of Congo (DRC) and Sierra Leone, in Botswana diamond exports have been consistent with democracy and broad-based development.
- **So unfavorable features of geography need not be destiny, natural resources need not be a curse, and good institutions can underpin dramatically superior economic performance.**

## 5.2. Population growth and labor market

- *The central issue of our time may well turn out to be how the world addresses the problem of ever-expanding human numbers.*

*—James Grant, former director general, UNICEF*

*Economic development may be far from “the best contraceptive,” but social development— especially women’s education and employment—can be very effective indeed. —Amartya Sen, Nobel laureate in economics*

- Rapid population growth began in Europe and other now developed countries.
- But in recent decades, most population growth has been centered in the developing world.
- Compared with the developed countries, which often have birth rates near or even below replacement (zero population growth) levels, the low-income developing countries have very high birth rates.
- More than 5/6 of all the people in the world now live in developing countries.
- But population dynamics varies widely among developing countries.
- Populations of some developing countries, particularly in Africa, continue to grow rapidly.
- From 1990 to 2008, population in the low-income countries grew at 2.2% per year, compared to 1.3% in the middle-income countries (the high-income countries grew at 0.7% per year, reflecting both births and immigration).



## 5.2. Population growth and labour market

- Population growth, and the associated eventual increase in the labor force, has traditionally been considered a positive factor in stimulating economic growth.
- A larger labor force means more productive workers, and a large overall population increases the potential size of domestic markets.
- However, it is questionable whether rapidly growing supplies of workers in developing countries with a surplus of labor exert a positive or a negative influence on economic progress.
- Obviously, it will depend on the ability of the economic system to absorb and productively employ these added workers-an ability largely associated with the rate and kind of capital accumulation and the availability of related factors, such as managerial and administrative skills.
- Rapid population growth can have serious consequences for the well-being of all of humanity.

## 5.2. Population growth and labour market

- The economic theory of fertility assumes that the household demand for children is determined by family preferences for a certain number of surviving (usually male) children (i.e., in regions of high mortality, parents may produce more children than they actually desire in the expectation that some will not survive), by the price or “opportunity cost” of rearing these children, and by levels of family income.
- Children in poor societies are seen partly as economic investment goods in that there is an expected return in the form of both child labor and the provision of financial support for parents in old age.
- In deciding whether or not to have *additional* children, parents are assumed to weigh private economic benefits against private costs, where the principal benefits are the expected income from child labor, usually on the farm, and eventual financial support for elderly parents.
- Balanced against these benefits are the two principal elements of cost: the opportunity cost of the mother’s time (the income she could earn if she were not at home caring for her children) and the cost of educating children—the financial trade-off between having fewer “high quality,” high-cost, educated children with high-income-earning potential versus more “low-quality,” low-cost, uneducated children with much lower earning prospects.

## 5.3. Capital formation and foreign investment

- By definition, according to the World Bank, FDI is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise resident in another economy.
- It entails direct investment equity flows in the reporting economy which comprises of equity capital, reinvested earnings and intra-company loans and other capital.
- Foreign Direct Investment inflow has been perceived to promote economic stability of the host country through various economic benefits accrued from it.
- As an element of cross-border transfer and economic injection, foreign direct investment remain an indispensable requirement for economic growth, employment generation, capital accumulation financing, knowledge transfer, economic stability and poverty among developed and developing countries alike.
- Between the years 1980 and 2014, FDI inflows were recorded to be about US\$ 52 million, US\$ 243 million, US\$ 1.2 million, US\$ 1.3 million and US\$ 1.35 in years 1980, 1990, 2000, 2010 and 2014, respectively.

## 5.3. Capital formation and foreign investment

- Ugwuegbe et al. (2014) found a long-run relationship between FDI and capital formation.
- In the short-run, FDI was found to be insignificant in affecting capital formation but not so in the long-run.
- A bidirectional causality between FDI and gross fixed capital formation (GFCF) was also established.
- Proxying domestic investment with gross fixed capital formation, Ullah et al. (2014) revealed the existence of a long-run relationship between domestic investments, foreign direct investment and economic growth in Pakistan and further confirmed a bi-directional causality between FDI and domestic investment using Toda-Yamamoto causality.
- Using a ‘growth model’ framework and simultaneous-equation models estimated by the generalized method of moments (GMM) during the period 1990–2010, the study of Omri and Kahouli (2014) found a statistically significant and positive effect of FDI on the domestic capital.
- Furthermore, the study concluded that there is a uni-directional causal relationship from foreign direct investment to domestic capital for the Middle East and North Africa regions.
- In India, a uni-directional causality was found between FDI inflow and gross domestic investment (Chakraborty and Mukherjee 2012).
- This is contrary to the finding of Ullah *et al.* (2014) and Ugwuegbe *et al.* (2014) in Pakistan and Nigeria, respectively.
- An overview of a review on existing literature by Omri and kahouli (2014) reveals that the impact of FDI on domestic capital was not fully researched.

## 5.3. Capital formation and foreign investment

- The above has highlighted that the FDI-employment relationship is dynamic and differs between long-run and short-run and between types of employment.
- Findings show that FDI has had a positive effect on capital formation and employment creation.
- Yet the major sources for this rapid growth, increased capital formation and increased labor participation rates, were exhausted in the decade or two before the collapse of communism in 1991.
- Since then, the United States, Canada, Japan, and most Western European countries experienced real growth rates in gross national product per capita in excess of 1% per year, a rate that means a rise to more than four times initial value by 2000.
- The most important sources of this growth were capital formation and increased knowledge and technology.
- In the 1950s, U.N. economists considered capital shortage the major limitation to DC economic growth.
- By capital, they meant tools, machinery, plant, equipment, inventory stocks, and so on, but not human capital.

