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# DEVELOPMENT ECONOMICS AND POLICY

MASUDEM

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MASTER STUDIES IN SUSTAINABLE DEVELOPMENT AND MANAGEMENT

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**Master Studies in Sustainable Development and Management**

**MASUDEM**

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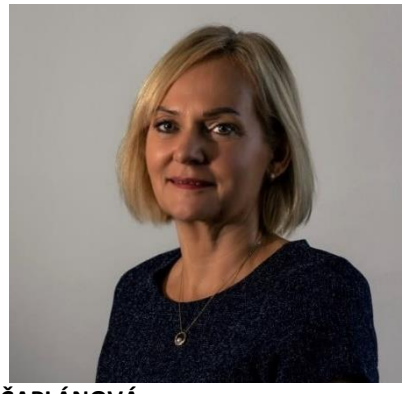

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Prof. Anetta Caplanova, PhD. is the MASUDEM project coordinator and participating researcher. She is an accomplished economist with expertise in behavioural economics, public finance and education systems.

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# CONTENT

# INTRODUCTION

The publication Economic Development and Policy is focused to analyse various aspects of economic development. It is suitable for student at master level of study, but also for academicians, researchers, and professionals, but would be interesting also for people with concern on economic development. The publications deals with topics as theories of economic development, growth and convergence, technological changes, role of human capital, educational systems, use of natural resources, poverty, health, income inequality, agricultural transformation, entrepreneurship, innovations, factors of growth, labour markets, infrastructure, international trade, monetary and fiscal policy effects in development, balance of payment, exchange rate, trade policies, integration processes, aid, foreign investments, external debt as well as development strategies, reforms and policy approaches to sustainable development. Publication includes 12 chapters that were prepared by recognized researchers with expertise in the field of development economics.

# CHAPTER 1: INTRODUCTION TO DEVELOPMENT ECONOMICS

Development economics is economic discipline that was formed as independent discipline of the international economics since 1950s of 20th century. The development economics is applied focused as is bringing the solutions related to the economic and social development of countries. The launch of the development economics as independent part of economics was motivated by the process of decolonialisation and constitution of many new countries that achieved they independence. The development economics was continuously developed in academia, in analytical units of international organizations as well as in praxis by the experience of practitioners. Development economics aims to address the economic challenges facing developing nations. It focuses mainly on the poorest world population in less developed and developing countries or countries in transition.

The chapter introduce the development economics through three parts. The first section introduces the scope of development economics as a field of study. It discusses how perspectives on development have evolved from a narrow focus on economic growth to encompass social and human development dimensions. Major theoretical approaches that have shaped the subject are also reviewed. The second section examines methods for measuring economic development. It explores commonly used indicators like gross domestic product (GDP), gross national product (GNP) or gross national income (GNI) as well as other indices that capture other aspect of development, e.g. Human development index (HDI) Recent advances in measurement are discussed alongside ongoing challenges in comprehensively assessing progress. The third section discusses development economics from a historical perspective. It shows the global patterns of economic growth and structural change over the time as well as discusses some important historical examples of development economics. Lessons are drawn from case studies of successfully developing countries. By integrating conceptual, empirical and historical views, the chapter aims to provide a balanced overview of this complex topic. It does so through academic research that recognises development as a multi-faceted process requiring context-specific solutions. The chapter enhances understanding of challenges developing nations face in achieving sustainable economic and social progress.

## 1.1. Introduction to Development Economics

Development economics is one of the economic divisions that are trying to improve the economies in developing countries. These topics include poverty, inequality, structural transformation, agricultural productivity, human capital formation, and the role of government policies and institutions in promoting development (de Janvry and Sadoulet, 2014). Development Economics is primarily concerned with identifying the restraints to economic growth and the measures for improving the standards of living, well-being and productivity among developing countries. Development economics today takes a broader concept of development that extends beyond the growth of income and output. Ultimately, it recognises that the purpose of social change is to improve human well-being and maximise people's freedoms and capabilities to live good lives (Velástegui in 2020). From this broader perspective, development should not be just reducing poverty but also promoting health, enhancing educations, better gender equalities, environmental protection, strengthening institutions among others (Velástegui, 2020). Growth of the economy is still important, but represents the means and not the goal itself. Such a shift from an income-centred to a much wider concept of human development has greatly impacted the way of thinking, research and policy making in development economics.

### 1.1.1. Definition of Development Economics

Is obvious that development economics is focused to the specific countries, generally described as developing countries. The term developing countries was firstly used by the United Nation Conference on Trade and Development (UNCTAD) in 1964. Before that time, the term backward countries was used. This term was not accepted by many countries as some of them achieved economic growth, increase in well-being and improving of their performance after the Second world war that was also associated with obtaining political independence from previously colonizing empires. The term less developed and later also underdeveloped countries was used. Finally, the term developing countries was agreed to be used as it represent the dynamics of the countries to improve their performance in all aspects as economics, social and healthcare, etc.

Defining of developing countries is not easy as several aspects need to be considered.

- Economic aspect

Economically, the developing countries might be defined as countries that have the following features:

  - low economic performance – meaning low GDP or GNP per capita,
  - the variance of economic structure and employment,
  - social dualism and inequal income and wealth distribution,
  - continuing economic dependence on developed countries.

- Historical aspect

Most of the developing countries were in past colonialized by the world's empires. Following this aspect, we are able to match developing countries to their colonial affiliation (colonizers) and also to consider the governance regime over the colony. The developing countries were under governance of the developed countries as colonies, half-colonies or in the form of dependent territories or regions.

- Geographical aspect

In a simplified way, we might locate developing countries in three continents – Latin America, Africa and Asia. Surely, such specification is not exhausting as we need to capture also nation or countries in Indian Ocean and in Pacific Ocean as well as not considered all Asian countries as developing countries.

### 1.1.2. Theoretical Frameworks and Approaches

Theories in development economics have evolved considerably over time. In the 1950s and 1960s, linear stages of growth models were popular, positing that developing countries would advance through set stages toward mature industrial economies (Jacobs, 2020). In the 1970s, dependence theory gained interest, arguing that global trade patterns disadvantaged developing countries due to declining terms of trade for primary commodities. Neoclassical growth models also emerged, emphasising capital accumulation, investment, and exogenous technological progress as drivers of growth.

Since the 1980s, new growth theories have incorporated insights about human capital, innovation, and institutional quality as critical determinants of growth (Daniele, 2019; Arjun et al., 2020). The Washington Consensus provided a market-oriented policy prescription focused on macroeconomic stability, trade liberalisation, and reduced government intervention. In recent decades, randomised control trials have allowed more rigorous evaluation of specific policy interventions in development (Banerjee et al., 2016). Institutional and political factors are increasingly recognised as fundamental drivers of differential development outcomes across countries (Constantine, 2017). Heterogeneity between developing countries has led to greater interest in context-specific analysis rather than universal policy prescriptions.

### 1.1.3. Scope and Importance of Development Economics

Development economics is an essential field focused on improving living standards for billions of people in lower-income countries. Nearly half the world's population, over 3.5 billion individuals, still live on less than $5.50 per day according to the latest estimates from the World Bank (2018). Extreme poverty, malnutrition, preventable disease, lack of education, and limited access to clean water and sanitation facilities remain widespread issues across many developing regions of the world. By analyzing barriers to economic growth, identifying bottlenecks in development progress, and designing effective public policy solutions, development economics aims to address these entrenched global challenges and help lift more people out of poverty.

