

# ECONOMIC GROWTH AND DEVELOPMENT

COURSE CODE: M23EC07DC

Postgraduate Programme in Economics

Discipline Core Course

SELF LEARNING MATERIAL



SREENARAYANAGURU  
OPEN UNIVERSITY

## SREENARAYANAGURU OPEN UNIVERSITY

The State University for Education, Training and Research in Blended Format, Kerala

# SREENARAYANAGURU OPEN UNIVERSITY

## Vision

*To increase access of potential learners of all categories to higher education, research and training, and ensure equity through delivery of high quality processes and outcomes fostering inclusive educational empowerment for social advancement.*

## Mission

To be benchmarked as a model for conservation and dissemination of knowledge and skill on blended and virtual mode in education, training and research for normal, continuing, and adult learners.

## Pathway

Access and Quality define Equity.

# Economic Growth and Development

Course Code: M23EC07DC

Semester - II

**Discipline Core Course**  
**Postgraduate Programme in Economics**  
**Self Learning Material**  
(With Model Question Paper Sets)



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## DOCUMENTATION

### Academic Committee

Dr. Anitha V	Santhosh T Varghese
Dr. Prasad A.K.	Dr. B. Pradeepkumar
Dr. C.C. Babu	Dr. Sindhu Prathap
Dr. Christabella P. J.	Dr. Aparna Das
Dr. Moti George	Dr. S. Jayasree

### Development of the Content

Yedu T. Dharan, Hima Chandran J.

### Review

Content	: Dr. Aparna Das
Format	: Dr. I.G. Shibi
Linguistics	: Dr. C. Ajayan

### Edit

Dr. Aparna Das

### Scrutiny

Dr. Suchithra K.R., Muneer K., Soumya V. D., Yedu T. Dharan

### Co-ordination

Dr. I.G. Shibi and Team SLM

### Design Control

Azeem Babu T.A.

### Cover Design

Jobin J.

### Production

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# MESSAGE FROM VICE CHANCELLOR

Dear learner,

I extend my heartfelt greetings and profound enthusiasm as I warmly welcome you to Sreenarayanaguru Open University. Established in September 2020 as a state-led endeavour to promote higher education through open and distance learning modes, our institution was shaped by the guiding principle that access and quality are the cornerstones of equity. We have firmly resolved to uphold the highest standards of education, setting the benchmark and charting the course.

The courses offered by the Sreenarayanaguru Open University aim to strike a quality balance, ensuring students are equipped for both personal growth and professional excellence. The University embraces the widely acclaimed "blended format," a practical framework that harmoniously integrates Self-Learning Materials, Classroom Counseling, and Virtual modes, fostering a dynamic and enriching experience for both learners and instructors.

The university aims to offer you an engaging and thought-provoking educational journey. The postgraduate programme in Economics builds on the undergraduate programme by covering more advanced theories and practical applications. The course material aims to spark learners' interest by using real-life examples and combining academic content with empirical evidence, making it relevant and unique. The Self-Learning Material has been meticulously crafted, incorporating relevant examples to facilitate better comprehension.

Rest assured, the university's student support services will be at your disposal throughout your academic journey, readily available to address any concerns or grievances you may encounter. We encourage you to reach out to us freely regarding any matter about your academic programme. It is our sincere wish that you achieve the utmost success.



Regards,  
Dr. Jagathy Raj V. P.

01-08-2024

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# MASTER OF ARTS ECONOMICS



## Economic Growth and Development

### Block 1



# UNIT 1

## Measures of Development

### Learning Outcomes

After reading this unit, the learner will be able to:

- understand the concept of economic growth and development
- assess Multidimensional Poverty Index
- familiarise the difference between utilitarian and social indicators of development
- evaluate insights about sustainable development

### Background

In the context of global development, many countries have stood out as pioneers in integrating economic analysis and frameworks into their developmental strategies. Among them is Bhutan, renowned for its unique approach to measuring progress through Gross National Happiness (GNH) rather than solely relying on economic indicators like Gross Domestic Product (GDP). By recognising that prosperity includes not just economic wealth but also social, cultural, and environmental dimensions, Bhutan has forged a path towards more inclusive and sustainable development. Costa Rica's commitment to environmental sustainability, coupled with investments in renewable energy and conservation efforts, showcases a holistic approach to development that balances economic growth with ecological management. Similarly, Norway's strong social welfare systems and sustainable resource management make it evident the importance of incorporating social indicators and sustainable development principles into national strategies. These show the transformative power of economic analysis and principles when applied judiciously in policymaking and development planning. By adopting multidimensional metrics, prioritising social welfare alongside economic growth, and embracing sustainable practices, countries can pave the way for strong, equitable, and prosperous societies.

## Keywords

Economic Growth, Development, Multidimensional Poverty Index, Sustainable Development, Deprivation, Utility, Quality of Life, Utilitarian, Social Indicator

## Discussion

### 1.1.1 Growth and Development

Economic growth refers to the increase in the monetary value of all goods and services produced within an economy over a specific period. This is a quantitative measure primarily focused on the expansion of economic activities, often assessed using indicators like GDP and GNP. According to Kindleberger, “Economic growth means more output, while economic development implies both more output and changes in the technical and institutional arrangement by which it is produced and distributed. Growth may well involve not only more output derived from greater amounts of inputs but also greater efficiency, i.e., an increase in output per unit of input. Development goes beyond this to imply changes in the composition of output and in the allocation of inputs by sectors.” Economic growth rate serves as a barometer of an economy’s health, measuring its size and productivity over specific periods, typically a year or quarter. It calculates the percentage change in a country’s total economic output within that time period, reflecting its capacity to produce goods and services, create jobs, and generate income for its residents.

- Economic growth: Increase in economic value

Economic growth stands as the main objective for most nations, enabling them to improve citizen’s well-being and invest in key sectors like education, healthcare, and infrastructure. It remains under close examination by policymakers, businesses, and investors alike, guiding their decision making processes. This continuous monitoring aids in making well informed choices to sustain and support economic development strategies. On the other hand, economic development includes a broader and more qualitative perspective. It refers to the overall improvement in the well-being, standard of living, and educational attainment of a nation’s population. This qualitative improvement also includes advancements in technology and production processes. Economic development

- Quantitative vs Qualitative: Growth vs Development



stands as a qualitative assessment of a nation’s standard of living, including a broader spectrum than mere economic growth. It involves initiatives aimed at tackling widespread poverty, reducing income disparities, and stimulating job opportunities.

- Societal well-being through multifaceted progress

Economic development denotes sustained improvement in societal well-being, achieved through targeted programmes and policies to support economic health and overall quality of life. Unlike economic growth, which primarily measures output expansion, economic development is multifaceted and includes changes across social, cultural, political, and economic sectors. These transformations include various aspects such as resource management, capital formation, demographic shifts, technological advancements, skill development, and institutional restructuring. They collectively aim at achieving equitable income distribution, higher employment rates, and alleviation of poverty, forming a balanced progress.

- Development indicators

Economic development extends beyond mere income growth; it includes advancements in technology, improved living standards, and societal progress markers like increased life expectancy, reduced infant mortality, higher literacy rates, and decreased poverty levels. Key indices such as the Human Development Index (HDI), Gender Development Index (GDI), Human Poverty Index (HPI), among others, are essential for assessing progress in developing nations. Moreover, economic development is not just a quantitative measure; it embodies normative ideals, reflecting people’s moral sensibilities about what constitutes progress and well-being. It revolves around raising human capital, narrowing inequality gaps, and instituting structural changes that improve overall quality of life, making it a vital aspect of development economics.

The key differences between economic growth and economic development are:

**Table 1.1. 1 Differences Between Economic Growth and Economic Development**

Aspect	Economic Growth	Economic Development
Definition	Increase in monetary value of goods/services	Improvement in well-being, education, technology etc
Measurement	Quantitative (GDP, GNP)	Quantitative (HDI, per capita income) + Qualitative



Scope	Narrow (Economic)	Broad (Social, Cultural, Political)
Applicability	Developed Economies	Developing & Developed Economies
Government Support	Less intervention	Requires active intervention
Changes Expected	Quantitative	Quantitative + Qualitative

- Reducing inequality, improving well-being

In development economics, these concepts guide policymakers in formulating strategies that not only boost economic output but also aid holistic societal progress. By focusing on factors like natural resources, capital formation, human resources, and population dynamics, economies can achieve sustainable development that benefits all segments of society. Overall, economic development goes beyond mere economic growth; it aims to create inclusive growth opportunities, reduce inequality, improve living standards, and promote overall well-being, making it a comprehensive and vital aspect of economic analysis and policy formulation.

### 1.1.2 Multidimensional Poverty Index (MPI)

- Comprehensive poverty assessment

The Multidimensional Poverty Index (MPI) is a comprehensive tool used to assess poverty by considering various dimensions simultaneously. This approach provides a holistic view of poverty by capturing the multiple deprivations experienced by households. It is particularly effective in portraying a detailed and integrated picture of poverty situations, allowing for analysis of the population, sub-group, or specific deprivation level to understand poverty's impact on different communities.

The Global Multidimensional Poverty Index (Global MPI) is an annual international measure of acute multidimensional poverty covering over 100 developing countries. The Global MPI specifically focuses on education, health, and living standards as key dimensions to measure poverty comprehensively. It not only indicates the proportion of people experiencing multidimensional poverty but also measures the intensity of their deprivations. This intensity factor reflects the average number of deprivations experienced by each poor person, offering insights into the depth of poverty within a population. The United Nations Development Programme (UNDP) and the Oxford Poverty and Human



- Multidimensional Poverty Index 2023

Development Initiative (OPHI) have released the Global Multidimensional Poverty Index (MPI) for 2023. Globally, 1.1 billion people, or 18% of the world's population, are living in acute multidimensional poverty across 110 countries. Sub-Saharan Africa and South Asia are particularly affected, with 534 million and 389 million poor people respectively. These two regions account for approximately five out of every six individuals experiencing poverty. Alarmingly, half of the MPI-poor population consists of children under 18 years old, totalling 566 million. The poverty rate among children is 27.7%, compared to 13.4% among adults. India continues to grapple with significant poverty, with over 230 million people still classified as poor. According to the UNDP, vulnerability—the proportion of people who are not poor but face deprivations in 20-33.3% of all weighted indicators—remains high. About 18.7% of India's population falls into this category. India is notable for its substantial progress in reducing poverty. It is one of 25 countries, including Cambodia, China, Congo, Honduras, Indonesia, Morocco, Serbia, and Vietnam, that have successfully halved their global MPI values within 15 years. Between 2005-06 and 2019-21, approximately 415 million Indians escaped from poverty. The incidence of poverty in India has seen a significant decline, dropping from 55.1% in 2005-2006 to 16.4% in 2019-2021. Back in 2005-2006, around 645 million people in India experienced multidimensional poverty. This number decreased to about 370 million in 2015-2016 and further to 230 million in 2019-2021. Furthermore, many countries, including India, have developed their own national or local-level MPIs to tailor poverty assessment to their specific contexts. The National MPI in India, developed by the NITI Aayog, mirrors the methodology of the Global MPI, ensuring validity and comparability in poverty assessments across different regions and demographics within the country. The Multidimensional Poverty Index (MPI) serves as a tool to measure poverty beyond mere income considerations, including various dimensions such as health, education, and sanitation. Its calculation process is as follows:

**1. Identifying Deprivations:** The MPI utilises weighted indicators to assess deprivations across different facets of life. These indicators can either be binary (deprived/not deprived) or ordinal (levels of deprivation). A deprivation cutoff ( $k$ ) is established, representing the minimum proportion of indicators in which an individual must be deprived to be classified as multidimensionally poor.

- MPI uses indicators beyond income

**2. Headcount Ratio (H):** This metric reflects the overall incidence of poverty, indicating the proportion of the population identified as multidimensionally poor based on the deprivation cutoff.

**3. Average Intensity (A):** This component measures the severity of poverty experienced by the poor population. It represents the average deprivation score (across all indicators) of those classified as multidimensionally poor.

**4. MPI Calculation:** The MPI is derived by multiplying the Headcount Ratio (H) by the Average Intensity (A).  $MPI = H \times A$ . A higher MPI value indicates a more severe level of multidimensional poverty within a population.

- Enhancing MPI effectiveness

This method allows for a fine understanding of poverty dynamics, facilitating targeted interventions to alleviate multidimensional deprivation effectively. The MPI's strength lies in its ability to reveal who is poor and how they are poor, highlighting not just income-related poverty but also deprivations in health, education, and living standards. This approach helps policymakers in designing targeted interventions to address specific poverty challenges faced by different groups or regions. However, it is important to note some critiques and challenges associated with MPI calculations. Issues such as uniform weighting across dimensions, data source limitations, exclusion of certain poverty dimensions, and challenges in capturing intra-household disparities highlight areas for refinement and improvement in MPI methodologies. To enhance the effectiveness of MPIs, adjustments for income fluctuations, dynamic considerations for urban-rural migration impacts, emphasis on education expenditure, reduction of criminal MP impacts, sensitivity analyses, and informed policy recommendations based on MPI findings are key steps. These strategies can help ensure that MPIs accurately reflect poverty realities, guide targeted poverty alleviation efforts, and contribute to sustainable development goals effectively.

### 1.1.3 Utilitarianism

Utilitarianism is a moral theory advocating actions that promote happiness or pleasure while discouraging actions that cause harm or unhappiness. When applied to social, economic, or political decisions, a utilitarian approach seeks to improve the overall well-being of society. According to

- Maximising happiness and societal well-being

utilitarian philosophy, an action is deemed morally right if it contributes to the happiness of the greatest number of people within a society or group. This ethical tradition is associated with renowned British philosophers and thinkers like Jeremy Bentham and John Stuart Mill, who emphasised the importance of maximising happiness and minimising suffering for everyone affected by an action. In practical terms, displaying utilitarianism at work involves taking steps to create a positive and conducive environment not just for oneself but also for fellow individuals, thereby encouraging mutual well-being.

The core principles of utilitarianism can be summarised as follows:

- 1. Value of Happiness:** Pleasure or happiness is considered inherently valuable. Actions that increase happiness are considered morally good, while those leading to unhappiness are considered wrong.
- 2. Promotion of Happiness:** Actions are judged based on their ability to promote overall happiness. Maximising benefits and reducing harms for the greatest number of individuals is prioritised.
- 3. Equal Consideration of Happiness:** Utilitarianism upholds the principle that everyone's happiness carries equal importance. This challenges historical notions of prioritising certain lives or happiness over others, emphasising equal treatment and policies benefiting all members of society.

- Prioritising overall happiness

While utilitarianism provides a framework for ethical decision-making based on outcomes and consequences, it also faces criticism, especially regarding the sole emphasis on outcomes rather than motives or intentions behind actions. Nonetheless, its principles continue to influence discussions and debates in various fields, including development economics, by emphasising the importance of collective well-being and equitable policies.

Utilitarianism in the context of economic development seeks to maximising overall happiness or well-being for the largest number of people. It is a philosophy that guides decisions by evaluating their impact on society's welfare. The core principles of utilitarianism and its connection to economic development are:

- Maximising societal happiness

- Happiness in Utilitarianism

- Growth-oriented development strategies

- Economic policy evaluation

- Internalising economic externalities

- 1. Greatest Happiness Principle:** This principle emphasise that actions are morally right if they lead to the greatest happiness for the greatest number of individuals. In economic terms, this translates to policies and decisions that contribute positively to the well-being of the majority of people in society. For example, policies that create jobs, improve living standards, or provide access to essential services like healthcare and education align with this principle.
- 2. Util of Happiness:** Utilitarianism considers happiness or pleasure as the ultimate good to be maximised. In economic development, this means focusing on factors that contribute to overall well-being beyond just financial metrics. Quality of life indicators, such as health, education, environmental sustainability, and social equity become crucial considerations in policy-making processes.
- 3. Focus on Growth:** Economic growth is often pursued in development strategies because it is expected to lead to increased well-being for a larger population. Utilitarianism supports growth-oriented policies such as investments in infrastructure, technology, and human capital development, as long as these initiatives benefit the majority of people and contribute positively to overall happiness.
- 4. Cost-Benefit Analysis:** Utilitarian thinking encourages cost-benefit analysis of economic policies and projects. This involves assessing the potential benefits in terms of increased happiness or well-being against potential drawbacks such as income inequality, environmental degradation, or social unrest. Policies that demonstrate a net positive impact on societal welfare are favoured under this framework.
- 5. Consideration of Externalities:** Utilitarianism emphasises the importance of considering externalities in economic decision-making. Externalities are the unintended consequences of economic activities on third parties, which can be positive (benefits) or negative (costs). Policies should aim to internalise external costs (like pollution) and promote external benefits (like innovation or public goods provision) to maximise overall societal well-being.

- Utilitarianism: collective welfare

Utilitarianism offers a strong ethical framework that prioritises the promotion of happiness and overall well-being in society. Its core principles, including the greatest happiness principle, equal consideration of happiness, and focus on maximising utility, guide decision-making processes in various domains, including economic development. By emphasising policies and actions that benefit the majority and considering both positive and negative externalities, utilitarianism encourages a holistic approach to societal progress. While criticisms exist regarding its sole focus on outcomes, utilitarian principles remain influential in shaping equitable policies and encouraging collective welfare, aligning with the broader goals of sustainable and inclusive development. Through thoughtful analysis and consideration of diverse impacts, utilitarianism contributes to creating a more prosperous and harmonious society for all its members.

#### 1.1.4 Social Indicators of Development

- Social indicators measure societal well-being

Social indicators play a major role in measuring the progress and well-being of societies beyond pure economic measures. They provide insights into various aspects of human development, quality of life, and societal functioning. These indicators include factors, such as education, health, income distribution, gender equality, governance, and societal harmony. Understanding and analysing social indicators are essential for policymakers, researchers, and communities to identify strengths, challenges, and areas requiring intervention or improvement within a society. In this context, examining key social indicators can offer a comprehensive view of development progress, societal priorities, and the overall health of a nation or community.

Social indicators of development are as follows:

##### 1. Education:

- **Literacy Rates:** This measures the percentage of individuals in a population above the age of 15 years who can read and write. A high literacy rate is crucial for economic development as it empowers individuals to access information, participate in economic activities, and engage in civic responsibilities such as voting and advocacy. It correlates with higher employment rates, improved health outcomes (as educated individuals are more likely to adopt healthy practices), and overall societal progress.

- Education: Literacy, enrollment, quality crucial

- **School Enrollment Rates:** These rates track the percentage of children attending school at different levels (primary, secondary, and higher education). High enrollment rates indicate a commitment to education, investment in human capital, and the potential for a skilled workforce in the future. Factors influencing enrollment include accessibility of schools, affordability, quality of education, and cultural attitudes towards education, especially for girls and marginalised groups.
- **Quality of Education:** Beyond enrollment numbers, the quality of education matters significantly. It includes factors such as teacher qualifications, curriculum relevance, infrastructure, learning outcomes, and educational resources. A high-quality education system ensures that students acquire not just basic literacy but also critical thinking, problem-solving skills, and relevant knowledge for future employment and societal contributions.

## 2. Health:

- Health indicators reflect overall well-being

- **Life Expectancy:** Life expectancy is an estimate of the average number of additional years a person can expect to live at a given age. This indicator measures the expected lifespan of an individual from birth. It reflects overall health outcomes, access to healthcare services, nutrition, sanitation, and environmental factors. High life expectancy indicates a healthy population and effective healthcare systems that prevent diseases, provide timely medical interventions, and promote healthy lifestyles.
- **Infant Mortality Rates:** This metric tracks the number of infants who die before their first birthday per 1,000 live births. Low infant mortality rates signify access to prenatal care, skilled birthing assistance, immunisations, and proper nutrition during early infancy. It reflects the effectiveness of maternal and child healthcare services in ensuring healthy beginnings for future generations.
- **Access to Healthcare:** This encompasses availability, affordability, and quality of healthcare

services, including medical facilities, trained healthcare professionals, essential medications, and preventive care. Universal access to healthcare promotes early diagnosis and treatment of diseases, reduces mortality rates, and improves overall well-being across society.

### 3. Income and Poverty:

- **Income Inequality:** This refers to the unequal distribution of income among individuals or households within a society. High income inequality can lead to social tensions, reduced social mobility, and disparities in access to opportunities such as education, healthcare, and employment. Policies promoting equitable income distribution can enhance overall well-being and social togetherness.
- **Poverty Rate:** The poverty rate measures the percentage of the population living below the national poverty line, which defines the minimum income required to meet basic needs. Poverty affects access to food, shelter, education, and healthcare, maintaining cycles of deprivation and limiting opportunities for social and economic advancement. Poverty alleviation strategies include social safety nets, education and skill-building programmes, employment opportunities, and economic empowerment initiatives.
- **Access to Basic Necessities:** Beyond income levels, access to basic necessities such as food, clean water, adequate housing, sanitation, and clothing is essential for human dignity and well-being. Development efforts should aim to ensure universal access to these necessities, addressing not just income poverty but also multi-dimensional aspects of deprivation.

- Socioeconomic well-being

### 4. Gender Equality:

- **Women's Education:** Promoting equal access to education for girls and women leads to better health outcomes, reduced fertility rates, increased economic opportunities, and enhanced decision-making power within families and communities. Educated women are more likely to participate in the workforce, contribute to eco-

- Empowering women through education, political participation, and economic opportunities

conomic growth, and advocate for gender equality and women's rights.

- **Political Participation:** Gender parity in political representation and decision-making processes is crucial for inclusive governance and policies that address diverse societal needs. Empowering women in leadership roles fosters greater social justice, equity, and responsiveness to gender-specific issues in public policies and programmes.
- **Economic Opportunities:** Ensuring equal opportunities for women in employment, entrepreneurship, land ownership, and access to financial services promotes economic empowerment and reduces gender disparities in income and wealth. Closing gender gaps in labor force participation, wages, and career advancement contributes to overall economic growth and societal well-being.

#### 5. Social Safety Nets:

- Government supports vulnerable populations

- **Government Programmes:** Social safety nets such as unemployment benefits, social assistance, pensions for the elderly, and healthcare subsidies provide crucial support to vulnerable populations during economic downturns, natural disasters, or life transitions. These programmes reduce poverty, inequality, and social exclusion, promoting social stability and resilience.
- **Social Insurance:** Schemes like health insurance, disability benefits, and unemployment insurance protect individuals and families from financial hardships due to unexpected events such as illness, disability, or job loss. Social insurance fosters economic security, reduces inequalities in access to essential services, and supports individuals in maintaining their well-being during challenging times.

#### 6. Employment Rates:

- Employment rates reflect the health of an economy, opportunities available to individuals, and the level of workforce participation. High employment rates indicate a strong economy, job creation, and opportunities for income gener-



- Employment rates reflects economic health and opportunities

- Peacefulness promotes development through stability, unity, and resource allocation

- Democracy ensures citizen empowerment

- Combatting corruption crucial for development

ation, which directly impact individual livelihoods and overall societal well-being.

- Adequate employment opportunities contribute to economic stability, reduce poverty, and enhance social inclusion by providing individuals with means to support themselves and their families. It also promotes social cohesion and reduces inequalities, fostering a more equitable society.

### 7. Peacefulness:

- Peacefulness includes not only the absence of war but also internal stability, low crime rates, social unity, and effective conflict resolution mechanisms within a society. Peaceful societies allocate resources towards development initiatives, such as education, healthcare, infrastructure, and economic growth rather than defence or conflict management. This promotes sustainable development, attracts investments, and enhances overall living standards for citizens.

### 8. Democracy:

- Democracy refers to a form of governance where power is vested in the people, either directly or through elected representatives. It emphasises citizen participation, rule of law, accountability, and protection of individual rights and freedoms. Democratic systems promote political stability, transparency, and responsiveness to citizen needs. They facilitate peaceful transitions of power, ensure checks and balances in governance, protect human rights, and foster inclusive decision-making processes crucial for societal progress.

### 9. Corruption:

- Corruption involves the misuse of public power for private gain, undermining fair and equitable resource allocation, transparency, and accountability in governance.
- Corruption obstructs economic growth, discourage investments, distorts market mechanisms, reduces public trust in institutions, and exacerbates inequalities. Combating corruption through transparency, accountability measures, and ethi-

cal governance practices is vital for efficient resource allocation and sustainable development.

#### 10. Media Freedoms:

- Media freedom promotes democracy

- Media freedoms includes the rights to freedom of expression, access to information, and transparency in reporting without fear of censorship or reprisal. Free and independent media plays a critical role in promoting democracy, accountability, and public discourse. It exposes corruption, safeguards individual liberties, provides diverse viewpoints, and encourage informed society necessary for democratic decision-making processes.

#### 11. Civil Rights:

- Upholding civil rights ensures equality

- Civil rights include basic freedoms and protections afforded to individuals, including the right to life, liberty, equality, justice, and fair treatment under the law. Upholding civil rights aids inclusivity, social unity, and respect for human dignity within societies. It prevents discrimination, marginalisation, and abuses of power, promoting a just and equitable environment for all individuals to develop.

#### 12. Crime/Social Unrest:

- Safety boosts development

- Low crime rates, effective law enforcement, and social order are essential for ensuring safety, stability, and confidence in communities. High crime rates or social unrest can discourage investments, delay economic activities, hinder tourism, and strain public resources. Addressing root causes such as poverty, inequality, and weak governance structures is crucial for sustainable development and societal well-being.

Social indicators of development offer a perspective on the well-being and progress of societies. Factors such as education levels, health outcomes, income distribution, gender equality, governance structures, media freedoms, civil rights, and social stability collectively shape the society. By assessing and improving upon these indicators, communities and nations can strive towards more inclusive, equitable, and sustainable development outcomes. Collaboration between governments,

- Inclusive and sustainable progress

civil society, international organisations, and individuals is crucial in addressing challenges, promoting positive social change, and creating environments where all members can lead fulfilling and dignified lives. Through continuous monitoring, evaluation, and targeted interventions, societies can work towards achieving comprehensive development goals that prioritise the welfare and prosperity of every individual and community.

### 1.1.5 Sustainable Development

- Balancing present and future needs

Sustainable development is a holistic approach to economic growth that prioritises environmental conservation for the benefit of future generations. It acknowledges the dangerous impacts of economic progress on the environment, such as land degradation, pollution, and deforestation, which can outweigh the benefits of increased productivity. The Sustainable Development Goals (SDGs) aim to foster development that minimises environmental harm while meeting present needs without compromising the ability of future generations to meet their own needs. The Brundtland Report, states that sustainable development is a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This captures the essence of sustainable development, emphasising the importance of balancing current socio-economic needs with environmental preservation for the benefit of future generations.

Achieving sustainable development requires a multifaceted approach:

- Multifaceted approach in sustainable development

- Limiting Human Activities:** Sustainable development necessitates regulating human actions to reduce environmental harm.
- Responsible Technological Development:** Emphasising technology that maximises input efficiency without depleting resources.
- Balancing Consumption and Conservation:** Ensuring that consumption rates do not exceed resource regeneration rates, especially for renewable resources.
- Reduce Pollution:** Attempts to minimise all forms of pollution through sustainable practices.
- Prudent Natural Resource Management:** Using natural resources sensibly to maintain ecological balance and support long-term sustainability.

- SDGs for equitable future

The essence of sustainable development lies in balancing economic growth, social inclusion, and environmental protection. These elements are interconnected and key for ensuring a harmonious and sustainable future for all. Addressing global issues related to sustainable development requires international cooperation and initiatives such as global conferences, agreements, and frameworks like the Stockholm Conference, Rio Summit, and the Sustainable Development Goals (SDGs). These platforms highlight the urgent need to combat climate change, preserve biodiversity, and promote equitable economic growth worldwide. The SDGs encompass diverse objectives, including poverty eradication, food security, healthcare access, gender equality, clean energy, sustainable infrastructure, and environmental conservation. Achieving these goals demands collaborative efforts from governments, businesses, civil society, and individuals on a global scale. By embracing sustainable development principles and working towards the SDGs, we can create a more equitable, strong, and prosperous world for current and future generations.

- Harmonise the three pillars of sustainable development

### 1.1.5.1 Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are a set of 17 global objectives established by the United Nations General Assembly in 2015. They are interconnected and aim to harmonise the three pillars of sustainable development: economic, social, and environmental dimensions. The 2030 Agenda for Sustainable Development, endorsed by all UN Member States in 2015, outlines a collective framework for global peace and prosperity, emphasising the urgency of action by all nations, developed and developing alike, through collaborative efforts. The SDGs recognise the importance to address poverty, improve health and education, reduce inequalities, stimulate economic growth, combat climate change, and preserve natural resources like oceans and forests.

These goals originate from the following international initiatives:

1. **Agenda 21** (1992): Adopted at the Earth Summit in Rio de Janeiro, Agenda 21 aimed at building a global partnership for sustainable development to enhance human well-being while safeguarding the environment.
2. **Millennium Development Goals (MDGs)** (2000): These eight goals were designed to reduce extreme



poverty globally by 2015, emerging from the Millennium Declaration at the Millennium Summit.

- Global initiatives for sustainable development

3. **Johannesburg Declaration (2002):** From the World Summit on Sustainable Development, this declaration reinforced commitments to poverty eradication and environmental protection, expanding on previous frameworks.
4. **Rio+20 (2012):** The United Nations Conference on Sustainable Development resulted in “The Future We Want,” setting the stage for developing SDGs to build upon the MDGs.
5. **2030 Agenda for Sustainable Development (2015):** The result of negotiations on the post-2015 development agenda, this agenda incorporates 17 SDGs as its core components, adopted at the UN Sustainable Development Summit.

The Sustainable Development Goals are:

- A global agenda for inclusive, sustainable progress

1. **Poverty Eradication:** Targeting extreme poverty reduction globally.
2. **Zero Hunger:** Ensuring food security and nutrition for all.
3. **Good Health and Well-being:** Promoting access to quality healthcare and healthy living.
4. **Quality Education:** Ensuring inclusive and equitable education opportunities.
5. **Gender Equality:** Empowering women and achieving gender parity.
6. **Clean Water and Sanitation:** Ensuring universal access to clean water and sanitation facilities.
7. **Affordable and Clean Energy:** Promoting sustainable energy sources and efficiency.
8. **Decent Work and Economic Growth:** Fostering inclusive economic growth and decent employment opportunities.
9. **Industry, Innovation, and Infrastructure:** Developing sustainable infrastructure and fostering innovation.

- UNDESA supports SDG implementation

- 10. Reduced Inequalities:** Addressing inequalities within and among countries.
- 11. Sustainable Cities and Communities:** Promoting sustainable urbanisation and strong communities.
- 12. Responsible Consumption and Production:** Encouraging sustainable consumption patterns and efficient resource use.
- 13. Climate Action:** Combating climate change and its impacts.
- 14. Life Below Water:** Protecting marine ecosystems and sustainable use of oceans.
- 15. Life on Land:** Protecting terrestrial ecosystems, combating desertification, and preserving biodiversity.
- 16. Peace, Justice, and Strong Institutions:** Promoting peaceful and inclusive societies, ensuring access to justice, and building effective institutions.
- 17. Partnerships for the Goals:** Enhancing global partnerships for sustainable development at all levels.

The Division for Sustainable Development Goals (DSDG) within the United Nations Department of Economic and Social Affairs (UNDESA) provides substantive support and capacity-building for SDGs' implementation and monitoring. Engaging stakeholders across sectors is key to transforming the SDGs into actionable outcomes and achieving global sustainability goals.

## Summarised Overview

Economic growth relates to the increase in the monetary value of goods and services within an economy over time, measured quantitatively using indicators like GDP. In contrast, economic development includes a qualitative improvement in societal well-being, including aspects like education, technology, and social progress. It focuses on long-term improvements in living standards, inclusive growth, reduced inequality, and overall societal well-being, extending beyond mere economic expansion. MPI offers a comprehensive assessment of poverty by considering multiple dimensions like education, health, and living standards simultaneously. NITI Aayog calculates the Headcount Ratio (H) to determine the proportion of multidimensionally poor individuals and the Average Intensity (A) to measure the seriousness of their deprivations. By combining these metrics, the MPI provides valuable insights into the depth and distribution of



poverty within a population, helping targeted interventions and policy formulation to address specific deprivation challenges across different groups or regions.

Utilitarianism is a moral theory advocating actions that maximise happiness while minimising harm, focusing on societal well-being. Associated with philosophers like Bentham and Mill, it emphasises actions benefiting the greatest number of people. Social indicators critical for measuring development progress. It covers education indicators such as literacy and enrollment rates, health indicators like life expectancy and access to healthcare, income distribution and poverty measures, gender equality measures, social safety nets, employment rates, peace and stability indicators, democratic governance, corruption levels, media freedoms, civil rights, and crime/social unrest standards.

Sustainable development includes a comprehensive approach to economic growth, placing importance on environmental preservation for future generations. The Sustainable Development Goals (SDGs) are a set of 17 interconnected global objectives aimed at harmonising economic, social, and environmental dimensions for sustainable development.

## Assignments

1. Examine the differences between economic growth and economic development.
2. Multidimensional Poverty Index (MPI) is a comprehensive tool for assessing poverty. Explain.
3. Analyse the principles of utilitarianism and their application in economic development, emphasising how utilitarian ethics prioritise collective well-being and guide policy decisions to maximise societal welfare.
4. Discuss the significance of social indicators of development in assessing the progress and well-being of societies.
5. Explain the concept of sustainable development, its significance, and the strategies required to achieve it. Examine the Sustainable Development Goals (SDGs), its origin, objectives, and the role it plays in addressing global challenges and encouraging international cooperation.

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## Space for Learner Engagement for Objective Questions

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## UNIT 2

# Understanding Income Inequality

### Learning Outcomes

After reading this unit, the learner will be able to:

- describe the concept of income distribution
- discuss the Lorenz curve and Gini coefficient to measure income inequality
- understand Inverted U-hypothesis

### Background

Economic growth in India, a nation rich in diversity and potential, has been remarkable in the recent decades. However, this growth has not always translated equally across the population. Income inequality remains a significant challenge, reflecting disparities in wealth and opportunities. The Lorenz curve and Gini coefficient are tools that economists use to measure income distribution. When we look at India, we see a complex pattern where a small percentage of the population holds a disproportionately large share of the country's wealth. This imbalance is reflected in the shape of the Lorenz curve, which helps us visualise how income is distributed among different segments of society. The Gini coefficient, derived from the Lorenz curve, quantifies this inequality. In India's case, the Gini coefficient indicates significant disparities in income distribution, highlighting the need for targeted policies to address these gaps. The Inverted U-hypothesis suggests that as a country develops, income inequality first increases before eventually decreasing. In India's economic journey, we witness phases where rapid economic growth has led to wealth accumulation among certain sections, contributing to rising inequality. However, as development progresses and inclusive policies take effect, we expect a shift towards a more equitable distribution of income. By understanding these concepts within the context of a real country like India, we gain insights into the complex dynamics of economic development, inequality, and policy interventions. This knowledge equips them to analyse similar situations globally and contribute meaningfully to addressing economic challenges in diverse societies.



## Keywords

Inequality, Income, Lorenz Curve, Gini Coefficient, Kuznets Curve

## Discussion

### 1.2.1 Inequality

Inequality refers to disparities in the distribution of resources, such as wealth, income, opportunities, or social status within a group or society. It is a multifaceted issue that can be examined from various angles, all of which are interconnected. One commonly used measure is income inequality, which assesses how evenly income is distributed among a population. Additionally, concepts such as lifetime inequality (variations in incomes for an individual throughout their life), inequality of Wealth (the distribution of wealth among households or individuals at a specific time), and inequality of Opportunity (the impact of uncontrollable circumstances like family, socioeconomic status, gender, or ethnicity on income) contribute to our understanding of inequality. These different dimensions of inequality offer clear yet complementary perspectives on its causes and effects. They collectively provide valuable insights that can guide policymakers in crafting targeted strategies to tackle inequality effectively. By considering these diverse aspects, governments can develop more comprehensive policies to promote greater economic fairness and social equity.

- Disparities in the distribution of resources

#### 1.2.1.1 Income Inequality

Inequality can be broadly categorised into economic and social inequality. Economic inequality primarily refers to ‘income inequality,’ which is disparities in consumption patterns, nutritional standards, and living conditions. On the other hand, social inequality encompasses various dimensions, with political inequality and unequal access to opportunities such as education and healthcare being prominent ones. Income inequality measures the uneven distribution of income among a population, whether at the household or individual level. It is often quantified as the percentage of income held by a specific percentage of the population, such as the commonly cited

- Uneven income distribution

statistic that 70 percent of a country's income is controlled by 20 percent of its population. This disparity is often recognised as unjust or unfair, especially when a small fraction of the population holds a disproportionately large share of the national income. The factors contributing to income inequality can vary based on regional, gender, educational, and social status differences. According to the latest World Inequality Report 2022, India has emerged as one of the most unequal countries globally. Published by the World Inequality Lab to study global inequality dynamics, the report synthesises extensive international research efforts. Specific to India, the findings highlight stark wealth disparities: the wealthiest 1% of the population now commands over a fifth of the national income, while the bottom half shares just 13%. Economic reforms and liberalisation since the mid-1980s have disproportionately benefited this top percentile, leading to significant increases in income and wealth inequality.

- Reducing inequalities to promoting justice and stability

Social inequality includes broader concerns beyond income disparities. It includes access to essential opportunities like education and healthcare, as well as the ability to participate in decision-making processes (political inequality). These circumstances often lie beyond individual control but can be addressed through state interventions or organised social movements. Horizontal and vertical inequalities offer distinct perspectives on inequality. Horizontal inequality refers to disparities among culturally defined groups (e.g., ethnic, or religious groups), which can fuel grievances leading to conflicts if not addressed. Conversely, vertical inequality relates to disparities among individuals or households and influences societal well-being, poverty levels, economic growth rates, and even crime rates. Reducing both horizontal and vertical inequalities is crucial for promoting a just and stable society. However, in conflict-prone regions, addressing horizontal inequality takes on added importance due to its potential to reduce grievances that often lead to conflicts. While income typically measures vertical inequality, horizontal inequality includes a wider array of economic, social, and political indicators, making its reduction multifaceted yet essential for sustainable development.

Income inequality is influenced by various factors. They are:

- **Technological Advancements:** Automation and technological progress have transformed industries, leading to job displacement in traditional



• Factors affecting income inequality

sectors like manufacturing. New jobs often demand advanced skills, worsening income gaps between tech-savvy workers and others.

- **Global Economic Trends:** Globalisation has intensified competition, impacting wages for low-skilled workers facing pressure from cheaper international labour markets. Offshoring of jobs can further affect domestic employment opportunities.
- **Labor Union Influence:** Declining unionisation rates weaken collective bargaining power, potentially limiting wage growth and benefits for workers, especially in sectors with diminished union presence.
- **Educational Disparities:** Access to quality education significantly shapes earning potential. Disparities in educational opportunities, especially at higher levels, maintain income gaps across generations.
- **Discriminatory Practices:** Systemic biases based on race, gender, or ethnicity obstruct equal access to education, employment, and career progression. These bias limits income potential for marginalised groups, deepening inequality
- **Government Interventions:** Policies related to minimum wages, social safety nets, and inclusive economic programs can reduce income inequality by ensuring fair labour practices, reducing poverty, and encouraging economic mobility.

Understanding these factors and implementing targeted policies can help address income inequality, promoting economic inclusivity and sustainable development.

Addressing income inequality involves a range of strategies that focus on both redistributing resources and increasing opportunities. They are as follows:

### Redistribution Strategies:

1. **Progressive Taxation:** Taxing higher incomes at higher rates generates revenue for social programmes, aiding in inequality reduction.

- Redistribution strategies tackle inequality

2. **Social Safety Nets:** Programmes such as unemployment benefits and welfare offer financial support to low-income individuals and families.
3. **Earned Income Tax Credit (EITC):** This tax credit supplements earnings for low-wage workers, directly boosting their incomes.
4. **Minimum Wage Increases:** Raising the minimum wage can uplift the earnings of low-wage workers, contributing to income equality.

#### Opportunity Enhancement Measures:

- Promoting inclusive growth

1. **Investments in Education:** Increased funding for quality education at all levels promotes equal opportunities and enhances workforce skills.
2. **Skills Training Programmes:** Job training initiatives help workers adapt to market changes and qualify for higher-paying jobs.
3. **Universal Basic Income (UBI):** While debated, providing citizens with regular income could offer economic stability and stimulate growth.
4. **Anti-Discrimination Policies:** Strengthening policies against hiring, promotion, and wage discrimination promote fairness in employment.

#### Strengthening Labour Market Institutions:

- Improving labour market fairness

1. **Supporting Labour Unions:** Policies encouraging unionisation empower workers to negotiate better wages and benefits.
2. **Corporate Regulation:** Regulations on executive compensation and internal income equality within companies can reduce overall inequality.

#### Taxation for Wealth Redistribution:

- Taxation strategies redistribute wealth

1. **Inheritance Taxes:** Taxing inherited wealth helps to prevent wealth concentration across generations.
2. **Wealth Taxes:** Taxing net worth can address wealth inequality directly.

Considering the unique circumstances of each region is crucial



- Strategies to combat income inequality

when implementing these measures. A balanced approach that combines redistribution strategies with opportunities for skill development and fair labour practices is most likely to effectively combat income inequality.

### 1.2.1.2 Dimensions of Inequality in India

In India, various dimensions of social inequality present unique challenges and opportunities for development:

#### a. Gender Inequality

- Gender disparities persist across sectors

- India's ranking of 127 out of 146 countries in the Global Gender Gap Report, 2023, of World Economic Forum underscores significant gender disparities.
- Economic participation, health, education, and political empowerment are key parameters reflecting gender inequality.
- The gender wage gap, where women are paid 34% less than men according to the International Labor Organisation, remains a critical issue.
- Despite comprising over 42% of the agricultural labour force, women own less than 2% of farmland, highlighting an evident economic imbalance.

#### b. Caste Disparities

- Caste disparities worsen wealth gaps, influencing education, income, and healthcare

- Caste significantly influences access to resources such as education, income, and healthcare in India.
- Upper-caste households earn nearly 47% more than the national average, with the top 10% within these castes owning 60% of the wealth, as per the World Inequality Database.

#### c. Religious Identities

- Religious identities affect economic opportunities

- Religious identities impact resource mobilisation and can lead to economic exclusion and discrimination, affecting job opportunities and livelihoods.
- While certain minority groups show a larger share of income/consumption, others face significant economic challenges.

- Ethnic inequalities affect tribes

#### d. Ethnic Inequalities

- Tribal communities face distinct challenges due to factors, such as unique cultures, languages, and geographical isolation.
- The National Family Health Survey (2019-21) highlights evident wealth disparities among different ethnic groups, with tribal populations often facing higher levels of economic vulnerability.

- Extreme wealth disparity persists in India

#### e. Economic Disparities

- Oxfam India published report in 2023 “Survival of the Richest: The India Story”. This report highlights the worsening economic disparity in India.
- The report finds that the richest 5% of the Indian population now owns more than 60% of the country’s wealth. This means a significant portion of the wealth generated in India is concentrated among a very small fraction of the population.
- The bottom 50% of the population in India possesses only 3% of the total wealth, and this share has been declining since 2012. This indicates that the economic situation of the most vulnerable in India is worsening.
- The COVID-19 pandemic has further worsened economic inequalities. The report suggests that the wealth of the bottom 50% has shrunk even more since 2019.

- Inequality leads to social conflict, and affect economic growth

#### *Consequences of Inequality*

- Social conflicts often arise from perceived inequalities, as seen in caste-based reservations debates and ethnic movements demanding separate states.
- Religious minorities’ economic exclusion can hinder overall GDP growth and societal integration, impacting development indicators like healthcare and education outcomes.
- High economic inequality also limits public investment in essential services, affecting the majority of the population reliant on public healthcare and education.



### *Measures to Address Inequalities*

- Constitutional measures and progressive economic policies to ensure equality

- Constitutional provisions ensuring equality (Articles 14, 15, and 16) must be enforced rigorously.
- Empowering civil society and traditionally marginalised groups through representation and entrepreneurship opportunities is crucial.
- Women empowerment initiatives, affirmative action policies, and targeted interventions for religious minorities can foster inclusivity and economic parity.
- Progressive taxation and effective economic policies can generate public resources for social services and employment generation, reducing inequality significantly.

- Reduce inequalities across diverse dimensions

Addressing multidimensional inequalities in India requires a comprehensive approach involving legal frameworks, social empowerment, targeted policies, and economic reforms. Achieving sustainable development goals depends on reducing inequalities across these diverse dimensions, ensuring a more inclusive and prosperous future for all.

### **1.2.1.3 Measures of Inequality**

- Inequality measures

Understanding income distribution is crucial for evaluating the effects of policy changes, and there are various methods to achieve this, ranging from graphical to mathematical approaches. These methods provide insights into income concentration, facilitate comparisons across distributions, and assess the impact of policy alternatives. Inequality measures play a pivotal role in this analysis, offering objective comparisons across different income distributions. The key measures and concepts related to income inequality are as follows:

#### **Graphical Representation**

- **Lorenz Curve:** This curve showcases income distribution by plotting cumulative income against cumulative population. The more distant the curve is from the 45-degree line of perfect equality, the greater the income inequality.

#### **Indices**

- **Gini Index:** The Gini coefficient quantifies in-

come inequality by comparing the area between the Lorenz curve and the line of equality to the area below the line of equality. A higher Gini coefficient indicates greater inequality.