## 5.3. Capital formation and foreign investment

- Cairncross (1955) agreed with U.N. economists that capital and income grow at about the same rate.
- But he felt that capital increases do not explain economic growth—that, in fact, the reverse was true:- The amount of capital responds to increases in its demand, which depends on economic growth.
- Initial attempts at statistical measurement in the West and Japan in the late 1950s and 1960s indicated that capital per worker-hour explained 5–33% of growth in output per worker-hour.
- Scholars usually attributed the residual, 67–95%, to technical progress.
- A development economist used this evidence to argue that capital formation has been stressed too much and technical progress too little (Hagen, 1980).
- For command economies Russia–Soviet Union, pre-1989 Eastern Europe, and pre-1976 China, the residual is even smaller than for the third-world countries of Asia, Africa, and Latin America.
- Virtually all growth in these command economies was attributed to increases in capital and other inputs, and only a tiny fraction to technical

## 5.4. Population Growth and Development: Causes, Consequences, and Controversies

- **Seven Negative Consequences of Population Growth:-** According to the latest empirical research, the potential negative consequences of population growth for economic development can be divided into seven categories: its impact on economic growth, poverty and inequality, education, health, food, the environment, and international migration.
  1. ***Economic Growth.*** Evidence shows that although it is not the culprit behind economic stagnation, rapid population growth lowers per capita income growth in most developing countries, especially those that are already poor, dependent on agriculture, and experiencing pressures on land and natural resources.
  2. ***Poverty and Inequality.*** Even though aggregate statistical correlations between measures of poverty and population growth at the national level are often inconclusive, at the household level the evidence is strong and compelling.
- The negative consequences of rapid population growth fall most heavily on the poor because they are the ones who are made landless, suffer first from cuts in government health and education programs, and bear the brunt of environmental damage.
- Poor women once again bear the greatest burden of government austerity programs, and another vicious circle ensues.
- To the extent that large families perpetuate poverty, they also exacerbate inequality.

## 5.4. Population Growth and Development: Causes, Consequences, and Controversies

- 3. **Education.** Although the data are sometimes ambiguous on this point, it is generally agreed that large family size and low incomes restrict the opportunities of parents to educate all their children. At the national level, rapid population growth causes educational expenditures to be spread more thinly, lowering quality for the sake of quantity. This in turn feeds back on economic growth because the stock of human capital is reduced by rapid population growth.
- 4. **Health.** High fertility harms the health of mothers and children. It increases the health risks of pregnancy, and closely spaced births have been shown to reduce birth weight and increase child mortality rates.
- 5. **Food.** Feeding the world's population is made more difficult by rapid population growth—a large fraction of developing country food requirements are the result of population increases.
- New technologies of production must be introduced more rapidly, as the best lands have already been cultivated. International food relief programs become more widespread.
- 6. **Environment.** Rapid population growth contributes to environmental degradation in the form of forest encroachment, deforestation, fuel wood depletion, soil erosion, declining fish and animal stocks, inadequate and unsafe water, air pollution, and urban congestion.
- 7. **International Migration.** Many observers consider the increase in international migration, both legal and illegal, to be one of the major consequences of developing countries' population growth. Though many factors spur migration, an excess of job seekers (caused by rapid population growth) over job opportunities is surely one of them. However, unlike the first six consequences listed here, some of the economic and social costs of international migration fall on recipient countries, increasingly in the world.



## 5.5. Technological progress, Efficiency: Total Factor Productivity

- Given limited mineral resources, improved technology and increased capital accumulation will be essential for expanding real planetary product per capita in the future.
- Technical advances, such as better mining techniques, may mitigate our limited mineral supplies; and the development of renewable power sources based on the sun, either directly through solar cells, or indirectly through water power, wind power, and photosynthesis, will help us use our resources more wisely.
- The major source of growth per worker in developing countries is capital per worker; increased productivity of each unit of capital per worker is of less significance.
- Second, the major source of growth per worker in developed countries is increased productivity, with increases in capital per worker being relatively unimportant.
- Accordingly, capital accumulation appears to have been more important and technical progress less important as a source of growth in developing countries than in developed countries.

## 5.5. Technological progress, Efficiency: Total Factor Productivity

- In 1965, the Nobel prize winner John R. Hicks argued that econometric studies of growth sources in Western countries understate capital formation's contribution to growth.
- Because many significant advances in knowledge are embodied in new capital, its separation from technical progress may lead to underestimating its contribution.
- Furthermore, accumulation of new capital is frequently offset by a decrease in value in old capital, partly from obsolescence.
- Thus, Hicks contended, it is very wrong to give the impression to a LDC, having relatively small amounts of old capital, that capital accumulation is a matter of minor importance.
- The rates of capital growth in developing countries (as well as Israel, which received substantial inflows of funds in the 1950s) were rapid enough to offset some of the understatement of capital in the production function. Developing countries concerned about rapid economic growth ignore capital accumulation at their peril.
- Indeed, the World Bank's (2004) decomposition of GDP growth indicates that in LDCs, capital contributed more than productivity to GDP growth, 1990–2000.

**THANK**

**YOU**