As a field of academic study and practice, development economics plays a critical role in informing strategic planning and policy choices in developing nations. Researchers provide an evidence base to guide priorities for investments from national budgets as well as international aid organisations. Development practitioners apply various theoretical frameworks and empirical techniques to evaluate different development programs and interventions. Their work seeks to identify the most cost-effective approaches towards increasing productivity, job opportunities, incomes, health outcomes, and education levels among poor populations. Insights from rigorous impact evaluations and case studies in development economics can help policymakers design more targeted antipoverty programs and social services tailored to local community needs. At a broader level, development economics also provides analytical tools to examine complex relationships between advanced and emerging market economies in an era of growing global economic interdependence.

### 1.1.4. The Role of Economic Development in Global Contexts

Development economics plays an important role in understanding the increasing interdependence between countries in today's globalised world. As theories and frameworks developed by researchers in this field are applied to shape national policies, they have consequences not only domestically but also internationally. For example, development strategies in emerging economies that promote rapid industrialisation, urbanisation and export based economic growth, such as those pursued by China, India and Brazil over recent decades, have significantly transformed global production networks and patterns of international trade flows (Atolia et al., 2018). Development economics provides analytical tools to examine factors such as infrastructure investments, skills upgrading of domestic workforces, differences in regulatory environments and production costs that determine how individual countries integrate into complex global value chains for multinational corporations (de Janvry and Sadoulet, 2014).

The field also examines how uneven development and variations between countries in terms of policy outcomes, institutional quality, technology adoption and socio-economic progress more broadly can impact other areas with cross-border implications (de Janvry and Sadoulet, 2014). This includes dynamics such as international migration pressures, environmental sustainability challenges from rising greenhouse gas emissions, debates around inequality at the global level, and potential economic and political tensions that can emerge from asymmetries in trade balances or disputes over exchange rate policies. By evaluating issues surrounding integration into the world economy through trade, foreign investment and exchange of knowledge and ideas, development economics furnishes valuable insights for understanding linkages between national development trajectories and their international spillover effects. This contributes to more informed policymaking both domestically and globally, especially as challenges like climate change underscore the need for collective, coordinated solutions between countries at different stages of development.

### 1.1.5. Policy Implications and Objectives

A major focus of development economics is identifying policies to promote sustained improvements in living standards, reduce poverty, and manage structural economic shifts. Key policy objectives include achieving stable economic growth, building human capital through health and education, providing basic infrastructure like water and electricity, fostering agricultural productivity growth and food security, promoting job creation in higher-productivity sectors, and establishing effective public institutions to deliver services.

Development economics research informs appropriate roles for the state versus markets. Governments need the capacity to correct market failures, provide public goods like infrastructure, and manage vulnerabilities to shocks. Policy priorities must balance equity and growth. Sustainable development requires inclusive institutions, quality education, social safety nets, gender equality, and environmental protection.

Policy recommendations must be tailored to local contexts rather than applied universally. Randomised controlled trials have become popular for policy experimentation and identification of interventions that demonstrate success on the ground (Banerjee et al., 2016). Policy innovations and grassroots initiatives are an important complement to macroeconomic reforms and institutional changes. Achieving lasting development progress remains an evolving challenge, but insights from development economics can guide policy efforts toward this goal.

## 1.2. The Meaning and Measurement of Economic Development

The main goal of each country, including also developing countries, is the economic growth or economic development as a presumption of increasing wellbeing of citizens. However, terms economic growth and economic development are not the same. Economic growth might be defined as the increase in a country production or income. The production is usually measured by the GDP, GNP, respectively GNI as well. Thus, economic growth is the statistic referring to the value of the goods and services produce within a country (GDP), produce within a nation (GNP) or earned by a country citizens (GNI). Economic development is not considering only the value of the country´s output but also the structure of the output, output distribution and economic structure of the economy. The economic development might include not only in material wellbeing but also the decline of the share of agriculture outputs on GDP or GNP with the correspondence increase of the share of industry or services, increasing education of labour force, capital growth or technological progress.

### 1.2.1. Economic Development Indicators and Measures

There are several indicators and measures that have been used to assess levels of economic development across countries and over time. One of the earliest and most widely used indicators is the GDP, which measures the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. GDP per capita is often used to compare the average standard of living across countries by dividing GDP by the total population. However, GDP fails to account for inequality in income distribution and non-market activities. An important issue when measuring the GDP is the prices used for the calculation of its value. To compare the economic development in time by the use of time series of the GDP, the real GDP must be used. The real GDP, unlike the nominal GDP is measured in real, basic prices. These prices are fixed to some year and are used for GDP calculation for several next periods. This method allows to exclude change in the price level – inflation from the GDP calculation. The inflation needs to be excluded as it is not increasing the real, but just the nominal value of produced goods and services. Thus, increasing nominal GDP is not increasing the number of goods and services produces and consumed and has any effect on wellbeing.

To go further, countries are compared to each other. In such case the indicator real GDP per capita should be used. Real GDP per capita refers to the average value of goods and services that were produced by each citizen, or by the other side of market, average value of goods and services that might be consumed by each citizen. These views represent the income and expenditure approach in measurement the GDP. GDP per capita is used to eliminate the difference size of economies. It would be not effective to compare the overall GDP of the relatively huge and small country. The number of citizens to calculate the average is used as the proxy for the size of a county and its economic potential assuming that larger country disposes a larger number of factors of production as land, capital and labour.

Other major economic indicators include Gross National Product (GNP), which differs from GDP by not using domestic approach but national approach. Thus, GNP represents the total monetary or market value of all the finished goods and services produced by a national factor of production in a specific time period. Unlike the GDP that measures the value of goods and services produced within a country regardless on the country of origin of factor of production, GNP is measuring the value of goods and services produced within a nation regardless the country where the goods and services were produced. Usually, the GDP of developing countries is higher than their GNP. The reason is that countries have attracted foreign investors running business in developing countries and this production is part of GDP of host - developing countries, but not part of their GNP due to the foreign ownership. On the other side, if labour from a developing country is employed in other country, the value of the output of such labour is part of the GNP of developing countries, but not their GDP. Most of the countries is focusing on GDP as the measure of economic performance and changes in the GDP as the calculation of economic growth. The use of GDP has two main reasons. First, the GDP is easier to calculate as it considers domestic approach. If considering the measurement of the GNI, the data on national factors of production from the overall world are required. On Secondly, the GDP measures domestic activities and is able to capture the production possibility of a country – its potential, regardless on the ownership of factors of production. On the other side, GNP might be considered as the nation effort regardless in which country is the factor of production – labour or capital located. The GNP is important to measure as it might be related to the remittances or profit transfers to a country of origin of factors of production. The remittances or the profits then that surely help the economic development of a country.

The last measure of the economic development is GNI. GNI represents the nominal value of all income flowing to national factors of productions as wages, profits of firms, rents, interests, etc. Simplifiedly, GNI refers to the income side of the economy while GNP might be considered as expenditure (production) side of the economy. If we assume that each expenditure must be someone´s income, these variables would bring the same value.

As the text above has mentioned, the economic performance measured by any of previous three indicators, in order to be comparable across time, needs the adjustment of the nominal values to real values. To obtain the real GDP, GNP or GNI, the inflation adjustment is provided. To adjust the nominal data, the GDP deflator is used to provide real values. Alternatively, the consumer price index that measures the price change of basket of goods might be used as well. Even the inflation adjustment, real GDP, GNP or GNI does not capture the exchange rate when obtaining goods and services by trading with other countries. For this reason, variables measuring the economic performance are stated in purchasing power parity (PPP). Purchasing power parity refers to the exchange rate that is calculated as the comparison of the price of the same basket of goods in two countries. In other words, it compares the cost of living in different countries regardless the official exchange rate of the currencies used in these countries. For instance, with the same income, person in country with lower price level is able to purchase more goods and services resulting in higher well-being. To the contrary, person from country with higher price lever is able to purchase less goods and services as person in “cheaper” country and the well-being of this person is lower. Purchasing power

parity approach is very useful in comparison of different countries to compare the standard of living in its material aspect.