• Various indices to measure income inequality

- **Atkinson Index:** This welfare-based measure reflects the percentage of total income a society would sacrifice for a more equal distribution. It incorporates societal aversion to inequality, offering insights into welfare implications and allowing for decomposability into within- and between-group inequality.
- **Robin Hood Index (Hoover Index):** It quantifies the income transfer needed to achieve income equality, with higher values indicating greater inequality and the need for more redistribution.
- **Theil Index and General Entropy (GE) Measures:** These measures vary sensitivity to income changes across different parts of the distribution, providing understanding of inequality by population groups or income sources.
- **Coefficient of Variation (CV):** The CV measures income inequality by comparing the standard deviation of income distribution with its mean. While simple to calculate, it has limitations such as lack of an upper bound and sensitivity to extreme income values.
- **Kakwani Progressivity Index:** Originally designed to assess tax system progressivity, the Kakwani index also examines equity in healthcare expenditures. It compares income Gini coefficients with indices for healthcare payments, reflecting progressivity or regressivity in financing healthcare.
- **Proportion of Total Income Earned:** This intuitive measure assesses the income share of specific population segments (e.g., poorest 50%). While straightforward, it provides limited insights into overall income distribution.
- **Sen Poverty Measure:** Developed by Amartya Sen, this measure integrates income Gini coefficients with poverty headcount ratios and average incomes below the poverty line. While not extensively used in income inequality studies, it offers a perspective on poverty and inequality effects.

## Decile Ratios and Other Ratios

- **Decile Dispersion Ratios:** These ratios compare income between different percentiles of the population, such as the ratio of the income of the richest to the poorest decile.
- **Palma Ratio and 20/20 Ratio:** These ratios compare income shares between different segments of the population, offering insights into income disparities at the top and bottom ends of the distribution.

- Multiple measures and graphical representations

A comprehensive analysis of income inequality requires considering multiple measures and graphical representations, each offering unique insights into income distribution dynamics and policy implications. These measures, when combined and analysed contextually, provide a clear understanding of income inequality, and help targeted policy interventions for more equitable development.

### 1.2.2 Lorenz Curve

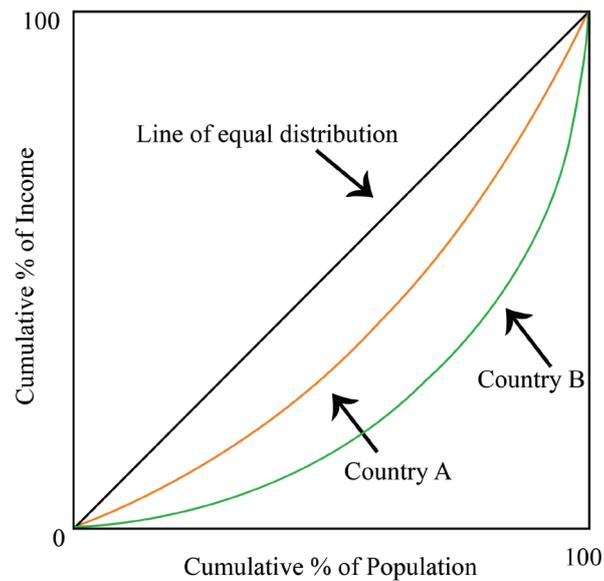
- Visualising income inequality

The Lorenz Curve and Gini Coefficient are fundamental tools for understanding income distribution. Ensuring fair income distribution is one of the primary macroeconomic objectives for governments worldwide. The Lorenz Curve, developed by Max Lorenz, an American economic statistician, in 1906, visually represents income distribution in an economy. It compares the actual income distribution with a perfectly equal distribution shown by a 45-degree diagonal line. The farther the Lorenz Curve is from this line, the greater the income inequality in the society. When examining international income inequality, the Lorenz curve is a powerful tool. It can be drawn to represent income distribution across countries or groups of countries. One approach is to treat each country equally in the measure, while another method weights countries based on their population size. To create a Lorenz curve, countries are ranked based on their share of global income and population. This ranking allows for the plotting of cumulative income percentage against cumulative population percentage. The resulting curve reveals the extent of income inequality across countries.

In the Figure given below, the Y-axis displays the cumulative percentage of income, while the X-axis shows the cumulative percentage of population. By connecting the 100% points on both axes, we establish the line of equal distribution. Comparing Lorenz curves between countries, such as country

- Compares income disparities

A and country B in the figure, provides insights into income distribution disparities. A curve farther from the line of equal distribution suggests higher income inequality in that country. In the figure country B's Lorenz curve lies further below the Line of equal distribution compared to country A's curve, it suggests that country B has higher income inequality, with a greater concentration of income among a smaller segment of the population.



**Fig 1.2.1 Lorenz Curve**

The Lorenz Curve, focuses on income and population shares rather than specific income or population figures. However, it has limitations. Researchers and policymakers often prefer numerical inequality measures for concrete and quantifiable insights. Additionally, when Lorenz curves intersect, they cannot provide clear inequality rankings, highlighting the need for strong numerical measures that offer extensive income distribution rankings.

- Simplifies inequality analysis

Understanding income inequality through tools like the Lorenz Curve is vital for crafting targeted policies to promote equitable economic growth and social development. Combining graphical insights with numerical measures allows for a more deeper understanding of income distribution, facilitating informed policy decisions aimed to reducing inequalities and promoting inclusive development pathways. Addressing income inequality on both domestic and international levels is crucial for strengthening sustainable and inclusive economic development. By utilising tools like the Lorenz Curve and Gini

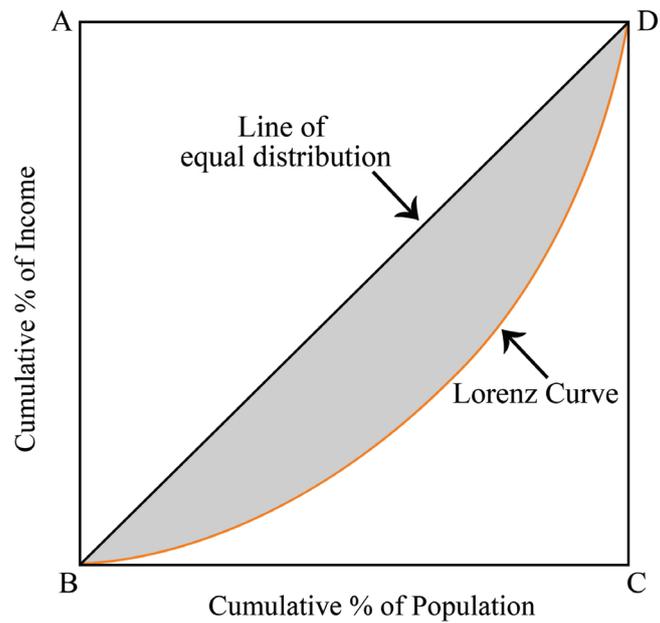
Coefficient, economists and policymakers can identify areas of concern and implement targeted interventions to promote fairer income distribution and enhance overall economic well-being.

### 1.2.3 Gini Coefficient

The Gini Coefficient serves as a widely accepted measure of income inequality, offering insights into the relative degree of income disparities within a country. Unlike methods centered on deviations from mean income, the Gini approach focuses on absolute differences between all pairs of incomes. The Gini Coefficient is named after the Italian statistician, C. Gini who first formulated it in 1921. A more pronounced curve in the Lorenz diagram signifies higher inequality.

- Focuses on absolute differences

Calculation of the Gini coefficient involves determining the ratio of the area between the line of equal distribution (45° diagonal line) and the Lorenz curve, divided by the total area of the corresponding half-square. In the figure given below, this ratio is represented by the shaded area divided by the total area of triangle BCD.



**Fig 1.2.2 Gini Coefficient**

$$\text{Gini Coefficient} = \frac{\text{Shaded region}}{\text{Area of Triangle BCD}}$$

- Gini coefficient calculation method

Gini coefficients range from 0 (perfect equality) to 1 (perfect inequality). Typically, coefficients between 0.5 and 0.7 indicate highly unequal income distributions, while those between 0.2

and 0.5 suggest relatively equitable distributions.

- Key for policymakers

Understanding and interpreting Gini coefficients play a major role in assessing income distribution dynamics within economies. Policymakers use this to measure inequality levels accurately, informing targeted interventions aimed at encouraging more inclusive and equitable economic growth.

### 1.2.4 Kuznets' Inverted U-Hypothesis

- Income inequality's inverted-U pattern

Kuznets' inverted U hypothesis examines the relationship between per capita national income and income distribution inequality, proposing an inverted-U pattern. This theory, developed by Simon Kuznets, suggests that as economies develop, income inequality initially rises, peaks at an intermediate stage, and then declines as shown in the figure given below. Kuznets based his analysis on the "Kuznets ratio," which compares the income share of the top 20% of the population to that of the bottom 60%. Through cross-sectional data analysis of both developed and developing countries, Kuznets observed that developing nations tend to exhibit higher income inequality compared to developed ones. The initial rise in income inequality during economic growth, followed by a decline, aligns with Kuznets' findings. Studies by economists like Paukert using Gini Coefficient confirm this inverted-U trend across different income categories. Lower-income countries tend to have higher Gini coefficients, reflecting greater income inequality, while higher-income nations show lower Gini coefficients, indicating more equitable income distribution.

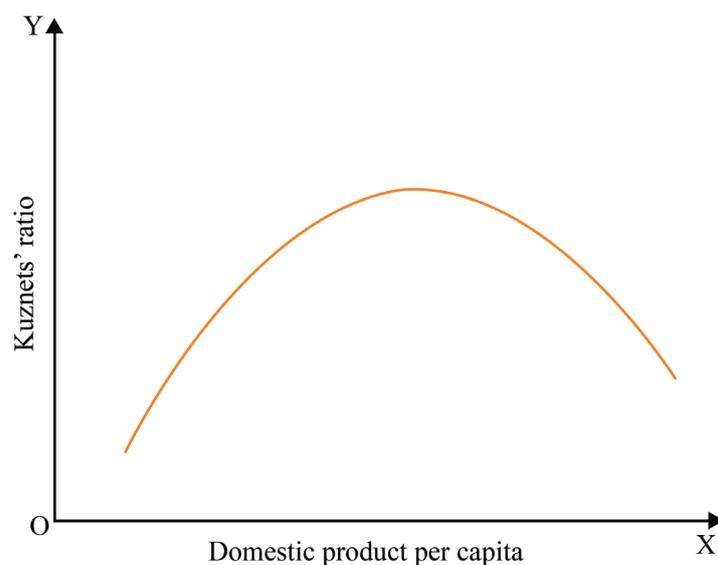


Fig 1.2.3 Kuznets' Inverted U Hypothesis

- Paukert confirms Kuznets' U-curve

Paukert's study, which used cross-sectional data from forty-six countries categorised by per capita GDP in 1965, reinforces Kuznets' inverted U-hypothesis. Using the Gini Coefficient as a measure of inequality, Paukert's analysis showed a pattern consistent with the inverted U-hypothesis.

**Table 1.2.1 Gini Coefficient in Cross Section of Countries**

Income Category (1965 US\$)	Average Gini Coefficient
Less than \$100	0.419
\$101 to \$200	0.468
\$201 to \$300	0.499
\$301 to \$500	0.494
\$501 to \$1000	0.438
\$1001 to \$2000	0.401
\$2001 and higher	0.365

- Per capita GDP vs Gini coefficient

In lower-income categories (below \$100 per capita GDP), the Gini Coefficient was measured at 0.419, indicating moderate inequality. Moving to the next income category (\$101 to \$200 per capita GDP), the Gini Coefficient increased to 0.468, reflecting a rise in income inequality. This trend continued in higher income categories (\$201 to \$300 per capita GDP), with the Gini Coefficient reaching 0.499, showing increased inequality. Interestingly, as per capita GDP continued to rise into the highest income category (\$2001 and above per capita GDP), the Gini Coefficient started to decrease, reaching 0.365. This inverse relationship between per capita GDP and the Gini Coefficient aligns with Kuznets' inverted U-hypothesis, indicating that as economies grow beyond a certain point, income inequality tends to decrease.

Montek Singh Ahluwalia's research further supports Kuznets' hypothesis, showing that as per capita GNP increases, income inequality first rises and then falls. This pattern is evident across various measures, such as the share of the bottom 40% and top 40% of the population in GNP. However, the

- Investments reduce inequality

experiences of East Asian countries challenge Kuznets' hypothesis. Countries like Japan, South Korea, Taiwan, and others experienced economic growth without significant increases in income inequality. Their focused investments in human and physical capital, along with policies promoting equitable growth, led to widespread poverty reduction despite rapid economic expansion.

- Kuznets' U-hypothesis varies globally

While Kuznets' inverted U-hypothesis offers understanding of income inequality dynamics during economic growth, it is important to recognise that each country's path may vary. Economic policies, investments in human capital, land redistribution, and other interventions can significantly influence income distribution trends, highlighting the complexity of economic development and inequality dynamics.

## Summarised Overview

Inequality means disparities in resource distribution like wealth, income, opportunities, and social status within societies. Income inequality measures income distribution fairness. India, similar to global trends, has seen income gaps widen since the 1980s due to factors, including technological shifts, globalisation impacts, educational disparities, biased practices, tax policies, and government interventions. Gender inequality is highlighted by low rankings in global gender reports, wage gaps, and limited land ownership for women in agriculture. Caste disparities affect access to resources and wealth distribution among different groups. Religious identities and ethnic backgrounds impact economic opportunities and wealth distribution. Economic disparities are evident, with extreme wealth concentration at the top while the majority holds minimal wealth.

The Lorenz Curve and Gini Coefficient are essential tools for analysing income distribution. The farther the curve deviates from a 45-degree diagonal line of equal distribution, the greater the income inequality. The Gini Coefficient, developed by C. Gini in 1921, is a widely used measure of income inequality. Unlike other methods, it focuses on absolute differences between all income pairs, representing inequality as the sum of "two-person inequalities." A higher Gini coefficient indicates greater inequality, with values ranging from 0 (perfect equality) to 1 (perfect inequality). Kuznets' Inverted U-Hypothesis examines the relationship between per capita national income and income distribution inequality, proposing a pattern where income inequality initially rises, peaks, and then declines as economies develop. Kuznets introduced the "Kuznets ratio" to compare income shares across populations.



## Assignments

1. Examine the factors affecting income inequality.
2. How can income inequality measures help in formulating targeted policy interventions for more equitable development?
3. Discuss the significance of the Lorenz Curve and Gini Coefficient in analysing income distribution.
4. Discuss the effectiveness and limitations of Kuznets' Inverted U-Hypothesis.

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## UNIT 3

# Institutions and Development

### Learning Outcomes

After reading this unit, the learner will be able to:

- assess the role of institutions in economic development
- analyse the impact of market, state, and civil society in economic development
- describe the basics of behavioural development economics
- identify the relationship between migration and development according to the Todaro model

### Background

South Korea's economic transformation is the story of a war-torn nation rising to a global economic powerhouse using all the available resources for its own benefit. South Korea transformed from a war-torn nation into an economic power through a combination of strong institutions, a strong market economy, dynamic state intervention, active civil society participation, and strategic migration policies. Institutions like the Korea Development Institute (KDI) played a crucial role in formulating effective economic policies and strategies, laying the groundwork for sustained growth. The Market dynamics in South Korea were driven by innovative companies like Samsung and Hyundai, which capitalised on domestic and global market opportunities, promoting industrialisation and export-led growth. The governments in South Korea played a strategic role in guiding economic development through initiatives such as the Five-Year Plans, targeted industrial policies, and investments in education and infrastructure, creating an environment for businesses to develop. Civil society organisations in South Korea, such as labour unions and advocacy groups, contributed to social stability, workers' rights, and environmental sustainability, influencing policy decisions, and strengthening a balanced development approach.

Migration also played a pivotal role in South Korea's story, with internal migration from rural to urban areas driving industrialisation and economic growth, while international migration of skilled workers contributed to knowledge transfer and technological advancement. South Korea's urbanisation and industrialisation were supported by rural – urban migration, where rural populations migrated to cities attracted by employment opportunities in growing manufacturing sectors, contributing to economic transformation and social change.

## Keywords

Economic Institutions, Consumer, Government, Markets, Welfare, Society, Human Capital, Behavioural, Migration, Rural-Urban Migration

## Discussion

### 1.3.1 Institutions

In economics, institutions refer to the formal and informal rules, norms, and organisations that shape economic activities within a society. They play a major role in facilitating economic interactions, coordinating behaviour, and providing a framework for economic transactions to take place smoothly. They provide the framework within which economic interactions take place, influencing behaviour, incentives, and outcomes. The various types of economic institutions are as follows.

- Shape economic activities within a society

- Legal frameworks, government policies, and regulatory agencies shape market dynamics

#### 1. Formal Economic Institutions:

- **Legal Systems:** These include laws, regulations, property rights, contract implantation mechanisms, and judicial systems. They provide a legal framework for economic activities, define property ownership, protect intellectual property rights, and enforce contracts.
- **Government Policies:** Economic institutions also include government policies related to taxation, fiscal and monetary policies, trade regulations, industry standards, and business licensing.



These policies shape economic incentives, market competition, and overall economic stability.

- **Regulatory Agencies:** Institutions, such as central banks, securities regulators, antitrust authorities, and environmental agencies enforce regulations, monitor market activities, and ensure compliance with legal standards.

## 2. Informal Economic Institutions:

- **Social Norms:** Cultural attitudes, customs, traditions, and social expectations influence economic behaviour. They include attitudes towards work ethics, trust in business, social networks, and community support systems.
- **Ethical Codes:** Professional ethics, codes of conduct, and industry standards guide ethical behaviour in business, finance, and professions. Aligning to ethical norms promotes trust, integrity, and long-term relationships in economic interactions.
- **Networks and Relationships:** Informal networks such as family connections, social clubs, professional associations, and mentorship networks play a role in access to information, opportunities, and resources in economic activities.

- Social norms, ethical codes, and networks shape informal economic institutions

### 1.3.1.1 Role of Institutions in Economic Development

The role of institutions in economic development is crucial in shaping the framework within which economic activities take place and influencing the outcomes of markets, investments, and societal progress. Economic institutions include a set of formal and informal rules, norms, organisations, and systems that govern economic interactions within a society. From legal frameworks and regulatory bodies to social norms and ethical codes, these institutions play crucial roles in providing structure, enforcing rules, resolving disputes, and allocating resources efficiently. Understanding the complex interactions between institutions and economic development is essential for designing effective policies, encouraging innovation, promoting entrepreneurship, and creating inclusive environments that support sustained economic growth and prosperity.

- Shaping the framework

The role of institutions in economic development is as follows:

### **1. Property Rights and Economic Development:**

Property rights refer to the legal ownership and control of assets, including land, buildings, intellectual property, and financial assets. Clear and enforceable property rights are fundamental for economic development. They motivate investment, innovation, and efficient resource allocation. Strengthening property rights through legal framework can unlock economic potential by encouraging entrepreneurship and investment. In India, the establishment of property laws and the digitisation of land records have been crucial. For example, the implementation of the Digital India Land Records Modernisation Programme has streamlined land ownership records, reduced disputes and encouraging investment in real estate and agriculture.

- Strengthening property rights through legal framework

### **2. Contract Enforcement and Business Transactions:**

Contract enforcement mechanisms ensure that parties honour agreements and resolve disputes in a fair and timely manner. Reliable contract enforcement reduces transaction costs, promote trust between parties, and encourages long-term business relationships. In a well-functioning economy, businesses can confidently enter into contracts, knowing that legal mechanisms exist to enforce terms and resolve disputes. India's adoption of the Insolvency and Bankruptcy Code (IBC) in 2016 has expedited the resolution of corporate insolvencies, boosted investor confidence, and enabled efficient restructuring of businesses.

- Legal mechanisms enforce terms and resolve disputes

### **3. Regulatory Frameworks and Market Efficiency:**

Regulatory frameworks consist of laws, rules, and policies governing economic activities, such as market competition, consumer protection, and environmental standards. Well-designed regulations promote market efficiency, prevent abuses such as monopolies or fraud, and ensure fair competition, which stimulates innovation and productivity. Effective regulatory agencies in sectors like banking, telecommunications, and energy can attract investment, encourage innovation, and safeguard consumer interests, contributing to overall economic growth. India's Securities and Exchange Board of India (SEBI) regulates the securities market, promoting transparency and fair practices. SEBI's interventions have increased investor protection and strengthened market integrity, contributing to India's emergence as a global investment destination.

- Regulations promote market efficiency and prevent abuses



#### 4. Governance, Transparency, and Corruption:

Governance refers to the systems and processes by which governments and institutions make decisions and implement policies. Transparency involves openness and accessibility of information, while corruption is the misuse of public or private power for personal gain. Good governance, transparency, and anti-corruption measures are crucial for attracting investment, maintaining public trust, and ensuring efficient allocation of resources. Countries with high levels of corruption often experience reduced investment, distorted markets, and weakened institutions. Improving governance through reforms in public administration, judicial systems, and anti-corruption measures can stimulate economic development. Initiatives like India's Digital India programme, aimed at increasing transparency and efficiency in government services, exemplify efforts towards good governance. Conversely, anti-corruption reforms such as the introduction of e-governance and digital payments have reduced bureaucratic inefficiencies.

- Improving governance through reforms

#### 5. Financial Institutions and Access to Capital:

Financial institutions such as banks, stock markets, and venture capital firms facilitate access to capital for businesses, entrepreneurs, and investors. Efficient financial systems allocate capital to productive investments, promote entrepreneurship and innovation, and support economic growth. Developing strong financial institutions through regulation, supervision, and access to credit can mobilise savings, channel investments into promising sectors, and stimulate entrepreneurship and job creation. In India, initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY) have promoted financial inclusion by providing banking services to the unbanked population. This has facilitated access to credit, encouraged entrepreneurial ventures, and spurred economic activity in rural and underserved areas.

- Efficient financial systems allocate capital to productive investments

#### 6. Social Institutions and Inclusive Development:

Social institutions include norms, customs, and networks that influence social interactions, inclusivity, and equitable opportunities in society. Inclusive institutions that promote education, healthcare, social safety nets, and gender equality contribute to human capital development, reduce poverty, and increase overall economic strength. Investing in education and healthcare infrastructure, implementing social welfare programs, and promoting equal access to economic opportunities can promote inclusive economic growth and

- Inclusive institutions promote inclusive economic growth and reduce income disparities

reduce income disparities. India's emphasis on education through schemes like the Sarva Shiksha Abhiyan (SSA) has expanded access to primary education, improving human capital development and reducing poverty. Additionally, social welfare programmes like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) have provided livelihood security to millions, contributing to poverty alleviation and inclusive economic growth.

- Institutions promote economic development

Institutions play a major role in driving economic development by providing the necessary structure, rules, and enforcement mechanisms that underpin economic activities. Clear property rights, reliable contract enforcement, effective market regulations, good governance practices, and inclusive policies are features of strong economic institutions. These institutions reduce transaction costs, promote trust, and confidence among economic agents, allocate resources efficiently, encourage investment and innovation, and ensure social stability and inclusivity. Countries with strong and well-functioning institutions tend to experience higher levels of economic growth and prosperity over time. Therefore, promoting strong economic institutions through policy reforms, institutional strengthening, and sticking to ethical standards is essential for sustainable and inclusive economic development globally.

### 1.3.2 Markets and Economic Development

Markets refer to the interactions between buyers and sellers where goods, services, and resources are exchanged. These interactions take place through various market structures, including competitive markets, monopolistic markets, oligopolistic markets, and monopolistic competition. Each market structure has distinct characteristics that influence pricing, competition levels, and market outcomes. Markets represent dynamic spaces where the interactions between buyers and sellers connect to exchange a wide range of goods, services, and resources. These exchanges are crucial in driving economic activity and shaping resource allocation within an economy. Market dynamics are tied to the determination of prices, reflecting the relative scarcity of items and the equilibrium between supply and demand forces. As demand is greater than supply, prices rise, showing scarcity and prompting producers to increase output. Conversely, oversupply leads to price reductions, signalling surplus and encouraging adjustments in production or consumption patterns.

- Interactions in various market structures



- Vital for development

Markets have diverse structures, ranging from competitive markets with numerous buyers and sellers dealing in homogeneous goods to monopolistic markets dominated by a single seller with substantial market power. Efficient markets efficiently allocate resources, such as capital, labour, and raw materials to their most productive uses, driven by competitive pressures that motivate innovation, cost reductions, and quality improvements. However, market efficiency depends on factors such as information availability, market transparency, regulatory frameworks, and the degree of competition. Effective market functioning is vital for economic development, encouraging innovation, competition, and efficiency while improving consumer welfare and supporting global trade and integration efforts.

The market has significant influence on economic development through various mechanisms that shape resource allocation, innovation, competition, and overall economic performance. They are as follows:

### 1. Resource Allocation:

- **Efficient Allocation:** Markets allocate resources based on supply and demand, dynamics, pricing mechanisms, and consumer preferences. This efficient allocation ensures that resources flow towards productive uses, where they generate the highest returns.
- **Capital Formation:** Markets facilitate capital formation by channelling savings into investments, including physical infrastructure, technological advancements, human capital development, and research and development (R&D) activities.
- **Entrepreneurship:** Market opportunities motivate entrepreneurship and risk-taking. Entrepreneurs identify needs, innovate solutions, create businesses, generate employment, and contribute to economic growth.

- Market dynamics drive efficient resource allocation, capital formation, and entrepreneurship

### 2. Innovation and Technology Adoption:

- **Competition and Incentives:** Market competition encourages firms to innovate, improve efficiency, reduce costs, and differentiate products/services. Competition also motivates firms to invest in research, development, and technology adoption to stay ahead.

- Competition drives firms' innovation, guided by market feedback

- Markets optimise resources, stimulate innovation, and increase economic activities

- Trade boosts access, specialisation, innovation

- **Market Signals:** Price signals and market feedback inform firms about consumer preferences, market trends, and opportunities. This information guides investment decisions, product development, and market strategies, encouraging innovation and responsiveness to market demands.
- **Spillover Effects:** Competitive markets promote knowledge spillovers and technology diffusion across industries and regions. Successful innovations in one sector often benefit other sectors, leading to broader economic gains.

### 3. Efficiency and Productivity:

- **Resource Efficiency:** Market forces drive efficiency gains by allocating resources to their most productive uses, reducing waste, and optimising production processes.
- **Productivity Growth:** Competition and innovation induce productivity improvements through technological advancements, economies of scale, specialisation, and best practices adoption.
- **Dynamic Adjustment:** Market mechanisms allow for dynamic adjustments to changing economic conditions, shocks, and disruptions. This flexibility helps economies to adapt, recover, and grow in dynamic environments.

### 4. Trade and Global Integration:

- **Market Access:** Access to global markets expands opportunities for firms to sell products/services internationally, access new technologies, attract foreign investment, and benefit from economies of scale.
- **Specialisation:** Comparative advantage drives specialisation and trade, where countries focus on producing goods/services they can produce efficiently relative to others. This leads to higher overall productivity and global economic integration.
- **Innovation Diffusion:** International trade facilitates the diffusion of technologies, knowledge, skills, and best practices across borders, contributing to global innovation and development.

- Financial markets mobilise capital, manage risk, incentivise investment

## 5. Financial Market Functions:

- **Capital Mobilisation:** Financial markets facilitate capital mobilisation by connecting savers with borrowers, investors with opportunities, and capital with productive investments.
- **Risk Management:** Financial markets offer instruments for risk management, such as insurance, derivatives, and hedging mechanisms, which reduce uncertainty and encourage investment.
- **Investment Incentives:** Efficient financial markets provide incentives for savings, investment, and wealth creation, supporting economic growth and development over the long term.

- Market regulations ensure fair competition and protect consumers

## 6. Market Regulation and Governance:

- **Fair Competition:** Well-designed market regulations promote fair competition, prevent market abuses (such as monopolies or collusion), protect consumers, and ensure market integrity.
- **Institutional Framework:** Strong regulatory institutions, property rights protection, contract enforcement mechanisms, and transparent governance frameworks create a favourable environment for market activities, investment, and economic development.
- **Inclusive Growth:** Market regulations and policies can be designed to promote inclusive growth, reduce income inequality, address market failures (like externalities or information asymmetry), and ensure access to opportunities for all segments of society.

- Well-functioning markets within a framework

Markets play a crucial role in promoting economic development by efficiently allocating resources, encouraging innovation and productivity, facilitating global integration and trade, mobilising capital, and promoting inclusive and sustainable growth. However, effective market outcomes often depend on supportive institutional frameworks, sound regulatory environments, and policy interventions that address market failures and promote equitable opportunities for all participants in the economy. By utilising the power of well-functioning markets within a framework of sound governance and policy interventions, economies can unleash their full potential for prosperity, job creation, and shared benefits across society.

### 1.3.3 State and Economic Development

The term 'state' refers to the governmental mechanism comprising of legislative, executive, and judicial branches responsible for enacting and enforcing laws, regulations, and public policies. This institutional framework provides the state with powers and responsibilities to guide and regulate economic activities, promote public welfare, address market failures, and encourage sustainable growth. The state's role extends beyond traditional governance functions to include strategic planning, resource allocation, infrastructure development, social welfare programmes, and creating an enabling environment for business and investment. State's interventions include fiscal policies (taxation, spending), monetary policies (interest rates, money supply), trade policies (tariffs, trade agreements), regulatory frameworks (industry standards, competition laws), and investments in education, healthcare, and infrastructure. By utilising these tools effectively, the state can influence economic outcomes, promote inclusive development, reduce inequalities, and ensure long-term prosperity for its citizens. The ways in which the state influences economic development are as follows:

- State's role in economic development

#### 1. Policy Formulation and Implementation:

- **Fiscal Policy:** The state uses taxation, government spending, and budgetary policies to influence aggregate demand, investment levels, and income distribution. Strategic fiscal policies can stimulate economic activity during downturns, fund essential infrastructure projects, and support social welfare programmes.
- **Monetary Policy:** Central banks, under state authority, implement monetary policies such as setting interest rates, managing money supply, and regulating credit conditions. These policies influence inflation, interest rates, investment decisions, and overall economic stability.
- **Trade Policies:** States develop trade policies including tariffs, quotas, trade agreements, and currency exchange rate policies. These policies affect international trade flows, competitiveness of domestic industries, and integration into global markets.

- Fiscal, monetary, and trade policies shape economy



- Regulatory frameworks oversee fair markets, protect workers, and promote sustainability

## 2. Regulatory Frameworks:

- **Market Regulation:** The state regulates markets to ensure fair competition, consumer protection, and prevention of market abuses like monopolies or cartels. Regulatory agencies oversee sectors such as finance, telecommunications, energy, and healthcare to maintain market integrity and promote efficiency.
- **Labour Regulations:** Employment laws, minimum wage regulations, and worker protections influence labour market dynamics, wage levels, working conditions, and productivity.
- **Environmental Regulations:** States implement laws and regulations to reduce environmental risks, promote sustainable practices, and address pollution and climate change concerns. Balancing economic growth with environmental sustainability is a key challenge.

- Infrastructure and human capital investments support development

## 3. Investment in Infrastructure and Human Capital:

- **Infrastructure Development:** The state invests in physical infrastructure such as roads, bridges, ports, energy systems, and telecommunications networks. Adequate infrastructure supports economic activities, facilitates trade, and attracts investments.
- **Education and Healthcare:** Investments in education and healthcare improve human capital, workforce skills, productivity levels, and overall quality of life. Access to education and healthcare services also strengthen social mobility and reduces income inequality.

- Government promotes industry, innovation through subsidies, R&D, IP protection, funding

## 4. Industrial and Innovation Policies:

- **Industrial Strategies:** States develop industrial policies to promote strategic sectors, support innovation, create jobs, and raise competitiveness in global markets. This may involve targeted subsidies, tax incentives, R&D funding, and technology transfer initiatives.
- **Innovation Ecosystem:** The state encourages an innovation-friendly environment through policies supporting research institutions, startups, intellectual property rights protection, venture

capital funding, and collaboration between academia, industry, and government.

### 5. Social Welfare Programmes:

- **Safety Nets:** The state implements social welfare programmes, such as unemployment benefits, social security, healthcare subsidies, housing assistance, and food aid to reduce poverty, inequality, and social exclusion. These programmes support consumption, health outcomes, and economic stability.

• Social safety nets support consumption

A dynamic and well-functioning state can create favourable environments for business innovation, attract investments, promote fair competition, and address market problems. Moreover, the state plays a crucial role in human capital development, social inclusion, and sustainable resource management. However, achieving optimal economic outcomes requires a balance between state intervention and market forces, as excessive regulation or inefficiencies can delay economic growth and innovation. Therefore, strategic policymaking, institutional capacity-building, transparency, and accountability are essential for utilising the state's potential to drive strong and inclusive economic growth.

• Dynamic state for economic growth

### 1.3.4 Civil Society

Civil society includes non-governmental organisations (NGOs), community groups, advocacy organisations, professional associations, religious institutions, and grassroots movements. These represent the collective interests, values, and aspirations of citizens, engaging in various social, cultural, environmental, and economic initiatives. Civil society acts as a bridge between individuals, communities, businesses, and governments, encouraging dialogue, collaboration, and accountability in societal affairs. Its activities range from promoting human rights, environmental sustainability, and social justice to providing social services, advocating for policy reforms, and promoting civic engagement. The factors influencing economic development and societal well-being are as follows:

• Civil society links citizens and institutions

#### 1. Advocacy for Policy Reforms:

- **Policy Advocacy:** Civil society organisations advocate for policy reforms in areas such as



- Civil society promotes transparency and accountability

governance, economic regulations, environmental protection, labour rights, and social welfare. They contribute to shaping policy agendas, influencing decision-making processes, and holding governments and businesses accountable for their actions.

- **Good Governance:** Civil society promotes transparency, accountability, rule of law, and anti-corruption measures within public institutions and private enterprises. These efforts create favourable environments for investment, entrepreneurship, and sustainable economic growth.

## 2. Social Capital and Networks:

- Civil society promotes community empowerment and networking

- **Community Empowerment:** Civil society initiatives build social capital by encouraging trust, cooperation, and collective action within communities. Strong social networks enable resource sharing, mutual support, and strength against economic shocks, contributing to local economic development.
- **Networking Opportunities:** Civil society platforms provide networking opportunities for businesses, entrepreneurs, and stakeholders across sectors. These networks facilitate knowledge exchange, innovation, market access, and economic initiatives.

## 3. Human Capital Development:

- Investment in education and health

- **Education and Skills Training:** Civil society organisations invest in education, vocational training, and skills development programmes, strengthening human capital and workforce productivity. Educated and skilled populations are better equipped to participate in economic activities, innovate, and adapt to evolving market demands.
- **Health and Well-being:** Initiatives promoting healthcare, nutrition, sanitation, and access to essential services improve population health, reduce absenteeism, and increase workforce productivity, contributing to economic development.

- Civil society promotes social entrepreneurship and innovation

#### 4. Social Entrepreneurship and Innovation:

- **Enterprise Development:** Civil society supports social entrepreneurship, microfinance, and small business development initiatives, especially in marginalised communities. These enterprises create employment opportunities, stimulate local economies, and address social and environmental challenges through innovative business models.
- **Innovation Ecosystem:** Civil society strengthens innovation ecosystems by supporting research and development, technology transfer, incubators, and innovation hubs. These initiatives drive technological advancements, competitiveness, and economic diversification.

- Civil society promotes sustainability and community investments

#### 5. Community Development and Sustainable Practices:

- **Environmental Sustainability:** Civil society promotes sustainable development practices, environmental conservation, renewable energy adoption, and climate protection initiatives. Sustainable practices contribute to resource efficiency, risk reduction, and long-term economic viability.
- **Community Investments:** Civil society mobilises resources for community-based projects, infrastructure development, and social enterprises that benefit underserved populations, rural areas, and marginalised groups. These investments spur local economic activity, job creation, and social inclusion.

- Development through advocacy, networking, and investment

Civil society plays a vital role in economic development by advocating for policy reforms, encouraging social capital and networks, investing in human capital development, promoting entrepreneurship and innovation, and promoting sustainable practices and community development. Its collaborative efforts with governments, businesses, and communities contribute to inclusive growth, poverty reduction, environmental protection, and social well-being.

### 1.3.5 Behavioural Development Economics

Behavioural development economics is a field of economics that integrates knowledge from behavioural economics and

- Behavioural economics in development

the study of economic development. It examines into the complex ways in which psychological concepts, cognitive biases, social norms, and institutional settings intersect with economic decision-making processes, especially in developing economies. This approach challenges the traditional economic patterns that often assume perfect rationality and information among economic agents, offering a clearer understanding of how individuals and firms behave in real-world scenarios.

Behavioural economics challenges the traditional view of humans as purely rational decision-makers by acknowledging the significant role psychology plays in our economic choices. The key principles are as follows:

- **Bounded Rationality:** People have limited cognitive abilities and often make decisions based on simplified rules (heuristics) rather than complex calculations.
- **Loss Aversion:** Losses have a more intense impact on us than gains. People tend to avoid potential losses, even if it means sacrificing potential gains.
- **Framing:** The way information is presented influences our choices. Minor changes in wording or presentation can sway decisions.
- **Anchoring and Adjustment:** People depend heavily on the first piece of information we encounter (the anchor) when making decisions, and our adjustments from this anchor point are often insufficient.
- **Heuristics and Biases:** People use mental shortcuts (heuristics) which can lead to systematic biases in decision-making. Examples include overconfidence, the sunk cost fallacy, and the endowment effect.
- **Social Influence:** Humans are influenced by the behaviour and choices of others. Social norms and conformity can significantly impact our economic decisions.
- **Present Bias:** Humans tend to favour immediate rewards over future benefits, even if the future benefit is larger. This can result in impulsive spending or neglecting long-term savings goals.
- **Status Quo Bias:** People generally prefer to stick with the default option or the current situa-

- Behavioural economics integrates psychology with economics

tion. This can be exploited by companies that set enrollment in savings plans as automatic.

- **Hyperbolic Discounting:** Hyperbolic discounting is our inclination to choose immediate rewards over rewards that come later in the future, even when these immediate rewards are smaller. This explains why people might prefer spending a windfall today rather than investing it for the future.
- **Mental Accounting:** We categorise money into different mental accounts for various purposes. This can lead to behaviours like spending freely from a “fun money” account while being frugal with another account.
- **Fairness:** People have a sense of fairness and may be willing to sacrifice some personal gain to avoid a perceived unfair outcome.

By understanding these principles, businesses, policymakers can design interventions that “nudge” people towards making better decisions for themselves and society.

The features of behavioural development economics are as follows:

**1. Incorporating Behavioural Knowledge:** Behavioural development economics goes beyond traditional economic models by integrating concepts from psychology, cognitive science, and behavioural economics. It recognises that economic decisions are not always rational and are influenced by cognitive biases, bounded rationality, and social contexts. For example, individuals may exhibit present bias, where they prioritise immediate rewards over long-term benefits, leading to suboptimal economic choices like under saving for retirement.

**2. Impact on Economic Decisions:** Behavioural biases have a great impact on various economic decisions across different domains. In the context of economic development, these biases influence decisions related to savings, investment, consumption, labour supply, entrepreneurial activities, and adoption of new technologies. Understanding these biases is crucial for policymakers and economists as they design policies aimed at promoting economic growth, reducing poverty, and enhancing overall welfare.

• Explain irrational economic decisions influenced by biases and social factors

• Behavioural biases affect economic decisions



- Contextual factors shape economic behaviours

**3. Contextual Considerations:** Behavioural development economics emphasises the importance of considering factors such as cultural norms, social structures, institutional frameworks, and market conditions. These elements interact with behavioural biases to shape economic outcomes differently in various regions and communities. For instance, cultural attitudes towards risk-taking or trust in institutions can significantly influence economic behaviours like investment decisions or participation in formal financial systems.

- Economic decision-making through controlled or natural experiments

**4. Experimental Approaches:** The use of experimental methods and field studies is central to behavioural development economics. Experiments help researchers identify and understand specific behavioural mechanisms in making economic decisions. By conducting controlled experiments or natural field experiments, economists can test the effectiveness of behavioural interventions, policy designs, and incentive structures in real-world settings. This approach provides valuable understandings into how individuals and firms respond to different economic stimuli and incentives.

- Aligning policies with human behaviour using nudges and incentives for effective outcomes

**5. Policy Implications:** Behavioural development economics has direct implications for policy design and implementation. It emphasises the importance of designing policies that align with actual human behaviour and analytical limitations. Concepts such as nudges, defaults, incentives, and information framing are used to steer economic behaviour towards desired outcomes such as increased savings, improved health behaviours, or increased educational attainment. Policymakers work with behavioural economists to formulate that are cost-effective, ethically sound, and culturally sensitive.

- Ethical policy design for behavioural interventions

**6. Ethical Considerations:** Ethical considerations are important in the application of behavioural knowledge to policy and economic interventions. Designing policies that promote positive behavioural changes without excessively restricting individual freedoms or worsening social inequalities requires careful evaluation, transparency, and stakeholder engagement. Ethical guidelines and frameworks help ensure that behavioural interventions prioritise individual well-being and societal welfare.

- Helps shape more effective policies

Behavioural development economics contributes significantly in understanding economic behaviour in diverse contexts and designing more effective and equitable economic policies. Behavioural development economics represents a shift in economic analysis by integrating behavioural perceptions into the study of economic development and decision-making. Through careful research, ethical considerations, and evidence-based policy interventions, behavioural development economics contributes significantly to shaping more effective and human-centric economic policies and practices.

### 1.3.6 Migration and Development

- Migration shapes population dynamics

Migration refers to the movement of people from their usual place of residence to another location, either within national boundaries (internal migration) or across international borders (international migration). Migration represents the third pillar of population change, alongside mortality and fertility. Unlike mortality and fertility, which are biological processes influenced by social, cultural, and economic factors, migration is driven by individual choices and external environmental factors. It reflects human responses to economic, social, and demographic dynamics in their surroundings, making it a critical aspect of population studies. Understanding migration patterns is essential as it shapes population growth rates, demographic structures, and societal characteristics.

- Various factors motivate migration

Various factors motivate migration, broadly categorised into economic, demographic, socio-cultural, and political factors. Economic factors, often termed as ‘Push Factors’ and ‘Pull Factors,’ play a central role in voluntary migration. Push factors, such as poverty, unemployment, and limited economic opportunities in rural areas, compel individuals to seek better prospects elsewhere. Conversely, pull factors, including job opportunities, higher wages, improved living conditions, and urban amenities, attract migrants to specific areas, especially urban centers experiencing rapid industrial and commercial growth. Socio-cultural factors, such as family conflicts, changing attitudes influenced by media and education, also contribute to migration trends. Political factors, including regional policies favouring local residents or conflicts leading to migration, also influence migratory patterns significantly. In countries like India, the concept of ‘push factors’ gains relevance, reflecting situations where urban unemployment and underemployment discourage fresh rural-urban migration.



This highlights the complexity of migration determinants, which may involve a combination of economic, social, and political factors. Understanding the nature of migration is crucial for policymakers and researchers as it impacts population distribution, labour force dynamics, and societal changes. By analysing migration patterns and addressing underlying factors, societies can develop more informed policies to manage migration flows and promote inclusive development.

### 1.3.6.1 Types of Migration

Migration includes various forms of population movement, each with distinct characteristics and impacts on societies, economies, and individuals. Each type of migration presents unique dynamics, drivers, consequences, and policy considerations that shape migration patterns and outcomes at local, national, and global levels.

#### Types of Migration

**1. Internal Migration:** Internal migration refers to the movement of people within a country's borders. It includes rural-to-urban migration, urban-to-rural migration, inter-regional migration, and intra-urban migration. Factors driving internal migration include seeking better job opportunities, education, improved living standards, family reunification, and running away from environmental challenges or conflicts within the country. Internal migration can lead to urbanisation, demographic shifts, labour market changes, infrastructure demands, and social integration challenges within nations. For example, rural-to-urban migration in China has driven massive urbanisation and economic growth in cities like Shanghai and Beijing.

- Involves movement within a country

**2. International Migration:** International migration involves the movement of people across national borders. It includes labour migration for employment, family reunification, refugee flows due to conflict or persecution, asylum-seeking, and irregular migration. Economic factors, political instability, armed conflicts, human rights violations, environmental degradation, and demographic disparities drive international migration. International migrants contribute to various labour markets, cultural exchanges, remittance flows, diaspora communities, and global interconnectedness, shaping

- Spans across borders

economies and societies in both sending and receiving countries. Germany's acceptance of Syrian refugees illustrates significant asylum-seeking migration due to political instability and conflict in Syria.

- Occurs due to persecution, conflict, or disasters, affecting refugees, IDPs, and stateless individuals

**3. Forced Migration:** Forced migration occurs when individuals or groups are compelled to leave their homes due to persecution, armed conflict, human rights violations, or natural disasters. It includes refugees, asylum seekers, internally displaced persons (IDPs), stateless individuals, and environmental migrants. Forced migrants often face significant challenges, including protection risks, displacement trauma, limited access to basic services, and uncertain legal statuses. International humanitarian law and refugee protection frameworks govern responses to forced migration, emphasising human rights, safety, and durable solutions. Rohingya refugees fleeing persecution in Myanmar have sought refuge in Bangladesh, highlighting forced migration driven by human rights violations.

- Driven by personal choices such as economic opportunities, education, and lifestyle preferences

**4. Voluntary Migration:** Voluntary migration involves individuals' choices to relocate for various reasons, including economic opportunities, education, family reunification, lifestyle preferences, and cultural exchanges. It includes labour migrants, students studying abroad, retirees moving to desired locations, and professionals seeking career advancement internationally. Voluntary migrants contribute skills, expertise, cultural diversity, and economic contributions to host communities, promoting innovation, entrepreneurship, and social dynamics. Many Indian professionals migrate voluntarily to the United States for career opportunities, contributing to the country's tech industry.

- Results from climate change and environmental factors

**5. Environmental Migration:** Environmental migration results from climate change impacts, natural disasters, environmental degradation, and resource scarcity. It includes displaced populations due to floods, droughts, hurricanes, sea-level rise, deforestation, desertification, and land degradation. Environmental migrants often face challenges in accessing safe shelter, livelihood opportunities, social services, and legal protections. Addressing environmental migration requires sustainable development approaches, climate adaptation strategies,



disaster risk reduction, and global cooperation on environmental stewardship. Residents of Pacific Island nations like Kiribati are forced to relocate due to rising sea levels caused by climate change, demonstrating environmental migration challenges.

- Tailored responses for migration challenges

Internal migration, international migration, forced migration, voluntary migration, and environmental migration each present distinct opportunities and challenges, requiring tailored responses that prioritise human dignity, safety, inclusion, and sustainable development goals.

### 1.3.6.2 Migration and Economic Development

- Migration impacts economic development

Migration and economic development are complexly linked and have both positive and negative impacts on individuals, communities, and economies. Understanding the influence of migration on economic development requires consideration of factors at local, national, and global levels. The influence of migration on economic development are as follows:

- Labour market is influenced by migration

**1. Labour Market Dynamics:** Migration significantly impacts labour markets by changing the supply and demand for different types of labour. Migration can address labour shortages in specific sectors, contribute to skills diversification, and increase productivity by matching workers with suitable job opportunities. However, it can also lead to job competition, wage gap, and structural shifts in industries.

- Boost economies and alleviate poverty

**2. Remittance Flows:** Remittances money sent by migrants to their home countries are a major economic factor, particularly for developing economies. Remittances contribute to household incomes, support consumption, finance education and healthcare expenses, and stimulate local economies through increased spending. These inflows can reduce poverty levels and improve living standards in migrant-sending regions.

- Migration impacts skill, knowledge, and tech exchange

**3. Skill Transfers and Brain Drain/Gain:** Migration influences the transfer of skills, knowledge, and technology between countries. Brain drain occurs when highly skilled individuals emigrate from developing countries to seek better opportunities abroad, leading to potential skill shortages and loss of human capital. Conversely, brain gain refers to the acquisition of skills, experiences, and networks by migrants, which can be

used for innovation, entrepreneurship, and economic growth in both sending and receiving countries.

- Cultural diversity fuels innovation

**4. Cultural Diversity and Innovation:** Migration contributes to cultural diversity by bringing together people from different backgrounds, beliefs, and experiences. This diversity can drive innovation, creativity, and cross-cultural exchanges, leading to new ideas, business ventures, and societal advancements. However, challenges such as social integration, discrimination, and cultural tensions also arise and require inclusive policies and social cohesion efforts.

- Migration policies: Balancing benefits and challenges

**5. Policy Frameworks and Governance:** Effective migration policies and governance frameworks are essential for utilising the positive impacts of migration on economic development while mitigating potential challenges. Well-managed migration policies consider labour market needs, protect migrant rights, promote integration, combat irregular migration, address brain drain concerns, and maximise the development potential of migration through strategic planning and international cooperation.

While migration can contribute positively to labour markets, remittance flows, skills transfers, cultural enrichment, and innovation, it also poses challenges such as brain drain, job competition, social tensions, and policy complexities.

### 1.3.7 Rural-Urban Migration

Rural-urban migration has traditionally been seen as a positive force for economic development. It was considered a natural progression where surplus labour from rural areas moved to urban centers to support industrial growth. This shift was viewed as socially beneficial because it redirected labour from low-productivity or zero-productivity rural sectors to urban areas experiencing positive and rapidly growing productivity due to capital accumulation and technological advancements. The formalisation of this migration process can be seen in Lewis's theory of development. However, the rural-urban migration observed in developing countries has presented complex challenges to the development process. This migration rise is primarily driven by the extraordinary population growth in these countries over the past few decades. Projections suggest that by 2050, the global population could

- Rural-urban migration and development

surpass 9 billion, with dramatic growth particularly in major cities of developing nations. In fact, United Nations estimates indicate that in 2007, the world became more urban than rural for the first time in history. The experiences of Less Developed Countries (LDCs) have highlighted that rural-urban migration rates often outrun urban job creation rates. Consequently, migration is no longer viewed solely as a beneficial process to meet urban labour demands. Instead, it is recognised as a significant contributor to urban surplus labour issues and a major driver of urban unemployment problems. While rural-urban migration remains crucial from a long-term development perspective due to the economic activities in cities, other migration patterns such as rural-rural, urban-urban, and even urban-rural migrations also occur.

- Various theories on rural-urban migration

The economic theory related to rural-urban migration has been shaped by models developed by renowned economists. One such model, devised by Nobel laureate W. Arthur Lewis in the mid-1950s and later refined and expanded by John Fei and Gustav Ranis, focused on the structural transformation of subsistence economies. This model, often referred to as the Lewis two-sector model, gained prominence as a general theory of development for surplus labour economies during the 1960s and early 1970s. However, the significant flow of rural populations into urban areas resulting in urban unemployment and underemployment challenged the applicability of the Lewis model. Another model emerged that centered on rural-urban migration and addressed the relationship between accelerated rural-urban migration and rising urban unemployment. This model is known as the Todaro migration model and, in its equilibrium form, as the Harris-Todaro model.

- Rural-urban migration model explains urban unemployment

### 1.3.7.1 Harris and Todaro's Migration Model

Professor J.R. Harris and P.M. Todaro introduced a model in their 1970 article titled "Migration, Unemployment and Development: A Two-Sector Analysis," focusing on rural-urban migration in underdeveloped countries. It applies classical economic theory to development economics, specifically examining how migrants decide based on income differences between rural (agricultural) and urban (industrial) areas. The model of rural-urban migration is primarily explored concerning employment and unemployment scenarios common in developing nations. Its main objective is to explain the issue of urban unemployment in these countries.

- Urban opportunities attract rural migrants

The central concept of the Harris-Todaro model revolves around labour migration in underdeveloped nations being driven by differences in average expected wages between rural and urban areas rather than actual wages. Migrants assess the employment opportunities available in both sectors and opt for the one offering the highest expected wages from migration. The minimum wage in urban areas significantly exceeds rural wages. As more job opportunities emerge in urban sectors at this minimum wage, the expected urban wage rises, leading to an increase in rural-urban migration. Expected wages are determined by the difference between real urban income and rural agricultural income, coupled with the chances of securing urban employment. Migrants measure their expected income over a specific time periods in urban settings against their current rural income; if the former is greater than the latter, migration becomes a feasible option. The Harris-Todaro model conceptualises migration as the income gap between rural and urban sectors. However, not all migrants find employment in urban areas at high wages. Many ends up in the informal urban sector, where wages may be lower than rural wages, contributing to underemployment or disguised unemployment in urban regions.

The model operates under several key assumptions, such as:

- Assumptions of rural-urban migration model

1. The economy is divided into two distinct sectors - the rural or agricultural sector (A) and the urban or manufacturing sector (M).
2. The model focuses on short-term economic dynamics.
3. The productivity of labour in agriculture ( $MPL_A$ ) and industry ( $MPL_M$ ) is determined by the respective technologies in each sector.
4. Capital is fixed in both sectors, meaning there are limited quantities of capital available.
5. The economy has a total labour force denoted by  $L$ , with  $L_A$  and  $L_M$  representing the numbers employed in the rural and urban sectors, respectively.
6. The number of urban jobs ( $L_M$ ) is predetermined and fixed externally. In contrast, some work is always available in the rural sector.
7. The urban wage ( $W_M$ ) is set at a fixed level, while the rural wage ( $W_A$ ) is also fixed but at a lower level than urban wage level ( $W_M > W_A$ ).



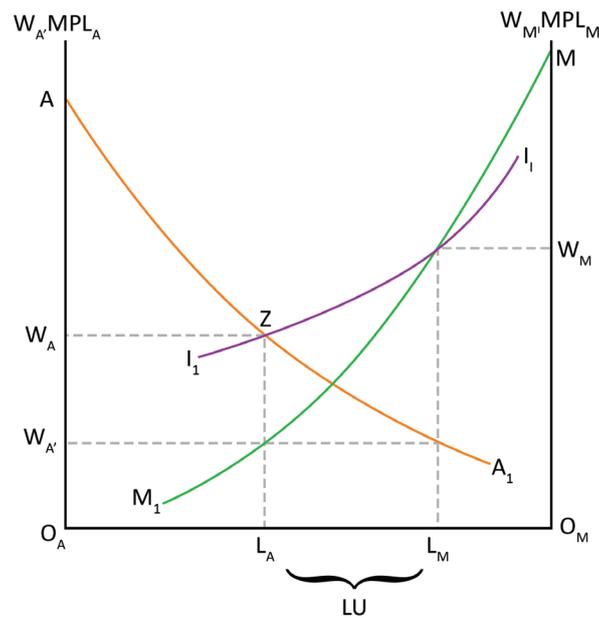
8. Rural-urban migration occurs as long as the expected real income in urban areas exceeds the real income in agriculture, influencing individuals' migration decisions based on income expectations.

- Migration based on expected income differences

The Harris-Todaro model represents a deviation from the weaknesses found in the Lewis theory of development, focusing specifically on the economic aspect of migration. It suggests that individuals are attracted to urban areas based on expected income differences rather than actual earnings, considering various labour market opportunities available in both rural and urban sectors to maximise potential gains. Suppose a rural worker earns an annual real income of 50 units in agriculture but expects to earn 100 units annually in the urban sector. This income differential drives the decision to migrate towards higher-paying urban employment opportunities. It is worth noting that migration models like this one were initially developed within developed industrial economies. In such contexts, continual migration tends to reduce wage gaps through demand and supply forces.

- Migration dilemma: Unskilled labor vs. skilled migrants

However, in developing countries with chronic unemployment issues, unskilled labour may not easily secure high-paying urban jobs but may find casual or part-time employment opportunities. Skilled migrants with secondary or university qualifications may find urban employment more readily, though they constitute a smaller segment of the migrant population. Individual migrants must weigh the probabilities and risks of urban unemployment or underemployment against the potential income gains. For instance, if the probability of securing a higher-paying urban job is low, migration may not be rational. However, if the probability is higher, despite high urban unemployment rates, migration becomes a more justifiable decision as long as the expected net urban income surpasses rural income over time. The Harris-Todaro model is diagrammatically explained in the figure given below.



**Fig 1.3.1 Harris and Todaro's Migration Model**

- Wage differentials influence rural-urban migration decisions

The horizontal axis represents the total labour force in both sectors, with employment in agriculture (A) depicted to the right starting from  $O_A$  and in industry (M) to the left. On the left vertical axis,  $MPL_A$  (the marginal productivity of labour in agriculture) and  $W_A$  (wages of labour in agriculture) are measured from  $O_A$  upwards. Conversely, on the right vertical axis,  $MPL_M$  (the marginal productivity of labour in industry) and  $W_M$  (wages of labour in industry) are measured. The MP of labour curve in agriculture is denoted by  $AA_1$ , which slopes downwards to the right as agricultural employment ( $L_A$ ) increases. Similarly,  $MM_1$  represents the MP of labour curve in industry, sloping downward to the left as industrial employment ( $L_M$ ) increases.  $W_M$  denotes the fixed wage level at which  $O_M L_M$  workers are employed in the urban sector. The remaining  $O_A L_M$  workers are employed in the rural sector at the wage level  $O_A W_A'$ , resulting in a wage gap of  $W_M - W_A'$ , with  $W_M$  fixed. This wage differential attracts rural workers to the urban sector despite urban unemployment and underemployment. Rural job seekers are willing to take their chances in finding preferred jobs in urban areas, similar to an “urban job lottery.”

The equation  $W_A = \left(\frac{L_M}{L_U}\right) W_M$  expresses the agricultural wage at which potential migrants become indifferent about job location due to equal urban expected wages. The curve  $I_1 I_1$  represents the locus of such indifference points, while point

- Urban migrants engage in low-wage jobs

Z denotes the unemployment equilibrium. At equilibrium, the agricultural wage is  $W_A$ , creating a new urban-rural wage gap of  $W_M - W_A$ . Prior to migration,  $O_A L_A$  workers were in agriculture, while  $O_M L_M$  workers in industry remained at the fixed wage  $W_M$ . However,  $L_U = O_A L_A - O_M L_M$  migrants in urban areas engage in low-wage informal sector jobs, earning less than the  $O_A W_A$  rural wage rate.

The Todaro model, while significant, faces several criticisms. Such as

- Imperfect migration info, job certainty, uncertain urban unemployment, policy gaps

- Prospective migrants lack perfect information about urban unemployment rates for their desired job types before migrating.
- Individuals often migrate to urban areas only after securing job appointments, making Todaro's model less relevant in such cases.
- Even if general urban unemployment rates are known, the exact figures may remain uncertain, making probability calculations speculative and not practically useful for decision-making.
- Typical migrants may not consider or be able to calculate probability values when deciding to migrate.
- The model suggests that each urban job creation leads to increased unemployment rates, potentially slowing agricultural growth and employment. Todaro does not propose strong policy measures to address this issue.

Despite these limitations, Todaro's model offers valuable information on rural-urban migration behaviour, particularly applicable to less developed countries.

## Summarised Overview

Institutions includes all formal and informal rules, norms, and organisations that shape economic activities. Formal economic institutions include legal systems, government policies, and regulatory agencies, while informal institutions comprise social norms, ethical codes, and networks. Economic institutions serve major functions such as providing structure and rules, enforcing compliance, resolving disputes, and allocating resources efficiently. Markets facilitate efficient allocation of resources, encourage innovation and technology adoption, improve productivity, encourage trade and global integration, mobilise capital, and promote inclusive growth. However, achieving effective market outcomes requires supportive institutional frameworks, sound regulatory environments, and policy interventions to address market failures and ensure equitable opportunities for economic agents. The state influences economic outcomes through policy formulation and implementation, market regulation, investment in infrastructure and human capital, industrial strategies, and social welfare initiatives. Behavioural development economics integrates knowledge from behavioural economics and economic development, focusing on how psychological concepts, cognitive biases, social norms, and institutional settings influence economic decision-making in developing economies. It challenges traditional economic models by acknowledging bounded rationality, cognitive biases, and social influences on economic behaviour.

Migration is the movement of people within national borders (internal migration) or across international borders (international migration). It is influenced by economic, demographic, socio-cultural, and political factors, leading to various types of migration, such as internal, international, forced, voluntary, and environmental migration. The impacts of migration on economic development include changes in labour markets, remittance flows, skill transfers, cultural diversity, and policy frameworks, highlighting both positive contributions and challenges. Rural-urban migration has historically been viewed positively for economic development, as it directs surplus rural labour to support urban industrial growth. However, in developing countries, rapid population growth has led to many challenges. Urban job creation often falls behind migration rates, resulting in urban surplus labour and unemployment issues. This shift challenges traditional economic models like Lewis's two-sector model and has led to the development of models like the Todaro migration model to understand and address rural-urban migration dynamics. The Harris-Todaro model, introduced by J.R. Harris and P.M. Todaro, analyses rural-urban migration in developing countries, focusing on income differentials between rural and urban areas as the primary force of migration decisions. The model explains migration in terms of expected income gains rather than actual wages, highlighting the role of employment opportunities in both sectors.



## Assignments

1. Examine the role of institutions in economic development of a nation.
2. Discuss the role of markets in driving economic development.
3. Elucidate how the state influences economic development.
4. Discuss the significance of behavioural development economics in understanding economic behaviour.
5. Explain the relationship between migration and economic development.
6. Critically evaluate the Harris-Todaro model of rural-urban migration.

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## Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.



# MASTER OF ARTS ECONOMICS



## Theories of Growth and Development

### Block 2



# UNIT 1

## Classical Theories of Development

### Learning Outcomes

After completing this unit, the learner will be able to:

- understand the effect of the division of labour, productivity, and capital accumulation on development process
- know the relationship between wage and profit
- evaluate the dynamics of population growth and how it interacts with food supply
- familiarise with concepts, such as surplus value, exploitation, and class struggle

### Background

The classical theories of development, which emerged during the time of the industrial revolution (18<sup>th</sup> and early 19<sup>th</sup> centuries) laid the framework for modern economic thought and played an important role in shaping economic policy for centuries to come. It included several prominent economists and their respective theories. Each theory offered unique insights into economic growth and development. We can look into the contributions of Adam Smith, David Ricardo, Karl Marx, and Thomas Malthus in this unit. Classical economists believed that increasing a nation's capital stock was the engine of growth. Profits from economic activity could be reinvested to build more capital, leading to greater productivity and output. The classical theory generally favoured a laissez-faire approach, where governments minimally intervened in the economy. They believed uncontrolled markets would naturally lead to efficient resource allocation and growth. While some of its assumptions have been challenged, classical theories remain a foundational concept in understanding economic growth and development. Let us discuss the ideas of Adam Smith, David Ricardo, Karl Max, and Thomas Malthus in this unit.



## Keywords

Classical Theory, Rent, Population, Capitalism, Reserve Value

## Discussion

### 2.1.1 Classical Theory

From the beginning of Political Economy, the political thinkers were concerned about the problems of economic development. With this end in view, they introduced different theories to explain the mechanism of economic progress. These theories explain the factors affecting economic growth and suggest policies for the acceleration of economic growth. Here, we are discussing the classical theory and Marxian theory of economic growth. The classical school consists of Adam Smith, David Ricardo, and T.R. Malthus. Though these economists have expressed the same views on economic matters, they do not agree on all points. They were more concerned with the problem of the economy as a whole. Let us discuss classical theories below.

#### 2.1.1.1 Adam Smith's Theory

Adam Smith is regarded as the founder of the classical school of economics. His magnum opus “An Enquiry into the Nature and Causes of the Wealth of Nations” was a pioneer attempt to explain the process of economic progress and the causes of capitalistic development. The main points of this theory are discussed below:

##### a. Capital Accumulation

Capital accumulation is the central point of Adam Smith's theory. Smith considered wealth an index of a country's prosperity. Therefore, the main problem before the classical economists was how to increase the nation's wealth. According to Adam Smith, the only way to increase wealth was to produce more wealth, which in turn required more capital accumulation. To increase capital, more savings should be encouraged. Smith therefore stressed the role of parsimony, which is based on capital accumulation. To practice parsimony, we should save more and spend less for the sake of a bright future. The savings could lead to capital accumulation, and the

- Capital accumulation as the base of economic growth

production and use of capital is an integral part of capitalistic development.

### **b. Division of Labour**

As we discussed above increased savings can lead to more capital. This increased capital would raise production and level of output. The level of output can be raised by division of labour which results in specialisation. Division of labour refers to separation of tasks which allows specialisation or acquiring greater skills in doing the particular task by participants. The division of labour and specialisation can lead to increased ability in every particular workman. If a worker is producing only one commodity, then he will have to exchange it with other commodities produced by other workers. This exchange of goods highlights the importance of trade and widens the size of the market. Smith explained the division of labour and specialisation on the basis of the famous example of pin production. Division of labour under each task of pin production generates specialisation. It allows each participant to specialise in the particular task assigned. Specialisation enhances productivity and helps increasing output. Here, it is important to note that the size of the market must be large enough to absorb the output of the pin factory, so that the income earned here can be used for purchasing other commodities. Therefore, a wide market is a crucial component for the economic development of a nation.

- Specialisation of labour raises output

### **c. Increasing Returns**

One of the important contributions of Adam Smith was the introduction of concept of 'increasing returns' and division of labour. Increasing returns means rising labour productivity leads to increasing per capita income and expanding output and employment. Adam Smith recognised that as production scales up, there can be increasing returns to scale. This means that when a firm or an economy produces more, the average cost of production per unit decreases. In other words, efficiency improves as output expands. Smith believed that economic progress was self-sustaining. As productivity increased due to the division of labour and specialisation, it would lead to more output, higher incomes, and expanding employment opportunities.

- Increasing returns creates growth

### **d. Natural Law**

Adam Smith advocated the philosophy of free and independent action. If each person in society is left free to pursue own



- Adam Smith as an advocate of free market

economic activities, it will maximise the output to the best of ability and would render a great service to society. Adam Smith opposed government intervention, as he believed that state intervention would curb individual's desire to earn income in the manner the individual likes. According to him, Natural Law was superior to man-made law. He advises that man should respect nature's law because nature is just and moral. These qualities act as an advocate of individual progress and social welfare.

#### e. Laissez-faire

- Laissez-faire policy for growth

Adam Smith's theory is based on the Laissez-faire principle, that means State should not impose restrictions on individual's freedom of action. We have already discussed that the theory is based on savings, capital accumulation, division of labour, and wide markets. If an individual is left free, it allows the creation of more savings and production. The policy of laissez-faire was considered as the driving force for promoting economic growth. Adam Smith believed that laissez-faire is always a safe policy for maximising savings and investment for development.

#### f. Free Trade

- Free trade boosts economic progress

We have already explained that the division of labour leads to exchange of goods, which in turn widens the extent of market and promotes domestic and foreign trade. The government should not interfere in the decisions of the producers and no obstacles be placed in the free exchange of commodities. If there are obstacles in the way of free trade, that would reduce the earnings of producers. Free trade allows export of goods that affect production, income, saving and capital accumulation in the society. Free trade promotes savings and creates capital which leads to economic progress.

#### g. Trade Cycle

- Economic growth pattern

Development is not a smooth process. There would be jerks and jolts to the economy during the progress of an economy. Smith had an idea of 'cumulative growth', that, once development starts it proceeds in a cumulative manner. During the upswing phase of development, variables such as saving, capital accumulation, employment, wages, income and demand rise. Expanded demand leads to industrial expansion. Through this way, economic activities expand and growth variables continue to multiply till it reaches the stage of 'take off'. However, the process of expansion does not continue forever. The reason is

that the increase in national income is absorbed by the growth of population.

- Capital accumulation cycle

As capital accumulates, the expected return from capital that is Marginal Efficiency of Capital (MEC) declines. The declining MEC discourages fresh investment, national output and wages which move downwards. Then a stage comes where economy becomes almost stationary and growth stops. Even though Adam Smith explained the process of upswing and downswing, no explanation has been given as to how the downswing is converted into upswing. He had no prescription to offer for preventing the economy from going into a stationary state.

- Capital as an engine of growth

Based on the above discussion, we can conclude that Smith considered capital accumulation as the engine of economic growth. Capital formation depends on savings that is, the difference between income and consumption. Laissez-faire policy helps in maximising saving and national output. Division of labour increases labour productivity widens the market and encourages free trade, which in turn leads to economic growth. Finally, economic development is a gradual and cumulative process leading to the emergence of a stationary state.

### 2.1.1.2 David Ricardo's Theory

Ricardo is credited with having refined the classical theory of development, though he heavily relied upon Smith's ideas. His ideas on development appeared in his famous book "Principles of Political Economy and Taxation", published in the year 1817. While Adam Smith was more concerned with the wealth of a nation, David Ricardo was concerned with income distribution and foreign trade. It would be interesting to study his ideas on development. Let us now discuss his ideas about development.

#### a. Capital Accumulation

Ricardo spoke about capitalists and labourers; they are the agents of production. The capitalists are the main contributors to savings. They save out of profit and help in raising capital formation. The profit arises because of two vital functions of capitalists, first is investment generation and the second is risk-taking activities. The working class or labourers are the second agents of production. They are the largest group among the agents of production. Capitalists employ labourers and pay wages. The wage rate depends up on the number of workers. If

- Workers and wage dynamics

the number of workers is high, wage rate will decline and the wage rate will rise with fall in number of workers. Whether the labour supply (population) increased or decreased depends upon the wage rate received by the workers. If the existing wage rate is sufficient for workers to live a comfortable life, then the population might increase and vice versa.

- Productivity of land determines agriculture profits

Ricardo uses agricultural profit as the basis to explain the effect of wage on profit and capital accumulation. It is the productivity of land that determines the level of agricultural profit. This occupies the central place in the Ricardian system of development. Similarly, he is of the view that agricultural profit determines the industrial profit. The profit and wages are inversely related. If the wages are high, the profit would be low and profit would be high if wages are low.

- Capitalist's savings lead to development

To start development, capital is needed and it depends upon savings. Most of the savings in the economy are accumulated by the capitalists. Savings of capitalists are calculated after deducting wages and maintenance charges from gross revenue. This is also called net revenue. The development starts when this net revenue is invested in productive ventures. Ricardo gives an important role to the capitalists, who earn the net revenue and invest it for raising production. This is how the wheels of development move forward.

- Wages and profits affect development

### **b. Behaviour of Rent, Wages and Profits**

After deducting the share of land (rent) from national income, Ricardo concentrated on the remaining portion of national income to be divided between wages and profits. According to Ricardo, development proceeds as the national income rises and change takes place in the relative share of wages and profit. He considered wage an important factor in determining the relative share of labour and capital. Profit depends only on wages and the wage in the long run tends to be at the subsistence level, though in the short run, it may rise or fall. The subsistence level refers to the minimum wage required for workers to meet their basic needs (food, shelter, clothing). Ricardo thought that competition would keep wages close to this level. Thus, Ricardo's ideas highlight the interplay between wages, profits, and economic development. His focus on relative shares and the long-run tendency of wages toward subsistence remains influential in economic thought.

As the population grows, the demand for agricultural products rises. Since the inferior quality land is used for cultivation,

- Population growth reduces profit

the agricultural output is subjected to the law of diminishing returns. Then, the output does not increase to the extent required to meet the increased demand of population. As a result, price of the agricultural products rise. The wage rate in money terms rises, while the real wage remains at subsistence level. The increase in money wage rate brings fall in the rate of profit. Thus, there is an inverse relation between population growth and rate of profit. Ricardo had visualised that population growth and limited supply of land could adversely affect profit, saving, and fresh investments.

### c. Stationary State

- Falling profit and stationary state

Stationary state is a situation in which entrepreneurs will have no tendency either to increase or decrease output. Ricardo explained this stage in terms of falling rate of profit. Like Smith's model, Ricardo also believed development is a function of capital accumulation which in turn depends on reinvested profit. However, profits attained by the capitalists are squeezed between subsistence wages and the payments of rent to landlords, which rises when the price of agricultural output (food) rises owing to diminishing returns to land and rising marginal costs. Ricardo's model is illustrated in the figure below.

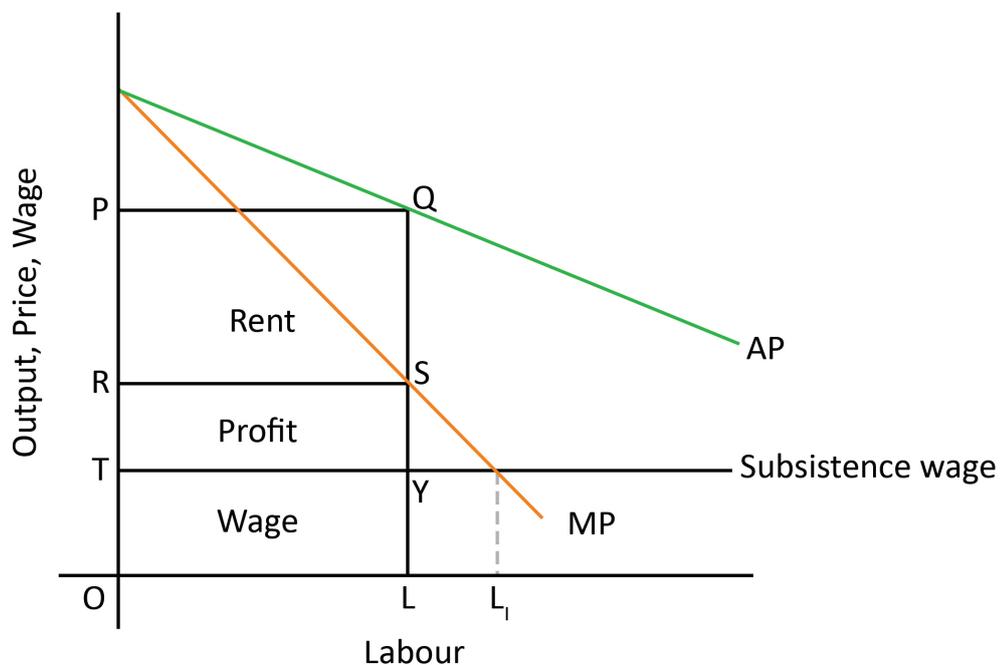


Fig 2.1.1 Ricardian Growth Model

In the above figure horizontal axis shows employment of labour and vertical axis shows output, price and wages. When OL units of labour are employed, the total output is OPQL. Rent is determined by the difference between Average Product (AP) and Marginal Product (MP) of labour working on land. Rent is shown by the area PQRS. Wages are equal to OTYL. Profit is determined by subtracting rent and wage from total output, and it is shown by the area TRSY. When output increases, MP of labour falls to the subsistence wage level ( $L_1$ ) and profits disappear. As profit falls to zero, capital accumulation ceases, indicating the stationary state.

#### d. International Trade

Ricardo discussed the role of international trade which provides opportunities for fresh investment. Like Adam Smith, he advocated free international trade. The government intervention in international trade restricts the mobility of labour and capital and the advantages of international division of labour cannot be secured. Ricardo's comparative theory of international trade emphasise specialisation in the matter of production. Specialisation enables men and material sources to the optimum use and produces the output at minimum cost. He believed that capitalists would earn profit from making investment in export-oriented industries. The reinvestment of profits will further encourage development activities. However, during the course of development, Ricardo also predicted the stationary state of the economy as the last phase of development.

- Specialisation enables optimum use and produces the output at minimum cost

The model addresses key questions concerning development. It explains the determination of relative factor shares when development proceeds. The theory views the economy as a dynamic one. That is economy is considered to be ever-changing over time, until it reaches a stationary state. The analysis highlights the significance of development variables, including capital accumulation, population growth, profits, wages, and rents. The Ricardo's analysis offers a comprehensive analysis of economic thought.

- Considered economy as dynamic

### 2.1.1.3 Thomas Malthus' Theory of Development

The views of classical writers have been very pessimistic about the process of economic development, focussing on the problems of rapid population growth, falling rate of profit, rising food prices, and stationary state. Among them one of

- Economic development pessimism

the foremost pessimists was Thomas Malthus. There are two stands to Malthus' writing. First is his theory of population and second is his focus on the concept of effective demand. Malthus was the only classical economist who emphasised demand for the determination of output. Malthus expressed the view that effective demand must grow in line with productive potential if profitability as a stimulus to investment is to be maintained. To generate funds for economic development, he focussed on the savings of landlords and investments of capitalists.

- Population grow in geometric proportion and food production in arithmetic proportion

### ***Theory of Population***

In his work , “An Essay on the Principle of Population”, he claimed population goes on doubling itself every twenty-five years or increases in a geometrical ratio. Malthus believed that population growth follows a geometric progression (1, 2, 4, 8, 16, 32, 64, 128, 256, and so on), while food production increases at an arithmetic rate (1, 2, 3, 4, 5, 6, and so forth). In two centuries, the ratio of population to the means of subsistence would be 256 to 9, in three centuries as 4096 to 13, and in two thousand years the difference would be incalculable. Thus Malthus's work highlighted the tension between population growth and the capacity of the Earth to sustain it.

- Preventive and positive checks for controlling population

Malthus recognised that imbalance between population growth and food supply growth could lead to a country's per capita income falling to subsistence levels. Any increase in per capita income brought about by technical progress leads to more births, reducing the per capita income back to subsistence level. Economist Harvey Leibenstein called this situation as ‘low-level equilibrium trap’. To tackle population growth, Malthus proposed two types of checks: preventive checks and positive checks. Preventive check means the use of contraception methods. When preventive checks are weak, positive checks take over in the form of natural calamities like epidemics, famine, earthquakes etc.

### **2.1.2 Marxian Theory of Economic Development**

Karl Marx, in his famous book Das Kapital (1867) predicted of the collapse of capitalism. The classical economists believed that rate of profit on capital would fall with the development of the economy. But they had different opinions regarding this fall. According to Adam Smith the declining profit was the result of competition among capitalists. David Ricardo pointed

- Karl Marx predicted the collapse of capitalism

out the fall as a result of diminishing returns of land and profit being squeezed between rent and wage, leading to stationary state. But according to Karl Marx, the economy does not grow forever, but the end comes not from a stationary state but from crises associated with overproduction and social upheaval. While Marx's model has many similarities with other classical economists, the capitalist surplus in Max's model is the source of capital accumulation and the main source of growth. He agreed Malthusian view of inverse relation between wage and population growth. Marx's ideas about development include the following:

1. The materialistic interpretation of history
2. Theory of class struggle
3. Theory of surplus value
4. The concept of reserve army
5. Economic development under capitalism.

Let us discuss these points in detail below.

### **1. The materialistic interpretation of history**

Materialistic interpretation of history is the term used by Marx to explain that all historical events have been influenced by economic conditions. The concept reveals that the foundation and evolutionary causes of all social life are closely connected with economic circumstances and, legal and institutional structure of a society. The theory of historical materialism starts with the idea that production is important for all human activities to secure necessities of life. But man does not produce all what he needs and the struggle for his survival starts. In the past the effort to secure necessities of life were grouped into four stages. Primitive communist stage, slavery stage, feudal stage and capitalist stage. In the first stage factors are owned and controlled by community and individuals get their requirements according to their needs. In other three stages, there are two groups of people- dominant and depressed. It is the domination of one group of people over the other that creates a state of tension and conflict. In all these stages of human evolution, the conditions of production determine the social structure. In short, it is the economic environment that influences and shapes the structure of a society.

- Historical materialism

### **2. Theory of class struggle**

According to Karl Marx, society is divided into two groups- the rich and the poor or the exploiters and the exploited

- Class struggle leads to revolutions

respectively. There can be no cooperation between the two groups. The clash of interests of these two groups have been the main feature of class struggle. The capitalist class controls means of production and exploits the working class. Exploitation is accentuated when new technologies, new methods of production, and new machines are introduced. The class struggle leads to revolution, which give birth to a new social order called socialism or dictatorship. Marxian system thus looks upon class struggle as mechanism for social change, a change for the betterment of the working class. Under the new social order, economic conditions are improved and a satisfied labour class emerges which works for the progress and development of the society.

### 3. Theory of surplus value

Marx took the concept of surplus value, from Adam Smith's labour theory of value. The labour theory explains that labour is the sole source of value in a commodity. The value of a commodity is determined by the forces of demand and supply in the short run. But in the long run, value is determined by the amount of labour spent in the production of a commodity.

- Capitalist surplus promotes growth

Society comprises of two groups of people- workers (labourers) and capitalists (employers). In a capitalist society, all means of production are owned by capitalists and workers sell their labour to capitalists. The capitalists produce output by combining labour with machinery. The wages paid to the workers are less than the market value of the commodity. The difference between the value of output and wage paid to workers is called profit or surplus value and this surplus value is appropriated by the capitalist. According to Marx, this surplus value ought to have gone to the workers. This is the exploitation, and the greater the exploitation greater will be the surplus value. Capitalists reinvest this surplus value which ensures continuous production under capitalism.

- Industrial Reserve Army keep wage rate down and surplus value up

### 4. The concept of reserve army

Profit maximisation is the main aim of the capitalists. As discussed earlier higher the surplus value attained by the capitalist, the higher will be the profit. The introduction of technological progress creates more surplus value. But the introduction of technologies creates surplus manpower and Marx called it as 'industrial reserve army or relative surplus population'. The competition among the surplus labour force



for employment will lead to fall in wage rate. It in turn rises surplus value and encourages capital-intensive techniques. The existence of a reserve army due to technical progress keeps wage rate at the subsistence level and raises surplus value. It would help further capital formation and hence development.

### 5. Economic development under capitalism

Economic development under the Marxian system depends upon capital accumulation which in turn depends upon surplus value. So, the surplus value is an essential element in the Marxian theory of development. Capitalists can use three options to raise the surplus value. First is by increasing working hours, second is by lowering wages below the subsistence level, and by improving efficiency and productivity of the working class. Of the three options, Marx favours the third one and that requires improvement in the state of technology. The first two are feasible only in short run. The feasible way to raise surplus value is to introduce new techniques of production.

- Surplus value is crucial for economic growth in Marxian theory

Marx in his development framework discussed the relation between investment and technical progress. These two are interdependent. Investment is needed to promote technical progress and technical progress in turn provides opportunities for profitable investment. Technical progress, therefore, is the cause and effect of investment and capital formation.

- Inherent collapse of capitalism

Marx believed that capitalistic development is a discontinuous process where cyclical fluctuations are an integral part of the development process. It is not a smooth and regular process. In the longrun, industrial reserve army increases as capitalists resort to capital intensive techniques and maximisation of profit. The larger output produced in this manner will not be sold, as majority of people do not have purchasing power. On the one hand, in order to accumulate profit, capitalist produce more and on the other, more people become jobless with increase in reserve army. This underconsumption and overproduction leads to a crisis in the economy. Thus, according to Marx, capitalism would be destroyed because of its own inherent contradictions.

- Underconsumption and overproduction leads to a crisis in the economy

## Summarised Overview

Adam Smith emphasised the division of labour and specialization as engines of growth. Increased efficiency leads to higher production and wealth. Free markets and minimal government intervention were seen as crucial for this process. Ricardo focused on capital accumulation as the driving force. Savings and investment in machinery and infrastructure were believed to raise long-term growth. However, diminishing returns on land were seen as a potential constraint. Karl Marx saw surplus value (the difference between what workers produce and what they are paid) as the source of capitalist profit and development. However, he argued that this system inherently exploited workers. Technological advancements, while creating more surplus value, could also lead to unemployment (reserve army of labour). Thomas Malthus raised concerns about population increases rather than food production. He believed population checks, like poverty and famine, would limit economic progress unless technological advancements in agriculture could keep up. Except for certain limitations, classical growth theories play an important role in economic growth and development.

## Assignments

1. Explain Adam Smith's theory of economic development.
2. Discuss the Ricardian theory of economic development.
3. Elucidate on how, industrial reserve army caused the collapse of capitalism?
4. Explain Malthus theory of Development.

## Reference

1. M.L. Taneja and R.M Myer, *Economics of Development and Planning*, 2021, Vishal publication, Jalandhar
2. A.P Thirlwall and Penelope Pacheco-Lopez, *Economics of Development*, Third edition, Bloomsbury Academic publication



## Suggested Reading

1. Thirlwall, A.P. 2006. *Growth and Development: With Special Reference to Developing Economies*. Macmillan.UK.
2. Todaro, M.P and Smith. 2014. *Economic Development*. Pearson Education, USA.
3. Ray, Debaraj. 1998. *Development Economics*. Princeton, New Jersey.
4. Shorrocks, A. and Ralph Hoven (eds.). 2004. *Growth, Inequality and Poverty*. OUP. Oxford.

### Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.





## UNIT 2

# Growth Models

### Learning Outcomes

After completing this unit, the learner will be able to:

- understand the importance of innovation in economic development
- explain Harrod- Domar growth model
- familiarise with Neoclassical growth theories
- examine the determinants of economic growth and development

### Background

Have you ever thought about why some countries seem to be economically developed, while others struggle to attain development? Here is where growth models come in as powerful tools for understanding the development process of an economy. Economic growth translates to a nation's ability to produce more goods and services over time. This translates to higher living standards, increased employment opportunities, and a better quality of life for its citizens. Growth models measure how fast economies grow. It deals with questions like, does the benefits of growth trickle down to everyone, does wealth concentrate in the hands of a few, can the current growth pattern be maintained in the long run, or are there environmental or social limitations?

Growth models also explains how much investments and innovation are suitable for a countries development. Growth models offer diverse perspectives on the engines of economic progress. Some, like the Harrod-Domar model, focus on the crucial role of investment in capital goods. Others, like the Solow-Swan model, highlight the importance of technological advancements. Economists like Joan Robinson challenged the idea that growth automatically benefits everyone. They pointed out the possibility of unequal distribution of gains and the need for growth models that consider social structures and income inequality. The convergence hypothesis suggests that poorer countries can catch up to richer ones by adopting existing technologies. However, this is not always the case. Growth models help us understand the factors, like institutions and policies, that can hinder or accelerate convergence. By studying growth models, we gain valuable information regarding dynamics of economic development.

## Keywords

Innovation, Growth Rate, Capital Accumulation, Convergence

## Discussion

### 2.2.1 Theory of Schumpeter

Joseph Alios Schumpeter's ideas about economic development are first shown in his book 'The Theory of Economic Development'. Later he refined his ideas and gave a complete version of his theory of development in his works 'Business Cycles' and 'Capitalism, Socialism, and Democracy'. Schumpeter's development theory has four components such as circular flow, development or innovation, role of entrepreneur, and business cycle or crisis.

#### 2.2.1.1 Circular Flow

Schumpeter talks of an economy in stationary equilibrium and circular flow is the feature of an economy in stationary equilibrium. Features of circular flow include, all economic activities are essentially repetitive and follow a familiar and routine path, all producers know the aggregate demand for goods and they will supply goods accordingly, optimum utilisation of resources, factors are paid according to their marginal product, and finally under stationary equilibrium, price tends to be equal to average cost and profit are zero. The interest rate tends to be zero and there is less possibility of involuntary unemployment of human resources. These features explain concept of circular flow in static setting. To make it dynamic and consistent with development, changes must take place in the flow system. How could changes be brought about in the circular flow has been discussed in the second component 'innovation'.

- Circular flow is necessary in stationary equilibrium

#### 2.2.1.2 Innovations

Innovation refers to a change in the existing production system which would be brought about by the entrepreneurs. They do it to make profit and reduce costs. In the view of Schumpeter economic development implies changes in the economic system. When economic, political, social, and



technical changes take place in the economy, circular flow is disturbed and the development process starts. In this theory, change is the basic element of dynamic process. Innovation can mean the following:

- a. The introduction of new goods
- b. The introduction of new methods of production
- c. The opening of new markets
- d. The discovery of new source of raw material
- e. The setting up of new type of industrial organisation

Development as the combination of all these factors and the development process by the entrepreneurs or innovators maybe initiated. Entrepreneur's function implies the introduction of something new, like experiments, new inventions, etc. The role of capitalists is to supply funds, while the role of entrepreneurs is to direct the use of the funds. Under Schumpeterian theory innovators or entrepreneurs are considered a hero of the development process and innovations are important for development.

### 2.2.1.3 Role of Entrepreneur

The role of entrepreneurs involved (a) appreciate the possibilities of innovation, (b) overcome the socio-psychological barriers against the introduction of new things, (c) direct the means of production into new channels, (d) persuade the banker to provide finance for innovation (e) induce other entrepreneurs to take innovations. The theory highlights the role of the entrepreneur and he is considered the main actor in the process of development. The entrepreneur requires two things to perform above mentioned functions. First, technical know-how should be available to him for introducing new products. Secondly, entrepreneur requires the service of other factors of production to carry out inventions. For this purpose, entrepreneurs should have control over factors of production. Credit also plays a vital role in the development process. Credit enables entrepreneurs to buy producer's goods, which he needs for conducting new experiments and innovations. When innovation is successful, other entrepreneurs follow. Innovation and resulted inventions in one part induce inventions in related parts. This brought out development in the economy. However, the development process is affected by the business cycles.

- Entrepreneurs as the driving force behind development through innovation

### 2.2.1.4 Business Cycle or Crisis

- Theory explains phase of trade cycle from boom to depression

Business cycle is the final component of Schumpeterian theory of development. Schumpeter's theory explains phase of trade cycle from boom to depression. He believes that when new plants start production and bring new products in the market, the consumers are attracted by the new product and spend money for the purchase of new products. The old plants either cut down their output or close down. As a result, national output reduces. This explains the downswings of trade cycle from boom to depression. Another reason for downswing is human psychology.

- Economic development is a cyclical process caused by booms and depressions

Human psychology is that, when an entrepreneur makes an investment and reap profit from it, it is believed that the profit can be reaped continually. But, after a period, it is realised that economic activities get exhausted. Thus, borrowing becomes risky and investments are made cautiously. When investment falls, it creates a reverse multiplier effect causing depression. This goes on until a new position of stability is reached. Once the stability is achieved, a new group of entrepreneurs or investors appears on the scene with a sense of confidence. The investors start making investment in the hope of making profits and economy get on the path of progress and development. Schumpeter's theory thus explains the phases of boom and depression. The operation of boom and depression makes the development process uneven and discontinuous.

### 2.2.2 Harrod-Domar Model

- The model focused on the possibility and challenges of achieving steady economic growth

Modern theories related to development were initiated by Harrod. He emphasised the possibility of steady growth as well as difficulties in achieving it. Capital accumulation, expansion of labour force, and technical progress are given importance under Harrod's model of growth. Domer's basic model is similar to Harrod's model, so it is generally called as Harrod Domar model. While sharing some characteristics with earlier models by Marx and others, the Harrod-Domar model emerged as a groundbreaking contribution to the field of modern growth theory. The model focussed on the dual role of investment. On the one hand, new investments generate income and effective demand. On the other hand, investment increases productive capacity of the economy by expanding capital stock. Classical economists emphasised the productivity aspect of investment and ignored the income aspect. Keynes gave importance to income generation (demand) and neglected productive

capacity aspect. While Harrod and Domar discussed both aspects in their model.