All above mentioned indicators would be effective measures of economic performance. However, their ability to measure the wellbeing and the quality of life is limited. In the next part, indicators that are focused on the measurement of the quality of life will be introduced.

Human Development Index (HDI) developed by United Nations Development programme (UNDP), which combines indicators of life expectancy, education levels and per capita income as a composite measure of development (Smits and Permanyer, 2019). Additional measures include consumption-based indicators like poverty rates based on national poverty lines or international poverty line of $1.90 per day (Mahembe and Odhiambo, 2018), access to basic facilities like sanitation, electricity and clean fuel, economic structure based on the composition of different sectors like share of agriculture, industry and services in GDP. The HDI was created for a reason and emphasizes that human development and its capabilities are a decisive criterion for evaluating the development of a country and evaluating economic development is not just consideration of the GDP. Human development could be characterized as expanding and deepening the possibilities of people to live a healthy, long and creative life. This approach is oriented towards people and their possibilities, or opportunities and choices in their decision making. This approach understands the increase in people's income as a means leading to their development and not as a goal they are trying to achieve. In the case of possibilities, or opportunities, human development has a value aspect and means the development of human abilities and possibilities for their use. From this point of view, an important aspect for the development of the country is the creation of conditions and prerequisites for the creation of capabilities as well as the creation of conditions for their use. For example, if a country educates a sufficient number of students, but cannot create enough jobs, e.g. in science and research, where they could be applied, the country's development is at a lower level than it could be. The Human Development Index consists of three areas and is made up of three sub-indexes, namely the Life Expectancy Index, the Education Index and the Gross National Product Index. The monitored areas are a long and healthy life, knowledge, or education and adequate, or adequate standard of living. Within these areas, various indicators are monitored, which are life expectancy at birth, expected length of schooling, average length of schooling and gross national income (GNI) per capita expressed in purchasing power parity in US dollars. The human development index takes on values from 0 to 1. The closer a country's index is to 1, the more this country is considered to be economically developed, offering its residents suitable conditions for living a full, high-quality, healthy and long life. A high value of the index means a high level of well-being and quality of life of the country's inhabitants.

Another indicator that can be used to evaluate economic wellbeing is Genuine progress indicator (GPI). GPI is based on GDP, but adjusts it by the value of activities such as costs of crime, costs related to the expansion of the ozone hole, costs related to the depletion and degradation of resources, etc. GPI contains 26 indicators divided into three categories – social area, economic area and environmental area. In the social area, the indicator includes variables such as criminality, family structure or university education. The environmental area includes e.g. items such as pollution, climate change and other factors positively or negatively affecting the environment. GPI tries to eliminate the influence of such factors that are included in the increase in GDP, but in reality, it is not about economic growth, but about the elimination of mistakes, distortions or social decay from the past. These are activities that are socially necessary but do not enrich society by themselves. As an example of such activities, we can mention the removal of the consequences of natural disasters or the restoration of infrastructure, where the quality of life does not improve, but only returns to its original level. Other examples can be the services of the police, the judiciary or legal advice, where although these services are necessary, they do not bring higher welfare, they only try to eliminate certain negatives (e.g. theft investigation, legal advice, etc.).

Net economic welfare (NEW) is a modified measure of GDP containing only those GDP items that increase wellbeing. It additionally adds to GDP those items that are not included in it, but increase wellbeing. When quantifying net economic wellbeing, the value of the following activities is added to the value of the gross domestic product:

- goods and services produced and provided by the household for the household. Such goods and services are goods and services that we produce for ourselves and our household, or provide for relatives or friends. Such activities are not included in market transactions and are therefore not included in GDP, but they increase economic wellbeing. An example is growing vegetables and providing them within the family or friends;
- production of the non-legal economy. In this case, we are dealing with tax evasion by entrepreneurs, but also with illegal activities, such as drug or arms trade. The non-legal economy includes all kinds of "semi-legal" and illegal economic activities. It can, for example, dealing with non-registration of taxable income, non-registration and tax-evading production, illegal employment of people, illegal production or import of cigarettes, etc. The illegal activities are not included in the market, thus, not included in the GDP, although it may increase people's wellbeing;
- growth in the quality and utility of goods and services. Over time and the introduction of new technologies, equipment and machines are qualitatively improved. The services are also of better quality and variety. The price of new machines and equipment, as well as services, may increase, but consumers obtain more for the value they pay for them. The increase in the quality and computing capability of new laptops might be use as an example;
- value of free time. Free time is a time which we can devote to ourselves for relaxation, to spending time with family or for hobbies. It is obvious that the more of free time people have, the higher the quality of people´s lives. However, the value of leisure time is not included in GDP, while more leisure time increases our wellbeing

Just as adding the values of some activities that increase welfare to the GDP, economic wellbeing is negatively affected by some activities that are included in GDP. The value of the GDP needs to be adjusted by such activities by subtraction them from the GDP. Economic wellbeing is negatively affected by:

- occupational diseases. Occupational diseases affect several activities, especially in the health sector, which are part of the GDP (e.g. services of doctors and hospitals, hospitalization, production and sale of medicines, etc.). However, the disease does not improve the quality of life, on the contrary, it worsens the quality of life not only for patients but also for their family members;
- polluted environment. The process of production of goods is in many cases connected with interference with nature and damage to the environment. Although the production of a company that pollutes the air is included in the GDP, smog or solid substances in the air cause a decrease in the wellbeing of citizens. Similar examples might be also water pollution, deforestation, etc.;
- crime. Although is the crime listed in the illegal economy in the factors that can increase economic wellbeing, generally, crime itself reduces economic wellbeing. A is the administration of prisons and the care of convicts. These activities are included in the GDP, but they do not increase the economic wellbeing of the population in the country;
- income inequality. The quality of life is reduced if the distribution of income and thus the use of GDP is uneven. Even assuming a relatively high GDP per capita or a high level of average income in the country, the quality of life in the country may not be high. An example could be a country where a relatively small group of the population receives most of the income based on their ownership of production factors and the remaining, large part of the country's population receives a low income.

### 1.2.2. Recent Developments in Measurement of Economic Development

Recent years have seen various improvements and new methods adopted in measuring economic development. GDP and its components are now being regularly adjusted for factors like inflation using price deflators and benchmark revisions to capture structural changes in economies over time in a more accurate way (Koester et al., 2021). The collection and accuracy of official national account data have vastly improved with the widespread use of electronic data sources, offering more robust statistics. Additionally, databases from sources like the World Bank, IMF and OECD provide regularly updated internationally comparable indicators. Accounting techniques have also been gaining prominence, where indicators are not directly available from statistics, or national accounts, but are estimated using statistical modelling. This allows extending coverage of measures for dimensions where data is scarce. Subjective well-being through life satisfaction surveys is emerging as a pertinent indicator of quality of life (Skevington and Böhnke, 2018). Multidimensional approaches have become more refined. Techniques such as principal component analysis and clustering algorithms are helping establish typologies of countries based on multidimensional development profiles (Uddin et al., 2019). The use of Big data sources from mobile phones, internet searches etc. also provides new possibilities for timely alternative indicators (di Bella et al., 2018). Combined, these advancements have improved the accuracy, coverage and usefulness of development measurement. However, issues around data scarcity, quality and validating new metrics prevail.

There exists a diverse set of indicators that are commonly used to measure different facets of economic development. However, each one has its limitations and what it aims to capture. GDP only considers market activities and growth in production but tells us little about other welfare aspects. While useful over time and for comparisons, GDP per capita is not sensitive to inequality and non-income dimensions of poverty.