### 2.2.2.1 Harrod Model

The main assumptions of Harrod model are as follows:

1. The level of aggregate saving is a constant proportion of aggregate income i.e., Saving- income ratio is assumed constant.
2. Technical progress has been assumed to be labour-augmenting or neutral.
3. The requirements of labour and capital per unit of output are constant, i.e, capital-output and labour-output ratios are assumed to be constant.
4. Constant returns to scale operate, which means output increases at a constant rate.

- Harrod model has fixed saving income ratio, Capital-output ratio, constant returns to scale

The questions asked by Harrod are: How can steady growth rate be achieved with fixed capital-output and fixed saving income ratio? How can the steady growth rate be maintained? How do natural factors put a ceiling on the growth rate on the economy? To consider the questions, Harrod has explained three growth rates: actual growth rate, warranted growth rate, and natural growth rate. Now let us discuss about these three growth rates.

#### a. Actual Growth Rate

Actual growth rate is denoted by 'G'. It is determined by the actual amount of savings and investment available in the economy. This growth rate is defined as the ratio of change in income ( $\Delta Y$ ) to the total income (Y).

$$\text{Therefore, } G = \frac{\Delta Y}{Y}$$

Actual growth rate (G) is determined by two factors: saving-income ratio and capital-output ratio. These two are kept fixed for a given period. The relationship between actual growth rate and its determinants can be expressed in the form of following equation.

$$GC = s \dots\dots\dots (1)$$

'G' is the actual growth rate, 'C' represents the marginal

capital-output ratio ( $\Delta K/\Delta Y$ ), 's' is the saving income ratio ( $S/Y$ ).

$$\text{Since } G = \frac{\Delta Y}{Y}$$

$$C = \frac{\Delta K}{\Delta Y}, \Delta K = I$$

$$C = \frac{I}{\Delta Y}$$

$$s = \frac{S}{Y}$$

Substituting the values of G, C, and s in equation (1)

$$\frac{\Delta Y}{Y} \times \frac{I}{\Delta Y} = \frac{S}{Y}$$

$$\frac{I}{Y} = \frac{S}{Y}$$

$$I = S$$

The above derivation explains equality between saving and investment. Thus, equality between saving and investment is a necessary condition for attaining steady growth. It is also called dynamic equilibrium.

### b. Warranted Growth Rate

Warranted growth rate is the 'full capacity growth rate', which refers to that growth rate of the economy when it is working at full capacity and making optimum use of machines and manpower. It is denoted by  $G_w$ . It is determined by required capital-output ratio and saving income ratio. The relationship between warranted growth rate and its determinants can be expressed as:

$$G_w C_r = s$$

Where  $G_w$  is warranted growth rate,  $C_r$  is the amount of capital required to maintain warranted growth rate, and 's' is the saving-income ratio.

So, according to Harrod, economy would be in a state of steady growth when,



$$G = G_w \text{ and } C = C_r$$

That is, for attaining steady growth, actual growth rate must be equal to warranted growth rate (growth of income must be equal to the growth rate of output) and capital-output ratio needed to achieve  $G$  must be equal to the capital-output ratio needed to achieve  $G_w$  (actual investment must be equal to expected investment). However, due to economic and political pulls and pressures, this equality is rarely found in an economy. Instability rules the economy and is characterised by:

When  $G > G_w$ ,  $C$  will be  $< C_r$

When  $G < G_w$ ,  $C$  will be  $> C_r$

- Unstable equilibrium can lead to inflation and deflation

In the first situation, Growth rate of income is greater than growth rate of output (i.e., Demand exceeds supply), then the result is inflation. On the other hand, if  $C < C_r$ , the actual amount of capital falls short of the required amount of capital. The deficiency of capital adversely affects production, scarcity of goods hence inflation. Under the second situation (When  $G$  is less than  $G_w$ ), growth rate of income is less than growth rate of output. There would be more goods to sell but insufficient income to purchase these goods. This demand deficiency would lead to the problem of overproduction. Thus, economy goes into depression. On the other hand, if  $C > C_r$ , actual amount of capital would be larger than required amount. Larger amount of capital available for investment would lower the marginal efficiency of capital in long run. Fall in marginal efficiency of capital would lead to depression and unemployment. The analysis shows that, it is difficult to achieve a balance between  $G$  and  $G_w$ . However, equality between  $G$  and  $G_w$  might prove transitory and slight disturbance in any of the economic or non-economic factors would disturb the equilibrium. This is called 'knife-edge equilibrium' i.e., to achieve stable growth in a capitalist economy, it is as difficult as walking through the edge of a knife.

### c. Natural Growth Rate

It is denoted as  $G_n$ . The natural growth rate is derived from the identity,  $Y = L$  ( $Y/L$ ), where  $Y$  is potential output,  $L$  is labour, and  $Y/L$  is the productivity of labour. Taking the rate of changes of these variables gives identity:  $y = l + q^l$ . Natural growth rate therefore determined by the growth of the labour force and the growth of labour productivity. Natural growth

- Natural growth as a limit to actual growth

rate plays an important role in this model as it defines the rate of growth of productive capacity and it sets upper limit to the actual growth rate which brings cumulative expansion in the Harrod model to a sticky end.

### 2.2.2.2 Relation between $G$ , $G_w$ , and $G_n$

- Comparison between  $G_w$  and  $G_n$  with implications for golden age growth ( $G_w = G_n$ )

If  $G > G_w$ ,  $G$  would continue to diverge from  $G_w$  until it hits  $G_n$ , when all available labour has been completely absorbed.  $G$  cannot be greater than  $G_n$  in the long run. When  $G = G_n$ , there is full employment growth rate. Then the question is the relation between  $G_w$  and  $G_n$ . The full employment of labour and full utilisation of capital requires  $G = G_w = G_n$ . This situation can be called 'golden age' by Joan Robinson. The problem of unemployment is due to fixed capital-output ratio. If labour grows more than capital, due to the assumption of fixed capital-labour ratio, labour cannot be substituted for capital.

### 2.2.2.3 Domar Model

The Domar growth models were similar to Harrod models. This version was published seven years after the publication of Harrod's model. Harrod regarded Domar's formulation as a rediscovery of his own version. Domar's theory came about as a reaction to Keynes' General Theory. Domar identified two key shortcomings in Keynes's work. They are:

- Investment have income generating and productivity effect

1. Keynes focused primarily on short-term economic fluctuations. Domar argued that this approach overlooked the long-term impact of investment on productive capacity. Investment, according to Domar, doesn't just boost income through the multiplier effect (increased spending leading to further spending), it also creates new productive capabilities through improvements in efficiency.

- Idle capital discourages investment

2. Keynesian economics placed too much emphasis on labour unemployment while neglecting the issue of capital underutilisation. When capital (factories, machinery) sits idle, it discourages further investment, ultimately leading to lower incomes and, consequently, unemployment. Domar's theory aimed to fill this gap in Keynes's analysis.

### Assumptions

To understand the implications of the Domar model, we should get familiar with the assumptions listed below:



- a. **Constant saving rate across all income levels:** This implies that a fixed proportion of national income is saved regardless of how much income increases.
- b. **Constant Capital-Output Ratio:** This assumption suggests that a specific amount of capital investment is required to generate a particular level of output. In simpler terms, there's a fixed relationship between the amount of capital invested and the resulting production.
- c. **Full Employment:** The assumption of full employment means that there are no unemployed resources, including labor and capital.
- d. **Absence of lag:** There is no delays or lags in adjustments. Changes in investment immediately translate into changes in output and vice versa.
- e. **Constant level of technology:** There is no technological advancement or innovation that could impact productivity or capital needs.

• Domar model has constant saving and capital-output ratio

Domar argues that investment on the one hand generates income, and on the other hand, raises productive capacity. He raises the question that at what rate, investment should increase in order to make the increase in income equal to the increase in productive capacity so that full employment is maintained? He achieves the answers by connecting total supply and total demand through investment. Domar stresses dual effect of investment . Investment increases income via multiplier and productive capacity via accelerator. Then , the problem of economy is what should be the rate of growth of investment to achieve equilibrium.

**Demand Side**

$$\Delta Yd = \frac{\Delta I}{s} \dots\dots\dots (1)$$

The equation shows the multiplier effect of income increase.

**Supply side**

$$\Delta Yd = I \sigma \dots\dots\dots (2)$$

$\sigma$  is productivity of capital.

**Equilibrium in the economy:**

$$\frac{\Delta I}{S} = I \sigma$$

$$\frac{\Delta I}{I} = S \sigma$$

Here,  $\frac{\Delta I}{I}$  is the rate of growth of investment. So, the last equation shows the rate of growth of investment that gives equilibrium and shows that for stability, rate of growth of investment must equal to  $S \sigma$ .  $\sigma$  is considered as the reciprocal of capital – output ratio.

$$\frac{\Delta I}{I} = S \times \frac{1}{\text{Capital - Output ratio}}$$

### Criticism

- The model used short run tools like multiplier and accelerator to explain the longrun problem of economic growth.
- The model is too aggregative which ignores micro level aspects of growth.
- The assumption of fixed capital output ratio creates permanent instability.
- The model fails to explain development issues of LDCs.

### Similarities of the Harrod-Domar Model are summarised below:

1. Both models used similar assumptions, that is why the names of Harrod and Domar are clubbed together in the context of this growth model.
2. Both models use the Keynesian saving investment equality as a condition for steady growth.
3. Both models have been discussed in the context of advanced economies with abundance of capital.
4. As against the static model of Keynes, both Harrod and Domar introduced a dynamic element in this model.
5. Both Harrod and Domar were aware of Keynesian difficulties such as fixed capital-output ratio and labour-output ratio.
6. Both model depicts cumulative divergence from the equilibrium path or knife edge equilibrium is followed in the both models.

• Harrod-Domar models share Keynesian assumptions and elements



### 2.2.3 Neo-Classical Model

- Solow's model introduced flexible production function

The basic neoclassical model was first developed by Robert Solow and Trevor Swan. In 1956, Robert Solow, an economist at MIT, made a significant breakthrough in understanding economic growth. His model addressed limitations in the earlier Harrod-Domar model. Solow recognised issues caused by the Harrod-Domar model's inflexible production function. His solution was to drop fixed coefficient production and adopt a more adaptable neoclassical function. This allowed for greater flexibility and the possibility of substituting one factor of production (like capital) for another (like labour). Unlike Harrod-Domar's rigid ratios, Solow's model allowed the capital-to-output and capital-to-labour ratios to change. These variations depended on an economy's specific situation, including its available capital and labour resources, and how production was structured.

Solow neo-classical model is based on the following assumptions:

1. The labour force grows in a constant exogenous rate.
2. Output is a function of both capital and labour ie,  $Y=f(K,L)$
3. The production function exhibits constant returns to scale, but diminishing returns to individual factors of production.
4. There is unitary elasticity of substitution between the factors.
5. All saving is invested, there is no independent investment function.

- Solow model assumes constant labour growth rate

ie.  $S = I = s Y$

Where S = savings, I = investment, s = saving - income ratio or propensity to save, Y= income

#### 2.2.3.1 Solow- Swan Model

The Solow-Swan model is better understood by expressing all key variables in per-worker terms, like output per worker and capital per worker. To explain this, we are to use the equation of production function:

$$Y= F(K,L)$$

Y is output or income, K is capital and L is Labour. The expression indicates output (Y) is the function of the capital (K) and Labour (L). Dividing both sides by L:

$$Y/L = F(K/L, 1)$$

• Solow-Swan model uses per-worker terms

It shows output per worker (Y/L) is a function of capital per worker (K/L). If we use lowercase letters to represent quantities in per worker terms, then we get:

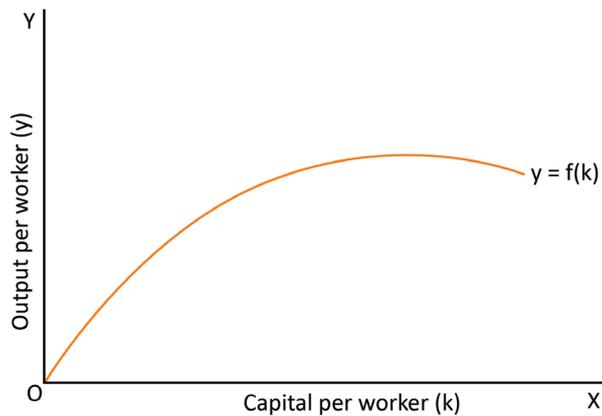
$$y = f(k) \dots \dots \dots (1)$$

This is the first equation under this model.

where  $y = \frac{Y}{L}$  and  $k = \frac{K}{L}$

• Assumes production function with diminishing returns to capital

The model assumes production function with diminishing returns to capital. With fixed labour supply, giving an initial amount of machinery to work will result in large gain in output. While these workers are given more and more units of machinery, the additional output from new machinery gets smaller and smaller. An aggregate production function with diminishing returns to capital is shown graphically below:



**Fig 2.2.1 Aggregate Production Function with Diminishing Returns**

In the given figure, the X-axis represents capital per worker. The Y-axis represents output per worker. The slope of the curve declines as the capital stock increases. The neoclassical assumption in the Solow model, therefore implies diminishing returns to capital. The first equation of Solow model i.e.,  $y = f(k)$  depicts the importance of capital per worker in growth process.

The determinants of changes in capital per worker can be expressed as :

$$\Delta k = sy - (n+d)k \dots\dots\dots(2)$$

Where  $\Delta k$  is the change in capital per worker, 's' is the saving income ratio (S/Y), y shows output per worker, 'n' is the growth rate of the labour force ( $\Delta L/L$ ), 'd' is the depreciation of capital and 'k' is the capital per worker ratio (K/L).

• Three things determine change in capital per worker

The equation (2) is very important in this model. It states that the change in capital per worker is determined by three things. They are:

1. The changes in capital per worker ( $\Delta k$ ) is positively related to saving per worker. Since 's' is the saving rate and 'y' is the income (or output) per worker, the term 'sy' is equal to saving per worker. As saving per worker increases, investment per worker and capital stock per worker (k) grows.
2.  $\Delta k$  is negatively related to the population growth rate. This is shown by the term 'nk'. If there is no investment, the increase in the labour force would mean that capital per worker (k) falls.
3. Depreciation erodes the capital stock. Each year the amount of capital per worker falls by the amount 'dk' due to depreciation.

• Capital deepening and capital widening process

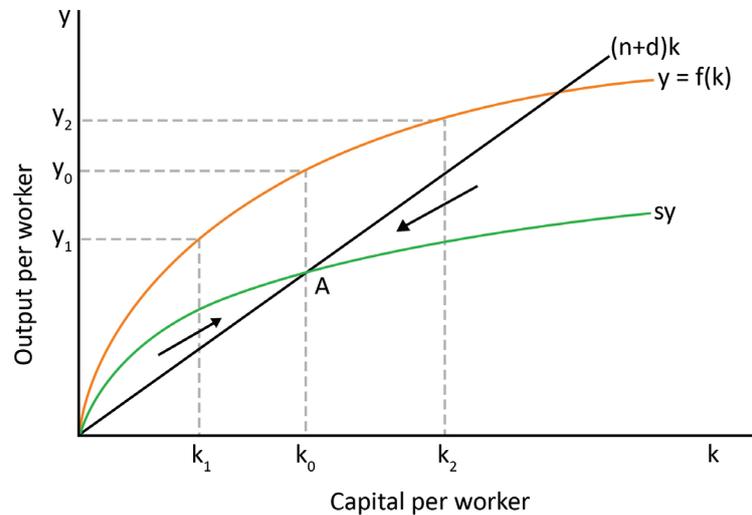
The process through which the economy increases the amount of capital per worker is called capital deepening. Economies where workers have access to more machinery and equipment are considered to have a deeper capital base. This translates to higher output per worker because they have more machines and equipment to get the job done. On the other hand, some economies might only have enough savings to equip new workers with the same level of machinery as existing workers, while also replacing any outdated equipment (depreciation). So, the capital stock simply keeps pace with population growth and depreciation, which is called capital widening. Using the terms capital deepening and capital widening, the second equation  $\Delta k = sy - (n+d)k$  can be restated as capital deepening ( $\Delta k$ ) is equal to saving per worker (sy) minus the amount needed for capital widening  $(n+d)k$ .

• Solow model examines savings, population, depreciation effects

After explaining the two basic equations of the Solow model, we are now analysing the effect of changes in the saving rate,



population growth and depreciation on economic growth. This can be better explained with the help of figure below:



**Fig 2.2.2 Solow-Swan Growth Model Diagram**

In the given figure the curve,  $y = f(k)$  showing production function. The second curve shows saving per person, 'sy'. Since saving is assumed to be a fixed function of income, the saving function has the same shapes as the production function but it shifts downward by the factor 's'. The third curve  $(n+d)k$ , which is a straight line through the origin with the slope  $(n+d)$ . This line represents the amount of new capital needed as a result of growth in the labour force and depreciation just to keep capital per worker ( $k$ ) constant.

- Figure shows production, savings and capital needs

At point A, curve 'sy' is equal to  $(n+d)k$ . So, capital per worker does not change and 'k' remains constant. The vertical difference between the curve 'sy' and  $(n+d)k$  line determines the change in capital per worker. To the left of point A, the amount of savings per person 'sy' is larger than the amount of savings needed to compensate for new workers and depreciation. As a result, economy shifts to the right until it reaches an equilibrium at A. This rightward shift implies an increase in output per worker, 'y'. To the right of point A, savings per capita is smaller than the amount needed for new workers, and with depreciation, the economy shifts to the left until it reaches point A. The shift to the left caused a decline in output per worker from  $y_2$  to  $y_0$ . As a result point A is called the steady state of the Solow model. Output per capita at this state ( $y_0$ ) is indicated as the steady state, long run, or potential level of output per worker.

### *Weakness of the Solow Model*

- Fails to answer key questions

- Solow model lacks sectoral productivity and distribution considerations

- Solow model assumes fixed factors for simplicity

1. Economists have studied a model developed by Robert Solow that focuses on factor accumulation and how efficiently countries use it to reach a stable state of growth. While this model is helpful, it does not answer some key questions. For instance, it does not tell us what are the more fundamental determinants of factor accumulation and productivity that affect the steady state and rate of growth.
2. Another criticism of the model is its focus on a single economic sector. It does not consider how capital and labour are distributed across different industries, like agriculture and manufacturing. This allocation can significantly impact productivity. In reality, economies produce a variety of goods and services. Each sector uses a unique mix of capital, labour, and technology. As a result, each sector has its own level of productivity and potential for growth.

The Solow model makes certain assumptions. It treats factors like how much people save (saving rate), how fast the workforce grows (growth of labour supply), worker skills, and the rate of technical change as fixed. While this simplification makes the model easier to understand, it also means we do not learn much about what truly drives these factors. We miss out on how these elements might evolve as a country develops. Despite these weaknesses, the Solow model is a powerful tool for understanding the economic growth process.

### **2.2.4 Joan Robinson's Model of Capital Accumulation**

Famous economist Joan Robinson's book "The Accumulation of Capital" presents a basic model that explores economic growth within a capitalist economy. Unlike some other models, Robinson does not emphasise how the economy automatically reaches a constantly changing equilibrium state. Instead, her focus is on understanding the properties of growth when the economy is in a stable state. Mrs. Robinson's model is based on the following assumption.

- Robinson's model assumes fixed factors and class distinctions

- a. There is laissez faire closed economy and in such economy only productive factors are labour and capital.
- b. Capital and labour are used in fixed portion to produce output.

- c. Neutral technical progress.
- d. There is no shortage of labour, entrepreneurs can employ labour as much as they wish.
- e. Only two classes in an economy - workers and entrepreneurs. National income is distributed between these two classes.
- f. Workers spend their entire income on consumption and save nothing. While entrepreneurs consume nothing, they save and invest their entire income from profit for capital accumulation.

National income in Robinson's model is the sum of the total wage bill plus total profit. It can be expressed as :

$$PY = WN + \pi PK \dots\dots\dots (1)$$

PY = Money National Income

WN = Wage share of National Income ( Wage rate x No of Workers)

$\pi PK$  = Profit share of national income

For getting real value, divide both sides by P

$$\frac{PY}{P} = \frac{W}{P} + \frac{\pi PK}{P}$$

$$Y = \frac{W}{P} N + \pi K \dots\dots\dots (2)$$

Y = Real National Income

$\frac{W}{P}$  = Real Wage

Equating for  $\pi$ ,

$$\pi = \frac{Y - \frac{W}{P} N}{K} \dots\dots\dots (3)$$

Divide RHS by N,

$$\text{Then, } \pi = \frac{\frac{Y}{N} - \frac{W}{P}}{\frac{K}{N}} \dots\dots\dots (4)$$

$\frac{Y}{N}$  = output-labour ratio,  $\frac{K}{N}$  = Capital - Labour ratio

Let  $\frac{Y}{N}$  be 'P' and  $\frac{K}{N}$  be  $\Theta$ , then equation 4 will be



$$\pi = \frac{\rho - \frac{w}{P}}{\Theta} \dots\dots\dots (5)$$

Equation 5 shows profit depends on the following:

1. Productivity of labour ‘ $\rho$ ’
2. Real wage  $\frac{w}{P}$
3. Capital-Labour ratio  $\Theta$

Since  $\Theta$  is fixed, profit be directly related to productivity and inversely related to real wage rate. Thus, the growth rate of capital directly depends on the rate of growth of profit.

On the expenditure side,

$$Y = C + I$$

That is, National income (Y) is equal to Consumption expenditure (C) plus Investment expenditure (I).

• Profit rate equals capital growth rate in Robinson’s model

Joan Robinson assumes no savings out of wages. Savings are made by entrepreneurs from profit and used for investment.

Then saving equals Investment,  $S=I$

$$\text{If } S = p K \text{ and } I = \Delta K$$

$$\text{Then, } p K = \Delta K$$

$$p = \Delta K / K = 1 - w / \theta$$

The above equation implies that the growth rate of capital ( $\Delta K / K$ ) is equal to the Profit rate ( $p$ ). The profit tends to increase, if income remains constant and wage rate decreases or income increases and the wage rate remains constant. The proportion of capital accumulation is a fraction of profit known as Widow’s curse.

• Full employment equilibrium as a ‘golden age’

The profit rate also increases if the capital-labour ratio falls. In this way, the entrepreneurs can maximise profits. In addition to the rate of growth rate of capital ( $\Delta K / K$ ), another factor influencing economic growth is the growth rate of population ( $\Delta N / N$ ). When the population growth rate matches the capital growth rate ( $\Delta N / N = \Delta K / K$ ), the economy reaches a state of full employment equilibrium. Economist Joan Robinson referred to this situation as a ‘golden age,’ signifying a period of stable and consistent growth with everyone employed.

- Self-correcting mechanism

In the case the economy diverges from the path of a 'golden age,' certain forces might bring it back towards balance. If the growth rate of population ( $\Delta N/N$ ) is greater than the growth rate of capital ( $\Delta K/K$ ), there would be a gradual rise in unemployment. With surplus labour, money wages would likely decrease. However, if prices stay the same, the actual purchasing power of wages (real wages) would also fall. This will raise profits and induce businesses to invest more and rise up to the level growing population. This increased investment would ideally bring the economy back to full employment. On the contrary, if the capital growth rate ( $\Delta K/K$ ) is faster than the population growth rate ( $\Delta N/N$ ), technical changes would help the economy to move towards the golden age. Changes in capital labour ratio or labour productivity will help the economy move back towards full employment.

#### 2.2.4.1 Critical Appraisal

- Criticism includes ignoring financial institutions and human capital

1. The model is criticized on the grounds that it ignores the role of financial institutions in promoting savings. The model ignores the increase in the volume of savings, finance and credit mechanisms, and changing technologies as these are considered as capital accumulation among other things.
2. Modern technical development is initially connected with human capital such as education, health standards, environment, and technical training. Adam Smith spoke about labour skill and efficiency, Ricardo and Marx emphasised labour productivity. However, this model ignored the role of human capital.
3. The model is based on certain unrealistic assumptions, which do not hold good in the real world. For example, neutrality of technical progress. Growth in a dynamic world implies technical advancement.

#### 2.2.5 Convergence Hypothesis

The gap in living standards between the richest and poorest countries has grown significantly since the industrial era. For comparing development performance between the developed and developing countries, it is appropriate to consider whether the living standards of developing and developed countries are now converging or not.

If development followed a similar path for all countries, there are two key reasons why developing nations are converging by growing faster on average than developed ones. The first reason



- Technology transfer raises growth

for this is technology transfer. Developing countries today don't have to make investment in creating new technologies or transforming old technologies. Instead, they replicate existing technologies, which are cheaper than undertaking the original research and development (R&D) involved in innovation. This allows developing economies to 'leapfrog' over some of the earlier stages of technological development, jumping straight to more advanced and productive techniques. As a consequence, they have the potential to achieve much faster economic growth compared to developed nations. Historical examples support this idea. Britain, for instance, doubled its output per person within the first 60 years of its industrial revolution. The United States achieved the same in just 45 years. More recent success stories include South Korea, which accomplished this in a mere 11 years, and China, which did it in under 9 years.

- Factor accumulation for convergence

Another reason to believe developing countries might converge with developed ones based on concept of factor accumulation, which refers to building up resources like infrastructure and skilled workers. Developed nations currently have high levels of physical and human resources, this explains their greater output per person. However, due to the law of diminishing returns marginal productivity of capital and profitability would be lower in developed countries. Developing countries, on the other hand, could potentially experience a higher return on investment. This is because they can attract foreign investment or rely on domestic sources to boost a higher investment rate. As a result, their capital stock (resources) would grow more rapidly, eventually reaching similar levels of capital and output per worker as developed nations.

### 2.2.5.1 Types of Convergence

There are two types of convergence -conditional convergence and unconditional convergence. They are discussed below:

#### *Conditional convergence*

- Conditional convergence in development

We have discussed two key factors that could lead to convergence: technology transfer and factor accumulation. If one or both of these conditions hold true, we might expect incomes in developing countries to gradually approach those in developed countries over time. Even if incomes never become exactly equal, they should at least show a tendency to become more similar, assuming other factors like population growth and savings rates remain comparable.

Given the vast differences in capital and technology across the countries, we would expect to see some evidence of convergence in data, especially if growth conditions are similar between countries. This type of convergence is called conditional convergence.

### *Unconditional convergence*

The concept of conditional convergence relies on specific assumptions about parameter similarity (like income or technological advancement) across countries. On the other hand, unconditional convergence makes no such assumptions. Suppose countries eventually reach a point where factors like technical progress, savings rates, population growth, and depreciation all stabilise. In this situation, the Solow model predicts that all countries, regardless of their initial income levels, will converge towards the same equilibrium capital-labour ratio. This convergence happens irrespective of the initial state of each economy, as measured by their starting levels of per capita income. It is called unconditional convergence.

Empirically, unconditional convergence is a stronger concept. As we know conditional convergence typically relies on assumptions about the similarity in parameters (like income or technological progress) across countries. There is no guarantee that these assumptions hold true in the real world. Therefore, if we observe convergence, it is more likely to be unconditional convergence.

- Unconditional convergence in development

## Summarised Overview

This unit exhibits various economic theories that seek to explain the patterns and determinants of economic growth. In the Schumpeter's theory, emphasis is given on innovation and entrepreneurship. The Harrod-Domar model, highlights the role of investment in driving growth. The Neo-Classical Model, influenced by the works of Solow and Swan, introduces the concept of exogenous technological progress and capital accumulation as important factors of growth. Joan Robinson's contributions critique the Neo-Classical approach, emphasising the importance of market structures and distributional considerations in shaping growth.

The Solow-Swan model provides a cornerstone for understanding economic growth, emphasising the role of technology and capital accumulation. Convergence hypothesis, suggest that poorer economies tend to grow faster than richer ones. This notion of convergence challenges traditional assumptions about the persistence of economic disparities. Overall, these growth models discussed the factors driving economic development.



## Assignments

1. Explain Joseph Schumpeter's theory of economic development.
2. Compare and explain the Harrod-Domar model and the Solow-Swan model.
3. Discuss Joan Robinson's critiques of traditional growth theory.
4. Conduct an empirical study to assess the validity of the convergence hypothesis, examining trends in economic growth rates among countries over time.

## Reference

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## Suggested Reading

1. Thirlwall, A.P. 2006. *Growth and Development: With Special Reference to Developing Economies*. Macmillan.UK.
2. Todaro, M.P and Smith. 2014. *Economic Development*. Pearson Education, USA.
3. Ray, Debaraj. 1998. *Development Economics*. Princeton, New Jersey.
4. Shorrocks, A. and Ralph Hoven (eds.). 2004. *Growth, Inequality and Poverty*. OUP. Oxford.

## Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.





## UNIT 3

# Development Theories

### Learning Outcomes

After completing this unit, the learner will be able to:

- identify Mahalanobis growth model
- assess Rostow's different stages of growth
- explain endogenous growth theories

### Background

The idea of the development of nations has been a central theme in economics, science for decades. Throughout history, scholars have proposed various theories to explain how societies progress and achieve a better standard of living. Understanding these development theories is crucial for several reasons. These theories help us identify key factors that influence development and assess the effectiveness of different development strategies. They play a significant role in guiding policy decisions by governments and international organisations. By understanding the strengths and weaknesses of different approaches, government can design interventions that are more likely to promote sustainable and equitable development. Many development theories address issues of inequality within and between nations. They help us understand why some countries develop faster than others and how to bridge the gap between developed and developing economies. This unit will explore some of the most prominent development theories, including the Mahalanobis model, Rostow's Stage Theory, the Technical progress function of Kaldor, Endogenous theories of growth, and the A K Model.

### Keywords

Mahalanobis Model, Rostow's Stage Theory, Technical Progress Function of Kaldor, Romar model, A K Model

## Discussion

- Mahalanobis model greatly influenced economic plans in India

- Balanced investment strategy for self-sustaining economic growth

- Three variables determine per capita income growth

### 2.3.1 Mahalanobis Model

In the early 1950s, India was facing significant challenges in its development journey after gaining independence. The country needed a clear strategy to use its resources effectively, lift its population out of poverty, and ensure long-term economic growth. It was during this time that Prof. P.C. Mahalanobis developed economic models that greatly influenced India's economic plans. Mahalanobis developed single-sector, two-sector, and four-sector models, with the four-sector model notably influencing the Second Five-Year Plan.

Mahalanobis's approach aimed to balance investment across different sectors to achieve growth. His models highlighted the importance of the capital goods sector in driving economic growth while ensuring that the consumer goods sector could meet the increased demand resulting from higher purchasing power. This balanced strategy aimed to create a self-sustaining economy capable of generating jobs and improving living standards.

#### *Single-Sector Model*

The single-sector model was developed in 1951-52 and closely resembled the Harrod-Domar growth model. Mahalanobis identified three key variables for determining the growth rate of per capita income: the fraction of net income used for investment, the incremental income investment ratio, which is the inverse of the Incremental Capital-Output Ratio (ICOR), and the population growth rate.

#### *Two-Sector Model*

In October 1952, Mahalanobis expanded the single-sector model to a two-sector model, which assumed the entire net output of the economy was produced in two sectors: the investment goods sector and the consumer goods sector. This two-sector model laid the foundation for his later four-sector model.

The two-sector model was based on the following assumptions:

- It represented a closed economy with no foreign trade.



- Mahalanobis's two-sector model focuses on investment allocation

- The economy was divided into the consumer goods sector and the capital goods sector, with no intermediate sector.
- There was total non-shiftability of capital equipment once installed, but products of the capital goods sector could be used as inputs in both sectors.
- Both sectors operated at full capacity.
- Investment was determined by the supply of capital goods.
- There were no changes in prices.

Mahalanobis's two-sector model, derived from the Domar model, focused on investment allocation rather than growth. The key difference between the two models was that Mahalanobis divided the economy into two sectors, whereas Domar treated the whole economy as one.

#### *Four-Sector Model*

The four-sector model was developed in 1955 from the two-sector model to include:

- Mahalanobis's four-sector model aims for balanced growth

- The investment goods sector
- The factory-produced consumer goods sector
- The small household-produced consumer goods sector (including agricultural products)
- The services sector (e.g., health, education)

This model aimed to achieve a balanced growth rate by appropriately dividing total investable funds. Investment in the capital goods sector would generate increased purchasing power and demand for consumer goods, which require less capital but employ more labour.

#### **Criticisms**

The Mahalanobis model significantly influenced India's Second Five-Year Plan, providing a valuable framework for development planning. However, it has several limitations:

- 1. Welfare Function:** The model is operational and does not point to a definite welfare function, making it challenging to achieve optimal resource allocation.

- Mahalanobis model has limitations affecting its applicability

- 2. Arbitrary Value of Parameters:** The value of parameters such as  $\lambda$  is arbitrarily chosen without justification, which may affect the accuracy of investment allocation.
- 3. Limited Applicability to Open Economies:** The model assumes a closed economy, limiting its relevance in an open economy with foreign trade.
- 4. Elasticity Assumptions:** The model assumes infinitely elastic supplies of agricultural produce and labour, which is unrealistic in practice.
- 5. Constant Production Techniques:** Like the Harrod model, it assumes constant production techniques, ignoring potential technological changes.
- 6. Arbitrary Structural Parameters:** The values assigned to structural parameters are arbitrary, and their independence is unrealistic. It is extremely difficult to have a correct estimate values in an underdeveloped country which completely lacks sufficient reliable data.
- 7. Mixed Economy Guidance:** It fails to address investment allocation between the private and public sectors in a mixed economy.
- 8. Ignoring Factor Prices:** The model overlooks the pattern of factor prices when setting targets.
- 9. Closed Economy Assumption:** By assuming no imports or exports of investment goods, the model lacks realism.
- 10. Neglecting Demand Functions:** It focuses on supply functions, neglecting demand functions and market forces.
- 11. Saving Rates Linkage:** The model does not link investment decisions with the necessary rates of saving.
- 12. Choice of Techniques:** It inadequately addresses the problem of choosing between different production techniques.

The Mahalanobis model, with its various versions, significantly influenced India's economic planning during a crucial period. While the model's application in the Second Five-Year Plan showed its usefulness as a planning tool, it also revealed several limitations. Despite its strengths, the model's theoretical weaknesses, it pointed out the need for

- Mahalanobis model emphasised systematic investment for growth

more flexible planning methods. One of the key contributions of the Mahalanobis model was its focus on investment in the capital goods sector as a growth driver. This emphasis helped set the stage for India's industrial development and stressed the importance of a balanced investment strategy that also considered consumer demand. The Mahalanobis model marked an important step in India's approach to economic planning. It introduced a scientific and systematic method, enabling policymakers to think more strategically about resource allocation, investment priorities, and sector growth. The lessons learned from Mahalanobis's models influenced later plans and policies, which helped in India's economic development in the following decades.

### 2.3.2 Rostow's Stage Theory

- Non-economic factors in development theory

Development is a multi dimensional concept. Both economic and social forces play a significant role in how a country develops. In the 1960s, American economic historian Walt Whitman Rostow, in his stage theory of development, emphasised the importance of social and institutional factors in economic development. Rostow's stage theory stands out for being one of the first attempts to incorporate non-economic factors into development theory. He argued that economic advancement is closely linked to a society's social and institutional structure, as well as the attitudes of its people.

- Five stages of development

The essence of Rostow's theory lies in the idea that economic development can be understood through distinct stages and classify societies according to those stages. He proposed five such stages that societies progress through. The first is Traditional Society, followed by the Preconditions for Take-Off, Take-Off, Drive to Maturity, and finally Age of High Mass Consumption. Rostow used historical examples to illustrate these stages, highlighting the role of historical context in economic development. Let's now briefly discuss these stages of growth proposed by Rostow.

#### 2.3.2.1 The Traditional Society

Rostow believes that the structure of the traditional society was based on primitive technology and orthodox ideas of the people. Where the economic activities are confined only to meet the domestic needs of the people. The pre-industrial revolution societies could be called traditional societies. But such a society was not static in nature, there were possibilities

- Subsistence agriculture in traditional society

of economic change. A traditional society revolved around agriculture and the law of diminishing return operated in agriculture due to the absence of modern technologies. Other economic activities such as manufacturing, trade, etc. depend on agriculture. Agriculture was thus the main occupation of the people in traditional society.

- Population growth depends on the subsistence wage

The structure of this society was based on inheritance. The political power was concentrated in the hands of big landlords. In other words, landed aristocracy dominated all segments of traditional society. Mostly the State's expenditure was spent on building memorials, expensive funerals, marriage and maintaining the glory of rulers. An increase or decrease in the population was in line with Malthusian theory. That, is if the rise in subsistence wage would raise the population and population expansion in turn fell, the wage rate at the subsistence level, cause a decrease in population. Examples of traditional society include the dynasties of China, the civilizations of the Middle East, the Mediterranean, and the societies of Medieval Europe. The study of such societies is important because the development process requires the structural transformation of such societies.

- Transformation & westernisation are the preconditions for take-off

### 2.3.2.2 The Precondition for Take-Off

The precondition for the take-off stage is a period of transformation. Education becomes more widespread, a broader way of thinking, and increased economic activity. A new group of enterprising individuals emerges, encouraging saving and risk-taking to pursue profits. Banks and similar institutions appear, aiming at mobilise capital. Investment opportunities expand in areas like transportation and communication, facilitating trade domestically and internationally. New manufacturing methods are developed, and overall, the traditional social, political, and economic structures begin to adapt to pave the way for sustained growth. As Rostow himself said, this stage represents a society preparing itself for a period of significant economic advancement. Most of the African and Asian countries were traditional in character. Their economic and social changes appeared due to the impact of Westernisation. The foreign ideas demolished the credentials of traditional society and set in motion new classes and new approaches that initiated progress.

Rostow argued that the preconditions for take-off require significant changes in three key areas beyond industry. First,

- Infrastructure development and trade are preconditions for take-off

there should be an expansion in social overhead capital which includes transportation, communication networks, and roads. This enlarges markets, facilitates resource exploitation, smooths the flow of goods and services, and promotes economic stability. Secondly, radical changes are needed in agriculture to raise its productivity. Increased agricultural output is crucial for supporting industrialisation, feeding a growing population, and preventing setbacks in development. Scientific advancements and technological innovations in agriculture become essential for take-off. Thirdly, growth in foreign trade. Foreign capital and technical expertise can help to sustain industrialisation. Exports help repay external debts, while imports and exports combined broaden markets and promote industrialisation.

### 2.3.2.3 Take Off

The discussion of the above two stages reveals that growth of one sector leads to the expansion of other sectors. The expansion of different sectors transforms the basic structure of the economy. and it leads to self-sustained growth. According to Rostow, this self-sustaining growth is take off stage.

- Rapid industrialisation and growth

The take-off stage is a period of rapid economic transformation. Industries experience explosive growth, generating profits that are reinvested in expanding existing industries and creating new ones. This development in the manufacturing sector raises demand for consumer goods and factory workers. As industries expand, the need for agricultural products rises, stimulating development in rural areas. The entire process leads to increased income and effective demand. A new class of entrepreneurs emerges, eager to invest in exploiting unused natural resources and exploring innovative production methods. This sequence of events leads to the adoption of new technologies and a push towards new frontiers of production. These advancements are not limited to industry; they spill over into other sectors, often commercialising agriculture and other professions. Over a decade or two, these changes cause a ripple effect, transforming various sectors, social structures, and political systems. This transformation ultimately creates a self-sustaining growth process.

Rostow suggested three conditions for the growth process to be self-sustaining:

1. Rise in the rate of productive investment from about 5 % to over 10% of national income.

2. The development of one or more substantial sectors with a high rate of growth.
3. The existence or quick emergence of a political, social and institutional framework which exploits the impulses to expansion in modern sector and the potential external economies and gives growth an on-going character.

- Take off occurs in leading sectors

Looking at the economic history of developed nations, we can see that the initial momentum for take-off in those countries came from leading sectors. For example, the growth and expansion of the cotton textile industry initiated the take-off process in Great Britain. Similarly, the introduction of railways played a crucial role in take off process of the United States, Germany, and Japan. In the cases of Germany, Japan, and Russia, military expansion and modernization also served as a contributing factor.

### 2.3.2.4 Drive to Maturity

- Technological advancement and diversification

Rostow defined it as “the period when a society has effectively applied the range of modern technology to the bulk of its resources”. The drive to the maturity stage is marked by significant technological advancements. The process of industrial development gets differentiated, with new leading sectors emerging and older ones fading. Industries like cotton textiles, railways, coal, and heavy engineering lose their dominance, while new sectors like steel, shipbuilding, chemicals, electricity, and machine tools take center stage, driving overall economic growth. The improved efficiency of these new leaders spills over to other parts of the economy. Investment rates rise to around 10-20% of national income, and economic output consistently outpaces population growth. The agricultural workforce shrinks, while the industrial sector sees a corresponding rise in employment. New social values and institutions emerge, replacing the old ones and fostering further development and growth. The economy becomes a significant player on the international stage. Domestic production caused by technological advancements, replaces reliance on imports. New import needs arise, prompting the creation of new export products to finance them.

- Technology maturity predictions

Rostow believes that the economy can attain technological maturity in sixty years after the beginning of take-off or forty years after achieving take-off. On the basis of this assumption, he assured that Britain enters the maturity phase by 1850, the US by 1900, Germany by 1910, and so on.



### 2.3.2.5 Age of High Mass Consumption

- Transition to the mass consumption era

From maturity, economy moved to the age of high mass consumption. As societies reach the age of high mass consumption, a shift in priorities occurs. After reaping the benefits of industrial maturity, people naturally seek more leisure time, improved social welfare, and greater security. To fulfil these desires, societies allocate more resources towards these goals. This often leads to the development of a welfare state. Production focuses on durable consumer goods and services on a large scale. There's a greater emphasis on producing commodities that are widely desired and consumed by the majority. In short, this stage is considered an era of consumer sovereignty, where consumer preferences dictate production.

According to Rostow, Western Europe and the United States reached this stage in the early 20th century, around 1900. Great Britain followed in the 1930s, and Japan in the 1950s. The former Soviet Union is said to have entered this stage after Stalin's death.

### 2.3.2.6 Critical Appraisal

- Some countries did not experience a traditional society phase

1. **The starting point of Rostow's stage theory is the Traditional society.** He uses developed countries as examples, suggesting they all progressed through this initial stage. However, some critics argue that countries like the United States, Canada, and New Zealand didn't experience a traditional society phase. These nations, they point out, emerged without a strong traditional social structure and instead drew inspiration from a more developed Britain. This critique highlights a potential limitation of Rostow's model.
2. **The "take-off" stage is the most controversial aspect of Rostow's theory.** Economist A.K. Cairncross aptly noted that this stage has captured the most public attention. Rostow defines take-off as a period of "sustained increase in per capita real income" due to a rise in investment, both in volume and productivity. To achieve this, he argues for significant economic and social transformations. However, the question is, can the same economic and social shifts be applied generally, regardless of a country's specific historical context or timeframe?

- The particular range of productive investment is unclear

3. **One of the first preconditions for take-off, according to Rostow, is a significant increase in productive investment.** He suggests a range of 5% to 10% of a nation's net national product. However, this specific percentage has been challenged by economists like A.K. Dasgupta.

Dasgupta argues that the “sanctity” of this particular range is unclear. He suggests that a 10% savings rate might lead to higher per capita income, but only if the capital-output ratio and population growth are not excessively high.

- Modern technology can accelerate development

4. **Rostow defines a stage of “technological maturity” where a nation can extensively apply modern technology to develop most of its resources.** This raises a fundamental question: is modern technology a result of development or a driver of it? In reality, the relationship between technology and development is complex. The application of modern technology can both accelerate development and be a consequence of it. However, it's challenging to pinpoint a clear cause-and-effect direction.

- Determinants of growth - saving propensity of the community, inventions, population

### 2.3.3 Technical Progress Function of Kaldor

Growth models aim to explain how various factors ultimately influence an economy's overall output and contribute to the understanding of the question of why some economies grow faster than others. There are some important determinants of economic growth. They are (a) saving propensity of the community, which determines the rate of capital accumulation. (b) the flow of inventions which determines the growth rate of productivity (c) population growth. These factors, traditionally viewed as non-economic, are now recognised as having a significant impact on economic growth. Nicholas Kaldor has emphasised the interconnectedness of economic and non-economic forces in a country's progress.

#### 2.3.3.1 Assumptions

1. Output and per capita output grows exponentially.
2. Capital per capita increases all the time.
3. Interest rate does not change appreciably.
4. The capital-output ratio is constant.



5. Profit share and investment-income ratio are highly correlated.
6. The growth rate of output and output per capita vary widely among various economies.

### 2.3.3.2 Technical Progress Function

The technical progress function of Kaldor explains the relation between per capita output and capital. The explanation of the technical progress function has been made with the help of a diagram. Graphically this function is made concave to the horizontal axis. This function also shows diminishing returns as it crosses  $45^\circ$  line from above as shown in the below figure.

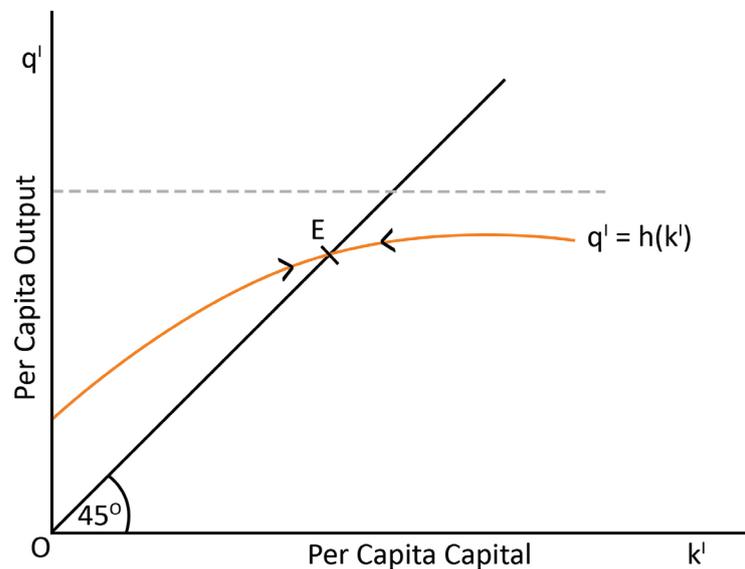


Fig 2.3.1 Technical Progress Function

In algebraic terms, the relationship between output and capital is expressed as:

$$q' = h(k')$$

Where  $q'$  is the rate of growth of per capita output ( $\Delta q/q$ )

$k'$  is the rate of growth of per capita capital ( $\Delta K/K$ )

$h$  is the capital-output ratio

The shape of this function is determined by the following facts:

- a. Even if the capital-output ratio is fixed, some technical progress is possible. Therefore, the 'h' curve cuts Y axis.

- b. Technical progress takes place when the capital-labour ratio rises because new inventions are embodied in the physical stock of capital. 'h' declines when more and more profitable innovations take place.
- c. Growth rate of output per worker cannot rise beyond a ceiling.

Kaldor is of the view that E is the equilibrium point where the economic system will have a tendency to converge. At this point, the production function curve intersects the 45° line. This implies the equality between the growth rate of per capita output and per capita capital.

$$\text{i.e } q^l = k^l$$

If there is any divergence from the equilibrium, there is a tendency towards further equilibrium. On the left side of equilibrium, that is  $q^l > k^l$ , then the output will be more, resulting in the fall of price. Falling prices would generate more demand. Consequently, output and investment would increase. As a result,  $q^l$  and  $k^l$  will be equal at point E. Conversely  $q^l < k^l$  on the right of the equilibrium point. This means less output; the price will rise with less output. Due to high prices investors raise investment and output and  $q^l$  and  $k^l$  converge at the equilibrium point. The arrows on the curve reflect the situation of convergence.

- Equilibrium convergence process

### 2.3.4 Endogenous Theories of Growth

We discussed the Solow model based on the assumptions of exogenously fixed saving rate, growth rate of labour supply, skill levels of workforce, and pace of technological change. However, economists have developed more sophisticated models in which one or more of these variables are determined within the model. That is these variables become endogenous to the model. Because of this endogenous nature, these models have been named as endogenous growth models or the new growth theory.

- Solow model to endogenous growth

Endogenous growth models depart from a conventional growth theory by Solow. A traditional growth model was based on the assumption of diminishing returns to capital whereas the new growth theory assumes that the national economy is subject to increasing returns to scale. It means that a doubling of capital, labour, and other factors lead to more than a doubling of output. It also means that the benefits of investing in physical and human capital are more significant than suggested by Solow.

- New growth theory departure



- Investment-led growth

Investments in research and education results in positive effect on the firm or the individual making the investment. New knowledge and skills can spill over to other firms and individuals in the economy, boosting overall productivity and output. Similarly, investment in research and development (R&D) benefits not only the investor but also others who eventually gain access to this new information. A single scientist working in isolation is less productive than one who can collaborate with many well-educated colleagues. This interaction and knowledge sharing are the essence of externalities. These externalities suggest that the true contribution of physical and human capital to economic growth might be significantly larger than what traditional models like Solow's capture. Many endogenous growth theories can be expressed by the simple equation  $Y=AK$ . Where A is any factor that affects technology, K shows both physical and human capital, and Y stands for output. To explain the endogenous growth model, we take up Romer's endogenous growth model.

### 2.3.4.1 The Romer Model

- Operation of increasing returns to scale

This model addresses technological spillovers that may be present in the process of industrialisation. Romer's economic model begins by assuming the growth process originates from individual firms or industry level. Each industry operates with constant returns to scale, reflecting perfect competition, which is similar to the Solow model's initial assumptions. However, the Romer model diverges by suggesting the overall capital stock (K) has a positive influence on industry output. This implies there could be increasing returns to scale for the entire economy.

The aggregate production function of Romer's model can be expressed as under:

$$Y = A K^{\alpha+\beta} . L^{1-\alpha}$$

Here Y is output, K is capital and L is labour. To understand this model more precisely, we assume that A is constant rather than rising over time, which means we assume there is no technical progress. The resulting growth rate for per capita income in the economy would be:

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

Where 'g' is the growth rate of output and 'n' is the growth rate of population. Without spillovers, as in the Solow model with

constant returns to scale,  $\beta = 0$  and so the per capita growth rate would be zero, without technical progress.

• Endogenous growth depends on the level of saving and investment within the domestic economy

Romer promotes taking three factors together, including capital externality. They are  $\beta > 0$ , thus  $g-n > 0$  and  $Y/L$  is growing. This model features endogenous or internal growth, brought by the level of savings and investment within the system. This stands in contrast to neo-classical models where external or exogenous factors, like rising productivity, drive growth. A key feature of the Romer model is its inclusion of “investment spillovers” or technology advancements that benefit everyone. This prevents the model from falling into the trap of diminishing returns.

### 2.3.4.2 AK Model

• Saving drive growth

The development of endogenous growth theory gave a powerful new intellectual foundation to the development economics that savings is the engine of growth and that the growth rate can be changed by policies that affect incentives to save. The AK model is useful in demonstrating how government policies could have effects on growth. This model explains that growth is positively affected by the propensity to save, negatively affected by government income taxation to finance consumption, and ambiguously affected by government income taxation to finance investment infrastructure.

To explain the model, we assume that output per capita ( $y$ ) is a function of an aggregate of physical and human capital per head ( $k$ ). This relation can be expressed as:

$$y = f(k) \dots \dots \dots (1)$$

$$f(k) = AK \dots \dots \dots (2)$$

Where  $A$  is constant and does not vary across time or countries. Then the marginal product of capital per head is constant rather than diminishing.

• Present and future time periods in the model

From equations 1 and 2, we get:

$$y = Ak \dots \dots \dots (3)$$

There are two time periods in the model, the present (period 1) and the future (period 2). Using equation 3, we can calculate the rate of growth of per capita income ‘ $g$ ’ as under:

$$g = (y_2 - y_1) / y_1 = (Ak_2 - Ak_1) / Ak_1 = k_2 - k_1 / k_1 \dots \dots \dots (4)$$

We can define investment 'i' as change in capital i.e.,  $i = k_2 - k_1$ . The entire investment is assumed to be financed by domestic savings (s)

Then  $i = s$

By substituting the value of  $(k_2 - k_1)$  in equation 4, we get,

$$g = k_2 - k_1 / k_1 = i / k_1 = s / k_1 \dots \dots \dots (5)$$

The equation implies that growth in income per capita (g) is determined by savings (s) in proportion to the initial stock of capital (k<sub>1</sub>).

• Independent growth

The fundamental conclusion derived from the A K Model is that the rate of growth is independent of the initial level of capital per head. There is no tendency for richer countries to grow slower or faster than poor ones. However parameters such as education, health, and technology are taken into account, it is found that poor countries grow faster than rich ones, a result commonly termed as conditional convergence. For developing countries, endogenous growth models reinforce certain ideas of Solow and Harrod-Domar model. These include factor accumulation and an increase in productivity in the growth process. Endogenous growth models suggest these factors might be even more important because improvements can benefit everyone involved (positive externalities). The core ideas of this model are saving money, investing in education and healthcare, using resources effectively, and adopting new technologies are all crucial for growth. However, there's still some debate about how well these newer models apply directly to developing countries.

## Summarised Overview

This unit discusses various theoretical frameworks aimed at understanding economic development across nations. It begins by exploring the Mahalanobis model, which emphasises the importance of industrialisation and structural transformation for promoting economic growth and development. Rostow's Stage Theory offers a sequential framework for analysing the stages of economic growth, from traditional societies to high-mass consumption economies. This theory highlights the role of structural changes and investment in the development of a nation. The Technical Progress Function of Kaldor



introduces the concept of technical progress as a key factor of economic growth. Kaldor emphasises the role of innovation, knowledge creation, and productivity improvements in shaping long-term economic development. Endogenous theories of growth, such as the AK Model, challenge traditional growth ideologies by emphasising endogenous factors, such as human capital accumulation and technological innovation for sustained economic growth. These development theories explain diverse perspectives on the processes and determinants of economic development.

## Assignments

1. Analyse the applicability of Mahalanobis model to specific developing countries
2. Discuss the implications of Rostow's Stage Theory for development policy formulation
3. Examine the contributions of Nicholas Kaldor's technical progress function to understanding economic growth.
4. Compare and contrast the AK Model with exogenous growth theories like the Solow-Swan model.

## Reference

1. M.L Taneja and R.M Myer, *Economics of Development and Planning*, 2021, Vishal publication, Jalandhar
2. A.P Thirlwall and Penelope Pacheco-Lopez, *Economics of Development*, Third edition, Bloomsbury Academic publication

## Suggested Reading

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3. Ray, Debaraj. 1998. *Development Economics*. Princeton, New Jersey.
4. Shorrocks, A. and Ralph Hoven (eds.). 2004. *Growth, Inequality and Poverty*. OUP. Oxford.



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# MASTER OF ARTS ECONOMICS



## Partial Theories of Growth and Development

### Block 3





## UNIT 1

# Theories of Structural Change

### Learning Outcomes

After studying this unit, the learner will be able to:

- identify how two sectors interact and influence each other's growth
- analyse the role of surplus labour transfer
- examine the core ideas of the Lewis model and how the Fei-Ranis model refines it

### Background

Structural change theories emerged in the mid-20<sup>th</sup> century. Lewis, Chenery, and Fei-Ranis adopted these theories. They aimed to find effective development strategies. This was especially true for newly independent and developing nations. These theories were inspired by countries experiencing rapid industrialisation. They aimed to understand economic transformation. The focus was on the shift from agrarian-based economies to industrialised societies. Lewis's model, often called the dual-sector model, proposes a structural transformation characterised by the migration of surplus labour from the traditional agricultural sector to the modern industrial sector. This movement of labour is driven by the productivity differentials between the two sectors, leading to increased industrial output and higher overall economic growth. Lewis's insights were particularly influential in shaping development policies, advocating for targeted investments in industrialisation and the creation of employment opportunities to absorb surplus labour from the agricultural sector.

Similarly, Chenery and Fei-Ranis' theories expanded upon Lewis's dual-sector model by incorporating broader considerations of structural change and economic development. They emphasised the importance of technological progress, human capital accumulation, and institutional reforms in facilitating structural transformation and encouraging sustained economic growth. Chenery and Fei-Ranis highlighted the dynamic interplay between various sectors of the economy, emphasising the need for coordinated policies

to promote balanced development and remove structural constraints. Together, the contributions of Lewis, Chenery, and Fei-Ranis laid the groundwork for understanding the complex process of structural change and its implications for economic development in developing countries.

## Keywords

Structural Model, Lewis Theory, Chenery's Model, Fei Ranis Model

## Discussion

- Economic development through structural change

### 3.1.1 Structural Models

The structural change theories focus on the process by which underdeveloped countries transform their domestic economic structures from traditional subsistence agriculture to a modern, more industrially, and service-oriented economy. It uses neoclassical price and resource allocation theories to describe how this transformation takes place. Two models associated with this structural change approach are Lewis theory of development with unlimited supply of labour and the Chenery Model. Firstly, we discuss the Lewis Theory of unlimited supplies of Labour.

#### 3.1.1.1 Lewis Theory of Development

The theory was propounded by Nobel laureate, W. Arther Lewis in the mid-1950s. It focussed on the structural transformation of the subsistence economies. This theory was later modified and extended by John Fei and Gustav Ranis. During the 1960s and 1970s Lewis two-sector model became a general theory of the development process in labour-surplus developing nations.

**Assumptions of this model are the following:**

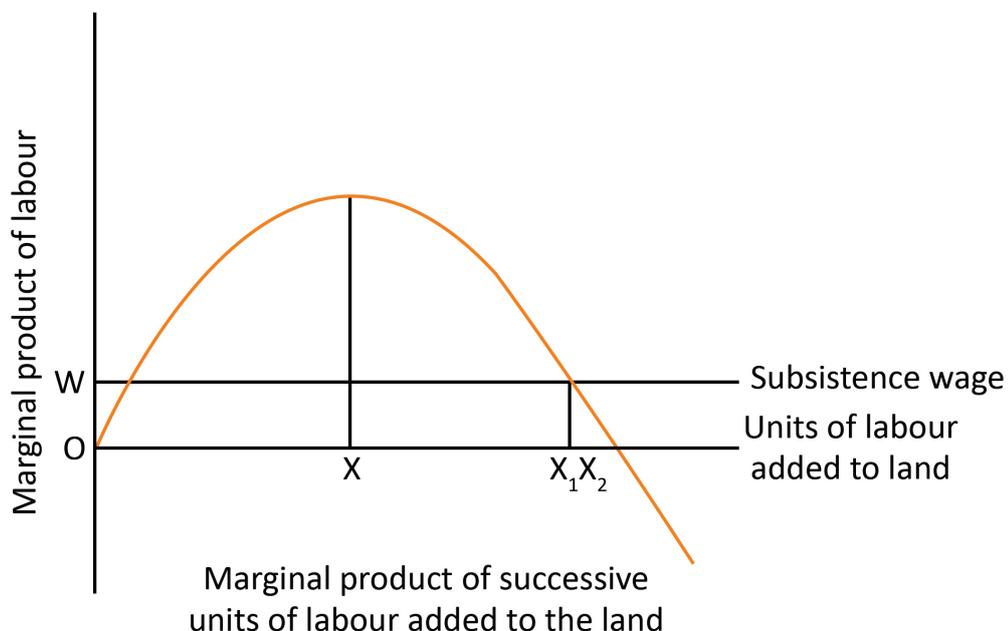
1. Lewis theory of development is a two-sector model, the existence of rural subsistence sector and urban industrial sector.
2. Rural labour migration and urban employment generation are conditioned by industrial development and accumulation of capital.



3. Capitalists reinvest all their profit.
4. Wages in urban areas are higher than wages in rural areas.
5. Rural real wages are determined by the average product of labour not the marginal product of labour.
6. The supply of rural labour to the modern sector is perfectly elastic.
7. There is surplus labour in the rural sector due to the marginal productivity of labour in the rural sector is zero.

• Lewis model explains rural to urban labour migration

Lewis model is based on a dual economy concept. That is co-existence of the modern capitalist sector with the indigenous (subsistence) agriculture sector. It is assumed that there is unlimited supply of labour in the subsistence sector. This is because in this sector the supply of labour exceeds the demand for labour at the subsistence wage and also the marginal product of labour is zero. The level of wages in the modern industrial sector is above the subsistence wages. Lewis assumes urban wages are at least 30% higher than the subsistence level of wages in the agriculture sector. This wage difference induces the rural labourers to migrate to urban sectors and seek employment in this sector. The supply curve of rural labourers



**Fig 3.1.1 Labour and Land Productivity Curve**

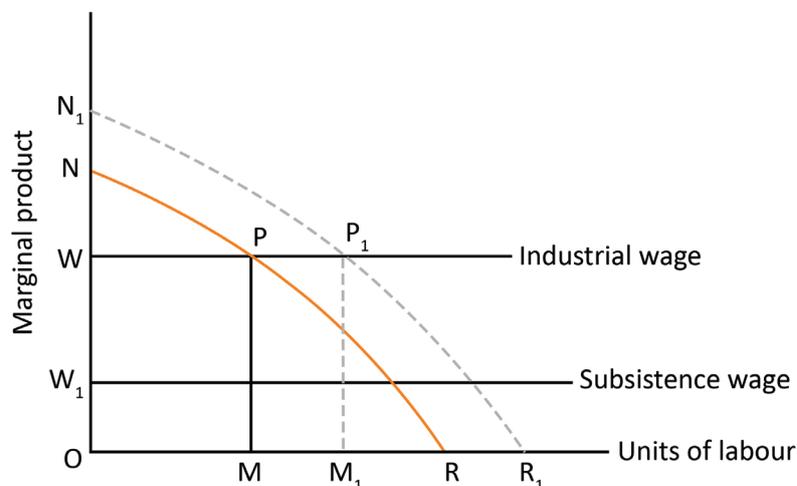
to the modern sector is assumed to be perfectly elastic at the constant urban wages.

Agriculture is subjected to diminishing returns due to fixed supply of land. If the population increase rapidly, a stage is reached where the land cannot provide further employment unless the existing workers reduce their working hours. The situation can be better explained with the help of the above diagram.

- Proportion of labour supply to marginal product

In the diagram, OX axis shows units of labour and OY axis shows the marginal productivity of labour. OW is the subsistence wage. The curve drawn expresses the marginal product of successive units of labour added to the land. After the employment of OX units of labour, the marginal product of labour begins to fall due to diminishing returns. At  $X_1$ , the marginal product of labour curve is equal to the subsistence wage. If labourers are employed beyond  $OX_1$  level, then the marginal product curve falls below the subsistence wage. The marginal product curve becomes negative with additions of labour beyond  $OX_2$ .

To solve the problems of diminishing return and zero marginal product (MP) in agriculture, Lewis introduced three escape routes (i) providing more employment opportunities to the agricultural population into industry, (ii) introducing technical progress in the agriculture sector to increase labour's marginal product, (iii) and capital accumulation, which can raise productivity directly and can serve as an engine of technical progress. We can explain it through the help of the diagram below.



**Fig 3.1.2 Escape Mechanism from Diminishing Returns and Zero MP**

- Capital reinvestment increases labour employment

Units of labour are shown on X-axis and Marginal product on the Y-axis.  $OW_1$  is the subsistence wage in the agriculture sector and is the wage under industry.  $ONPR$  is the total product curve. Total product is divided between wage to workers  $OWPM$  and capitalist surplus  $WNP$ . When capitalists reinvest their surplus, it leads to greater capital formation and this will increase the total product of labour. As a result, total product curve shifts upward to  $N_1P_1R_1$ . If wages remain constant in the capitalist sector, now capitalists can employ more labourers from agriculture sector. Then units of labour employed rise to  $MM_1$ . The size of capitalist surplus would also rise to  $WN_1P_1$ , which is available for further investment and this process continues.

- Capital accumulation matches with population

Lewis' theory concludes once capital accumulation matches with population growth, will lead to exhaustion of surplus labour in the subsistence sector. Consequently, labour supply to the industrial sector becomes less than perfectly elastic. Subsistence sector producers now compete for labour as the marginal productivity of labour is no longer below the institutional wage. At this stage, the agricultural sector transitions to commercialisation. The process of modern-sector growth and employment expansion are assumed to continue till all surplus rural workers are absorbed into the industrial sector. This would mark the structural transformation of the subsistence economy. Economic activity shifts from traditional rural agriculture to modern urban industry thereby achieving balance.

- Features of development process

### 3.1.1.2 Chenery's Model of Structural Change

Lewis's theory highlights the migration of the rural surplus labour force to urban areas for higher wages, employment, and development. The Chenery model of structural change emerges from extensive research conducted by the economist Hollis B. Chenery and his collaborators. Their analysis examined the pattern of development for numerous postwar developing nations. Through both cross-sectional (comparing countries at a point in time) and time-series (observing changes over long periods) studies, they identified key features of the developmental process of different countries. These include the transition from agrarian to industrial economies, the gradual accumulation of both physical and human capital, shifts in consumer preferences towards manufactured goods and services, growth of cities and urban industries as rural populations move to towns, and the declining family sizes and

overall population growth. Ultimately leading to fluctuations in population growth rates throughout the development process.

- Chenery's model emphasises structural transformation

Chenery's model of structural change focuses on the sequential process through which an underdeveloped country's economic, industrial, and institutional structure is transformed over time. This progression aims to enable industries to replace traditional agriculture as the engine of economic growth. Unlike the Lewis model, this model explains increased savings and investment as essential but not sufficient for economic progress. In addition to capital accumulation, a set of interrelated changes in economic structure of a country are required for the shift from traditional economic system to a modern one. These changes involve transformation of production, changes in the composition of consumer demand, international trade, and changes in socio-economic aspects like urbanisation and population growth.

- Internal and external constraints affect development

The structural change model suggests both domestic and international constraints on the development process. The domestic constraints include economic constraints (such as a country's resource endowment and its size and population) and institutional constraints (such as government policies and objectives). International constraints include less access to foreign investment, technology, and trade. This model suggests that these internal and external factors are major reasons for differences in development levels among developing countries.

As growth proceeds over time, the structure of the economy tends to change in several important ways as explained below:

1. The share of output produced by agriculture should decline, while industry and service should increase.
2. The portion of the labour force engaged in agriculture declines, while the proportion of the workforce in industry and service should rise.
3. The population becomes more urbanised as people migrate from rural to urban areas.
4. A large share of goods and services are sold through the market.
5. Countries starting down the path of industrialisation usually begin with labour-intensive techniques and then move to a more capital-intensive nature.



### 3.1.2 Fei-Ranis Theory

- Surplus labour transfer

C.H. Fei and Gustav Ranis developed a theory focussing on the problem of surplus manpower. In this model, authors have attempted to explain that in a dualistic economy (co-existence of both agriculture and industrial sectors), the process of development starts with the migration of surplus labour from agriculture to the industrial sector. The central point of development lies in the gradual shifting of surplus manpower from the agriculture to the non-agriculture sector. The main assumption of the theory can be discussed below.

1. The economy is dualistic in nature with the presence of both agriculture and industrial sectors
2. Transfer of surplus agriculture labour to non-agricultural sector
3. The marginal productivity of surplus labour in the agriculture sector is assumed to be zero
4. The industrial sector expands in such a way that it absorbs the maximum number of agricultural workers.

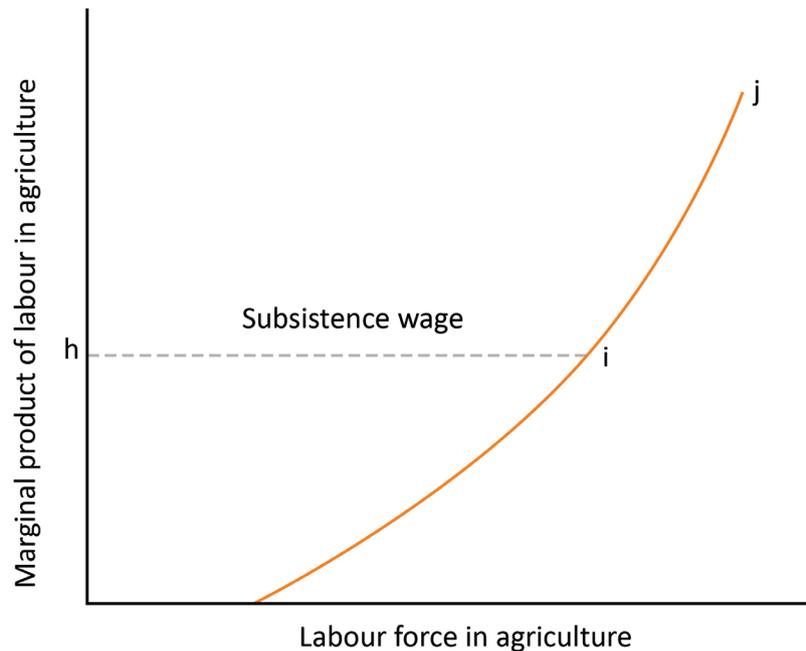
- Output as a function of labour per unit of land

The foundation of this theory lies within the agricultural sector and agriculture production function. It operates on the premise that the combination of labour and land yields a specific output, like grain. Rather than depicting output as a function of capital per worker, the focus is on labour per unit of land. As labour increases, it must be combined with the existing stock of land, resulting in diminishing returns in production. In this model, the productivity of labour declines with increased labour input. The model assumes if all available land were fully utilised, the marginal product of labour (MPL) is allowed to fall to zero.

- Rural wage do not fall below subsistence level

The next step is to show how rural wages are determined. The models generally assumed that rural wages do not fall below a minimum level. Specifically, in this model rural wages are upheld above the average product of farm labour. The rationale behind this view is that individuals within farming households opt not to seek employment elsewhere unless the earnings surpass what they would receive by remaining within their household. That is, wages are not allowed to fall below a subsistence level. The minimum wage, however determined, sometimes is called as institutionally fixed wage to contrast it with wages determined by market forces.

If the MPL falls to zero while wages remain at some minimum level, a wedge emerges between the MPL and the wage rate. This model includes not just the possibility that the MPL falls to zero, but situations in which the MPL is above zero but less than the rural minimum wage. The relation between MPL and rural minimum wages is discussed in the below diagram. In the above diagram, movement to the right along with the horizontal axis represents a decline in the number of agricultural workers.



**Fig 3.1.3 Marginal Product of Labour in Agriculture**

- Labour shift from agricultural to industrial sector

At the origin, the horizontal axis represents a point where the entire labour force works in agriculture, with no one working in industry. While the vertical axis represents the marginal product of labour. Thus, when moving to the right, as the number of agricultural workers declines, the MPL begins to increase. The minimum or subsistence wage is shown in dotted line 'hi'. Agriculture wages would remain at this level until the MPL (curve in black shade) rises above this minimum, which occurs at point i. Thereafter, agriculture wages would rise. This black-shaded curve shows both the agricultural wage and the minimum wage that the industry has to pay to draw workers from agriculture. Therefore, the line 'hij' can be taken as the supply curve of labour facing the industrial sector.

The important feature of this supply curve of labour is that it does not rise continuously from left to right but it has a

- Elastic labour supply

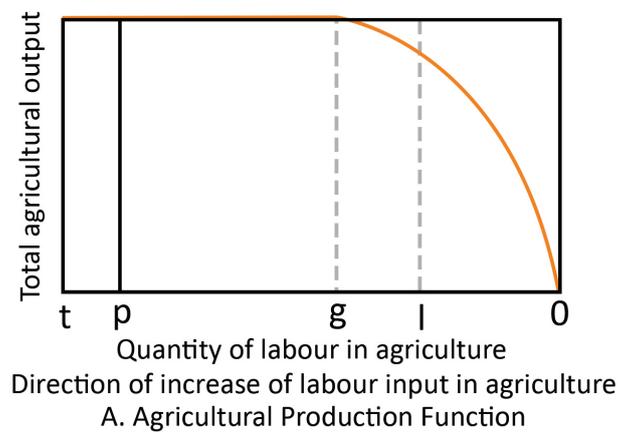
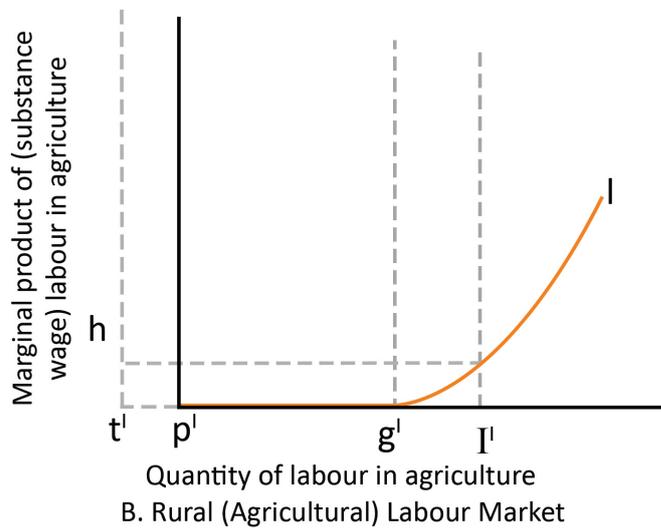
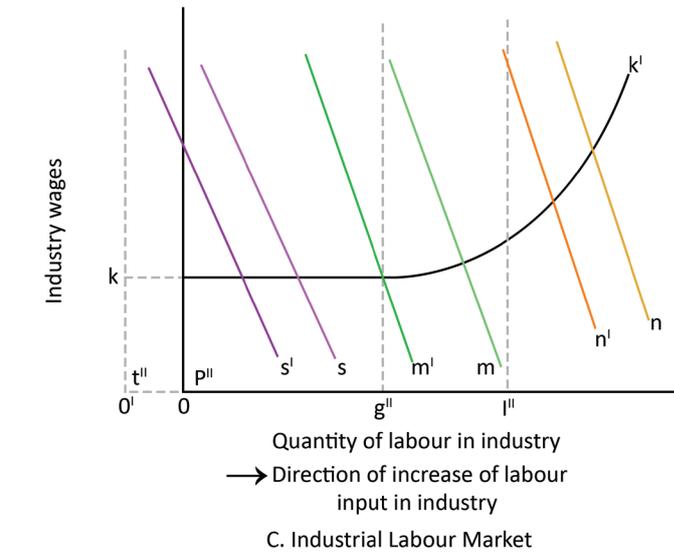
substantial horizontal portion up to point 'i' (supply of labour up to i is perfectly elastic). From the point of view of the industrial sector, this means that industrial sector can hire as many workers as it wants without having to raise wages until the amount of labour is increased beyond point i. To the right of this point, sometimes called the turning point, where the industrial wages rise as firms draw more workers from the agriculture sector.

The transfer of labour from agriculture to industry can be better explained with the help of below diagram. The figure is comprised of three panels. Panel A at the bottom of the figure shows the agricultural production function. An increase in the number of the agricultural labour force is shown as the movement from right to left, that is from origin (O) to point P, which is the initial size of the total labour force. Panel B shows the MPL curve and panel C shows the supply (K') and demand curve (downward sloping curves) for labour in the industrial sector. In all three panels, a movement from left to right represents a decline in the agricultural labour force and a rise in the industrial labour force. That is a transfer of labour from agriculture to industry.

If a labour-surplus economy starts with its entire population in agriculture, it can move a large part of that population (pg) and move it to industry without reducing agricultural output. Industry must pay those workers a wage a bit above subsistence to get the workers to move. The difference between the vertical distance  $p^k$  in panel C and  $p^h$  in panel B shows it. As long as there is some way of moving food consumed by this labour from the rural to urban area, industrialisation can proceed without reducing farm output, depicting an increase in total GDP.

- Labour shift boosts industry

As industry continues to grow, it eventually exhausts the supply of surplus labour. Further removal of labour from agriculture leads to a reduction in farm output. A shift in industrial labour demand to m in panel C forces the industry to pay higher wages to compensate workers for the higher price of food. The increase in the cost of agricultural goods compared to industrial goods is described as the terms of trade between industry and agriculture favouring agriculture over industry. The shift in the terms of trade accounts for the rise in the supply curve of labour between  $g^I$  and  $I^I$  in Panel C. The Fei-Ranis model can be used to explore the implications of population growth and a rise in agricultural productivity,



**Fig 3.1.4 The Two-Sector Labour-Surplus Model**

- Labour shift favouring agriculture sector

among other things. Suppose one assumes a close relationship between population and labour force. In that case, an increase in population from  $p$  to  $t$  increases the length of the horizontal axis in all three panels. However, the additional workers or large population do not increase agricultural output at all. The elastic portion of the urban and rural labour supply curves are extended by  $p^u$  and  $p^r$ , respectively, in panels B and C, causing wages to rise.

- Population changes cause change in wage

Thus Fei-Ranis model emphasises the significant impact of population growth on agriculture output. When the population increases without a corresponding rise in food production, the average amount of food per person decreases. This can lead to lower wages in urban areas and a decline in the welfare of farmers, contributing to negative perceptions of population growth. During Ricardo's era, Britain's economy demonstrated the characteristics of surplus labour. Similarly, in the mid-twentieth century, China, India, Indonesia, and certain African countries also experienced surplus labour situations. However, such circumstances are rare in the present day.

## Summarised Overview

This unit deals with several key structural models of economic development, each offering unique insights into the dynamics of labour supply and industrialisation. The Lewis Theory of Development with Unlimited Supply of Labour explains the transition from agriculture to industry, emphasising the surplus labour in traditional sectors. The Chenery Model provides a framework for understanding the sequential transformation of economies through stages of development. Lastly, the Fei-Ranis Theory highlights the role of human capital and institutional factors in fostering economic growth. Together, these theories contribute to a deeper understanding of the complex processes underlying economic development.

## Assignments

1. What is the main growth mechanism in Lewis's unlimited supply of labour theory?
2. Differentiate between the structural change models of Lewis and Chenery.
3. How applicable is Lewis's theory to a developing country like India?
4. Discuss Fei-Ranis model on the issue of surplus manpower in developing countries like India.

## Reference

1. M.L Taneja and R.M Myer, *Economics of Development and Planning*, 2021, Vishal publication, Jalandhar
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## UNIT 2

# Balanced and Unbalanced Growth Theories

### Learning Outcomes

After completing this unit, learner will be able to:

- identify interdependencies and linkages between different sectors of the economy
- understand how shifts in labour and capital contribute to growth and structural change within economies
- familiarise the concept of ‘Big Push’ as proposed by Rosenstein-Rodan
- explain how investments in various sectors are necessary for sustainable economic development
- discuss the effect of unequal development of different sectors within an economy

### Background

The concept of balanced growth in development economics, coined by theorists like Paul Rosenstein-Rodan and Ragnar Nurkse, argues that simultaneous investment across various sectors of an economy is essential for encouraging development and breaking the vicious cycle of poverty. Rosenstein-Rodan, in his big push theory, argued that large-scale investments are necessary to overcome initial development hurdles by creating enough demand to support new industries. Nurkse further expanded on this by emphasising the importance of coordinated investments in infrastructure, agriculture, and industry to generate sufficient market demand and supply, thereby ensuring sustained economic growth. Their theories emphasise the interdependencies within an economy, suggesting that neglecting any sector could impede overall development progress.

On the other hand, the theory of unbalanced growth, most notably associated with Albert O. Hirschman, challenges the idea that balanced investment is always necessary or feasible. Hirschman argued that economic development could be more effectively stimulated through targeted investments in key sectors that possess significant growth



potential or have the capacity to create backward and forward linkages within the economy. This approach assumes that strategic, uneven investments can trigger greater economic dynamism and eventually lead to more comprehensive development. Thus, both balanced and unbalanced growth perspectives offer valuable intuition into the dynamics of economic growth of developing economies.

## Keywords

Balanced Growth, Big Push, Nurkse Theory, Unbalanced Growth

## Discussion

### 3.2.1 Balanced Growth

Development strategies are drafted to solve the problems of poverty, unemployment and inequality. The developing countries have focussed on two types of development strategies—balanced growth and unbalanced growth. Western economists like Rosenstein Rodan, Ragnar Nurkse and Arthur Lewis have advocated the strategy of balanced growth for underdeveloped countries. On the other hand, A.O. Hirschman, H. W Singer, and W.W. Rostow have favoured the strategy of unbalanced growth for those countries. In this unit, we are discussing both balanced and unbalanced growth theories.

- Strategy of balanced growth for underdeveloped countries

#### 3.2.1.1 Explanation of Balanced Growth

Balanced growth is not a static term, it is a dynamic one. In one context, balanced growth may mean investment in the backward sectors of the economy, while in the other context, it may explain the harmonious development of different sectors. The early advocates of balanced growth believed in investing enough to overcome indivisibilities on both the supply and demand side of the development process. Indivisibilities on the supply side deal with the fixed nature of certain capital, like social overhead capital, which requires investment in multiple activities or a big push to benefit from economies of scale. On the demand side, indivisibility refers to restrictions imposed by market size and profitability, affecting the feasibility of economic activities. If the market is small, some activities might not make economic sense. However, if multiple activities start

- Overcoming supply and demand limitations

at once, they can create markets for each other's products. The activities that are not profitable when considered in isolation, would become profitable when considered in the context of a large-scale development programme. So, to overcome demand limitations, the market needs to grow, which happens when multiple economic activities are launched simultaneously.

- Investment for balanced growth

Balanced growth involves a series of capital investments across various industries to break the vicious cycles. However, determining which sectors would give preference in the matter of investment allocation is challenging. One suggestion is to invest directly in the 'growing sectors,' which would create external economies that stimulate other productive activities. This continuous investment cycle can bring the economy from stagnation to development. However, selecting these sectors is complex. For example, it is difficult to decide whether agriculture or industry, human capital or material capital, internal trade or external trade should be given priority in investment allocation. Let us discuss these difficulties to identify potential contradictions in selecting growing sectors.

### 3.2.1.2 Balance Between Agriculture and Industry

- The agriculture sector promotes industry

The economic evolution of industrialised nations reveals that prosperous agriculture forms the basis of industrialisation. Agriculture not only provides essential raw materials to manufacturing industries but also provides food to a growing population. Additionally, the presence of disguised unemployment within agriculture serves as an important source of labour supply which is vital for the expansion of manufacturing industries. Moreover, agricultural surpluses can be mobilised towards investments in non-agricultural sectors. The increasing real income among the rural population further stimulates the demand for manufactured goods, which will bring about a structural transformation of the rural economy. As the rural economy develops, it gains the capacity to export agricultural products, generating foreign exchange to meet the initial requirements of industrialisation. Consequently, the domestic market expands, new methods of production, new skills, new investment opportunities, and new organisational abilities develop. All these factors create a favourable environment for industrial expansion. Hence, the development of the agricultural sector emerges as a necessary prerequisite for industrial growth.



- Industry promotes agriculture development

Now we discuss the other side, how expanding the industrial sector can help agricultural development. It is often observed that underdeveloped nations with large population put a strain on their agricultural sector. Here, industrial growth offers a solution by creating jobs outside of farming, absorbing excess rural labour. This not only alleviates the pressure on agriculture but also leads to higher incomes and improved living standards in rural areas. Additionally, the manufacturing sector becomes a crucial supplier of essential agricultural inputs like pumps, harvesting equipment, fertilizers, and machinery, all of which directly contribute to advancements in farming practices. Furthermore, industrialisation releases the forces of new skills, dynamic entrepreneurs, and new innovations, which transform the economic and social structure of agrarian economies. Hence, agricultural improvements rely heavily on industrial development, technological advancements, and the creation of necessary infrastructure. This highlights the importance of the simultaneous development of both agriculture and industry for creating balanced growth.

### 3.2.1.3 Balance Between Human Capital and Material Capital

- Simultaneous investment in human and material capital for growth

The idea of balanced growth not only implies balance between agriculture and industry but also a balance between human capital and material capital. Investment in human capital i.e., expansion of education, health, and technical training improves the quality of the labour force. This, in turn, leads to a rise in production and national income. As people earn more, they can buy more goods and services, creating a strong demand that encourages further investment in material capital i.e., factories, machines, and other physical resources. This investment in material capital brings several benefits: increased production capacity, more jobs, higher savings and investment, and capacity to export and pay for imports. Thus, investing in education and training (human capital) strengthens the skills of the people. Investing in infrastructure and machinery (material capital) strengthens the tools they use. Finding a balance between these two types of investment is crucial for the harmonious and balanced growth of an economy.

### 3.2.1.4 Balance Between Domestic Trade and Foreign Trade

Balanced growth requires a balance between domestic and foreign trade. Expansion of domestic trade is essential for

- Balanced trade strategy

raising the flow of goods and services in a country. At the same time, engaging in international trade allows a country to earn foreign exchange, which can then be used to import necessary goods and technologies that may not be available domestically. Hence, domestic and foreign trade act as complementary forces. Underdeveloped countries should devise commercial policies in such a way as to maximise the combination between foreign and domestic trade. So, both foreign and domestic trade should grow simultaneously in a balanced development process.

### 3.2.1.5 Advantages of Balanced Growth

The strategy of balanced growth has a mixed effect. It has both strong and weak points. We first take up the strong points.

- Balanced growth ensures regional progress

**1. Balanced Regional Development:** The concept of balanced growth advocates for the simultaneous development of all sectors within an economy, without favouring one over the other in resource allocation. When planning authorities prioritise the development of all sectors, it will pave the way for balanced regional progress. Focusing solely on one or two sectors can lead to tensions, disharmony, and economic imbalance. Just as maintaining balance among different parts of the body is vital for good health, similarly, developing diverse sectors is crucial for a healthy economy. Therefore, balanced growth facilitates the promotion of balanced development across regions.

- Reduces market imperfections

**2. Wide Extent of Market:** Underdeveloped economies often face the problem of market imperfections, which hinder their progress. Balanced growth strategies offer a solution to this issue. Developing multiple sectors simultaneously generates a diverse range of goods, expanding demand and market size. Increased competition would result in the production of higher-quality products. Furthermore, the development of various sectors creates job opportunities, promoting the movement of production factors and reducing market imperfections.

- Balanced growth promotes labour specialisation

**3. Division of Labour:** Investing simultaneously in various sectors expands market opportunities. A broader market encourages greater division of labour, higher output, and quality products. Specialisation, facilitated by this division of labour, becomes crucial for enhancing exports



and acquiring foreign currency. In today's competitive world, less developed nations can sustain their economic growth through specialisation and a balanced growth strategy for development.

- Creates external economies

**4. External Economies:** Balanced growth plays a vital role in the creation of external economies, which are considered essential for rapid economic development. These external economies encompass benefits such as improved transportation, marketing, and advertising that new businesses gain from existing ones. Such advantages emerge from the interconnectedness of industries. Where each sector supports and enhances the others, which gives rise to the complementarity of industries, and the doctrine of balanced growth presupposes the existence of complementarity. Thus, balanced growth leads to the creation of external economies.

### 3.2.1.6 Weakness of Balanced Growth Theory

- Capital shortages hinder balanced growth

**1. Deficiency of Capital:** One of the primary challenges faced by the doctrine of balanced growth is capital deficiencies. Achieving simultaneous progress across various sectors demands substantial capital investment and it is difficult for less developed countries to mobilise necessary capital investment in the early stages of development. Factors such as low savings rates, the reluctance of domestic investors, market inefficiencies, and unfavourable balance of payments make it challenging to mobilise the required capital. Underdeveloped countries are commonly characterised as “capital-poor economies,” unable to afford the luxury of balanced growth during their initial development stages.

- Resource shortages challenge balanced growth

**2. Resource Inadequacy:** Besides capital deficiencies, the doctrine of balanced growth faces challenges due to inadequacy of other resources. Smooth implementation of this theory necessitates ample availability of cheap labour, affordable electricity, raw materials, and efficient transportation facilities. Additionally, the development of various industries simultaneously requires technocrats, engineers, and professionals, who are often in short supply. Moreover, the scarcity of essential resources results in wastage, making optimal resource allocation difficult. In such circumstances, achieving comprehensive development becomes challenging.

- Disproportionality complicates balanced growth

### 3. Challenges in Coordinating Capital and Labour:

A shortage of funds and an excess of available labour create a challenge known as disproportionality. It is tricky to effectively coordinate these two essential resources (capital and labour). Balancing them presents a tough task for planners. While it might seem that excess labour could be a valuable asset for building capital, putting this idea into practice faces numerous obstacles due to structural constraints. This imbalance in resources complicates efforts to pursue a strategy of balanced growth.

- Balanced growth aids development

After examining the demerits of balanced growth, it should not be concluded that the balanced growth doctrine is an exercise in futility. If it were truly futile, Indian planners wouldn't have adopted it for long-term economic advancement. Success requires the creation of proper infrastructure and environment. People should be made development minded and they should be encouraged for the participation in all the development activities. With such conditions in place, implementing a balanced growth strategy in underdeveloped nations would not encounter any significant challenges. To sum up, as H.W. Singer suggests, "the doctrine of balanced growth is premature rather than wrong in the sense that it is applicable to a subsequent stage of sustained growth rather than to the breaking of deadlock."

Now let us discuss Rosenstein Rodan, Nurkse and Lewis' versions of balanced growth below:

#### 3.2.1.7 Rosenstein Rodan's Version of Balanced Growth (Big Push Theory)

- Coordination among different sectors

The strategy of balanced growth aims at simultaneous development in different sectors of the economy. For this, there should be a balance and coordination among the different sectors. The coordination is often missing when developing countries attempt to industrialise their subsistence sector. The most coordination failure model in the development literature is the 'big push' introduced by Paul Rosenstein Rodan, who first raised some basic coordination issues. The big push is a model of how the presence of market failures can lead to a need for a concerted economy-wide government effort. This effort aims to get the long process of economic development underway or to accelerate it.

## Assumptions

1. Only one factor of production - labour, and its total supply is fixed.
2. The labour market has two sectors- traditional sector and modern sector. Workers in the modern sector receive higher wages than in the traditional sector.
3. For each market in the traditional sector, one worker produces one unit of output. This is an example of constant returns to scale. In the modern sectors, there are increasing returns to scale.
4. If the national income is  $Y$  and the number of products produced is  $N$ , then consumers spend an equal amount,  $Y/N$  on each good. This consumption pattern means there is unit elastic demand
5. The economy is a closed one
6. Perfect competition in the traditional sector, while there exists imperfect competition in the modern sector.

- Importance of external economies

The idea of the big push is not a new one. It is a modern version of “external economies.” External economies refer to the advantages individuals and societies gain when goods are produced on a large scale. Marshall initially introduced the concept of external economies, which has since become pivotal in production and development. The external economies have been termed as indivisibilities, and Rosenstein Rodan explained its importance in his article published in 1943. Rodan has explained three kinds of indivisibilities to explain the implications of the big push theory. They are discussed below.