Composite indices aim to present a broader perspective but choices regarding weights to different variables involve value judgements (Seth and McGillivray, 2018). Subjective well-being surveys reflect individual experiences better but responses can vary over time and across cultures. Multidimensional measures cover wider grounds of deprivation but require extensive data that may not be available for all countries or periods. The sectoral composition as % shares of GDP provides a structural perspective but does not evaluate the quality or sustainability of growth. Access to facilities like electricity or sanitation are basic standards but do not indicate much about other progress. Mortality rates reflect some health and welfare impacts but no other achievements. Overall, each statistic portrays the economy from a selective angle and none alone encompasses development in its totality. An appropriate mix of indicators is needed based on the context and objective of the analysis.

### 1.2.3. Challenges and Advantages of Measurement Tools

While statistical measures have enhanced greatly over the decades, several challenges remain. Data deficiencies are common in most developing nations due to weak statistical systems (Sabir et al., 2019). Data quality issues arise from insufficient documentation, inconsistent methodology and political interferences in some country datasets. Measures also require frequent revisions as improved data and new insights emerge. Comparability gets reduced when statistical standards and national account constructs differ across countries.

Monetary indicators ignore differences across countries in purchasing power and local costs of living. Aggregate variables like GDP disguises distribution and disparities within countries. Averaging used in indices presents average progress but masks individual deprivations Some pertinent factors to welfare are difficult to capture numerically like security, political voice, social capital etc. Subjective indicators depend on individual socio-economic contexts and cultural values. However, such tools also provide considerable advantages when used prudently. Time series permits evaluating performance over long periods. Cross-country comparisons facilitate international benchmarking, aid allocation and

policy learning. Composite indices try to provide overview of the development in a comprehensive format. Subjective metrics are used to complement standard economic statistics in order to provide the most truthful information about the development.

With the evolving understanding of development as a multifaceted, inclusive and sustainable process, approaches to its measurement have also been adapting. Expanding coverage to non-income welfare metrics, gender disparities, inequalities, environmental preservation etc. recognises the complex nature of development (van Niekerk, 2020). The focus is shifting from annual reports to longitudinal and multidimensional profiles that track the progress of indicators over the long term. Also, grouping of countries based on development styles, stereotypes and other common aspects are provided. Subjective well-being has gained ground by perceiving people as agents of change and valuing lived experiences (Steenholdt, 2022). Complementarity between objective and subjective data presents a more informative overviews and reports on development. Data revolution expansion driven by widespread internet and mobile access promises newer data sources and statistical methods. Precision of measurement is improving through data integration, modelling, new data sources, and use of data science. Statistical systems are coordinating closer for openly shared, comparable international datasets.

## 1.3. Development Economics in Historical Perspective

### 1.3.1. Evolution of Development Economics

The origins of development economics as a study and research field can be traced to the post-World War II. period and debates arisen around industrialisation strategies for newly independent nations (Corbridge, 2017). Early frameworks were primarily centred around the capital accumulation of post Keynesian theories (Gabardo et al., 2017). The 1950s saw the rise of development planning models and the increasing role of the state. During the 1960s, dependency theory emerged questioning the Western prescriptions, emphasising technology transfers and linkage to international economies (Zambrano Márquez, 2020). The decade also recognized criticisms towards macroeconomic balancing approaches and the rise of basic needs prioritising poverty reduction (Vetterlein, 2017). The neoclassical counter-revolution of the 1980s brought debates around market-led growth, investment climate and the role of markets to the forefront (Stubbs, 2017). Subsequent phases witnessed a wider integration of ideas from other social sciences, the emergence of new classical and endogenous growth theories, emphasis on human capital and institutions in the 1990s (McCann and Van Oort, 2019). Post-2000 saw the rise of concepts like human development, capabilities, social capital, climate change and more recently, complexity and system dynamics-based perspectives (Bijnens and Konings, 2018). Cross-fertilisation of fields has led to a more pluralistic, interdisciplinary nature of development enquiry today.

A review of economic history suggests that patterns and drivers of development have significantly varied across time periods and regions of the world. The largely agrarian economies sustained for millennia started transforming in the late 18th century, set into motion by momentous innovations in Britain during the Industrial Revolution. New manufacturing technologies like steam power enabled a transition away from manual production dominated by artisan guilds to machine-powered mass production centred in factories. Wide-ranging technological progress was complemented by supportive legal and policy reforms that facilitated the creation of markets, accumulation of capital and flexible labour markets. Europe's political fragmentation and commercial rivalries created competition that further accelerated innovation-led productivity gains over the next two centuries. Concurrent advancements in seafaring technologies and navigation enabled extensive global exploration and the firm establishment of colonial empires by European powers. Colonial exploitation of raw materials and captive markets from newly conquered territories augmented capital formation back in the colonising nations (Alavi et al., 2023). By the late 19th century, Western Europe

and North America had transformed into modern industrial powerhouses with unprecedented material prosperity.

De-colonisation in the mid-20th century saw newly independent nations strive for strategies to achieve developmental catch-up. While some Asian countries such as Japan, and South Korea succeeded in rapid industrialisation, with others like China following later, growth faltered in other regions like in Latin America and Africa for long periods (Chang and Zach, 2019). Cold War political dynamics also influenced strategic choices and allocation of financial assistance leading to uneven experiences. The post-2000 period has witnessed remarkable gains in living standards in much of Asia, though overall disparities continue to characterise world development.

### 1.3.2. Ancient and Medieval Economic Development

Ancient economic development is associated with two empires – Ancient Greece (Athens and Sparta) and Roman empire. Studies point to agriculture as the dominant economic activity since ancient civilisations with varying land distributions and modes of production across regions. Trade between countries existed but most production was for subsistence backed by family labour in agrarian settings with rudimentary technologies (Tomich et al., 2018). Such approach during medieval ages was based on the system of governance – feudalism. The relatively self-contained areas governed by the landlord were self-sufficient and provide the landlord income in the form of in-kind contributions from peasants. Is assumed that the economic growth of European countries was higher as in other part of the world – Asia, Latin America or Africa. European countries started to have technological advantage in navigation systems, shipbuilding, banking, military techniques, printing, food processing, textile production, education improvement and establishing universities, and in many other economic activities. The economic development even accelerated after Americas were discovered and the trade was emerged.

### 1.3.3. Modern times Economic Development

The development of shipping the and the trade with overseas markets with its wealth has cause the rapid growth of countries with the access to the see. Firstly, even before the discoveries of America, Italy, respectively Venice played a crucial role in connection of Mediterranean and Northern Europe resulting in Italy to be the richest country in the world. Only after some time after discovery of Americas, Netherland became a leader. The Great Britain took this position just in first quarter of 19$^{th}$ century when controlling India and other part of the world. The United States became a world leader only at the beginning of 20$^{th}$ century. The improvement of the economic development was initially related to the international trade, colonialization and later on with industrialization. The sustained economic growth began at the second half of the 18$^{th}$ century in Great Britain. The Industrial Revolution in Britain in the late 18$^{th}$ century provided a structural transformation involving mechanisation, the expand of number and size of factories, urbanisation and global trade networks leading to unprecedented gains in incomes. This model of achieving sustainable growth had gradually spread to other countries in 19$^{th}$ century. These countries were United States, France, Belgium, Netherlands and Germany, Scandinavian countries, and Japan.

During the early 20th century, colonisation caused uneven development across world regions. Rapid progress in colonisers was in contrast with weak industrial development bases and extractive economic policies imposed in colonies (Oto-Peralías and Romero-Ávila, 2017). Post-colonial times witnessed mixed experiences as East Asia grew steadily while growth faltered in Latin America and Africa for some periods (Nayyar, 2019). The increase in the economic development of China stared only in the second half of the 20$^{th}$ century and many Asian economies just at the end of the 20$^{th}$ century (e.g. Singapore, South Korea, Taiwan, etc.). Gradually, economic activities diversified with services growing in importance besides agriculture and industry sectors in recent decades across countries at

differentiated development levels (De Roest et al., 2018). Advancements in globalisation and information technologies are also altering the nature and patterns of economic change.

### 1.3.4. Capitalism and Western Economic Development

Capitalism is the dominant economic system in Western countries since the dissolution of feudalism from medieval ages. The main principles of capitalism are liberalism and private ownership. In general, only capitalist countries would be considered as developed. The success of capitalism is due to the following reasons:

- decline of the catholic church and the rise of Protestantism allowing more freedom and not strict Christian rules,
- intellectual activities and discoveries due to the declining influence of church,
- rationalism and humanism associated with individualism, liberalism,
- capital accumulation, establishing manufactures and enterprises,
- rise of national states with establishing domestic markets, political revolutions decreasing the power and influence of monarchs.

The capitalism had spread from Europe to other countries – United States, Canada, Australia or New Zealand and became even more successful in these countries.
Surely, capitalism brought negative aspects of economic development as well. Even the economic growth was evident, it had some cost. The negative aspects of capitalism were mainly unemployment, poverty, malnutrition or even starvation, bad social conditions of workers, etc. The rise of the negative aspect of capitalism resulted in the Marxism and socialism.

### 1.3.5. Non-Western World Economic Development

Capitalism is not the solely economic system. There are several economic systems, more or less combining traditional economic system, centrally planned economic system and market economic system.

*The Japanese development*

Japan was never colonialized and had autonomy in economic affairs, while many Asian countries were under control of West European countries. Until 19$^{th}$ century, the economic development was very small. Meiji restoration brought industrialisation to Japan in the late 19$^{th}$ century (Ramesh and Ramesh, 2020) with large investments to infrastructure as harbours, ports, railways, electricity etc. A common feature for Japan was Zaibatsu – a conglomerates that dominated industry and banking sector during the Second World War. Japan has achieved three decades of economic growth after the Second World War. This Japan economic miracle had however resulted in long-term stagnation that has affected the Japan´s development till nowadays. The enormous economic growth as well as the stagnation of Japan economy is the result of its peculiarities that combines traditional Japan values, market mechanism and government planning.

*The South Korean and Taiwanese Development*

South Korea and Taiwan had faced the Asia´s Financial Crisis at the end of 1990s. However, since the crisis, along with the Singapore and Hong Kong were considered as Asian tigers due to their enormous economic growth and development. Similarly, as Japan, South Korea and Taiwan were systematically invested to infrastructure, providing tax incentives, subsidized loans for export-oriented industries and supporting education. The main reason of Korean and Taiwanese success is based on the combining of market mechanism with private – government cooperation. Both countries production is capital and technologically intensive bringing the high valued added as well as competitive in global market.

*The Russian Development*

Communist revolution in Russia in 1917 provided different approach to economic development. This alternative is often associated with the Soviet socialism and five-years plans. The main feature is to replace the market mechanism – consumer preferences and decision on production as well as price creation by the central planning. This was made by the state control of capital and land, collectivism, abolishing of private trade, monitoring the banks and establishing state monopolies. This model really brought the increase in economic growth and Russia had increased the material standard of living in comparison of pre-revolutionary period. For that reason, this model was inspiration for other countries in Eastern Europe, Asia, Africa and Latin America. The weakness of this model became apparent in Soviet Union and other countries with socialism in 1970s and 1980s. The economy relied on increases in labour participation rate and large investments to produce capital goods. However, continued and sustainable growth required the increase in the labour productivity and reforms that would decentralized decisions, decollectivization of non-effective agriculture, decreasing bureaucracy, investment to technological innovation and many other reforms that would contributed to labour productivity and economic growth. A known, socialism or communism as economic system has collapsed at the early 1990s with large number of countries that need structural reforms. From the perspective of development economics, the common name for countries transforming from central planning to market economies is transition economies. These economies had with larger or lower success walk through the structural reforms and other reforms to enhance the economic performance. Many of these countries are located in the central and eastern Europe as well as in Balkan.

*Market socialism in China*

The economic system and its development in China are different as in other countries. The main features of this system are determination of prices by state, state or communal ownership of the factors of production, egalitarianism, technological self-sufficiency and moral incentives. Since 1980s is China practically the fastest growing country in the world. Even during the COVID-19 pandemic was China one of the countries that has not struggled with the decline in economic performance. The Chinese economic development is enormous and China became one of the world economic leaders. Even the data from the Chinese statistics might be overestimated, the growth of China and its development is obvious. The success of China is based on the heavy investments to technologies and technologically advanced equipment and support of international trade. This model combines socialism and principles of market economy.

### 1.3.6. Economic growth in 20$^{th}$ century

The beginning of the 20$^{th}$ century is associated with a high economic growth of many countries as Canada, Japan, Ireland, Norway, Finland, Sweden, Denmark, Argentina, Brazil, Mexico, Malaysia or Thailand that average growth rate was about 2 percent growth yearly. On the other side, developing countries had the average growth rate lower than some fractions of 1 percent.

The World War II. had disrupted the economic development. Many would argue that many countries had high economic growth before the war. However, this was due to huge arming as production of weapons, tanks, aircrafts, artillery and other army equipment and supplies. The situation after the war had changed. Many countries were devastated, economically weak and need structural reforms, restoration of financial systems, or reorganization of international trade. German economic miracle and the economic development of Japan are most apparent of economic development. However, the growth of other European countries, the US golden age and arising of China as well as Asian Tigers that has followed needs to be mentioned as well.

Developing countries had witnesses the economic growth after the Second World War. This growth was much higher than the previous growth rates. The end of the war brings the wave of decolonialization to many countries and countries became independent. Several programs to enhance

the economic growth and improve the well-being were introduced to help developing countries. This aid is organized by individual countries or as the part international institutions.

We might discuss the most growing countries in current days. Obviously, economic growth is achieved by countries that have invested to advanced technologies and digital technologies, are open to international trade and has educated labour force. Also, countries that control or own some strategic mineral resources are also developing in high pace. We might conclude that many of these countries is located in Asia, which is currently the most expanding world region. On the other side, there are still underdeveloped or less developed countries. Many of these countries are located in Africa continent, but also in Latin America and Asia. Often, these countries are struggling with the internal political situation or war conflicts and their development is very unstable.

### 1.3.7. Lessons from Historical Perspectives

Studying history reveals multiple factors as critically instrumental in influencing economic performance trajectories over the long run. Successful industrialisers leveraged technological ingenuity stemming from investments in scientific progress and engineering capabilities, often aided by universities and technical institutes (Li, 2017). Complementary advancements in physical infrastructure like transportation networks, communication systems and construction of ports massively enhanced connectivity and reduced communication transaction costs within countries and for global exchanges of goods and ideas (Coe, 2017). Capital accumulation emerged as important, as societies with higher education and health levels showed greater capacity to adapt advanced technologies and generate further inventions. Also, important factor is stable political and governance system that is able to ensure property rights, contractual enforcement and rule of law.

Early colonial expansions through sustained trade surpluses initially facilitated capital accumulation back home, while extractive institutions and underdeveloped education in many colonies later hampered indigenous organisational learning and capacity building (Ince, 2022). The abundance and diversity of natural endowments along with their sustainable utilisation also imparted competitiveness advantages to the industrial activities of specific regions. Demographic transitions towards smaller, skilled families accelerated economic participation and enhanced domestic savings available for reinvestment (Patierno et al., 2021). History suggests the reinforcing interplay of these multifaceted economic, technological, institutional and social factors was central to success stories.