### *Indivisibilities in Production*

The concept of indivisibilities in production function refers to the indivisibilities of inputs, outputs, and production process. These indivisibilities result in increased output, income, and employment, and reduce the capital-output ratio. According to Rodan, social overhead capital such as power, transportation, communication, and housing plays a pivotal role in these indivisibilities and external economies. This is because the expansion of social overhead capital creates opportunities for investment across various industries, thereby stimulating overall investment levels. Moreover, the expansion of social overhead capital generates excess capacity whose utilisation

- Importance of social overhead capital

could take developing countries to higher production levels. Importantly, social overhead capital exhibits an irreversible nature over time, which means that such activities are expansionary. Ultimately, the core of sustained economic development lies in the creation and enlargement of social overhead capital, which in turn, requires large amount of investment called “lumpiness of capital”. This lumpiness creates external economies, thus facilitating economic development.

- Investment expands market size

### ***Indivisibility of Demand***

Rodan has highlighted the importance of indivisibility of demand in his article, and it was given wide publicity by Ragnar Nurkse in his book ‘Problems of Capital Formation in Underdeveloped Countries’. The importance of indivisibilities of demand lies in the expansion of the market. The small markets, limit investment opportunities and obstruct the development process. Investment in any single project might involve risk and uncertainty as to whether the product will find a market or not. The indivisibility of demand requires simultaneous investments in various industries thus stressing on the complementarity of investment.

- Saving promotes development

### ***Indivisibility in the Supply of Savings***

In less developed nations, savings tend to be minimal due to lower national incomes. It is crucial to bridge the gap between expenditures to raise savings. Simultaneously, it is essential to establish effective methods to direct these savings towards development initiatives. Achieving growth and prosperity can be realised when savings are channelled into productive endeavours that promote both development and job opportunities. Apart from the three indivisibilities, another crucial aspect related to development is the creation of “psychological indivisibilities.” This means that a proper psychological environment conducive to economic development should be created. The need for development should be impressed upon the people. Establishing progressive institutional structures is essential for shaping people’s mindset towards progress. Encouraging substantial efforts is vital, as isolated or small efforts lack substantial impact on growth. The psychology for big efforts should therefore, be created among the masses.

### ***Ways to Undertake Big Push***

There are various ways to promote big push for simultaneous



- Linkage effect addresses the coordination challenges

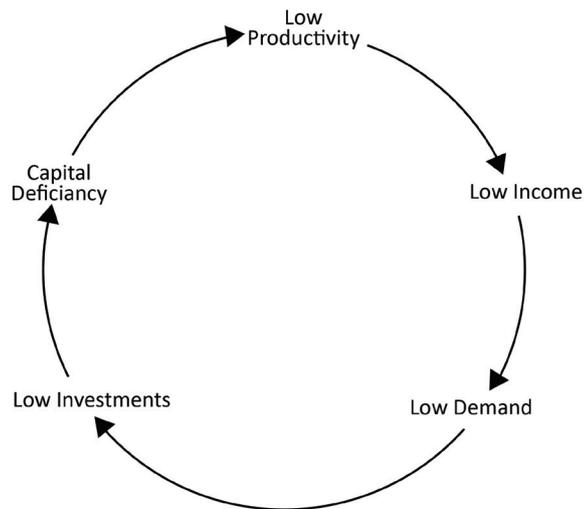
growth of the modern sector across different industries. One strategy to address coordination challenges involves government policies aimed at encouraging the advancement of industries with significant backward or forward linkages. The theory of linkages emphasises that the development of certain industries can promote the growth of new industries by creating linkages with other sectors. Backward linkages raise the demand for a particular activity, while forward linkages reduce the costs associated with using the products of an industry. These linkages often involve the interactions between market size and the benefits of economies of scale, resulting in economic externalities. Essentially, linkages play a crucial role in industrialisation strategies, when one or more of the industries involved have increasing returns to scale, of which a larger market may take advantage. The linkage approach targets investment in key sectors to overcome coordination challenges and generate positive growth. This approach involves prioritising industries with strong linkage to other sectors. Hence, for developing countries, decision-making regarding industry selection should consider linkages for promoting economic development.

- Big push for development

Every underdeveloped or developing country wants to achieve sustained growth in the shortest possible time and it is possible through the mechanism of big push strategy of development. Economist Myrdal has emphasised the need for a big push thus “once a plan is established, it is vital that it be given a big push, and unless the push is hard enough, no development will occur. But too often, the ‘big push’ discussions are confined to economic factors. Instead, this idea must be extended to all parts of a social system”. Thus, a big push is necessary for transforming the socio-economic setup, which is an essential prerequisite for facing development needs.

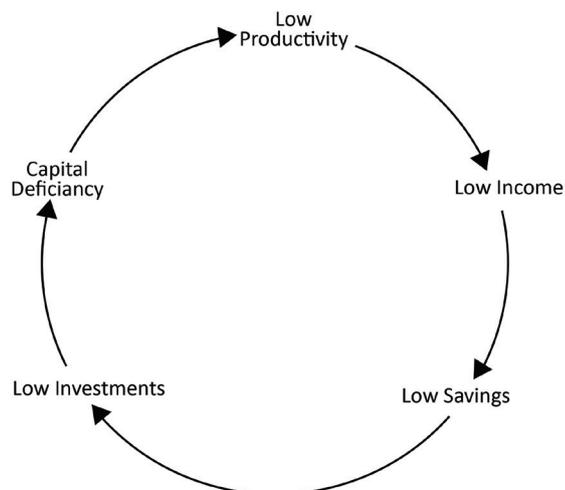
### 3.2.1.8 Nurkse’ Version of Balanced Growth

Nurkse’s concept of balanced growth asserts that simultaneously investing in a variety of industries is essential to expanding markets and breaking the vicious cycle of poverty in underdeveloped economies. This idea is based on balancing demand. However, Nurkse also acknowledges the importance of the supply side in balanced growth. The term ‘vicious circle of poverty’ given by Ragnar Nurkse, suggests the idea that poverty causes poverty. People in poverty often remain poor and pass these conditions to future generations. The theory identifies two levels: supply and demand. This is explained in the following figure.



**Fig 3.2.1 Demand Side**

In the above diagram, on the demand side, poor income results in low purchasing power or low demand, making investment less attractive, which in turn leads to low production and continued low income.



**Fig 3.2.2 Supply Side**

On the supply side, a cycle of low income, low savings, low investment, inadequate capital formation, low productivity, and low output perpetuates itself, leading to persistently low income. Prof. Nurkse explains that a circular constellation of factors tends to operate and react with one another in a way that keeps a poor country in a condition of poverty. To address this “vicious circle of poverty,” he proposes two main solutions (1) on the supply side increased savings and investments to raise economic growth. (2) On the Demand-side solution expand the market to encourage greater investment. Thus, according to

• Poverty sustains itself through cycles

- Balanced growth addresses poverty

Nurkse, balanced growth is an economic development strategy aiming for concurrent progress in all sectors of the economy. He argued that for sustained economic growth, developing countries should distribute resources evenly across various sectors instead of concentrating on just one. Nurkse's balanced growth theory emerged as a counterpoint to prevailing theories like the Harrod-Domar model, which focused on investment but did not address the issue of balanced development. His theory significantly influenced later development theories and policy frameworks, particularly in industrialisation and economic planning in developing countries.

### 3.2.1.8 Lewis Version of Balanced Growth

- Proportional growth across all sectors

Lewis' version of balanced growth is associated with development programmes. He advocates that all sectors of the economy should grow simultaneously and harmoniously to keep a proper balance between agriculture and industry, between material capital and human capital, between export and import, etc. Balanced growth does not mean equal growth, it rather means proportionate growth of different sectors dictated by their growth of demand. To avoid bottlenecks and shortages, the produce of the different sectors must grow as demand for them grows. This requires the growth of major sectors like agriculture, industry, domestic trade, foreign trade, consumption and production under a central planning authority.

### 3.2.2 Unbalanced Growth Theory

- Unbalanced growth promotes economic development

One of the most important texts on development strategy is Hirschman's book, *The Strategy of Economic Development* (1958). He was a leading advocate of Unbalanced growth, challenging the traditional view that developing nations should pursue balanced growth. Hirschman's theory of unbalanced growth has been supported by H.W. Singer, C.P. Kindleberger, Paul Streeten, and W.W. Rostow. However, it was Hirschman, who is credited with systematically presenting the doctrine of unbalanced growth. He argues that the best way to accelerate economic development is to create deliberate imbalances in the economy. According to Hirschman, "Development is a chain of disequilibria that must be kept alive rather than eliminate the disequilibrium of which profits and losses are the symptoms in a competitive economy. If economy is to be kept moving ahead, the task of development policy is to maintain tensions, disproportions and disequilibria". He believes that underdeveloped countries are not capable

of developing different sectors simultaneously. He argues that investment should be made in strategic industries and leading sectors. This pattern of investment would create more investment opportunities and pave the way for further economic development. Thus, development is the result of a series of investments in leading sectors of an economy.

### **3.2.2.1 Convergent and Divergent Series of Investment**

According to Hirschman, series of investments can be categorised into two main types: convergent and divergent series of investments. These two series can be explained in terms of appropriation and the creation of external economies. When new projects are initiated, they appropriate external economies created by the existing ones and create new external economies that can be appropriated by the subsequent projects. This cycle of creation and appropriation continues in this way. Projects that appropriate more economies than they generate are called convergent series of investments. Convergence series are often influenced by profit motives and undertaken by private entrepreneurs. On the other hand, the projects which appropriate less economies than they create belong to the divergent series. It is influenced by considerations of social profitability and is undertaken by public agencies.

- Investment series create and appropriate economies

### **3.2.2.2 Unbalancing the Economy with Social Overhead Capital**

Social overhead capital (SOC) refers to those basic services without which primary, secondary and tertiary activities cannot function. The basic services include education, health, transport, communication, power etc. The investments in such basic services are made by public agencies for promoting social welfare. When investment is made in the field of electricity, it will cheapen the supply of electric power, which would encourage the establishment of new industries, and expand trade and business activities. When basic services are made available through investment in SOC, private investment in directly productive activities (DPA) will greatly be encouraged. This sequence of investment from SOC to DPA is called pressure-relieving investment or development via excess capacity of SOC.

- SOC investment promotes private sector growth



### 3.2.2.3 Unbalancing Economy with Directly Productive Activities

- DPA first approach hampers development

Another way to create an imbalance in the economy is to make investments first in DPA. When investment is first made in DPA, new industries might run into difficulties due to shortage of SOC. Shortage of SOC raises the cost of production and price level. Increase in price level creates uncertainty and unfavourable climate for fresh investments in DPA and the process of development is hampered. To overcome this difficulty, political pressure is required. When political pressure is strong, governments might take early initiatives for investments in SOC. On the other hand, if political pressure is less effective, early initiatives may not be taken by the governments for the provision of SOC. In this case, pressure and tensions are bound to arise during development. Therefore, the sequence of investment from DPA to SOC is called pressure-creating investment or development via shortage of SOC.

### 3.2.2.4 Paths to Development

Hirschman explained the sequence of investments with the help of a figure to show which sequence of investments should be pursued for rapid development. The figure is below:

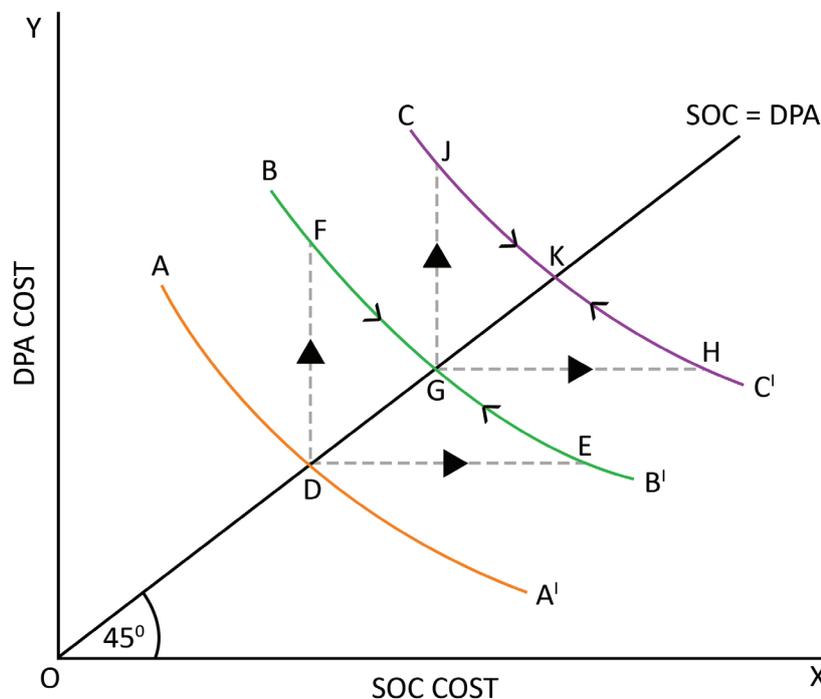


Fig 3.2.3 Paths to Development

- SOC- DPA isoquant analysis

In the above figure units of SOC are measured on the horizontal axis and DPA on the vertical axis.  $AA'$ ,  $BB'$ , and  $CC'$  are various isoquants showing various combinations of SOC and DPA units indicating the same level of national output. The  $45^\circ$  line is the line of equality, showing investment in SOC and DPA are in equal proportion. The  $45^\circ$  line intersects Isoquants at D, G and K. These points indicate the optimum combinations of investment in SOC and DPA. Here Hirschman assumes that SOC and DPA cannot be expanded simultaneously because of the limited capability of poor countries to utilise the resources. Therefore, the problem before planning authorities is to determine the sequence of expansion that will maximise output and investment.

- Expansion sequence of SOC and DPA

So, the sequence of expansion can be explained either by expanding SOC or DPA. If the first sequence of investment is adopted i.e., expanding SOC, the path of development will be DEGHK. Investment in SOC increases from D to E will induce investment in DPA from D to F until the balance is restored at G which is on the higher isoquant curve  $BB'$ . It means that the economy will have higher level of output. Again, when investment in SOC is further raised from G to H, the investment in DPA rises from G to J and the balance is restored at K, which is still on a higher isoquant curve. The economy will have a still higher level of output. This path of development is called development via excess capacity. On the other hand, if planners take resources to expand investment in DPA, the development path will be DFGJK. When investment is increased from D to F, the investment in SOC will rise from D to E and the balance will be at G which is on the higher level of isoquant  $BB'$ . The economy will have a higher level of output. A higher output level will further induce private entrepreneurs to invest more in DPA. An expansion of investment from G to J would make SOC increase from G to H. Consequently, the balance will be on a higher isoquant curve at K and the economy will secure a higher level of output. In this way, the expansion of the economy will take place. This route of development is called development via shortage of SOC.

According to Hirschman, of the two sequences, preference should be given to the sequence of expansion that maximises 'induced' decision making. If the expansion focuses on SOC initially, existing DPA becomes less costly, encouraging further investment in DPA. Conversely, if DPA is expanded first, costs will rise and demand will arise for the provision of SOC facilities. Both sequences create incentives and

- Expansion sequence create incentives and pressures

pressures. Ultimately, according to Hirschman, the chosen sequence depends on the relative strength of entrepreneurial motivations and the response of public pressure exerted on authorities responsible for social capital. The analysis of unbalanced growth reveals that it is a useful strategy for accelerating economic development in short period. Stress has been laid on capital goods industries because they help to grow quickly by creating external economies.

## Summarised Overview

This unit deals with the concept of balanced growth and its variations, examining the perspectives of economists such as Rosenstein-Rodan, Nurkse, and Lewis. Balanced growth entails simultaneous and proportional development across different sectors of the economy to avoid imbalances and bottlenecks. Rosenstein-Rodan emphasises the need for coordinated investments to start development, while Nurkse advocates for distributing resources evenly across sectors to achieve sustained growth. Lewis emphasises the harmonious growth of various sectors, including agriculture and industry, to meet demand and avoid shortages. The idea of unbalanced growth, which suggests that focusing on specific sectors may be more beneficial in certain contexts. The unbalanced growth theory challenges the idea of uniform development across all sectors.

## Assignments

1. What are the essential conditions for a balanced growth strategy to be successful?
2. Differentiate between balanced and unbalanced growth.
3. Discuss the theory of Big Push.
4. Provide short notes on the following topics: (a) SOC, (b) DPA, and (c) the Development Path.

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## Suggested Reading

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4. Shorrocks, A. and Ralph Hoven (eds.). 2004. *Growth, Inequality and Poverty*. OUP. Oxford.

### Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.







## UNIT 3

# Equilibrium Trap and Dependency Theories

### Learning Outcomes

After completing this unit, the learner will be able to:

- familiarise the concept of the Low-Level Equilibrium Trap
- discuss the Critical Minimum Effort Thesis
- understand the principles and critiques of Dependency theories

### Background

The underdevelopment of developing countries is a complex issue. Historically, many developing nations have experienced colonial exploitation, which established economic patterns centered around extracting and exporting raw materials while suppressing local industries. Post-independence, these nations often struggled with inadequate infrastructure, limited access to education and healthcare, and political instability. Global economic systems can aggravate these challenges, as developing countries may face unfavourable trade terms, debt burdens, and dependency on foreign aid, which limit their ability to invest in sustainable development and diversify their economies.

To escape the cycle of underdevelopment, a versatile approach is essential. The concept of the low-level equilibrium trap, introduced by Richard R. Nelson, describes a situation where an economy is stuck in a state of stagnant growth due to low-income levels, which leads to low savings and investment, perpetuating poverty. This trap indicates that economies can remain in a cycle of underdevelopment unless a significant and transformative intervention is introduced to break the cycle. Building on this idea, Harvey Leibenstein's critical minimum effort thesis suggests that minimum efforts that exceed a certain threshold can push an economy out of this trap. In this unit, we will discuss the theories that explain the factors that break the under-development cycle.



## Keywords

Low Level Equilibrium Trap, Critical Minimum Effort, Dependency, Foreign Capital, Technology Dependence, Unequal Exchange, Dualism

## Discussion

- Economic stagnation due to population growth

### 3.3.1 Low Level Equilibrium Trap

R.R. Nelson introduced the Low-level Equilibrium Trap theory for underdeveloped nations. Nelson's theory builds upon the Malthusian idea that when a country's per capita income rises above the 'minimum subsistence level,' the population tends to expand. Initially, population growth accelerates alongside rising per capita income. But when the growth rate of the population reaches "an upper physical limit," it starts declining with further increase in per capita income. According to Nelson, underdeveloped economies suffer from a stable equilibrium where per capita income is at or close to subsistence needs. At this stable level, both saving and net investment rates remain low. Attempts to raise savings and investment by accelerating total national income growth are accompanied by rapid population growth, which ultimately restrains per capita income to its stable equilibrium. This cycle traps underdeveloped economies in a low-level equilibrium. Nelson and other modern economists have called it low level equilibrium trap or more simply, the Malthusian population trap. The low-level equilibrium trap is illustrated in below figure:

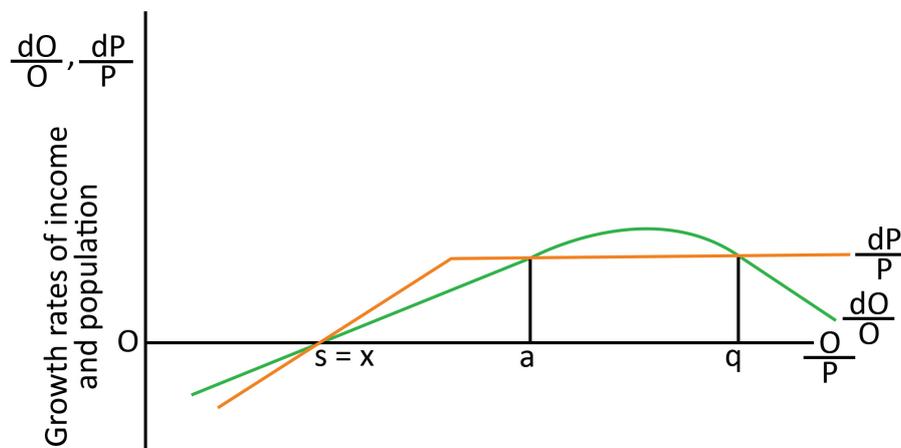


Fig 3.3.1 Low level Equilibrium Trap

- Income growth affects population

In figure vertical axis shows the relationship between the growth of population ( $dP/P$ ) and the growth of output ( $dO/O$ ). The horizontal axis shows the level of per capita income ( $O/P$ ).  $S = X$  represents the subsistence point of per capita income at zero population growth and output growth because there is no saving and investment. Output growth rises with per capita income because the saving ratio rises with per capita income. Output growth eventually falls as the capital-labour ratio falls. If the output growth curve cuts the population growth curve from above at point  $S = X$ , the increase in per capita income above the subsistence level up to a point 'a' will lead to population growth over output growth pushing income per head back to the subsistence level. Conversely, any per capita income level beyond point 'a' will mean a sustained rise in per capita income until the two curves cut again at q. This would be a new stable equilibrium with the output growth curve again cutting the population growth curve from above.

- Escape from poverty trap

To escape from the low-level equilibrium trap, per capita income must either be raised to a, or the  $dO/O$  and  $dP/P$  curves must be shifted favourably. The origin of the concept of a 'critical minimum effort, was the belief that to escape from the 'trap', it would be necessary to raise per capita income to 'a'. If countries are in a trap situation, however, much greater hope probably lies in the  $dO/O$  curve drifting upwards over time, through technical progress, or in a sudden drop in the  $dP/P$  curve from a reduction in the birth rate. Capital from abroad, raising the  $dO/O$  curve, and emigration, lowering the  $dP/P$  curve, could also free an economy from such a trap.

- Income growth overcomes population trap

The low-level equilibrium trap theory suggests that underdeveloped economies are caught in the web of low income, low savings, limited investment, and population growth. It has also been suggested that these economies can come out of the web when the growth rate of income exceeds the growth rate of the population. However, there is a path out. By working together, governments and private agencies can focus on two key areas: controlling population growth and raising national output. If income growth can consistently outpace population growth, the economies can escape this trap and achieve sustainable development.

### 3.3.2 Critical Minimum Effort Thesis

Harvey Leibenstein has propounded his thesis of critical minimum effort in an attempt to provide a solution to

- Critical minimum effort is needed to break the vicious circle of poverty

the problems of underdevelopment faced by developing countries. According to Leibenstein developed nations often find themselves stuck in a vicious cycle of poverty, where they remain at a consistently low level of per capita income. He suggests breaking free from this cycle requires a significant initial effort, termed the “critical minimum effort,” which would encourage per capita income to a level capable of sustaining ongoing development. Transitioning from this state of underdevelopment to one of steady growth is necessary though it is not always a sufficient condition. The economy should receive a stimulus to growth that is greater than a certain minimum size.

- Stimulants outweigh shocks for development

Leibenstein suggests that economies experience both negative “shocks” and positive “stimulants.” Shock refers to those forces which tend to reduce output, income, employment and investment. Shocks depress the development forces and are called income-depressing forces. On the other hand, stimulants are those forces which help in raising the level of income, output, employment and investment. Stimulants encourage the development and are called income-generating factors. Thus, shocks typically lower per capita income at first, while stimulants tend to raise it. Some nations remain underdeveloped because the positive impacts are insufficient compared to the negative ones. It is only when the income-raising factors surpass income-depressing factors that the critical minimum is reached and the economy would be on the development path.

- Growth agents drive economic development

### 3.3.2.1 Role of Growth Agents

The rationale of the critical minimum effort thesis rests on certain conditions where income-increasing forces expand at a rate higher than the income-depressing forces. In the development process such a condition is brought by “growth agents”. According to Leibenstein, growth agents are those individuals who have the capabilities to carry out growth-contributing activities. They are categorised as entrepreneurs, investors, discoverers, etc. Their contributions lead to a more entrepreneurial environment, a deeper knowledge base, a more skilled workforce, and ultimately, increased savings and investment. The expansion and contraction of growth agents depends on the anticipated outcome and the actual result of their activities.



- Minimum level of investment for development

the income by 'fb'. As the decrease in income 'fb' is greater than the increase in income 'na', the multiplier will operate in the backward direction. The initial investment level OM will generate the path 'abcd' (indicated by arrows) till it eventually settles at E. It means that OM level of investment is insufficient to encourage the forces of stimulants. To reverse this downward trend, investment is to be raised beyond OM level of investment. Suppose investment is raised to OK, per capita income would increase by 'SG' and an explosive income growth path will be generated (as shown by the arrows starting from point G).

The above figure illustrates that the critical or minimum level of investment must be raised to the level of point K. Investment lower than this level will not ensure a steady path. In the diagram OK level of investment, thus, indicates the minimum level. Investment higher than the minimum level is required to break the vicious circle. The underdeveloped countries should attempt to achieve that required level of investment to solve the problems of underdevelopment.

### 3.3.3 Dependency Theory

The dependence of Less Developed Countries (LDCs) on Developed Countries (DCs) is the main cause of the underdevelopment of the LDCs. The mid-1960s and early 1970s witnessed the emergence of a new theory on underdevelopment, developed by Latin American economists. The main advocates of Dependency Theory are Andre Gunder Frank, Osvaldo Sunkel, Celso Furtado, Dos Santos etc. They all try to explain certain factors responsible for the underdevelopment of LDCs by developed countries.

Dependency economists classify countries into two groups: developed countries (DCs), such as Western Europe, Britain, and the United States, as the core, and less developed countries (LDCs), such as those in Asia, Africa, and Latin America, as the periphery.

There are unequal relationships between the core and periphery. Less developed countries rely on more developed countries in trade, investment, and technology, etc. This dependence will lead to a situation where the less developed areas remain underdeveloped. This occurs because powerful capitalist nations (the core) exploit the resources of the less developed countries for their advantage. The dependency theory is explained below in terms of the following characteristics.

- Dependency on DC's cause underdevelopment

- Dependency theory emphasises global inequality

### 3.3.3.1 Dependency: A Historical International Process

Dependency theorists such as Frank, Santos, Sunkel, Amin, and Furtado argue that the current economic and socio-political conditions in periphery are a result of a historical international process. For instance, Dos Santos holds that development has arisen globally as a result of the formation, expansion, and consolidation of capitalism, characterised as dependent capitalism. In this perspective, both developed and less developed countries are interconnected within the capitalist system. However, the structure of the global system is that the development of the centre occurs at the expense of the underdevelopment of the periphery. According to Frank, it is the world capitalist system that produced underdevelopment in the past and generated underdevelopment in the present. This has led to what Frank calls “the development of underdevelopment”.

- Dependency theorists analysed global inequality

Frank traces the process of development of under development at three levels. First, many countries in the periphery have been incorporated into the world economy since the early days of colonialism. At the second level, such peripheral countries have become capitalist economies through incorporation into the world economy. At the third level, the integration of peripheral countries into the global economy has created a “metropolis-satellite chain” wherein surplus produced in the periphery is continuously drawn off the centre. Consequently, the periphery experiences impoverishment while the centre becomes enriched.

- Frank’s analysis of underdevelopment

### 3.3.3.2 Foreign Capital

Peripheral LDCs rely heavily on foreign capital from the centre. This reliance leads to an “external orientation” for these countries, involving the export of primary commodities, the import of manufactured goods, and dependence on foreign support for industrialisation. Sunkel identifies agricultural stagnation, heavy reliance on primary commodity exports, significant foreign exchange requirements for industrialisation, and increasing fiscal deficits in peripheral countries, reason for necessitating foreign financing for them.

- Peripheral LDC’s depend on foreign capital

Further, relying on foreign capital results in a significant outflow of funds, including profits, royalties, transfer pricing, and payments of principal and interest to foreign investors

- Foreign capital causes peripheral exploitation

in the centre. Debt servicing further drains the wealth of third-world countries. Amin argues that foreign aid hinders agricultural development, encourages trade and investment dependencies, and reinforces the dominance of exploitative elites of less developed countries. Hence, foreign investment and aid signify the centre's dependence and exploitation of the periphery.

### 3.3.3.3 Technological Dependence

- Technological reliance leads to exploitation

Peripheral countries rely heavily on capital-intensive technologies imported from developed countries. These technologies often do not match with the production and consumption requirements of less developed countries (LDCs) and are primarily supplied by multinational corporations (MNCs) from developed nations. The technological dependency of LDCs on developed countries arises from the necessity to import technologies since they cannot innovate them internally. The lack of information about suitable technologies results in the exploitation of LDCs. Furthermore, MNCs contribute to economic and political imbalances within LDCs. MNCs impose restrictions on technology transfer to LDCs, resulting in complete technological dependence. Capital-intensive technologies contribute to unemployment in LDCs. They create income inequality and social tensions. Wage gaps between MNC and local workers deepen inequalities, and slow down developments in LDCs.

- MNC's exploit LDC's dependence

Frank and Santos discuss MNCs-led technological development. The centre extends its monopoly to peripheral nations through technology transfer, allowing LDCs to borrow. This results in the repatriation of profits and royalties by MNCs to the centre, worsening LDCs' balance of payments. Consequently, LDCs resort to devaluation and increased money supply, leading to inflation and adverse economic effects. Thus, peripheral countries are caught in a web of dependence structure.

### 3.3.3.4 Trade and Unequal Exchange

- Developed countries exploit LDC's economies

Dependency theorists argue that developed countries exploit less developed countries by compelling them to focus on exporting primary goods with unchanging demand regarding both price and income. Consequently, less developed countries frequently experience stagnant export revenues, along with unpredictable short-term price fluctuations. This situation

has led to a shortage of foreign currency and a deficit in the balance of payments for less developed countries.

Santos gives two reasons for BOP deficit:

1. DCs keep the prices of their exports to LDCs very high and that of their imports from LDCs very low.
2. Foreign capital from DCs controls major sectors of LDCs with the result that there are large outflows of profit, interest and principal.

- Unequal wages  
fuel trade  
disparities

Trade between the centre (DCs) and the periphery (LDCs) is characterised by unequal exchange. Dependency economist Amin says that the imbalance in trade between the core and the periphery is due to the wage differentials between the two regions. The wages are high in the core due to increased productivity, while they remain lower in the periphery due to lower productivity levels. With real wages low in the periphery (LDCs), the surplus value rate is higher there. The absentee capitalists of the centre that dominate the periphery's exporting sector find it profitable to produce and export commodities because of higher rate of surplus value in the periphery. Despite its implications for uneven trade, Amin argues that dependency is essential for generating surplus value in the periphery.

### 3.3.3.5 Dualism

- Dualism assist  
underdevelopment  
globally

Dependency theorists emphasise the concept of dualism, evident in their perspective. Globally, nations are categorised into developed countries (DCs) and less developed countries (LDCs), or as centre and peripheries, reflecting an international dualism. Additionally, there exists domestic dualism, where an advanced capitalist system from abroad coexists with an indigenous precapitalist system. The interaction between these systems often leads to a situation where the developed region suppresses the development of the underdeveloped region, resulting in what is termed as "development of underdevelopment."

Dualism on the international plane results in the dominance of developed countries (DCs) and the dependence of less developed countries (LDCs) in several ways: (a) by promoting foreign investment and capital-intensive techniques in LDCs through multinational corporations (MNCs); (b) by controlling scarce raw materials and natural resources in

- DC's dominate and exploit LDC's

LDCs; (c) by encouraging LDCs to export primary products and manipulating their prices for the benefit of DCs; (d) by implementing trade and aid policies that disadvantage LDCs and increase their reliance on DCs; (e) by encouraging consumerism through extensive advertising and exports; (f) by encouraging the elite and rich to pursue professional education in DCs and attracting skilled professionals to migrate to DCs with high salary offers, leading to brain drain from LDCs. Further, by training university intellectuals, future high-level government economists, and other civil servants in developed-country institutions where they are taught “unhealthy alien concept” and “inappropriate theoretical models.” Development economist Michael Todaro calls this the False-Paradigm Model of international dependence.

### 3.3.3.6 Critical Appraisal

- The critics observed that certain nations have benefited from colonialism. For instance, countries like India, which were colonised, possess well-developed transport and communication infrastructures. On the other hand, nations like Ethiopia, which were never colonised, exhibit comparatively lower levels of development.
- Modernisation theorists would counter the notion that isolation and communist revolution lead to effective development, citing the documented shortcomings of communism in Russia and Eastern Europe. They would highlight the benefits many developing nations have derived from aid-for-development programmes administered by Western governments.
- Neoliberals argue that underdevelopment primarily originates from internal factors rather than exploitation. They contend that poor governance, particularly corruption within governments, is the main reason behind the developmental challenges faced by many African nations. According to Neoliberal perspectives, Africa requires less isolation and a greater embrace of capitalism for development.
- British development economist Paul Collier in his theory “the bottom billion” argues the causes of underdevelopment cannot be reduced to a history of exploitation. Collier highlights those factors such as civil wars, ethnic tensions and being land-locked with poor neighbours are correlated with underdevelopment.

- Development theories offer diverse perspectives

## Summarised Overview

This unit discusses key unbalanced development theories addressing the challenges faced by developing countries. It starts with the low-level equilibrium trap, a concept suggesting that underdeveloped economies can become stuck at a low-income equilibrium due to insufficient savings and investment. The critical minimum effort thesis addresses that a significant, coordinated investment is required to break out of this trap and achieve sustainable economic growth. The dependency theory, which argues that the economic struggles of developing countries are rooted in their dependent and exploitative relationships with developed nations. These theories emphasise the need for structural changes and a reduction in dependency for genuine development.

## Assignments

1. Explain the low-level equilibrium trap theory.
2. Elucidate the concept of critical minimum effort.
3. Critically examine the Dependency theory.
4. Discuss about the important characteristics of dependency theory.

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## Suggested Reading

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2. Todaro, M.P and Smith. 2014. *Economic Development*. Pearson Education, USA.
3. Ray, Debaraj. 1998. *Development Economics*. Princeton, New Jersey.
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## Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.

# MASTER OF ARTS ECONOMICS



## Structural Aspects of Growth and Development

### Block 4





# UNIT 1

## Indicators of Development

### Learning Outcomes

After reading this unit, the learner will be able to:

- familiarise the key macroeconomic indicators
- examine population dynamics
- discuss the role of migration and capital formation in economic development
- understand the importance of technological progress

### Background

Germany's journey from the destruction of World War II to becoming Europe's largest economy shows how various factors contribute to national development. After the war, Germany faced significant challenges, including a displaced population and an ageing workforce. To address these issues, Germany invested in education and welcomed immigrants, which helped stabilise its economy. Understanding how demographic changes impact labour markets, economic policies, and social systems is crucial for understanding the complexities of development.

Germany's economic recovery was driven by substantial investments in rebuilding infrastructure and industry, supported by the Marshall Plan. The country also focused on technological innovation and vocational training, which helped it become a leader in high-tech industries and manufacturing. Additionally, the German government played a dual role in promoting economic growth and ensuring social equity through supportive policies and social welfare programs. This balance between market forces and state intervention offers a clear example of how government actions can shape economic outcomes. Germany's experience provides valuable insights into the roles of population dynamics, migration, capital investment, and technological progress in driving economic development.

## Keywords

GDP, Inflation, Unemployment, Population, Migration, Capital Accumulation, Investment, Technological Progress

## Discussion

- Evaluating a country's development progress

- GDP measures economic activity

### 4.1.1 Macro Indicators of Development

When assessing a country's development progress, economic indicators play a crucial role. These indicators help to measure various aspects of economic performance, providing insights into a nation's growth path. Common economic indicators, such as GDP, GNP, national debt, trade balance, credit rating, and wealth distribution offer valuable perspectives on economic development. Economic development signifies the transition of a nation from a basic, low-income economy to an advanced, high-income one, accompanied by sustained population growth. It includes efforts to increase economic, political, and social well-being through strategic policies and processes. These indicators help in formulating effective strategies for sustainable and inclusive economic growth.

They are as follows:

- 1. Gross Domestic Product (GDP):** Gross Domestic Product (GDP) serves as a crucial measure of a country's economic activity, calculated by adding up the total value of goods and services produced within its borders annually. This calculation includes private consumption, investment, public spending, changes in inventories, and net exports (exports minus imports). While GDP is typically assessed at market prices, adjustments can be made to factor in indirect taxes and government subsidies for a more accurate representation of income to factors of production, known as GDP at factor cost. Despite its widespread use, GDP faces criticism as an economic policy objective due to its limitations in measuring overall welfare. It overlooks non-monetised activities like leisure and unpaid valuable contributions such as informal education.
- 2. Gross National Product (GNP):** Gross National Product (GNP) is a measure that includes the Gross Domestic Product (GDP) of a country along with the income

- GNP includes GDP plus international income

- Accumulated government borrowing

- Difference between exports and imports within a specific period

- Assessment of creditworthiness

earned by its residents from investments made abroad. It also accounts for the income sent back to the country by foreigners living there. This comprehensive measure gives a more view of a nation's economic performance by considering both domestic and international income flows.

**3. National Debt:** National debt refers to the accumulated borrowing of a country's government, including both national and local levels. While often viewed as a burden, public debt can yield economic benefits. However, debt taken by one generation may pose challenges for future generations, particularly if not invested wisely. Unlike an annual public-sector budget deficit, the national debt includes all outstanding government borrowing yet to be repaid.

**4. Trade Balance:** Trade balance, represented as the net exports, reflects the difference between the value of a country's exports and imports within a specific period. It signifies the relationship between what a nation exports to other countries and what it imports. A positive balance, known as a trade surplus, occurs when exports exceed imports, while a negative balance, termed a trade deficit or trade gap, arises when imports exceed exports. The trade balance includes both goods and services. However, accurately measuring it can pose challenges due to data recording issues. Notably, when tallying global trade data, exports often appear to exceed imports by a small margin, suggesting a positive global trade balance. However, this inconsistency is likely due to various factors like money laundering, tax evasion, smuggling, and data visibility issues. Despite these challenges, developed countries tend to maintain more accurate trade balance records.

**5. Credit Rating:** A credit rating serves as an assessment of individuals, corporations, or even a nation's creditworthiness. This evaluation, conducted by credit bureaus, analyses the borrower's credit history comprehensively. It provides lenders with insights into the borrower's capacity to repay debts. A credit rating offers a glimpse into the likelihood of loan repayment and is derived from financial records and current financial standing. However, beyond its traditional use in lending, credit ratings have expanded their influence in recent times. They now impact insurance premiums,

employment opportunities, and even determine utility or leasing deposits. A lower credit rating suggests a higher risk of default, leading to either higher interest rates or loan rejection by lenders.

- Division of assets in society

**6. Wealth Distribution:** Wealth distribution refers to how wealth is divided among different individuals or groups within a society, focusing on ownership of assets rather than current income. Wealth is calculated as assets minus liabilities, representing a person's net worth. It is important to differentiate between wealth and income, where wealth includes owned economic assets, while income means incoming economic values. Understanding wealth distribution is vital in development economics to assess economic disparities and formulate equitable development strategies.

- A measure for living standards comparison across nations

**7. Real Per Capita Income:** Real per capita income, calculated as real GDP divided by the population, serves as a metric for comparing living standards across nations using common international currencies like the dollar or the euro. While it helps in assessing a country's development, it falls short as a complete measure for several reasons. Firstly, it focuses on total value without exploring sectoral composition, such as agriculture, industry, or services. Secondly, it overlooks income distribution within the population, neglecting societal inequalities. Moreover, it lacks consideration for important aspects of economic development like poverty reduction, political freedoms, literacy rates, and overall welfare. Despite its historical use due to the absence of better indicators, relying solely on real GDP per capita limits a complete understanding of a nation's development.

- Measures health, education, and living standards

**8. Human Development Index (HDI):** The Human Development Index (HDI) serves as a measure of a country's overall progress in social and economic spheres, introduced by the United Nations Development Programme (UNDP) in 1990. Economist Mahbub-ul-Haq is credited with developing the HDI, which assesses well-being based on three key criteria: life expectancy for health, education access through literacy rates and enrollment, and standard of living determined by Gross National Income (GNI) per capita. The HDI is key for identifying countries, especially Least Developed Countries (LDCs), that require targeted assistance from the United Nations.



## 4.1.2 Population and Economic Development

- Demographic changes pose challenges and opportunities

Population typically refers to the number of individuals residing in a specific area. The term itself traces back to Late Latin word, ‘populationem,’ meaning a multitude, derived from the Latin word ‘populus,’ signifying a people. As of November 15, 2022, the global population exceeded 8 billion, marking a billion-person increase since March 12, 2012, as per UN data. Another estimate by the UN noted that Earth’s population surpassed seven billion in October 2011. The United Nations Population Fund (UNFPA) highlights that such rapid growth presents both challenges and opportunities for humanity. India stands as the world’s most populous nation, accounting for approximately one-sixth of the global population. According to United Nations estimates, India surpassed China as the most populous country by the end of April 2023, with a population of approximately 1,425,775,850. These demographic shifts have significant implications for global development economics, influencing factors such as resource allocation, labour markets, and social welfare policies.

- Rapid population growth has driven industrialisation and economic expansion

The impact of population growth on economic development has long been a subject of interest among economists, dating back to the time of Adam Smith and his major work, “The Wealth of Nations.” Smith stated, “The annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life,” highlighting the importance of labour in economic prosperity. Economists like Malthus and Ricardo raised concerns about the consequences of population growth on economies. However, contrary to their pessimistic predictions, the experience of Western Europe has shown a different narrative. Population growth in these regions has actually encouraged rapid industrialisation and economic growth. This contradictory outcome can be due to several factors unique to these wealthy economies, including abundant capital resources and a scarcity of labour. In these contexts, the labour supply for the industrial sector is highly responsive (or elastic), allowing even a high population growth rate to fuel increased productivity and economic output. A small increase in population has thus translated into more than proportional growth in the gross national product (GNP), showcasing the relationship between population and economic progress.

### 4.1.2.1 Dual Role of Population

- Population growth has a dual impact on economic development

Population growth plays a dual role in the context of economic development, showcasing its potential as both a catalyst and a challenge for nations worldwide. On the one hand, a growing population can strengthen economies through expanded labour forces, raise productivity levels, and increase consumer demand, promoting economic prosperity. Conversely, rapid population growth can drain resources, worsen urbanisation challenges, and delay per capita income growth, particularly in less developed regions. This duality highlights the impact of demographic trends on economic paths, highlighting the need for balanced strategies to tackle demographic dividends while addressing associated challenges for sustainable development.

- Guides strategies for sustainable and inclusive development

Understanding the complex relationship between population growth and economic development is key for policymakers, economists, and societies at large. This dynamic interplay shows both positive and negative effects, shaping the growth of nations and regions. On the one hand, population growth can fuel economic expansion through increased labour supply, productivity gains, and demand stimulation. However, it also presents challenges, such as resource depletion, urbanisation strains, and income disparities, particularly in underdeveloped regions.

- Development through increased productivity, capital formation, and consumption

#### Positive Effects on Economic Development

- 1. Increase in Per Capita Product:** Economists like Kuznets, Lewis, and Meier argue that population growth has contributed significantly to the economic growth of developed nations. This growth has led to higher total and per capita product due to the increased labour force and subsequent productivity gains.
- 2. Rise in Labour Productivity:** The increase in per capita product is often tied to improvements in labour productivity. Better-educated and skilled workers lead to greater output per unit of labour, fostering economic growth.
- 3. Growth of Physical Capital:** Recent research suggests that population growth plays a role in capital formation through human capital development. Education and knowledge enhancement contribute to higher skills and efficiency, thus boosting productivity.

4. **Age of High Mass-Consumption:** During phases of high population growth, increased demand stimulates investment and development in key sectors, leading to widespread consumption and economic growth.
5. **Source of Capital Formation:** In underdeveloped countries, surplus labour due to high population can be channelled into capital projects, promoting economic development through infrastructure improvements.

### Negative Effects on Economic Development

1. **Resource Overuse:** Rapid population growth affects natural resources, especially in agrarian economies. Smaller land holdings and overcultivation lead to diminishing returns, affecting agricultural productivity.
2. **Urbanisation Challenges:** Managing rapid urbanisation becomes difficult, impacting infrastructure, housing, and environmental sustainability.
3. **Per Capita Income Decline:** High population growth exerts pressure on land and resources, leading to increased costs and reduced per capita income, especially in underdeveloped countries.
4. **Agricultural Development Constraints:** Land-man ratios are disturbed, leading to reduced per capita productivity and affecting agricultural advancements.
5. **Employment Issues:** Rapid population growth contributes to mass unemployment and underemployment, straining economic resources and reducing capital formation.

- Strains resources, hampers urbanisation, lowers income, restricts agriculture, and worsens unemployment

- Balanced population growth

Population growth's impact on economic development depends on various factors such as education, technology, and resource management. Balancing population growth with sustainable development strategies becomes crucial to reduce negative impacts and utilise demographic dividends effectively. Addressing education, employment, and resource management can turn population growth into an asset for economic progress and societal well-being.

### 4.1.3 Migration and Development

Migration refers to the movement of people from their usual place of residence to another location, either within national

- Migration shapes population dynamics

boundaries (internal migration) or across international borders (international migration). Migration represents the third pillar of population change, alongside mortality and fertility. Unlike mortality and fertility, which are biological processes influenced by social, cultural, and economic factors, migration is driven by individual choices and external environmental factors. It reflects human responses to economic, social, and demographic dynamics in their surroundings, making it an important aspect of population studies. Understanding migration patterns is essential as it shapes population growth rates, demographic structures, and societal characteristics.