Valuable policy implications for future development strategies can be derived from analysing long-term structural changes witnessed worldwide. Successful late industrialisers emulated useful policies of forerunners as well as experimented with innovations tailored to address individual constraints rather than blindly imitating others. History of the presently rich nations demonstrates proactive industrial policies, focused investments in entrepreneurship and targeted human capital deepening were actively leveraged to compensate for initial resource deficiencies and catch-up over time. Past experiences also counsel avoidance of complacency as global competitiveness is continuously being disrupted by waves of new technologies that alter relative factor endowments and undermine status quo players (Elsig et al., 2019). Continued progress entails dynamic structural transformations that keep reallocating resources towards more productive economic activities, especially pertinent challenges currently faced by numerous middle-income economies struggling with uneven development, rising inequalities and 'middle-income traps'. Finally, and most importantly, the prolonged and uneven paths traversed suggest development must aim for widespread gains through inclusive strategies attentive to linkages between economic reforms and equitable access to opportunities for human well-being across society. History reinforces that progress is best viewed as an experimental, locality-specific process shaped by the interplay of multiple location-specific factors over generations rather than a linear one-size-fits-all model.

## 1.4. Case Study 1: China´s Economic Growth

China's rapid economic rise over the past four decades has validated many principles of development economics in practice. After Maoism stalled progress and helped perpetuate widespread poverty, new leadership embarked on pragmatic, evidence-informed reforms guided by developmental theories and lessons from other nations. Early agricultural reforms de-collectivizing farming were directly influenced by neoclassical models showing private property rights better incentivise productivity increases (Khan and Hassan, 2020). Household responsibility systems rapidly boosted outputs, and rural incomes, and undernourishment rates fell (Gibson, 2019). This validated the development economics focus on smallholder agriculture as an engine for both growth and poverty reduction.

Concurrent establishment of Special Economic Zones (SEZs) aimed to attract foreign direct investment through export-oriented industrialisation, in line with international trade theory. Multinational capital and technology transfers into coastal SEZs accelerated China's structural economic transition from subsistence agriculture to labour-intensive manufacturing (Cao, 2020). Export earnings enabled more productive domestic reinvestment, supporting neoclassical exogenous growth models. Strategic industrial policies selectively promoted certain sectors based on revealed comparative advantages and potentials for longer-term competitiveness (Cao, 2020). Coordinated with public investments in education, infrastructure, healthcare and sanitation following the successful East Asian developmental state models of South Korea and Taiwan (Kim, 2020). This underlined how ensured price stability must be fused with proper working of institutions for sustained, equitable growth.

The results have been exceptionally positive. Four decades of around 10% average annual GDP growth among the longest and fastest periods ever recorded alleviated poverty on an immense scale (Xu et al., 2023). Rising non-farm job opportunities absorbed surplus rural labour and rebalanced the economy. China attained many Millennium Development Goals well ahead of schedule, demonstrating growth empirics in reducing multidimensional deprivation at a massive scale. However, issues like rising regional inequalities, debt-fuelled overcapacity in some industries and environmental sustainability challenges also echo development economists' warnings on growth's distributive impacts without adaptable, accountable institutions (Xu et al., 2023). China's renewed policy shift towards innovation, services and green growth provides a continued live test case for mainstream development theory and strategies to achieve high-income status. Overall, it serves as an enormously valuable real-world case study for developing countries and the field of development economics itself.

## 1.5. Case Study 2: Development of South Korea

The historical development experience of South Korea provides interesting insights that exemplify many themes discussed. In the aftermath of the Korean War in the 1950s, South Korea was left deeply impoverished with a shattered infrastructure and heavy reliance on rice farming for livelihoods like many other developing economies (Choi, 2023). However, through proactive state-led industrialisation policies over the next four decades, South Korea transformed into one of Asia's leading industrial and economic powerhouses. The Park Chung-hee administration which came to power through a coup in 1961 prioritised rapid export-oriented industrialisation through selective industry support, trade protection and coordination with large conglomerates called chaebols (Glassman and Choi, 2018). Side-by-side, massive investments were undertaken in education and vocational training to build a skilled workforce. Land reforms improved productivity in agriculture to support the growing urban population during industrial restructuring. Monetary and fiscal incentives encouraged priority sectors like textiles, electronics and shipbuilding to attain global scale and competitiveness.

South Korea also effectively leveraged its geopolitical position during the Cold War by securing ample development financing and tie-ups with advanced nations. Successful industrial projects produced surpluses that funded subsequent rounds of diversification into machinery, petrochemicals and other capital-intensive areas. Behind strong authoritarian rule, South Korea recorded over 8% annual growth in GDP over three decades (World Bank., 2023). This manufacturing proclivity enabled South Korea to become the 11th largest exporter globally by the 1990s (Seth, 2017). Alongside wealth accumulation, social development also progressed markedly. Universal primary education was achieved by the 1970s. Investments in health infrastructure raised life expectancy at par with OECD levels by the 1990s (Yıldırım et al., 2020). These human capital augmentations reinforced industrial capabilities and productivity gains. South Korea transitioned to a more open trade regime in the late 1980s leading to rapid technological absorption and improvements in production quality (Seth, 2017). Subsequent deregulation and democracy consolidation increased governance transparency.

Today, South Korea ranks highly on human development and innovation indices. It stands among the top economies worldwide, transforming from an aid recipient to an overseas development assistance donor (Calleja and Prizzon, 2019). This exemplary turnaround within a single generation offers key insights into fostering productive dynamism, the ability to seamlessly upgrade capabilities, and prudently pacing market reforms for maximum inclusive growth. South Korea's history provides a model of rapid takes and lessons on state-guided catch-up strategies.

## Summary

This chapter has provided an overview of key concepts and issues in development economics in three parts - theory, measurement, and history. It discussed how perspectives in the field have broadened development beyond economic growth alone to incorporate social, human, and environmental dimensions. A wide range of indicators and indices used to measure development were analysed, highlighting both advances and ongoing challenges in comprehensive assessment. Analysis of historical patterns and presented case study showed the shifting global dynamics of development and important lessons for policymaking. While progress has been made in reducing income poverty, much work remains to address in sustainability, inequality and multidimensional aspects of deprivation for vulnerable populations worldwide. Development trajectories also continue diverging, with middle-income traps afflicting many nations. Integrating economic reforms with inclusive strategies attentive to education, health and political empowerment will be imperative going forward. Overall, development processes require flexible, experimentation-based approaches tailored to diverse local contexts. It is hoped this chapter provided a useful overview of development economics to inform such strategies and policies.

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# CHAPTER 2: THEORIES OF ECONOMIC DEVELOPMENT

The effort to achieve economic development has been the focus on economists, social scientists and policy makers over the long historical period and it has been integral to societal progress. This effort has been traditionally linked with the effort to enhance social welfare by securing basic needs and fostering wealth creation. However, its scope has now broadened to address complex social, economic, and environmental objectives, including health, education, and sustainable equitable growth.

The theories of economic development form the core of the policymaking, they provide insights into the mechanics of economic progress, income disparities across different regions, and the factors that contribute to the elevation of living standards. The classical school of economics represented by Adam Smith in "The Wealth of Nations," advocated for market-driven growth facilitated by individual drive and activity (Smith, 1776). These foundational ideas put forward the significance of capital and labour in fostering economic progress.

Neoclassical theories emerged from classical economics as an evolution and introduced a more precise analytical framework to the study of economic progress by their focus on production factors and productivity scales. This school of thought found its continuation in neoclassical theories of economic growth, which introduced the technology as an. external growth determinant in the Solow's model (Solow, 1956). This opened new avenues for understanding the role of human capital, innovation, and institutional governance in economic development.

However, the application of these classical and neoclassical models to the developing world has not been without critique. They are often based on idealized conditions that diverge from the reality of real economies, which raises questions about their inclusivity and applicability (Lewis, 1954). Also, as global economies face new hurdles, the economic development theory has expanded to include considerations such as globalization and the influence of institutional frameworks. This illustrates a continuous evolution of economic thought in response to changing global circumstances and conditions.

In this chapter, we explore the development of economic thought from its classical roots, where the ideas of Adam Smith and David Ricardo established the foundational role of markets and trade in economic prosperity, to the analyses of neoclassical theorists like Robert Solow who introduced technology as a key driver of growth. The chapter's content critically evaluates these theories, points out to their historical significance and contemporary critiques, particularly their applicability to the developing world.

The chapter's aims to provide a comprehensive overview of the key economic theories related to economic development that have shaped policies over centuries and to critically assess their relevance in current economic conditions. This includes an examination of structuralist and new institutional approaches that challenge traditional paradigms and provide alternative insights into the complex mechanisms of economic development. The chapter aims to equip readers with an understanding of economic development that transcends traditional theories and acknowledge the multidimensional nature of economic growth and progress.

## 2.1. Classical theories of economic development

In the economic history, the classical period is linked to profound economic transformation. This period is very different from the mercantilist emphasis on state intervention, focusing on market autonomy and individual initiative as explained by **Adam Smith** in his famous work "An Inquiry into the Nature and Causes of the Wealth of Nations" (Smith, 1776).

Smith's conceptualization of economic development is rooted in his unwavering faith in the inherent self-regulating mechanisms of free markets. He pointed out that individuals, driven by self-interest within the market dynamics, the concept often referred to as the "invisible hand" of the market, contribute to collective societal welfare. This force is envisaged as the driving force behind the engine of collective prosperity and economic development.

Smith's model is based on a laissez-faire system, which is not obstructed by undue governmental interference, supports an environment conducive to competition, innovation, and the efficient allocation of resources. In this environment, economic growth and societal progress can be harmoniously developed.

The Smith's model of economic development has inspired many scholars and policy makers over centuries, e.g., a leading monetarist and Nobel prize laureate Milton Friedman pointed out to Smith's profound insight that "both parties to an exchange can benefit, and that, so long as cooperation is strictly voluntary, no exchange will take place unless both parties do benefit" (Friedman, 1976), or another Nobel prize laureate Paul Samuelson, who a observed that "Smith's central insight is clearer today than it was in 1776. With competition and innovation, we get higher incomes, better jobs, and shorter working hours" (Samuelson, 1977).

Smith's idea of an "invisible hand" suggested that personal enterprise, when unobstructed, naturally aligns with societal benefit through the mechanisms of a self-regulating market. Adam Smith's model of economic development, grounded in the principles of self-interest and market self-regulation, continues to guide the development of economics and policy formulation.

**David Ricardo**'s theory of comparative advantage provides an essential framework within the international economics. His treatise, "On the Principles of Political Economy and Taxation," elaborates on how nations can mutually benefit from trade by specializing in the production of goods for which they hold a comparative advantage, rather than an absolute one. This principle postulates that even if one country can produce everything more efficiently than another, both can still benefit from trade if they concentrate on their relative strengths (Ricardo, 1821).

Ricardo's model, provided the first clear argument that international trade is not a zero-sum game but a source of mutual benefit. It laid the groundwork for understanding that development could be achieved through the strategic interplay of international markets. However, this classical approach to economic development through trade is not without its constraints. It presumes a simplistic scenario with two countries and a few commodities and disregards the multifaceted nature of modern global trade, which includes numerous countries, a multitude of goods, services, and intricate trade agreements.

Additionally, the model assumes that labour and resources within a country can smoothly transition between sectors without cost or disruption. This assumption contrasts with the reality of structural unemployment and adjustment costs faced by industries and workers. This framework also does not take into account the discussion of how gains from trade are distributed within a country, often leading to debates on trade policies that may favour certain industries or social groups over others. In spite of these criticisms, Ricardo's principle of comparative advantage represents a foundational concept in economics. It serves as a baseline from which the contemporary discourse on international trade and development evolves, and is relevant in the conditions, when the movement of goods, services, and capital shapes the path of economic development.

This discourse was developed in the background of the industrial revolution, which meant the transition from agricultural landscape to mechanization. The rural exodus created supply of the work force for mushrooming factories, a shift that brought the focus on the classical labour theory of value. The classical economists considered a world where the production's scale could be extended infinitely by the application of labour and the investment in capital. Capital was considered a basis for the development of the industry, contributing to generating wealth, innovation, and contributing to economic growth.

The nexus between labour and capital evolved into a central focus of classical economic theories. Labour was not considered merely a factor of production but the very essence of economic potential. Capital investment in turn was seen as the catalyst for enhancing labour productivity, creating a synergy that was considered essential for the development. This perspective underpinned the push towards industrialization, with manufacturing emerging as a dominant force in the economy, replacing agriculture as the primary source of national income.

The study of the development with regard to population dynamics is often looked into in the context of **Malthusian theory.** Thomas Malthus's seminal work, "An Essay on the Principle of Population," pointed out that the population growth has the potential to be higher than the resource production, specifically production of food stuff, which puts the ceiling on long-term economic development (Malthus, 1826). Malthus formulated a hypothesis that while populations grow geometrically, agricultural output only increases arithmetically, and thus, without appropriate checks and balances, the mankind is destined to remain within the confines of subsistence living.

The Malthusian model suggests that any technological advancement or increase in resources would be offset by an increase in population, which would consume the excess production and return the per capita output to its original level. This perspective has been a critical reference point in discussions on the sustainability of economic development and the carrying capacity of the Earth.

Contrary to predictions of Malthus's theory, the 20th century witnessed substantial increases in food production facilitated by agricultural innovation, which is often referred to as the Green Revolution. This development allowed many societies to support larger populations (Boserup, 2014). The **demographic transition theory** provides a counterpoint to Malthusian approach, and illustrates that as societies develop, birth rates have the tendency to decline, which alleviates the pressure on resources (Davis, 1956).

Even though the Malthusian perspective has been exposed to substantial criticism, its fundamental concerns regarding the balance between population growth and the resource availability remain pertinent. The theory points to the potential constraints on development, even though its narrative has been challenged by the actual course of human progress. Lee (1986) suggests the need for a more dynamic interaction between population pressure and resource production.

The ongoing relevance of the Malthusian viewpoint is clear from contemporary discussions on environmental sustainability and economic development. It draws attention to the need for caution with regard to growth and its limits, reminds us that uncontrolled expansion may be faced with natural constraints. However, the history has shown that human ingenuity and societal adaptation can address existing challenges of the development. In spite of its critique and limitations, the Malthusian theory provides valuable insights into the relationship between population growth and economic development and is considered a foundational concept in the field of development economics.

The classical economic approach is often criticized for its limitations considering the current state of the economy. Classical economists like Adam Smith, David Ricardo, and Thomas Malthus, emphasized a self-regulating market system, minimal government intervention, and the importance of capital accumulation. However, their approach is based on the existence of perfect competition and full employment and overlooks the reality, where there exist monopolies, oligopolies, and the persistent unemployment in today’s economies. Moreover, the classical model’s assumption that

economies naturally move towards equilibrium ignores the possibility of prolonged disequilibrium and economic crises that require active fiscal and monetary policies.

Also, the classical theory fails to a large extent to account for the role of technology, innovation, and non-economic factors such as culture, social norms, and political institutions that significantly influence economic performance. It also does not reflect the role of externalities and public goods, which are crucial in the current context of environmental challenges and social welfare consideration. The limited scope of classical approach in these areas requires the integration of broader socio-economic factors and the acknowledgment of market imperfections, which are often addressed by contemporary economic theories and policies.