Various factors motivate migration, broadly categorised into economic, socio-cultural, and political factors. They are:

- Various factors crucial roles in shaping migratory patterns globally

1. **Economic factors**, often termed as ‘Push Factors’ and ‘Pull Factors,’ play a central role in voluntary migration. Push factors, such as poverty, unemployment, and limited economic opportunities in rural areas, force individuals to seek better prospects elsewhere. Conversely, pull factors, including job opportunities, higher wages, improved living conditions, and urban amenities, attract migrants to specific areas, especially urban centers experiencing rapid industrial and commercial growth.
2. **Socio-cultural factors**, such as family conflicts, changing attitudes influenced by media and education, also contribute to migration trends.
3. **Political factors**, including regional policies favouring local residents or conflicts leading to migration, also influence migratory patterns significantly.

- Various factors motivate migration

In countries like India, the concept of ‘push factors’ gains significance, reflecting situations where urban unemployment and underemployment discourage fresh rural-urban migration. This highlights the complexity of migration determinants, which may involve a combination of economic, social, and political factors. Understanding the nature of migration is important for policymakers and researchers as it impacts population distribution, labour force dynamics, and societal changes. By analysing migration patterns and addressing underlying factors, societies can develop more informed policies to manage migration flows and promote inclusive development.

#### 4.1.4 Capital and Economic Development

Capital comprises of a wide range of assets and resources that contribute value or benefits to their owners, such as factories with machinery, intellectual property like patents, or financial assets held by businesses or individuals. While money itself can be seen as capital, the term is more commonly associated with cash utilised for productive or investment purposes. Capital plays an essential role in sustaining daily business operations and funding future growth initiatives. It mainly includes cash or liquid assets reserved for expenditures. However, in a broader context, capital includes all assets with monetary value, including equipment, real estate, and inventory, within a company's portfolio. From a budgeting perspective, capital primarily refers to cash flow. Generally, capital serves as a measure of wealth and serves as a resource for expanding wealth through direct investments or capital projects. Individuals hold capital and capital assets as part of their net worth, while companies manage capital structures including debt capital, equity capital, and working capital for ongoing expenses. Effectively managing capital is critical in influencing investment decisions, economic growth, and overall financial stability.

- Valuable assets contributing to owners' wealth

Capital formation plays a vital role in a country's economic progress, representing the net accumulation of capital goods over an accounting period. These goods, including equipment, tools, transportation assets, and infrastructure, are essential for maintaining and expanding production capacities. As older capital goods wear out or become obsolete, their replacement is crucial to sustaining economic output. The process of capital formation relies on generating savings and investments, either through household savings or government policies. Countries with higher rates of household savings can accumulate funds more rapidly, facilitating the production of new capital goods. Similarly, governments running surpluses can invest in infrastructure and other capital-intensive projects, further boosting capital formation.

- Accumulation of capital goods essential for production

For example, companies like Caterpillar (CAT), a global leader in construction equipment manufacturing, play a significant role in capital formation. Through issuing stocks and debt instruments, Caterpillar raises funds from investors, which are then utilised to expand production capacities and develop innovative products. When investors purchase stocks and bonds issued by such companies, they contribute to the overall

- Capital formation by raising funds from investors

capital formation of the country, enabling firms to take risks, increase production, and drive economic progress through technological advancements and improved efficiency. Capital forms the foundation of economic development, representing the portion of a nation's wealth devoted to generating additional wealth through production. It includes all forms of reproducible wealth directly or indirectly employed in creating substantial output. Considerable capital investments are directed towards key projects such as constructing irrigation systems, manufacturing agricultural machinery, building infrastructure like dams, bridges, land reclamation tools, and developing transportation networks such as roads, railways, airports, and more.

According to economic scholars like Colin Clark, capital goods are reproducible wealth used for production purposes, contributing significantly to further wealth generation. Professors Simon Kuznets and Ragnar Nurkse highlight capital's essential role in economic development, emphasising its contributions such as:

- Vital for wealth generation, productivity, innovation, and economic expansion

- 1. Increasing Per Capita Productivity:** Capital accumulation is closely linked to technological advancements, enabling economies to scale up production, benefitting from economies of scale and increased output.
- 2. Facilitating Advanced Production Methods:** Capital allows for advanced production methods, leading to productivity gains through mechanisation and technological advancements.
- 3. Supporting Production Expansion:** As populations grow, increased capital accumulation becomes essential to expand production capacities and accommodate growing labour forces.
- 4. Driving Technological Progress:** Capital fuels innovation and technological advancements, supporting the adoption of new techniques and utilisation of new ideas.
- 5. Catalysing Agricultural and Industrial Development:** Capital is essential for modernising agricultural practices, increasing productivity, and promoting industrial growth through the adoption of advanced technologies.



6. **Optimising Natural Resource Utilisation:** Adequate capital facilitates the proper utilisation of natural resources, promoting sustainable development practices.
7. **Addressing Population Growth and Public Services:** Capital investments are vital for implementing population control measures, providing essential public utilities and infrastructure, and meeting basic needs like food, shelter, and healthcare, particularly in developing economies.

- Foundation for wealth, productivity, and innovation

Understanding and strategically deploying capital resources are fundamental to encouraging sustainable economic growth, technological advancement, and improving living standards for populations globally. It serves as the foundation upon which nations build their wealth, productivity, and technological progress. Through strategic investments in capital-intensive projects, countries can increase per capita productivity, drive innovation, and modernise key sectors such as agriculture and industry. Capital also plays a vital role in optimising natural resource utilisation, addressing population growth challenges, and providing essential public services.

#### 4.1.5 Technical Progress

- Technological advancements impacting economic productivity

The concept of ‘technical progress’ includes various dimensions that play key roles in economic development. Economists use this term to capture the impact of technological advancements on overall productivity growth within an economy. This includes advancements in labour-saving, capital-saving, or neutral technologies, each contributing uniquely to economic efficiency. Furthermore, technical progress refers to tangible changes in technology itself, focusing on improvements in the design, sophistication, and performance of machinery and processes. These improvements stem from activities such as research, invention, development, and innovation, highlighting the dynamic nature of technological evolution.

Technological change is one of the key determinants of economic growth and acts as the major driver behind sustained increases in output per capita, thus wielding immense influence over economic prosperity. At its core, technological change denotes the discovery and adoption of new and improved methods for producing goods and services. These

- Economic growth by improving productivity across resources

advancements often lead to higher productivity across labour, capital, and other resources, collectively known as total factor productivity. Consequently, technological progress enables greater output with the same resources or the same output with fewer resources, marking a shift in production efficiency.

- Fueling sustainable development

The origin of technological progress lies in inventions and subsequent innovations. While inventions represent new scientific discoveries, innovations signify their practical utilisation in commercial production. However, not all inventions may translate into viable production methods due to economic feasibility considerations. The transformative impact of technological change is most evident in its ability to boost output per capita. It empowers economies to harness natural resources more effectively, discover new economic uses for existing resources, and raise workforce productivity through advanced machinery, methodologies, and skills. Moreover, technological advancements often lead to the creation of new products, further elevating the production landscape and expanding economic opportunities. This evolution is linked with capital formation, as new technologies need investments in modern equipment and infrastructure. Capital accumulation acts as a channel for integrating new technologies into economic processes, thereby driving national productivity and promoting sustainable growth.

- Dynamic and multifaceted nature of technological change

Historically, scholars like Adam Smith and J.A. Schumpeter have highlighted different faces of technological progress. Smith emphasised productivity gains through specialisation and division of labour, contributing to national income growth. Conversely, Schumpeter emphasise the role of technological innovations driven by entrepreneurial initiatives, leading to transformative economic progress in bursts rather than gradual increments. While technological change is a potent catalyst for economic growth, its trajectory and impact are influenced by a complex interplay of factors. The speed and nature of innovations, coupled with effective capital deployment, ultimately shape the course of economic development, making it a dynamic and evolving journey rather than a linear progression.

Technological advancement and economic growth share an interdependent relationship, with the level of technology serving as a key determinant of economic progress. A high level of technology is instrumental in achieving rapid rates of



- Inventions and innovations fuel rapid growth

growth. Conversely, if technological stagnation sets in, growth is affected, highlighting the essential role of technological progress in sustaining economic growth. Inventions and innovation fuels rapid economic growth, and is evident in developed nations where major steps in productivity can be attributed to technological advancements. The significance of technological change in economic development is further highlighted by notable economists like Karl Marx, Schumpeter, and observations made by scholars such as Kindleberger and Robert Solow. Their analyses reveal that a substantial portion of increased productivity, essential for economic growth in developed countries, stems from technological advancements rather than capital accumulation alone. In the case of the U.S. economy, Solow's estimates highlight the significant contribution of technological change, accounting for a substantial share of overall growth after accounting for labour force expansion and capital stock growth.

The impact of technological progress on economic development are as follows:

- Technological progress improves resource use, exports, infrastructure and productivity

1. **Resource Utilisation:** Technological progress promotes intensive utilisation of available resources, diversifying output and contributing to national income growth.
2. **Utilising Potential Resources:** Advancements in technology enable the discovery and utilisation of untapped potential resources, reducing dependency on imports and increasing domestic production capabilities.
3. **Export Promotion and Import Substitution:** Technological advancements facilitate export diversification and import substitution strategies, strengthening economic conditions and reducing external dependencies.
4. **Infrastructure Development:** Technological progress drives infrastructural growth, improving essential facilities like transport, communication, power, and irrigation key for economic expansion.
5. **Efficiency Enhancement:** Technological innovations improve the efficiency of human resources through training and adoption of modern production techniques, leading to cost reductions and increased productivity.
6. **Industrialisation:** The growth of industries is linked to technological progress, driving industrial revolutions, and

establishing economic parameters crucial for sustained growth.

- Technological progress increases industrial growth, social change, savings, foreign investment, and agriculture

**7. Social and Economic Structural Changes:**

Technological advancements promote progressive social and economic transformations, inspiring innovation, and shedding outdated conventions, leading to a more dynamic economic environment.

**8. Capital Formation:** Increased productivity resulting from technological progress stimulate savings and investments, fueling capital formation, and accelerating economic growth rates.

**9. Foreign Capital Utilisation:** Technological advancements attract foreign capital investments, depending on technological integration, promoting domestic technological advancements and economic growth.

**10. Agricultural Development:** Agricultural sectors also benefit significantly from technological advancements, as seen in examples like the Green Revolution in India, leading to increased productivity and sustainable growth pathways.

Technological progress emerges as a basis of economic development, driving innovation, efficiency, and structural transformations essential for sustained and inclusive growth across various sectors and economies. The relationship between technological advancement and economic growth illuminates the transformative power of innovation in shaping modern economies. As demonstrated in historical and modern economic theories, technological progress serves as a catalyst for intensive resource utilisation, export promotion, infrastructural development, and efficiency improvements across various sectors. Moreover, technological innovations not only drive industrialisation but also facilitate social and economic structural changes, assisting in progressive standards and heightened productivity levels.

- Structural transformations across sectors

## Summarised Overview

Macro indicators of development are important for assessing a country's economic progress and growth path. These indicators include GDP and GNP, which measure economic activity and national income comprehensively. National debt reflects government borrowing and fiscal health, while trade balance signifies export-import dynamics. Credit ratings measure creditworthiness, and wealth distribution assesses economic differences. Real per capita income provides a standard for living comparisons, but HDI offers a broader view, including health, education, and income levels for a complete development assessment. The relationship between population growth and economic development is complex, with both positive and negative impacts. Historically, population growth has driven industrialisation and economic expansion in certain contexts, highlighting its potential as a catalyst for economic prosperity through increased labour supply, productivity gains, and consumer demand. However, rapid population growth also poses challenges such as resource depletion, urbanisation strains, and income disparities, especially in less developed regions. This dual role is key for policymakers to develop balanced strategies that utilise demographic dividends while addressing associated challenges for sustainable development. Migration refers to people moving from their usual residence to another location within a country (internal) or across borders (international). It is driven by economic, socio-cultural, and political factors, impacting population dynamics, labour forces, and societal characteristics.

Capital, includes various assets like machinery, intellectual property, and financial resources, plays a key role in economic development by supporting business operations, funding growth initiatives, and measuring wealth. Capital formation, achieved through savings and investments, involves accumulating capital goods essential for production, infrastructure development, and technological advancements. Economic scholars emphasise capital's role in increasing productivity, facilitating advanced production methods, supporting population growth, driving technological progress, and optimising resource utilisation, thereby promoting sustainable development, and improving living standards. The concept of technical progress is key in understanding economic development, includes advancements in technology that raise overall productivity within an economy. It includes labour-saving, capital-saving, or neutral technologies, each contributing uniquely to economic efficiency. Technical progress also involves changes in technology itself, focusing on improvements in machinery and processes driven by research, invention, development, and innovation. This multifaceted understanding of technical progress is key for analysing and promoting economic growth.

## Assignments

1. Discuss the macro indicators of development.
2. Examine the dual role of population growth in economic development.
3. Write about the factors that motivate migration.
4. Elucidate the role of capital in economic development
5. Discuss the nature of technical progress and its role in economic development.

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## Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.



## UNIT 2

# LDCs and Terms of Trade

### Learning Outcomes

After reading this unit, the learner will be able to:

- understand the challenges and opportunities of LDCs
- discuss the concept of terms of trade
- know about Prebisch – Singer thesis
- analyse the impact of globalisation on economic development

### Background

Zambia, a country in Southern Africa, has abundant reserves of copper, which have historically been the foundation of its economy. For decades, Zambia has relied heavily on exporting copper to generate foreign exchange earnings and drive economic growth. However, despite consistent levels of copper production and export, Zambia begins to notice a troubling trend: it can purchase fewer goods and services from abroad with the same amount of copper exports. This phenomenon represents a deterioration in Zambia's terms of trade. The theories of Singer and Prebisch provide valuable insights into understanding Zambia's situation. According to these theories, primary commodity-exporting countries like Zambia tend to face declining terms of trade over time. This means that the prices of their primary exports, such as copper, tend to fall relative to the prices of manufactured goods that they import, such as machinery, technology, and consumer goods. As a result, countries like Zambia find themselves in a situation where they need to export increasingly larger quantities of their primary commodities to maintain the same level of imports, leading to economic challenges.

Furthermore, Zambia's experience with globalisation adds another layer of complexity to its economic dynamics. As the country becomes more integrated into the global economy, it gains access to new markets, technologies, and investment opportunities. However, globalisation also exposes Zambia to increased competition from foreign producers and fluctuations in global commodity prices. This exposure to external factors

intensifies the impact of deteriorating terms of trade on Zambia's economic stability and development prospects.

## Keywords

LDCs, Terms of Trade, Trade, Globalisation, Prebisch-Singer Thesis

## Discussion

### 4.2.1 Terms of Trade

The terms of trade of a nation represent the relationship between the prices of its exports and imports. Specifically, it is the ratio of the price index of exports to the price index of imports, often expressed as a percentage. This measure, known as the commodity or net barter terms of trade, is key in assessing economic performance. An improvement in a nation's terms of trade signifies that the prices it receives for exports have risen relative to the prices it pays for imports. For instance, if a country's terms of trade increase from 100 to 120, it indicates a 20% rise in export prices compared to import prices. Conversely, a decline in terms of trade reflects a deterioration in this price relationship. It is important to note that changes in terms of trade are influenced by various factors both within the nation and globally. While an improvement in terms of trade is generally seen as beneficial, it does not automatically imply overall welfare gains for the nation. Similarly, a decline in terms of trade does not necessarily equate to economic decline.

- Export/import price ratio

Foreign trade has historically served as a powerful stimulus for economic growth, a fact represented by the success of the newly-industrialising economies in Asia like South Korea, Taiwan, Singapore, and Hong Kong. While scholars like Prebisch, Singer, and Myrdal once held strong beliefs in protectionist trade policies, the contemporary era, governed by the WTO, has a new era of opportunities through free trade principles. Globalisation has facilitated increased movement of goods and services across borders, linking trade with the expansion of international production networks. The establishment of

- Trade drives growth

institutions like the WTO, succeeding the GATT, aims to promote a commercial environment favourable to multilateral exchange. Over time, trade barriers have significantly reduced, especially benefiting developing countries and enabling them to actively engage in global trade. This shift has seen developing nations move away from reliance on commodity exports towards a more diversified trade portfolio, focusing on manufactured goods and services. Moreover, there has been a significant increase in intra-developing country trade, which shows the evolving dynamics of global trade patterns.

The role of foreign trade in driving economic development can be analysed from two perspectives: static gains and dynamic gains. It is explained as follows.

### Static Gains from Foreign Trade

- Specialisation improves welfare

The static gains from foreign trade revolve around the improvement in well-being achieved through specialisation and trade based on comparative advantage. By exporting goods with lower relative costs and importing goods with higher relative costs, countries can improve their economic welfare. However, the adjustment process is often affected in developing countries due to their economic systems' limited responsiveness to price changes in the short term. This can lead to challenges in reallocating factors of production efficiently across sectors.

Despite these challenges, static gains from trade are evident in several ways:

- Trade increases welfare, productivity, employment, and economic diversification

1. Imports of higher-quality goods improve consumer welfare and increase productivity in sectors using capital and intermediate inputs.
2. Specialisation according to comparative advantage promotes the expansion of sectors utilising relatively abundant factors, such as labour-intensive production. This raises employment, wage growth, and economic diversification, aligning with the Heckscher-Ohlin theory of trade.
3. Foreign trade can serve as a 'vent for surplus,' absorbing excess production capacity and boosting output and employment levels beyond domestic demand constraints.

However, these static gains are impacted by various factors:

• Factors affecting static gains

1. Over-reliance on traditional goods for exports may lead to income instability and price volatility, especially given their low-income elasticity and supply variability.
2. Large export volumes from developing countries can lead to adverse terms-of-trade effects, favouring more developed trading partners.
3. Dependence on imports for manufactured and capital goods can create economic vulnerabilities and tie the developing country's economic fate closely to industrialised nations.
4. High unemployment rates in developing countries often limit the positive impact of increased demand on wage levels.

### Dynamic Gains from Foreign Trade:

The dynamic gains from foreign trade include broader and long-term effects on economic development. These include:

• Dynamic gains from foreign trade have long-term benefits

1. **Economies of Scale:** Access to larger international markets enables economies of scale, benefiting industries that may not be competitive in isolated domestic markets.
2. **Infant Industry Development:** Trade exposes developing countries to new technologies, markets, and processes, strengthening the growth of infant industries into globally competitive ones.
3. **Investment and Technological Dissemination:** Increased trade stimulate investment, technology transfer, and institutional changes, positively influencing economic growth and development.

However, dynamic gains must be balanced against potential negatives:

1. **Market Imperfections:** Market imperfections and imperfect competition in developing countries can lead to suboptimal trade patterns and affect long-term development goals.

- Dynamic gains must be balanced

**2. Commodity Specificity:** Not all commodities contribute equally to overall economic growth due to varying production linkages and returns to scale characteristics.

**3. Market and Policy Disparities:** Differences in market operations and policy frameworks between developing and industrialised countries can result in unequal distribution of trade benefits, perpetuating underdevelopment in some economies.

While international trade can support economic growth and development, its impact is complex and dependent on various economic, market, and policy factors. Understanding these complexities is vital for formulating effective trade policies that promote sustainable development across diverse global contexts.

#### 4.2.2 The Impact of Terms of Trade on Less Developed Countries (LDCs)

Less Developed Countries (LDCs) represent a group of nations facing significant economic, social, and infrastructural challenges that affect their overall development and integration into the global economy. These countries often struggle with high levels of poverty, limited access to education and healthcare, weak institutional frameworks, and underdeveloped industries. LDCs are characterised by low levels of industrialisation, heavy reliance on primary sectors such as agriculture, and vulnerability to external economic shocks. One of the key determinants of economic well-being for LDCs is their terms of trade, which refers to the ratio of export prices to import prices. A favourable terms of trade implies that the prices of a country's exports are relatively higher compared to the prices of its imports, leading to increased revenue and improved economic conditions. Conversely, a deteriorating terms of trade scenario, where export prices decline relative to import prices, poses significant challenges for LDCs' economic growth and development prospects.

The concept of deteriorating terms of trade refers to a situation where LDCs experience a long-term decline in the prices of their primary exports relative to the prices of the manufactured goods they import. Several factors contribute to the deteriorating terms of trade for LDCs. One primary factor is the low-income elasticity of demand for primary products, especially agricultural commodities. As global incomes rise,

- Vulnerabilities in LDCs

- LDCs face trade decline



the demand for food and raw materials may not increase proportionately, leading to relatively lower prices for these goods on international markets.

- Technological gaps affect trade

Technological differences between LDCs and developed nations also play a crucial role. Developed countries often have advanced technologies and processes that boost productivity and quality in manufacturing, allowing them to command higher prices for their goods. In contrast, many LDCs rely on traditional methods and face challenges in upgrading their industries and diversifying their exports. Global trade dynamics, including market competition, tariff barriers, and trade agreements, further influence terms of trade for LDCs. Protectionist policies in developed economies can limit market access for LDC exports, while fluctuations in commodity prices and currency exchange rates can worsen instability in trade balances.

#### 4.2.2.1 The Impact of Deteriorating Terms of Trade Case on LDCs

The impact of deteriorating terms of trade on LDCs affecting various aspects of their economies and societies are as follows:

1. **Economic Vulnerability:** LDCs heavily dependent on primary exports face revenue challenges as falling prices reduce export earnings. This limits their ability to invest in infrastructure, education, healthcare, and technology necessary for long-term development.
2. **Trade Balances:** Deteriorating terms of trade often lead to constant trade deficits as import costs rise relative to export earnings. This can affect foreign exchange reserves, increase debt levels, and heighten economic instability.
3. **Income Inequality:** Declining export revenues impact income distribution within LDCs, with rural and agricultural communities often bearing the impact of economic hardships. Limited opportunities for value addition and industrialisation further worsen income disparities.
4. **Development Priorities:** LDCs may face challenges in prioritising critical development areas such as education, healthcare, and infrastructure when faced with constrained financial resources due to unfavourable terms of trade.

- Deteriorating trade impacts LDCs' development

The impact of deteriorating terms of trade on LDCs highlights the interconnectedness of global economic dynamics and the necessity for inclusive and sustainable development strategies. By addressing structural constraints, promoting economic diversification, promoting trade partnerships, and advocating fair trade practices, LDCs can navigate challenges more effectively and realise their potential for economic growth and prosperity amidst a rapidly evolving global economy. The economic scenario for Less Developed Countries (LDCs) is often characterised by challenges arises from unfavourable and deteriorating terms of trade. The causes behind these conditions and strategies to improve them are as follows:

### Causes of Deteriorating Terms of Trade in LDCs

1. **Nature of Product:** LDCs primarily export raw materials and agricultural products while importing manufactured goods. This imbalance in trade contributes to terms of trade being skewed against LDCs.
2. **Effect of Technical Progress:** Technological advancements benefit industrial nations more as they retain gains from progress, while LDCs experience price reductions due to increased productivity without corresponding price increases.
3. **Different Market Conditions:** Industrial nations enjoy monopolistic conditions that prevent price declines despite technical progress. In contrast, LDCs face competitive markets, leading to lower prices for their exports.
4. **Price Movements Through Business Cycles:** Prices of primary products are more vulnerable to fluctuations during economic cycles compared to manufactured goods, resulting in a widening gap in terms of trade over time.
5. **Disparity in Demand:** Income elasticity of demand differs between primary and manufactured goods, affecting trade volumes and prices unfavourably for LDCs.
6. **Backward Technology:** LDCs' reliance on outdated technology affects productivity and competitiveness, contributing to adverse terms of trade.

- Factors contributing to deteriorating terms of trade in LDCs



7. **High Population Growth:** Overpopulation drains domestic resources, limits exportable surpluses, and reduces bargaining power in international trade.
8. **Lack of Import Substitutes:** Dependency on imports without domestic substitutes increases import costs, worsening terms of trade.
9. **High Transport Costs:** Geographic limitations, like being landlocked, can increase transport costs, reducing competitiveness in international markets.
10. **Political Instability:** Uncertain political environments affect investments and economic growth, limiting export diversification and productivity.

### Strategies to Improve Terms of Trade for LDCs

1. **Market Research:** Conducting thorough market research helps identify export opportunities and diversify markets to reduce reliance on a few trading partners.
2. **Human Resource Development:** Investing in education and training builds a skilled workforce, reducing reliance on costly imported labour and enhancing productivity.
3. **Promoting Peace and Security:** Ensuring political stability attracts investments, fosters economic growth, and boosts confidence in international trade.
4. **Good Governance:** Combating corruption and ensuring transparency enhances investor confidence, promotes efficiency, and supports sustainable economic development.
5. **Regional Integration:** Collaborating with neighbouring countries through economic blocks encourage regional trade, reduces trade barriers, and improves bargaining power in global markets.
6. **Public-Private Partnerships:** Encouraging private sector growth through supportive policies and incentives improves productivity, competitiveness, and export potential.
7. **Legal and Financial Reforms:** Implementing business-friendly legal frameworks and facilitating

• Strategies for LDCs to overcome trade challenges

access to finance promotes investment, innovation, and export-led growth.

- 8. Infrastructure Development:** Investing in transportation, communication, and energy infrastructure reduces trade costs, improves market access, and boosts competitiveness.
- 9. Export Promotion Zones:** Establishing export processing zones and providing incentives for export-oriented industries stimulates production, employment, and export revenues.
- 10. Population Control Measures:** Implementing effective population control policies helps manage resources, reduce dependency burdens, and support sustainable development efforts.
- 11. Diversification:** Encouraging diversification of exports and domestic production reduces vulnerability to commodity price fluctuations and improves flexibility in global markets.
- 12. Technology Adoption:** Embracing and investing in appropriate technologies increases productivity, quality, and competitiveness in global trade.

• Implementing these strategies, can reduce the unfavourable terms of trade

By implementing these strategies, LDCs can reduce the challenges caused by unfavourable terms of trade, improve their economic strength, and unlock opportunities for sustainable development and prosperity.

### 4.2.3 Prebisch-Singer Thesis

The Prebisch-Singer Thesis focuses on the terms of trade and their impact on developing countries. Raul Prebisch and H. W. Singer highlighted a concerning trend where the terms of trade consistently worked against developing nations, favouring industrialised countries instead. Prebisch's analysis, based on export data from the United Kingdom from 1870 to 1940, revealed a constant decline in terms of trade for primary products in contrast to manufactured and capital goods. Singer substantiated this argument, emphasising that this trend reduced the growth prospects of less developed countries (LDCs).

Central to the Prebisch-Singer thesis is the notion that as advanced economies experience income growth, their demand



- Demand shifts impact LDCs

shifts towards manufactured goods, driven by Engel's law. Engel's Law, formulated by Ernst Engel in 1857, states that as household income rises, the proportion spent on food decreases. This economic principle emerged from Engel's analysis of family budgets, demonstrating that higher incomes lead to a reduced percentage of spending allocated to food and an increase in expenditure on other goods, including luxury items. This shift, coupled with slow demand growth in developed nations, intensifies competition in the export markets of LDCs. Moreover, the monopolistic control of industrialised nations over manufactured goods allows them to manipulate prices to their advantage. Despite occasional successes like OPEC's impact on oil prices, the overall trend shows a decline in prices for primary products crucial to developing economies. This unfavourable terms-of-trade scenario continues due to various factors, including low wages in LDCs, appearance of substitutes reducing demand, and a lack of pass-through benefits from productivity gains in advanced economies.

- Debt pressure worsens trade

Singer also highlights the compounding effect of debt burdens on LDCs, leading to increased pressure to expand exports for debt repayment. This worsens price competition among LDCs, further straining their terms of trade. The Prebisch-Singer thesis highlights the structural challenges in international trade that negatively affects developing economies.

The Prebisch-Singer thesis operates on several key assumptions that explain the impact of international trade on developing nations:

- Rising incomes in developed nations shift demand away from primary goods

**i. Income Shift in Demand:** The thesis suggests that as incomes rise in advanced economies, there is a corresponding shift in demand patterns from primary products towards manufactured goods. This shift is attributed to Engel's law, which links income levels to consumption patterns.

**ii. Slow Demand Growth in Developed Countries:** Contrary to the income rise, there is a slower growth in demand for products within developed nations. This slower growth contributes to the competitive pressures faced by developing countries in global markets.

**iii. Competitive Export Market for LDCs:** Developing nations operate within a competitive export market environment. This competition influences pricing strategies and market access for their products.

**iv. Monopolistic Export Market for Developed Countries:**

In contrast, developed countries often have monopolistic control over the export market for their products. This control enables them to influence prices and maintain advantageous market positions.

**v. Low Wages and Prices in LDCs:** Developing countries generally experience lower wages and prices compared to developed nations. This cost differential impacts their competitiveness in global trade scenarios.

**vi. Impact of Substitutes:** The emergence of substitutes for products from developing countries diminishes the demand for these goods. This factor contributes to fluctuations in export demand and pricing dynamics.

**vii. Limited Pass-through Benefits:** Despite increased productivity in advanced economies, the benefits in terms of lower prices are not adequately passed on to developing nations. This lack of pass-through affects the cost competitiveness of products from LDCs.

**viii. Economic Growth Indicator:** The terms of trade, particularly income terms, serve as indicators of economic growth in developing nations according to this thesis. Changes in terms of trade reflect shifts in economic performance and global trade dynamics for these countries.

These assumptions collectively form the basis for understanding the challenges and dynamics faced by developing economies in international trade, guiding policymakers, and analysts in formulating strategies and policies.

Singer highlights a recent twist in the Prebisch-Singer thesis due to the escalating debt issues faced by Less Developed Countries (LDCs). This is explained in two ways:

- Firstly, a substantial portion of the revenue generated from exports is not accessible for imports, worsening the economic challenges faced by these countries.
- Secondly, there is mounting pressure on LDCs to increase their exports to repay external debts, often driven by IMF-induced adjustment policies. These pressures force debt-affected LDCs to engage in heightened competition with other

- Challenges and opportunities for developing economies

- Debt burdens in LDCs restrict export revenues for imports



less developed nations to increase their export earnings. Consequently, this competitive environment leads to a decline in the prices of the export goods of these countries, further complicating their economic situation.

### Critiques of the Prebisch-Singer Thesis:

The Prebisch-Singer Thesis has faced criticism such as:

- Concerns about oversimplified export comparisons

- Reliance on outdated data

- **Basis for Inference:** The implication of a secular deterioration of terms of trade for Less Developed Countries (LDCs) is based on the comparison of primary versus manufactured exports which lacks firm basis. LDCs export a wide range of products, including certain manufactured goods, and import various types of products as well.
- **Gains and Losses of Primary Exporters:** Jagdish Bhagwati argues that the index of terms of trade used in the thesis devalues the gains of primary product exporters and exaggerates their losses.
- **Index of Terms of Trade:** The thesis relies on an index based on British commodity terms of trade from 1870 to 1930, overlooking qualitative changes in products and the emergence of new varieties and services.
- **Neglect of Supply Conditions:** The thesis primarily considers demand conditions in determining terms of trade, neglecting significant changes in supply conditions over time, which also influence relative prices.
- **Limited Effect of Monopoly Power:** The thesis suggests that monopoly power in industrialised countries leads to a deterioration of terms of trade for developing countries, but empirical evidence does not strongly support this argument.
- **Applicability of Engel's Law:** The decline in demand for primary products in developed countries attributed to Engel's Law may not hold true as this law is more applicable to food than raw materials.

- Neglect of supply conditions

- Foreign investment impacts

- **Benefits from Foreign Investment:** Benefits from foreign investments, such as product innovations and diversification, may offset adverse effects on terms of trade and growth.
- **Difficulty in Assessing Demand Variation:** It is challenging to exactly assess changes in world demand for primary products and their impact on terms of trade among significant global developments.
- **Export Instability and Price Variations:** Export instability in LDCs may result from quantity variations rather than price variations, as suggested by McBean in his book 'Export Instability and Economic Development.'
- **Development of Export Sector vs. Domestic Sector:** Foreign investments may indeed promote export sector growth without necessarily affecting domestic sector growth, challenging the notion that worsening terms of trade result from a lack of domestic growth.
- **Faulty Policy Prescription:** Advocating protectionist policies may offer short-term gains but could induce reciprocal measures, making them unsustainable in the long run.
- **Lack of Empirical Support:** While early studies did not strongly support the thesis, more recent empirical evidence, including studies by UNCTAD and other organisations, has shown a relative decline in terms of trade for LDCs.

Despite these criticisms, empirical evidence continues to support the idea of a relative decline in terms of trade for LDCs, highlighting ongoing challenges in international trade dynamics and development efforts.

The Prebisch-Singer thesis, along with subsequent criticisms and analyses, sheds light on the long-term trends in trade relations and the challenges faced by less developed economies. This theory explains the reasons behind the secular deterioration of terms of trade for developing nations, including economic, technological, and geopolitical factors that have shaped global trade.

## Reasons Behind the Long-Term Deterioration of Terms of Trade for Developing Countries

- LDCs face deteriorating terms of trade

**1. Lack of Product Quality Improvement:** Developing countries have continued to export primary goods like coal, iron ore, tea, and copper without significant quality improvements over time. In contrast, manufactured goods have seen substantial quality advancements, leading to higher demand and prices for these goods relative to primary products.

**2. Unequal Distribution of Technical Progress Gains:** Technical progress benefits in developing countries often pass on to consumers in advanced economies through lower-priced primary exports. Conversely, advanced economies retain gains through higher incomes, creating an imbalance in gains distribution.

**3. Risk of Immiserising Growth:** Overemphasis on export-led growth without balanced support for import-competing industries can reduce consumption equilibrium and worsen terms of trade for developing nations.

**4. Low Demand Elasticity for Agricultural Products:** The dominance of agricultural exports from developing nations faces low-income elasticity of demand, leading to lower spending proportions on these products relative to manufactured goods and thus, unfavourable terms of trade.

- Negative impact of import on economy

**5. Negative Impact of Imports on Local Industries:** Foreign imports can affect domestic industries, as seen historically in the decline of India's handicrafts due to British mill-made cloth imports, leading to increased dependence on primary exports and deteriorating terms of trade.

**6. Surpluses in Advanced Economies:** Large surpluses of agricultural products in advanced economies flood markets, reducing international prices and further affecting developing countries in trade.

**7. Shortage of Intermediate Goods:** Limited availability of intermediate goods affects diversification and transformation efforts in developing nations, forcing them to import at higher prices, worsening terms of trade.

**8. Foreign Investment Effects:** Foreign investments, primarily in plantation and mining sectors, have not promoted manufacturing growth in developing countries, contributing to the continuous deterioration of terms of trade.

**9. Rise of Synthetic Products:** Technological advancements in synthetic products have reduced demand for traditional exports of developing nations, leading to price declines and unfavourable trade terms.

- Regional and internal concerns

**10. Regional Economic Blocks:** Growth of economic blocks among advanced economies has redirected trade, reducing export growth for developing countries and worsening terms of trade.

**11. Protectionist Measures:** Adoption of protectionist policies by advanced economies against developing country exports has further hit trade terms negatively for developing nations.

The secular deterioration of terms of trade for developing countries is a phenomenon influenced by various economic, structural, and policy-related factors. The historical context of trade patterns, technological advancements, regional economic dynamics, and protectionist measures all contribute to shaping the terms of trade. Efforts towards fair and balanced international trade arrangements, coupled with domestic policy initiatives focused on economic diversification and value addition, can play a vital role in improving the terms of trade and promoting inclusive economic development globally.

- Factors shaping terms of trade

#### 4.2.4 Globalisation and Economic Development

Globalisation is an ongoing phenomenon that has significantly shaped our interconnected world, strengthening interactions and interdependence among nations, individuals, and businesses. This process includes the integration of economic, political, social, and cultural systems across borders, leading to increased flows of goods, services, capital, people, and ideas. The recent rise in globalisation owes much to rapid advancements in communication and transportation technologies, coupled with liberalised trade and investment policies. These factors have encouraged a notable increase in international trade and investment, which stands as a primary driver of globalisation. This, facilitated by reduced



trade barriers and innovative technologies enables swift cross-border movements, has transformed economies and societies globally.

### **Positive Impacts of Globalisation on Economic Development**

Globalisation has a positive impact on economic development, creating new paths for trade and investment, expanding market access, increasing efficiency and productivity, facilitating knowledge and technology transfers, promoting healthy competition, and driving economic growth.

#### **1. Increased Trade and Investment Opportunities:**

Globalisation's disintegration of trade barriers and the liberalisation of markets have significantly expanded opportunities for countries to engage in trade and investment activities. This increased economic interaction promotes specialisation based on comparative advantage, leading to higher efficiency in resource allocation and production. For developing nations, access to global markets presents avenues for export-led growth strategies, attracting foreign direct investment (FDI), and integrating into global value chains.

- Economic development through trade, investment, and efficiency

**2. Access to New Markets and Customers:** Globalisation has removed geographical barriers for businesses, allowing them to access previously inaccessible markets and tap into new customer bases. This access not only diversifies revenue streams but also encourages businesses to make products and services to meet the specific needs and preferences of different markets. This expansion of market reach contributes to business growth, economies of scale, and overall economic prosperity.

**3. Increased Efficiency and Productivity:** The competitive pressures brought about by globalisation induce businesses to continuously innovate, adopt new technologies, and improve processes to remain competitive. This drive for efficiency and productivity gains benefits not only individual firms but also entire industries and economies. Through technology transfers, knowledge exchange, and best practices adoption, globalisation contributes to overall economic efficiency and sustainable growth.

- Economic development via technology transfer, competition, and growth

**4. Spread of Knowledge and Technologies:** Globalisation serves as a channel for the exchange of knowledge, technologies, and best practices across borders. Collaborations between multinational corporations, research institutions, and governments facilitate the dissemination of cutting-edge technologies and expertise globally. This flow of knowledge contributes to innovation ecosystems, boosts research and development (R&D) activities, and promotes improvements in various sectors, from healthcare to manufacturing.

**5. Increased Competition:** Globalisation's interconnectedness and open markets promotes healthy competition among businesses on a global scale. This competition incentivises firms to try for excellence, quality improvements, and cost efficiencies to retain market share and attract customers. Consumers benefit from a wider array of choices, higher quality products, and competitive prices, leading to improved standards of living and consumer welfare.

**6. Potential for Economic Growth:** Particularly for developing nations, globalisation presents immense opportunities for economic growth and development. Access to foreign capital through FDI, technology transfers, knowledge exchanges, and participation in global trade networks can catalyse industrialisation, infrastructure development, and job creation. Developing economies can leverage globalisation to diversify their economies, improve competitiveness, and achieve sustainable economic growth trajectories.

By understanding these aspects of globalisation's positive impacts on economic development, policymakers, businesses, and stakeholders can make use of these opportunities effectively while addressing associated challenges such as income inequality, environmental sustainability, and social inclusion.

### Negative Impacts of Globalisation on Economic Development

Alongside its positives, globalisation has also brought about challenges and negative impacts on economic development, such as job displacements, income inequality, cultural homogenisation, environmental degradation, reliance on foreign markets, and vulnerability to economic downfalls.

- Development challenges include job displacements, income inequality and cultural homogenisation

- Development leads to environmental degradation, and economic vulnerability

- 1. Job Losses and Industry Declines:** Globalisation's impact on job markets is significant, particularly in sectors where industries relocate to regions offering lower production costs. This trend, often termed outsourcing or offshoring, results in job losses in the originating countries as companies seek cheaper labour and resources abroad. For example, manufacturing industries in developed nations may shift production to developing countries with lower labour costs, leading to unemployment and economic challenges in the former.
- 2. Income Inequality:** While globalisation leads to economic growth, it often disproportionately benefits certain regions or segments of society, worsening income inequality. Developed countries and skilled workers may experience income growth and improved standards of living, while developing countries and low-skilled workers may face stagnant wages and limited opportunities. This widening income gap within and between nations emphasises a key challenge of globalisation.
- 3. Cultural Homogenisation:** The spread of global brands, media, and cultural products often reflects dominant Western values and lifestyles, contributing to cultural homogenisation. Local cultures and traditions may face erosion or marginalisation as globalised media and consumerism promote standardised norms and preferences. This trend raises concerns about preserving cultural diversity and heritage in an increasingly interconnected world.
- 4. Environmental Degradation:** Globalisation's emphasis on increased economic activities and international trade can strain natural resources and ecosystems, leading to environmental degradation. Industrial production, transportation, and consumption patterns associated with globalisation contribute to pollution, deforestation, habitat loss, and climate change. Balancing economic growth with environmental sustainability remains a critical challenge in the era of globalisation.
- 5. Dependence on Foreign Markets:** Integration into global markets can offer economic benefits, but it also exposes economies to external shocks and vulnerabilities. Reliance on foreign markets for exports or investments means that changes in global demand, trade policies, or

financial conditions can significantly impact domestic economies. Sudden shifts in global economic conditions, such as recessions or trade disputes, can disrupt local industries and livelihoods.

- 6. Vulnerability to Economic Downturns:** Interconnected global economies are more interdependent, making them susceptible to global economic downturns and crises. Economic shocks in one region or sector can quickly propagate across borders, affecting trade, investment flows, and employment worldwide. This interconnectedness highlights the importance of coordinated international responses to economic challenges and crises to reduce their adverse effects on global economic development.

## Summarised Overview

The terms of trade measure the relationship between a nation's export and import prices. Foreign trade plays an essential role in economic growth through both static and dynamic gains. Static gains involve welfare improvements via comparative advantage and specialisation, with challenges like income instability. Dynamic gains include long-term benefits like economies of scale and technology dissemination but must navigate market imperfections and disparities for sustainable development. LDCs face significant challenges in economic development due to their vulnerabilities such as high poverty levels, limited access to education and healthcare, weak institutions, and heavy reliance on primary sectors. Their terms of trade, reflecting export and import price ratios, critically impact their economic well-being. Deteriorating terms of trade, influenced by factors like low-income elasticity, technological disparities, and global trade dynamics, pose substantial hurdles to LDCs' growth and development. The economic challenges faced by LDCs due to unfavourable and deteriorating terms of trade are multifaceted. Causes such as the nature of exported products, technological disparities, market conditions, and population growth contribute to this phenomenon. Strategies to improve terms of trade include market research, human resource development, promoting peace and security, good governance, regional integration, public-private partnerships, legal and financial reforms, infrastructure development, export promotion zones, population control measures, diversification, and technology adoption. These strategies aim to improve economic resilience, reduce dependency on a narrow range of exports, and promote sustainable development in LDCs.

The Prebisch-Singer thesis analyses the constant decline in terms of trade for developing countries, contrasting primary product exports with manufactured goods. It highlights income shifts in demand favouring industrialised nations, competitive pressures faced by developing countries, and the compounding effect of debt burdens on terms of trade. The thesis operates on assumptions such as income growth patterns, competitive export markets, and limited pass-through benefits from productivity gains. Criticisms of the



thesis include challenges in inference, gains and losses measurement, neglect of supply conditions, and limited empirical support. Globalisation has profoundly impacted economic development, promoting increased interconnectedness, trade liberalisation, and technological advancements. It has created opportunities for trade, investment, efficiency gains, knowledge transfers, and economic growth, but also brought challenges such as job displacements, income inequality, environmental degradation, and vulnerability to economic downturns.

## Assignments

1. Evaluate the static and dynamic gains from foreign trade.
2. Discuss the impact of deteriorating terms of trade on LDCs.
3. Examine the Prebisch-Singer Thesis.
4. Explain the impact of globalisation on economic development.

## Reference

1. Taneja, M. L., & Myer, R. M. (2017). *Economics of Development and Planning* (15th ed.). Vishal Publishing Co.
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1. Bhattacharya, A. K. (2014). *Institutions, Governance, and Indian Development: A Perspective*. Springer India.
2. Bardhan, P., & Mookherjee, D. (2011). *Decentralisation and Local Governance in Developing Countries: A Comparative Perspective*. MIT Press.
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## UNIT 3

# Factors of Development

### Learning Outcomes

After reading this unit, the learner will be able to:

- understand the impact of political institutions on economy
- assess how government decisions can impact an economy
- examine the influence of geographical factors on economic development

### Background

Following the devastating genocide in 1994, Rwanda faced immense challenges in rebuilding its shattered society and economy. Fundamental to its reconstruction was the establishment of political institutions that could promote stability, reconciliation, and sustainable development. Under the leadership of President Paul Kagame, Rwanda embarked on a comprehensive reform agenda aimed at strengthening governance structures, promoting transparency, and encouraging inclusivity. One key aspect of Rwanda's post-genocide development strategy was the deliberate emphasis on building strong political institutions capable of driving progress. The government implemented reforms to improve accountability, restructure bureaucracy, and combat corruption, laying the foundation for effective governance and public service delivery. Through initiatives like the Umuganda community work programme and the Gacaca courts system for transitional justice, Rwanda sought to promote social consistency and healing while addressing the legacies of the past.

Moreover, Rwanda's geographical settings posed both challenges and opportunities for development. Despite being a small, landlocked country with limited natural resources, Rwanda leveraged its strategic location in the heart of East Africa to follow regional integration and trade partnerships. Investments in infrastructure, such as the construction of roads and airports, facilitated connectivity and economic growth, while initiatives like the One Laptop Per Child programme aimed to bridge the digital divide and harness technology for development. Overall, Rwanda's experience highlights the critical role of political institutions and geographical settings in driving development outcomes. By

prioritising good governance, social cohesion, and strategic investments, Rwanda has made significant steps in overcoming its past and paving a path towards prosperity and resilience.

## Keywords

Political Institutions, Governance, Geographical Factors, Natural Resources

## Discussion

### 4.3.1 Political Institutions and Economic Development

Political institutions play a key role in shaping the economic environment of a nation. Building a healthy institutional framework is crucial for promoting economic growth and development within a globalised context. Without strong institutions, economic progress remains underdeveloped, affected by uncertainty and lack of protection for investments and contracts. The insights from Nobel laureate Douglass North and contemporary scholars like Dani Rodrik and Daron Acemoglu emphasise the role institutions play in shaping economic outcomes.

- Institutions shape economic growth

North's work explains that societies with inadequate enforcement of contracts suffer from stagnation and underdevelopment. This deficiency discourages investment and innovation, leading to economic inactivity. Mancur Olson explains this sentiment, emphasising the key role of secure property and contractual rights in stimulating economic activity. Institutions include a broad spectrum of formal and informal rules governing human behaviour. They include property rights protection, fair enforcement of laws and regulations, social protection mechanisms, and efforts to combat political corruption. These institutions form the backbone of economic stability and certainty, vital for rational decision-making by various economic agents such as investors, entrepreneurs, and workers. The groundbreaking book 'Why Nations Fail' by Acemoglu and Robinson highlights the link between inclusive

- Inclusive institutions foster innovation and growth



institutions and economic prosperity. Inclusive institutions, which challenge elite power and promote fair economic participation, promote innovation, and investment, leading to sustainable growth. Conversely, institutions concentrate power among the elite, suppress economic energy and continuing inequality.

### 4.3.1.1 The Impact of Institutions on Economic Development

Effective political institutions provide the framework for a stable and predictable economic environment in the following ways:

- Secure property rights enable investment

**1. Property Rights and Rule of Law:** Secure property rights are fundamental for economic growth as they provide individuals and businesses with the confidence to invest in assets like land, capital, and technology. When ownership is protected, people are more motivated to engage in long-term planning and risk-taking activities, which are drivers of economic progress. Moreover, a strong rule of law ensures that contracts are enforceable, disputes are resolved fairly, and there is a legal framework for economic activities. This promotes trust among investors, both domestic and foreign, and reduces the risk of arbitrary actions such as property takeovers or contract breaches. Ultimately, a strong system of property rights and rule of law creates a stable economic environment favourable to sustained growth and development.

- Political stability attracts investments

**2. Political Stability:** Political stability is essential for attracting investments and promoting economic growth. In countries affected by political disorders, such as frequent coups, civil unrest, or unstable governments, investors are hesitant to commit resources due to the uncertainty surrounding future policies and regulations. Long-term investments require a stable political environment where property rights are respected, contracts are maintained, and businesses can operate without fear of unexpected disruptions. Stable governments can focus on implementing sound economic policies, attracting foreign investments, and promoting a favourable environment for businesses to succeed. This stability encourages entrepreneurship, innovation, and long-term planning, all of which are crucial for sustained economic progress.

- Transparency and efficiency key to promoting development while corruption hinders progress and innovation

**3. Efficient Bureaucracy:** A well-functioning bureaucracy plays a key role in economic development by streamlining regulations, reducing red tape, and providing essential public services efficiently. A transparent and efficient bureaucracy ensures that businesses can navigate regulatory processes with ease, saving time and resources. Moreover, efficient public services such as infrastructure development, education, and healthcare are key for creating an environment conducive to economic activities. Conversely, a corrupt or inefficient bureaucracy creates bottlenecks, delays in approvals, and increases the cost of doing business. This discourages both domestic and foreign investors, affects economic growth, and suppresses innovation and entrepreneurship. Therefore, efforts to improve bureaucratic efficiency, reduce corruption, and improve transparency are vital for promoting economic development.

- Accountable governance ensures economic growth through efficient resource allocation and fair policies

**4. Accountable Government:** Governments accountable to their citizens are more likely to enact policies that promote economic development, social welfare, and equitable growth. Accountability fosters transparency in governance, reduces corruption, and ensures that public resources are allocated efficiently towards productive sectors such as infrastructure, education, and healthcare. Transparent and accountable governments also create a level playing field for businesses, encourage competition, and protect consumers' rights, all of which are essential for a vibrant economy. Policies that promote fair competition, protect property rights, and invest in human capital contribute significantly to long-term economic growth. Conversely, lack of accountability can lead to mismanagement of resources, unequal distribution of wealth, and obstacles to economic progress.

These pillars - secure property rights, political stability, efficient bureaucracy, and accountable governance - form the foundation of a favourable environment for economic development. Countries that prioritise these factors are better positioned to attract investments, stimulate innovation, create jobs, and achieve sustainable economic growth over the long term.



Weak political institutions can create significant barriers to economic development such as:

- Insecure property rights discourage investment, slows growth

**1. Insecure Property Rights:** Insecure property rights refer to a lack of legal protection and enforcement mechanisms for property ownership. When individuals and businesses cannot be assured that their property rights will be respected and upheld by law, they become hesitant to invest in assets such as land, buildings, or intellectual property. This hesitation stems from the risk of losing their investments due to theft, seizure, or lack of legal recourse in case of disputes. In economies with insecure property rights, the lack of investment leads to a slowdown in economic growth and development. Without investments in new technologies, infrastructure, and businesses, innovation and productivity levels remain low. This can lead to economic stagnation, where businesses are reluctant to take risks or expand due to uncertain property rights.

- Corruption weakens development by diverting resources, destroys trust, and discouraging foreign investment

**2. Corruption:** Corruption refers to the misuse of public office for private gain, often involving bribery, embezzlement, nepotism, or other forms of unethical behaviour. In the context of economic development, corruption has significant harmful effects. Firstly, it diverts resources that could have been invested productively in sectors such as education, healthcare, infrastructure, and technology towards personal enrichment or illicit activities. Secondly, corruption ruins trust in institutions and the business environment, both domestically and internationally. Foreign investors are particularly cautious of investing in countries with high levels of corruption due to concerns about unfair competition, lack of transparency, and the risk of encountering bribery demands during business operations.

- Governance uncertainties, leadership change and civil unrest affects business predictability, affects investment

**3. Political Instability:** Political instability arises from uncertainties in governance, including frequent changes in leadership, civil unrest, political violence, or weak rule of law. Such instability creates an environment of uncertainty for businesses and investors, as they cannot predict how government policies, regulations, or even property rights may change in the future. Businesses thrive in stable environments where there is predictability in regulations, taxation, and government

policies. Political instability disrupts economic activities such as production, trade, and investment, as businesses hesitate to make long-term commitments or investments in uncertain conditions. This reluctance can affect economic growth and deter both domestic and foreign investors.

- Bureaucratic barriers make business a complex, slow, costly processes

**4. Inefficient Bureaucracy:** An inefficient bureaucracy is characterised by complex procedures, lengthy delays, and red tape in government processes such as obtaining permits, licenses, or approvals. This bureaucracy can be a significant barrier to economic activity as businesses face increased costs, time delays, and uncertainty in dealing with government agencies. Inefficient bureaucracies not only slow down business operations but also create opportunities for corruption. Businesses may resort to paying bribes or engaging in illicit practices to cross bureaucratic issues. Moreover, the time and resources spent on bureaucratic processes could have been directed towards productive activities, innovation, or expansion.

Addressing these challenges requires efforts from governments, institutions, and society as a whole. Strengthening property rights, implementing anti-corruption measures, promoting political stability, and streamlining bureaucratic processes are essential steps towards creating a conducive environment for economic growth, investment, and innovation.

#### 4.3.1.2 Institutional Pillars for Economic Progress

Empirical studies emphasise five key institutional pillars for economic progress such as:

- Property rights protect the ownership of assets

**1. Property Rights and Contracts:** Property rights include the legal framework that protects individuals' and businesses' ownership of assets such as land, intellectual property, and physical capital. Strong property rights stimulate investment and innovation by providing assurances that the benefits derived from these investments will be secure and protected. When investors and entrepreneurs have confidence that their property rights will be upheld, they are more willing to commit resources to long-term projects, research, and development. This confidence is crucial for economic

growth as it promotes a conducive environment for wealth creation, entrepreneurship, and technological advancements.

- Regulatory institutions prevent market failures

**2. Regulatory Institutions:** Regulatory institutions play a key role in ensuring fair and efficient market operations. They establish rules and standards governing economic activities to prevent market failures such as fraud, monopoly practices, and unfair competition. By enforcing regulations that promote transparency, consumer protection, and market competition, regulatory bodies contribute to the overall stability and trustworthiness of the marketplace. This, in turn, encourages investment, promotes healthy competition, and boosts consumer confidence, all of which are essential for sustainable economic growth.

- Stability reduces uncertainties

**3. Macroeconomic Stability Institutions:** These institutions focus on maintaining stability in key economic indicators such as inflation, unemployment, and economic growth. Central banks, fiscal authorities, and regulatory bodies collaborate to implement monetary and fiscal policies that promote economic stability. Stable macroeconomic conditions reduce uncertainty for businesses and investors, encouraging them to make long-term investments and strategic decisions. A stable economic environment also attracts foreign investment, supports sustainable economic expansion, and minimises the risk of financial crises, all of which are key for promoting private sector growth and development.

- Social insurance reduces the effect of economic risks

**4. Social Insurance Institutions:** Social insurance institutions include policies and programmes designed to protect individuals and households from economic risks such as unemployment, illness, and old age. These institutions provide safety nets that reduce the adverse effects of economic downturns, job losses, or unexpected crises. By offering unemployment benefits, healthcare coverage, pension plans, and other forms of social support, these institutions contribute to social stability, reduce poverty levels, and promote flexibility among communities. This security encourages individuals to participate in economic activities, take calculated risks, and follow opportunities for personal and professional growth without excessive fear of financial ruin.

**5. Conflict Management Institutions:** Conflict management

- Conflict Management contribute to sustained economic productivity

institutions include legal and governance frameworks aimed at resolving disputes, maintaining social order, and preventing conflicts that can disrupt economic activities. By upholding the rule of law, ensuring fair access to justice, and promoting peaceful resolution of conflicts, these institutions create an environment favourable to business operations, investment, and trade. Minimising social tensions and addressing grievances through effective conflict management mechanisms contribute to sustained economic productivity, investor confidence, and societal well-being.

- Institutions support sustainable development

Each of these institutional pillars plays a key role in creating a favourable environment for economic growth, investment, innovation, and social well-being. Together, they form the foundational framework that supports vibrant and sustainable economic development. While there is no one-size-fits-all institutional model, successful economies share common institutional traits tailored to their historical, geographical, and developmental contexts. Local knowledge, participatory governance, and experimentation play vital roles in developing effective institutions. Institutions must evolve organically, balancing local needs with global best practices to promote sustainable economic development.

- Geography shapes economic growth

### 4.3.2 Geographical Settings for Development

Geography plays a key role in shaping the economic development of nations. The various geographical factors significantly influence a country's economic growth path. These factors include soil quality, natural resources, topography, climate, and disease environment. One of the key determinants of economic development is soil quality, which directly impacts agricultural productivity. Nations blessed with fertile soil tend to have flourishing agricultural sectors, leading to increased food production and economic prosperity. Conversely, regions with poor soil quality may struggle to achieve sustainable agricultural output, thereby hindering overall economic growth.

- Natural resources fuel growth

Natural resources also play a vital role in economic development. Countries with abundant natural resources, such as oil, minerals, and timber, have a significant advantage in industrialisation and wealth creation. These resources serve as the backbone of economic activities, fueling industrial growth and attracting investment. However, relying on

natural resources can also cause challenges, as it may lead to over-reliance on volatile commodity markets and affect diversification.

- Topography impacts transportation costs

Topography is another important geographical factor that influences economic development. The cost of transportation is significantly influenced by a region's topographical features, such as mountains, valleys, and rivers. Countries with challenging terrain may face higher transportation costs, which can impede trade and economic integration. Conversely, regions with favourable topography, such as flat plains and navigable rivers, enjoy easier access to markets and transportation networks, facilitating economic growth.

- Climate determines economic productivity

Climate plays a critical role in determining economic productivity. Extreme weather conditions, such as droughts, floods, and hurricanes, can disrupt agricultural activities and infrastructure development, leading to economic losses. Additionally, regions prone to diseases, such as malaria and other tropical illnesses, face challenges in maintaining a healthy and productive workforce, further hindering economic growth.

- Water access boosts economy

Moreover, geographical factors such as access to rivers and coastline can significantly impact a country's economic prospects. Nations with access to waterways benefit from cheaper transportation costs and enhanced trade opportunities, driving economic growth. Conversely, landlocked countries may face logistical challenges and higher trade costs, limiting their economic potential.

- Geography crucial for growth

Empirical studies have confirmed the importance of geography in shaping economic outcomes. Variables such as latitude, fertile land availability, coastline length, and disease prevalence have been found to significantly impact a country's growth rates. Additionally, factors like institutional quality and infrastructure development interact with geographical factors to further influence economic development.

Landlocked countries, face significant challenges due to their lack of direct access to the sea. Without coastline access, these nations must rely heavily on neighbouring countries for trade routes and transportation of goods. This often results in higher transportation costs, delays in trade, and limited access to international markets. As a result, landlocked countries may struggle to attract foreign investment, expand their

- Geography supports economic prospects

economies, and achieve sustainable development. In contrast, coastal nations like Singapore and the Netherlands benefit from their strategic geographical location with access to major waterways and ports. These countries use their coastline access to become key hubs for international trade and commerce. Ports serve as gateways for importing and exporting goods, facilitating economic growth and prosperity. Additionally, coastal nations often benefit from maritime industries such as shipping, fishing, and tourism, which further contribute to their economic development.

- Natural resources drive economies

Another example is the impact of natural resources on economic development. Countries rich in natural resources, such as oil-producing nations like Saudi Arabia and Norway, have the opportunity to utilise these resources for economic gain. The abundance of natural resources can drive industrialisation, attract foreign investment, and generate significant revenue for the government. However, the overreliance on natural resources can also pose challenges such as volatility in commodity prices and environmental degradation if not managed sustainably. Furthermore, the geographical distribution of agricultural land and climate conditions also significantly influence economic development. Countries with fertile soil and favourable climate conditions, such as the United States and Brazil, have flourishing agricultural sectors that contribute significantly to their economies. In contrast, regions with dry climates or poor soil quality may struggle to achieve agricultural productivity, leading to food insecurity and economic challenges.

- Geography shapes development, crucial for growth

These explain how geographical factors such as access to waterways, natural resources, and climate conditions profoundly impact economic development outcomes for nations around the world. Understanding and effectively managing these geographical realities are essential for policymakers and leaders to promote sustainable economic growth and improve the well-being of their citizens. Geography plays a fundamental role in shaping the economic development of nations. Understanding and harnessing geographical advantages, while addressing challenges posed by geographical constraints, are essential for promoting sustainable economic growth and prosperity. By utilising natural resources, improving infrastructure, and adopting appropriate policies, countries can maximise their economic potential and improve the well-being of their citizens.

## Summarised Overview

Political institutions are integral to economic development, serving as both catalysts and constraints. Scholars like North, Olson, and Acemoglu emphasise the pivotal role institutions play in shaping economic outcomes. North highlights the impact of inadequate contract enforcement on investment and innovation, while Acemoglu and Robinson emphasise the link between inclusive institutions and economic prosperity. Effective institutions provide a stable environment for economic activities, including secure property rights, political stability, efficient bureaucracy, and accountable governance. These pillars are vital for attracting investments, promoting innovation, and achieving sustainable growth. Weak political institutions pose significant barriers to economic development, as highlighted by issues, such as insecure property rights, corruption, political instability, and inefficient bureaucracy. These challenges affect investment, innovation, and overall economic activity, necessitating collective action from governments, institutions, and society to address them.

Geography plays a key role in shaping the economic development of nations through various factors such as soil quality, natural resources, topography, climate, and access to waterways. These factors significantly influence agricultural productivity, industrialisation, transportation costs, and overall economic growth. Empirical studies have confirmed the importance of geography in economic outcomes, highlighting the impact of variables like latitude, arable land availability, and disease prevalence. Landlocked countries face unique challenges due to their lack of coastline access, while coastal nations benefit from strategic geographical locations. Understanding and effectively managing these geographical realities are essential for promoting sustainable economic growth and improving citizens' well-being.

## Assignments

1. How do political institutions influence economic development?
2. Discuss the challenges posed by weak political institutions to economic development.
3. Explain the role of geography in shaping the economic development of nations.

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1. Taneja, M. L., & Myer, R. M. (2017). *Economics of Development and Planning* (15th ed.). Vishal Publishing Co.

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## UNIT 4

# Approaches to Development

### Learning Outcomes

After reading this unit, the learner will be able to:

- understand dependency theory
- discuss Neo-Marxist approaches to development
- examine Neo - Liberalist approach to development and its basic principles

### Background

In the late 20<sup>th</sup> and early 21<sup>st</sup> centuries, Venezuela emerged as a central point for exploring different approaches to development. Under the leadership of President Hugo Chávez, the country incorporated a Neo-Marxist approach, inspired by socialist principles and aiming to redistribute wealth, nationalise industries, and empower marginalised communities. Chávez's government implemented social welfare programmes, known as “missions,” to provide healthcare, education, and housing to underserved populations, seeking to address historical inequalities and promote social justice.

Simultaneously, Venezuela also witnessed the rise of neoliberal policies under subsequent administrations, particularly during the presidency of Nicolás Maduro. Influenced by neoliberal economic theories emphasising free markets, privatisation, and deregulation, the government followed liberal measures, opened up sectors to private investment, and attracted foreign capital. However, these policies faced criticism for worsening social inequalities, widening the gap between the rich and poor, and failing to address systemic issues such as corruption and inefficiency.

The contrasting experiences of Neo-Marxist and Neoliberal approaches in Venezuela offer valuable insights into the complexities of development models. While the Neo-Marxist approach prioritised social welfare and equitable distribution of resources, it also faced challenges related to sustainability and economic diversification. On the other hand, the Neoliberal model emphasised market-driven growth but struggled to address social disparities and promote inclusive development. This viewpoint is essential



for policymakers, scholars, and practitioners seeking to explore the complexities of development and design effective strategies that promote sustainable and inclusive progress.

## Keywords

Dependency, Neo Marxist Approach, Liberalism, Neo Liberalism, Centre – Periphery, Neo - Liberalism

## Discussion

### 4.4.1 Dependency Theory

Dependency theory emerged in Latin America during the latter half of the 1950s as a critique of liberal theories regarding socio-economic and political development. At its core, dependency theory explains the economic underdevelopment experienced by certain nation-states, attributing it to external influences. Theotonio Dos Santos (1936–2018), a prominent advocate of dependency theory, defines it as a historical condition that shapes the structure of the global economy to favour some countries while impeding the development of others. Dependency, in this context, refers to a scenario where one country's economy is significantly influenced by the growth and expansion of another country's economy. The primary objective of dependency theory is to analyse and explain the causes behind the constant economic backwardness and underdevelopment observed in countries across the global south, while also suggesting strategies to address these challenges. Dependency theory examines the internal workings of underdeveloped nations and establishes correlations between their lack of development and their positions within the global economic system. It examines the relationship between internal and external structures. At its core, dependency theory features the underdevelopment of third world countries to a complex interplay of socio-economic, political, and cultural factors that lead these nations to more developed counterparts. This theory conceptualises underdeveloped nations as the peripheries and developed nations as the centers, stating that the social dynamics in

- Dependency theory critiques development theories

- One country's economy is influenced by another country's economy.

peripheries can only be understood within the framework of the dominant world capitalist system led by developed centers.

- Dependency theory links underdevelopment to external reliance

A central principle of dependency theory emphasises that the social fabric of third world countries is shaped by their underdevelopment, a condition maintained by the expansion of global capitalism. This underdevelopment is linked to their external dependencies, with most dependency theorists agreeing that external reliance, particularly on capitalist nations, fuels underdevelopment. Dependency theory offers a macro-historical and structural viewpoint, diverging from the Marxist theories of development and underdevelopment. It views underdevelopment as a consequence of capitalist expansion characterised by unequal exchanges, where the core or developed nations exploit the resources and labour of peripheral or underdeveloped nations for their own gain. This unequal relationship promotes a state of dependency and spreads underdevelopment in the periphery. The concept of dependence within dependency theory captures the relationship between underdeveloped and developed nations, highlighting how this relationship shapes the ability of underdeveloped nations to progress. Traditionally, this dependency displayed as imperialism or colonialism, while in contemporary times, it establishes neo-colonialism, wherein underdeveloped nations remain dependent on developed nations.

- Underdevelopment due to neo-colonialism and external reliance

Key proponents of Dependency Theory include Andre Gunder Frank, Wallerstein, Dos Santos, Osvaldo Sunkel, Celso Furtado, Rodolfo Stavenhagen, Euzo Falleto, and Frantz Fanon. They collectively argue that the underdevelopment of Third World countries is linked to their neo-colonial status and external dependencies on developed nations. Early contributors like Andre Gunder Frank and Wallerstein emphasised that the underdevelopment of the third world (periphery) originates from its reliance on the development and expansion of more developed economies. They argued that within the capitalist system, development for the periphery was unattainable due to a pro-center bias that disadvantaged the periphery. Dependency theorists propose various paths toward development, ranging from socialist revolutions to liberal reforms aimed at achieving trade balance, improving bargaining power through regional cooperation, and adopting new economic strategies. Dependency, as highlights the challenges and opportunities in the relationship between developed and underdeveloped nations within the global economic framework. The concept



of development has been a central focus in economics, offering hope for poorer nations to achieve prosperity. However, traditional viewpoints often present an optimistic view of modernisation and global integration. Neo-Marxist perspectives provide a critical analysis, challenging these notions and exposing the underlying disparities inherent in the development process.

#### 4.4.2 Neo Marxist Approach to Development

Neo-Marxist thinkers, drawing from Marxist principles, argue that development is not a natural evolution but a structured system marked by inherent power differences. They emphasise the concept of exploitation, not confined within national borders but extending across the global arena. Wealthier nations, termed the “core” or “center,” are seen as benefiting from the underdevelopment of poorer “periphery” nations. This exploitation manifests through unequal trade practices, resource extraction, and a global division of labour that confines peripheral countries to low-value production roles. Prominent figures such as Andre Gunder Frank, Paul Baran, Paul Sweezy, Theotonio Dos Santos, and Immanuel Wallerstein developed theories like Dependency Theory and World Systems Theory to critique mainstream development economics. These frameworks shed light on how the current system may impede progress for many nations rather than fostering development. Viewing development through a neo-Marxist lens allows for a deeper understanding of the structural forces perpetuating poverty and inequality globally.

- Neo-Marxists critique development as structured exploitation

Several key economists contributed significantly to neo-Marxist approaches to development, notably within Dependency Theory such as:

- Paul Baran and Paul Sweezy theorised about ‘dualistic development,’ highlighting how capitalist growth in some nations contributes to underdevelopment elsewhere.
- Andre Gunder Frank argued that development is not a linear progression from poverty to affluence but a structured system where affluent nations exploit poorer ones.
- Theotonio Dos Santos emphasised the “center-periphery” dynamic, explaining how developed nations at the center extract resources from underdeveloped periphery nations.

- Neo-Marxist economists challenge development norms

- Immanuel Wallerstein developed World Systems Theory, proposing a model where core countries dominate and exploit peripheral ones.

These Neo-Marxist perspectives challenged prevailing ideas in development economics, asserting that development includes more than just modernisation and global market integration; it involves struggling with inequalities and power imbalances in the global economic order.

#### 4.4.2.1 Baran's View on Underdevelopment

Paul Baran emphasises that capitalism exploits less developed nations in the third world. He argues that the capitalist system benefits from maintaining these nations as essential hinterlands, relying on them for raw materials and economic surplus extraction. Baran criticises colonial powers for their aggressive exploitation, aiming to extract maximum gains from colonised countries and develop themselves at the expense of these regions. This economic inequality is evident in the stark differences in per capita income between rich western nations and underdeveloped countries. His solution to this economic imbalance supports towards a socialist economic system. Baran advocates for Marxist principles in economic planning, believing that the existing class structures in underdeveloped countries contribute significantly to their dependence on richer nations. Within these nations, Baran identifies two major groups responsible for misusing economic surplus: the 'lumpen-bourgeoisie,' which includes non-productive entities like moneylenders and real estate agents, and monopolistic domestic industrial producers who suppress competition.

- Capitalism exploits underdeveloped nations

Baran's ideological stance is firmly socialist, rejecting the exploitative nature of capitalist development. He predicts a society free from exploitation, a vision he believes can only be realised through a socialist economic framework. While Baran's advocacy for a socialist economy aligns with the Soviet model of economic development, some view his ideals as utopian, similar to the visionary but challenging-to-implement approaches of figures like Marx and Gandhi.

- Baran advocates socialism

#### 4.4.2.2 Frank's Theory of Underdevelopment

Andre Gunder Frank's theory of underdevelopment drew significant inspiration from Paul Baran's ideas. Initially, Frank criticised Rostow's influential work, *The Stages of Economic*



- Frank critiques Rostow, embraces Baran

*Growth*, published in 1971, and instead included Baran's perspectives. Frank offered a critical analysis of development sociology theories, particularly those concerning modernisation and evolutionary processes. While Hoselitz used Parsonian modernisation patterns to explain development, Frank argued that neither developed nor underdeveloped societies fit neatly into these frameworks proposed by Hoselitz or Parsons. Rejecting the diffusion theory, Frank disputed the notion that less developed societies could not progress due to barriers preventing them from adopting changes from the developed world. He maintained that economic diffusions had minimal impact on the third world's development trajectory.

- Frank critiques traditional theories, popularises dependency

Frank also scrutinised the works of scholars like McClelland and Hagen, criticising their oversight of historical circumstances shaping a global economic system. In this system, the third world played a role in developing the first world. Although Baran originated dependency theory, Frank's contributions significantly popularised this perspective. In summary, Andre Gunder Frank's contributions to understanding underdevelopment underscore his critical stance towards mainstream development theories, emphasising historical contexts and global economic systems' dynamics in shaping developmental trajectories.

The core principles of the theory of underdevelopment include several key elements such as:

- Principles of the theory of underdevelopment

1. Providing a historical narrative of underdeveloped societies.
2. Understanding underdevelopment as a consequence of their interactions with developed societies.
3. Recognising development and underdevelopment as interconnected aspects within a single system.
4. Equating underdevelopment, dependency, and the world system as integral components of the same theory.
5. Offering a historical perspective on the dependency relationship between less developed countries and wealthy European nations.

These principles form the foundation of a theory that explores the historical and structural dynamics shaping the development disparities between nations, emphasising the interconnectedness of global economic systems and the role of power dynamics in deepening underdevelopment.

- Exploitation impacts development

Frank argues that within the world capitalist system, both development and underdevelopment are intertwined as complementary sides of the same system. He states that progress in one region often correlates with stagnation or regression in another. Moreover, Frank claims that national borders lose significance within this system as countries assume roles within a hierarchical structure of metropolitan and satellite relationships. This hierarchical arrangement is not limited to global scales; it spread within nations as well. Frank illustrates this by describing how remote regions supply resources to urban centers, which, in turn, exploit these resources, deepening regional disparities and underdevelopment. Through his historical analysis, Frank traces the evolution of global economic systems, from the mercantile era (1500-1770) through industrial capitalism (1770-1870) to imperialism (1870-1930). He highlights how colonies, semi-colonies, and neo-colonies primarily served the interests of capitalist metropolises, contributing to their own underdevelopment in the process. These insights shed light on the working of economic development and exploitation within the global framework.

#### 4.4.2.3 World Systems Theory

- Global economic interactivity drives development

World Systems Theory on economic development, conceptualises the world as a united social system primarily driven by economic activities. Unlike other development theories such as dependency theory and modernisation theory, World Systems Theory, by Immanuel Wallerstein, focuses on the global economic system's interactivity and the roles nations play within it. A key contribution of World Systems Theory is its recognition of semi-peripheral nations and their significant roles in the global economic system. Understanding this theory is key for grasping the systemic dynamics of the contemporary global economy, including regional and national economic development. Rooted in early Marxist ideas regarding imperialism and capitalist exploitation, World Systems Theory gained prominence through Wallerstein's work in the 1970s and 1980s. Unlike theories centered on national or regional development stages, World Systems Theory emphasises the developmental consequences of nations' positions within a globally interconnected economic system.

Wallerstein divides the world into four distinct categories based on political, economic, and positional characteristics:



- Political, economic, and positional characteristics

1. **The Core:** Originating during 1450-1670 with north-western European nations like England, France, and Holland, the core regions developed strong governance structures and monopolised international trade, extracting economic surpluses for their benefit.
2. **The Periphery:** Comprising East European and Latin American countries, the periphery lacked strong self-governance, relied on exporting raw materials to the core, and faced exploitation in terms of labour and resource extraction.
3. **Semi-periphery:** This transitional region includes nations experiencing economic shifts, such as Portugal and Spain moving from core to semi-peripheral status. The semi-periphery both exploits and is exploited by the core and periphery regions.
4. **External Areas:** These regions maintain relatively autonomous economic systems, prioritising internal trade over external dependencies. Russia serves as a prime example of such an area.

- Global economic interconnectedness of nations

Key features of Wallerstein's World System include:

- A capitalist global economy with deepened disparities between core, peripheral, and semi-peripheral regions.
- Core countries dominating and exploiting peripheral nations for labour and resources.
- Peripheral nations reliant on core countries for capital and economic support.
- Semi-peripheral nations showing characteristics of both core and peripheral regions.
- Emphasis on the social structures deepening global economic inequalities.

This theory highlights the interconnectedness of nations within a singular global economic framework, shedding light on the dynamics shaping economic development worldwide.

#### 4.4.3 Neoliberalism

Neoliberalism is an economic ideology that advocates for free markets, capitalism, and reduced government intervention in the economy. It includes policies such as free trade,

- Neoliberalism:  
Free markets,  
capitalism,  
deregulation

globalisation, privatisation, and adjustments in government spending to promote private sector growth. Neoliberalism argues that excessive government involvement and help affect economic and social development, while deregulation, privatisation, and lower taxes are essential for strengthening economic growth. The term neoliberalism has evolved over the past few decades, particularly since the late 1980s, to denote economic strategies emphasising privatisation, deregulation, and tax reduction. It gained prominence as the dominant approach to economic development, replacing modernisation theory in the 1980s. Neoliberal policies aim to remove barriers to free markets, which proponents believe are essential for economic progress.

- Excessive government  
hinders development

The Washington Consensus, emerging from a 1989 meeting of global leaders, accepted neoliberal policies by institutions like the World Bank and IMF. Neoliberals advocate for progressive tax systems and sometimes support government interventions like bailouts for struggling businesses. However, interpretations of neoliberalism differ among different schools of thought and are subject to ongoing debates. Neoliberalism's core principles align with the ideals of liberalism, emphasising liberty, equality before the law, and consent of the governed. However, neoliberalism focuses specifically on economic policies aimed at efficient market operation. In contrast, liberalism includes broader societal aspects, including civil and human rights, gender equality, freedom of expression, and secularism. Understanding the differences between liberalism and neoliberalism is crucial for understanding economic development strategies and their impact on society. Neoliberal perspectives emphasise that excessive government intervention can affect development by affecting the initiatives of dynamic individuals crucial for progress. They often cite examples such as communist regimes in Eastern Europe, where despite forced industrialisation, restrictions on individual freedoms limited the emergence of vibrant consumer cultures seen in Western Europe. This limitation contributed to developmental stagnation in these countries due to government failures.

Moreover, neoliberals critique the burdens of excessive regulations, taxes, and bureaucratic difficulties in capitalist economies. They argue that such “red tape” complicates business operations, obstructing economic growth and development. Neoliberals also question the efficiency of Western assistance in promoting development, highlighting

- Neoliberals criticise regulations, aid

instances of corruption in African dictatorships during the 1960s-1980s. They argue that despite receiving substantial aid, much of the funds ended up lining the pockets of corrupt officials rather than being utilised for genuine development initiatives. These examples underscore the neoliberal stance on the limitations of government involvement and the need for efficient, market-oriented approaches for sustainable development.

- Neoliberalism: Free market capitalism

#### 4.4.3.1 Basic Principles of Neoliberalism

Neoliberalism advocates for the removal of barriers to free market capitalism in developing countries, believing that capitalism can spur development and wealth creation that benefits everyone. The core belief is that private enterprises should lead development efforts, encouraged by governments promoting a business-friendly environment to attract investment and promote production, ultimately driving exports and free trade a central neoliberal strategy for development.

Key policies associated with neoliberalism, tested initially in Chile in the 1970s and later in the UK under Thatcher in the 1980s, include:

- Neoliberalism's policies: deregulation, reduced protections, privatisation, and tax cuts

1. **Deregulation:** Removing constraints on businesses involved in global trade, such as reducing corporate taxes or bureaucratic regulations like health and safety standards.
2. **Reduced Protections:** Easing protections for workers and the environment, such as eliminating minimum wage laws or job security, and promoting flexible work arrangements.
3. **Privatisation:** Transferring state-owned industries to private ownership, spanning sectors like banking, transportation, utilities, and education, often with the goal of improving efficiency but sometimes leading to increased costs and wealth concentration.
4. **Tax Cuts:** Decreasing taxes to minimise government intervention in the economy.

#### Characteristics of Neoliberalism:

1. **Privatisation:** Involves selling state-owned enterprises to the private sector to improve efficiency, though it can

also lead to wealth concentration and increased costs for essential services.

- Privatisation, deregulation, free trade, reduced public spending, and individual well-being are the key principles of neoliberalism

- 2. Deregulation:** Reducing government oversight in economic activities to boost profitability and business operations.
- 3. Free Trade:** Encourages globalisation and investment openness, aiming for economic growth and resource accessibility, although it may exploit labour and cause challenges for certain economies.
- 4. Reduced Public Spending:** Targets cuts in public spending, impacting public services like healthcare and education, potentially affecting vulnerable populations.
- 5. Focus on Individual Well-being:** Shifts focus from collective welfare to individual success, sometimes resulting in reduced social programmes that disproportionately affect the poor.

Neoliberal policies have influenced global economic strategies but remain contentious due to their potential impacts on inequality and public services access. An analysis by the Centre for Economic Policy Research (CEPR) compared economic and social progress during two periods: 1960 to 1980, characterised by more closed, inward-focused economies, and 1980 to 2000, the era of neoliberalism. Surprisingly, progress was more significant in the pre-1980 period across economic and social indicators. Countries following free market policies have often experienced slower development compared to those safeguarding their economies.

- CEPR compared economic and social progress

Dependency theorists argue that neoliberalism primarily serves to open countries to exploitation by transnational corporations, rather than fostering genuine development. Transnational corporations typically invest in developing countries with emerging economies, neglecting the poorest nations in need of substantial investment and development aid. The critiques of neoliberalism highlight concerns about its impact on economic progress, social welfare, and the unequal benefits to certain regions and economic sectors.

- Neoliberalism favours corporations



## Summarised Overview

Dependency theory emerged in the 1950s as a critique of liberal development theories, attributing economic underdevelopment to external influences and unequal relationships between developed and underdeveloped nations. It analyses the global capitalist system, arguing that underdevelopment in the periphery is perpetuated by the exploitation of resources and labour by core nations.

Andre Gunder Frank's contributions popularised dependency theory, emphasising historical contexts and global economic systems' dynamics in shaping developmental paths. He argues that development and underdevelopment are interconnected within the world capitalist system, with progress in one region often correlating with stagnation or regression in another. World Systems Theory, by Immanuel Wallerstein, offers a distinctive perspective on economic development by conceptualising the world as a unified social system primarily driven by economic activities. Rooted in Marxist ideas regarding imperialism and capitalist exploitation, the theory gained prominence through Wallerstein's work in the 1970s and 1980s. It divides the world into core, periphery, semi-periphery, and external areas based on political, economic, and positional characteristics, highlighting the intensified disparities and interconnectedness within the global economy. Key features include the dominance of core countries, exploitation of peripheral nations, reliance of periphery on core, and the transitional nature of semi-peripheral regions.

Neoliberalism is an economic ideology advocating for free markets, capitalism, and reduced government intervention. It promotes policies such as free trade, globalisation, privatisation, and reduced government spending to stimulate private sector growth. The term gained prominence in the late 1980s, replacing modernisation theory as the dominant approach to economic development. Neoliberalism aims to remove barriers to free markets, emphasising deregulation, privatisation, and lower taxes as essential for economic progress. It aligns with the ideals of liberalism but focuses specifically on economic policies for efficient market operation. Neoliberals argue that excessive government intervention affects development by restricting individual initiative and economic freedom. They critique regulations, taxes, and bureaucratic obstacles in capitalist economies, highlighting instances of corruption in aid distribution as evidence of government inefficiency. Neoliberalism advocates for the removal of barriers to free market capitalism in developing countries, believing that private enterprise can drive development and wealth creation for all. Key policies include deregulation, reduced protections for workers and the environment, privatisation of state-owned industries, and tax cuts to minimise government intervention. Neoliberalism prioritises individual success over collective welfare, focusing on promoting a business-friendly environment to attract investment and promote production.

## Assignments

1. Elucidate the emergence of dependency theory as a critique of liberal development theories.
2. Evaluate Baran's perspective on underdevelopment in the third world.
3. Analyse Frank's arguments regarding the interconnectedness of development and underdevelopment within the world capitalist system.
4. Explore the core views of Immanuel Wallerstein's World Systems Theory.
5. Discuss the principles and implications of neoliberalism as an economic ideology.
6. Examine the principles and policies of neoliberalism and their impact on economic development.

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## Suggested Reading

1. Bhattacharya, A. K. (2014). *Institutions, Governance, and Indian Development: A Perspective*. Springer India.
2. Bardhan, P., & Mookherjee, D. (2011). *Decentralisation and Local Governance in Developing Countries: A Comparative Perspective*. MIT Press.
3. Acemoglu, D., & Robinson, J. A. (2012). *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. Crown Publishers.



## Space for Learner Engagement for Objective Questions

Learners are encouraged to develop objective questions based on the content in the paragraph as a sign of their comprehension of the content. The Learners may reflect on the recap bullets and relate their understanding with the narrative in order to frame objective questions from the given text. The University expects that 1 - 2 questions are developed for each paragraph. The space given below can be used for listing the questions.

# Model Question Paper Sets

**MODEL QUESTION PAPER I**  
**SREENARAYANAGURU OPEN UNIVERSITY**

**QP CODE: .....**

**Reg. No : .....**

**Name : .....**

**SECOND SEMESTER - MA ECONOMICS EXAMINATION**

**DISCIPLINE CORE – 07**

**M23EC07DC**

**ECONOMIC GROWTH AND DEVELOPMENT**

**(CBCS - PG)**

**2023-24 - Admission Onwards**

**Time: 3 Hours**

**Max. Marks: 70**

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**Section A - Objective Type Questions**

**Answer any 10 questions. Each question carries 1 mark**

**(10 X 1=10 Marks)**

1. In Ricardo's theory, who are the main agents of production?
2. Define division of labour.
3. Write two examples of SOC.
4. What does the Multidimensional Poverty Index (MPI) primarily focus on?
5. What is capital deepening?
6. Which economists advocated for the balanced growth strategy?
7. What is the range of the Gini Coefficient?
8. Define National Debt.
9. What is the term used by Malthus to describe the minimum wage required for workers to meet their basic needs?
10. Name the key philosophers associated with utilitarianism.

11. What economic ideology advocates for free markets, capitalism, and reduced government intervention?
12. Define indivisibility in production.
13. What are formal economic institutions?
14. Define terms of trade.
15. Which Five-Year Plan in India was significantly influenced by the Mahalanobis Model?

### **Section B - Very Short Questions**

**Answer any 5 questions. Each question carries 2 marks**

**(5X2=10 Marks)**

16. Define sustainable development.
17. What are the three growth rates discussed in Harrod's model?
18. What does the Headcount Ratio (H) measure in the MPI calculation?
19. Define industrial reserve army.
20. What do you mean by Big Push?
21. Write a brief note on Migration.
22. Define GNP.
23. Write a short note on take-off stage in Rostow's theory.
24. Define capital accumulation
25. What is behavioural development economics?

### **Section C - Short Answer**

**Answer any 5 questions. Each question carries 4 marks**

**(5X4=20 Marks)**

26. Explain the concept of a dual economy as described by the Lewis model.
27. Discuss the types of migration.
28. Explain Paul Baran's view on underdevelopment.
29. Explain low level equilibrium trap.
30. Explain the core principles of utilitarianism.

31. Discuss the role of technical progress in Kaldor's growth model.
32. Discuss the impact of insecure property rights on economic growth.
33. Write a note on types of convergence.

**Section D - Long Answer/Essay Question**

**Answer any 3 questions. Each question carries 10 marks**

**(3X10=30 Marks)**

34. Explain the importance of institutional pillars. Examine how weaknesses in these institutions can affect growth.
35. Explain in detail about the social indicators of development.
36. Evaluate the Fei-Ranis theory of development.
37. Examine the significance of economic indicators in assessing a country's development progress.
38. Critically examine critical minimum effort thesis.
39. Examine Rostow's stage theory of development.

**MODEL QUESTION PAPER II**  
**SREENARAYANAGURU OPEN UNIVERSITY**

QP CODE: .....

Reg. No : .....

Name : .....

**SECOND SEMESTER - MA ECONOMICS EXAMINATION**

**DISCIPLINE CORE – 07**

**M23EC07DC**

**ECONOMIC GROWTH AND DEVELOPMENT**

**(CBCS - PG)**

**2023-24 - Admission Onwards**

**Time: 3 Hours**

**Max. Marks: 70**

**Section A - Objective Type Questions**

**Answer any 10 questions. Each question carries 1 mark**

**(10 X 1=10 Marks)**

1. What is the primary cause of economic development according to Schumpeter?
2. What is income inequality?
3. Define dependency theory.
4. Describe take-off stage.
5. Who are the proponents of the unbalanced growth strategy?
6. What are the domestic constraints on development in Chenery model?
7. Which global initiative set the framework for the SDGs?
8. Name the book by Acemoglu and Robinson that highlights the link between inclusive institutions and economic prosperity.
9. Name two proponents of the basic neoclassical model.
10. Define property rights.
11. Define technological dependency.

12. What is GDP?
13. Define Atkinson Index.
14. What is Engle's Law?
15. Define SOC.

### **Section B - Very Short Questions**

**Answer any 5 questions. Each question carries 2 marks**

**(5X2=10 Marks)**

16. Describe vicious circle of poverty.
17. How does capital contribute to economic development?
18. Describe balanced growth.
19. What role does an efficient bureaucracy play in economic development?
20. Write a short note on convergent series of investments.
21. What are dynamic gains from foreign trade?
22. Define horizontal inequality.
23. Name the four sectors included in the Mahalanobis four-sector model.
24. What are the key policies associated with neoliberalism?
25. What are the two sectors in the Lewis model of development?

### **Section C - Short Answer**

**Answer any 5 questions. Each question carries 4 marks**

**(5X4=20 Marks)**

26. Explain Malthus' theory of population.
27. Discuss the dual role of population growth in economic development.
28. Explain Dualism.
29. Discuss the features of behavioural development economics.
30. Explain the unbalanced growth theory.
31. Discuss the impact of technological progress on economic development.
32. Discuss in detail the Kuznets' Inverted U-Hypothesis.
33. Explain circular flow in Schumpeter's theory.

**Section D - Long Answer/Essay Question**

**Answer any 3 questions. Each question carries 10 marks**

**(3X10=30 Marks)**

34. Elucidate on the dimensions of inequality in India.
35. Explain the relationship between actual growth rate, warranted growth rate, and natural growth rate in Harrod's model.
36. Examine the impact of neoliberal policies on economic development and social welfare.
37. Evaluate the Harris-Todaro model of migration.
38. Critically evaluate the balanced growth strategy, highlighting its advantages and disadvantages.
39. Critically analyse the Marxian theory of economic development.

സർവ്വകലാശാലാഗീതം

വിദ്യാൽ സ്വതന്ത്രരാകണം  
വിശ്വപൗരരായി മാറണം  
ഗ്രഹപ്രസാദമായ് വിളങ്ങണം  
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സ്നേഹദീപ്തിയായ് വിളങ്ങണം  
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ജ്ഞാനകേന്ദ്രമേ ജ്വലിക്കണേ

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### Kozhikode

Govt. Arts and Science College  
Meenchantha, Kozhikode,  
Kerala, Pin: 673002  
Ph: 04952920228  
email: rckdirector@sgou.ac.in

### Thalassery

Govt. Brennen College  
Dharmadam, Thalassery,  
Kannur, Pin: 670106  
Ph: 04902990494  
email: rctdirector@sgou.ac.in

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Govt. College  
Tripunithura, Ernakulam,  
Kerala, Pin: 682301  
Ph: 04842927436  
email: rcedirector@sgou.ac.in

### Pattambi

Sree Neelakanta Govt. Sanskrit College  
Pattambi, Palakkad,  
Kerala, Pin: 679303  
Ph: 04662912009  
email: rcpdirector@sgou.ac.in

# Economic Growth and Development

COURSE CODE: M23EC07DC



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Kollam, Kerala Pin- 691601, email: [info@sgou.ac.in](mailto:info@sgou.ac.in), [www.sgou.ac.in](http://www.sgou.ac.in) Ph: +91 474 2966841

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