## 2.2. Neoclassical theories of economic development

Neoclassical economics, which represents an extension of classical theories, emerged as a response to the limitations of classical economics. It is represented by its key figures like **Alfred Marshall, William Stanley Jevons, and Leon Walras**. This shift in economic thought marked a significant development in the field, particularly influencing the development economics.

Alfred Marshall's "Principles of Economics" (1890) played a crucial role in this transition. Marshall's work introduced concepts like elasticity of demand and consumer's surplus, which were instrumental in understanding market dynamics and consumer behaviour and particularly relevant in developing economies.

William Stanley Jevons' "The Theory of Political Economy" (1879) represents another important contribution to the neoclassical movement. Jevons' exposition of the marginal utility theory of value and his advocacy for the use of mathematical method in economics provided a new perspective for analysing economic phenomena, including those pertinent to developing countries.

Leon Walras contributed significantly to the development of economics with his "Elements of Pure Economics" (2003), where he laid the foundations for the general equilibrium theory. This theory, representing one of the first comprehensive mathematical analyses of general economic equilibrium, created a framework to understand the interrelation of different markets in an economy, a perspective, which is critical for policy formulation in the development economics.

These contributions collectively shifted the focus of economic theory from classical concepts like labour theory of value to the role of individual choice and marginal utility. This shift has been integral in shaping development economics, contributed to the formulation of policies that consider the unique challenges and opportunities in developing economies. The neoclassical emphasis on individual decision-making and marginal analysis has provided a structured understanding of economic behaviour and market dynamics in these contexts.

The neoclassical economics is different from classical economics. Classical theorists emphasized the labour as the primary determinant of value. The neoclassical period led to shift of the paradigm and was characterized by a focus on an individual, their choices, and the utility derived from those choices. The principle of marginalism contributed to understanding of the incremental benefits and decisions associated with each additional unit of consumption or production.

This redirection from a macro-labour perspective to a micro-utility framework is at the core of the neoclassical approach. It led to important insights into consumer behaviour, elasticity of demand, and the market equilibrium creating the core of modern microeconomic theory, and a clear a distinction from the overarching economic forces emphasized by classical economics.

In neoclassical economics, the optimization of resources is intricately linked to the concept of marginalism, a key principle that influences the understanding of the supply side of the market. Marginalism, at its core, involves analysing the effects of small changes in production levels, focusing in particular on the concept of marginal cost, i.e., the cost of producing one additional unit of a good.

This focus on marginal cost is central to resource allocation and production decisions within firms. It provides a framework for understanding how businesses determine the optimal level of production, pointing out that firms aim to produce up to the point, where the marginal cost of production equals the marginal revenue gained from selling one more unit of production. This equilibrium is crucial for efficiency, as producing beyond this point would mean the cost of producing an additional unit would exceed the revenue it generates and lead to diminished profits.

Thus, in neoclassical economics, marginal cost plays a pivotal role in guiding firms in their production and resource allocation strategies. It allows them to maximize efficiency and profitability by optimizing the use of resources and ensuring that each unit of resource is employed where it can bring the most value. This approach to resource optimization is fundamental in understanding firm behaviour and market dynamics in the neoclassical framework.

The shift of the paradigm from the focus of classical economics on production and labour dynamics, neoclassical theories focus on the intricacies of individual choice and utility. This shift has influenced contemporary economic policies and theories, including the area of development economics. Unlike its classical predecessors, which emphasized the macroeconomic interplay of supply and demand, neoclassical economics focuses on the marginal utility and individual decision-making. Central to neoclassical theory is the equilibrium of supply and demand, which allows to identify how resources are allocated and utilized in less developed economies.

In the context of policymaking in the developing regions, the principles of marginal cost and utility provide a guideline for formulating policies that enhance resource efficiency, boost productivity, and stimulate economic expansion. This approach is instrumental in designing strategies that focus on market efficiency, attracting investments, and encouraging sustainable economic progress. Thus, neoclassical economics affects the theoretical discourse, providing strategies for economic advancement in emerging nations. The relevance of these theories is evident in their flexibility to adapt to the dynamic economic landscapes of developing countries, guiding economic policy, and shaping the course of their development.

## 2.3. Structuralist Theories of Economic Development

Structuralist approach to economic development emerged in the middle of 20th century. It critically examines the role of both internal and external structural factors in shaping the economic trajectories of developing countries. This approach represents a significant shift from classical and neoclassical economic theories, which predominantly emphasize market mechanisms.

**Basic principles of structuralist theories**:

- **Dualism and Development Disparities:** Structuralist economists like Raúl Prebisch and Celso Furtado noted that **economies often have a dual structure** consisting of a modern, industrialized sector and a traditional, less-developed sector. This dichotomy leads to **development disparities**, where the modern sector advances while the traditional one lags, which perpetuates inequalities and prevents the increase of wealth.
- **Rigidities and Responsiveness:** Structuralists identify inherent rigidities within developing economies that impede the efficient operation of market mechanisms. A.K. Dutt argues that these rigidities limit the economies' responsiveness to policies aimed at promoting development and equitable income distribution, which challenges the classical assumption of the self-regulating market.
- **Political and Institutional Factors:** The neostructuralist perspective (Colman, & Nixson, 1986) includes a recognition of the role of political and institutional factors in shaping economic outcomes. This approach advocates the use of policies that encourage domestic saving to fuel investment, taking into account the limited availability of external finance. It also views

inflation not only as an economic issue but as a social phenomenon, which is influenced by a complex social, psychological, political, and institutional factors.

- **Productive Base and International Competitiveness:** Structuralists stress the importance of enhancing a country's productive and technological capabilities as a means of improving integration of the country into the global economy and increasing its competitiveness. This perspective argues for strategic policies that support industrialization and technological advancement, which would allow to establish a more favourable position in the international division of labour and in the international trade.

These principles highlight the structuralist emphasis on the complexity of economic development and the need for context-specific policies that address the multifaceted challenges faced by the developing countries.

The structuralist view assumes that the economic conditions of developing nations are different from those in the developed countries. This notion gained attention through influential works of Raúl Prebisch and Hans Singer. They pointed out that the global economic framework is biased against developing nations, a concept, which is at the core of **the Prebisch-Singer hypothesis**. According to this hypothesis the price of primary commodities, which typically form the main exports of developing countries, tends to decrease over time relative to manufactured goods, which leads to a deteriorating trade position for these nations (Prebisch, 1962; Singer, 1950).

Structuralist economists also argue that underdevelopment is caused by both external and internal structural impediments. External factors include the dynamics of international trade, global financial systems, and economic policies, while internal factors involve domestic issues such as income distribution, land ownership, and the nature of institutional frameworks. The structuralist theory also advocates the role of the state in guiding economic development. Opposite to the market-focused view of classical and neoclassical economics, structuralists propose **robust state intervention** to foster industrialization, diversify economies, and modify structural barriers, which contribute to the underdevelopment. Structuralists argue for active state involvement in directing economic growth through policy formulation and strategic planning. This not only encompasses the support for emerging industries but also regulation of markets and investment in social infrastructure and education. They also emphasize the need to address both external and internal structural factors in the design of economic policies that aim for sustainable and equitable growth.

Structuralist economists have long advocated for the **industrialization and diversification of developing economies** (Baer, 1972). This strategy is aimed at reducing reliance on the export of primary commodities, which are vulnerable to fluctuating international market prices and the deteriorating terms of trade. Transitioning towards industrial production allows these countries to generate more stable and high-value economic activities.

The concept of **Import Substitution Industrialization** (ISI) emerged as a key application of structuralist theory, particularly popular in the mid-20th century among developing nations (Kay, 1985). This approach focuses on diminishing foreign dependence through cultivating local industries to manufacture goods that were traditionally imported. The objectives of ISI include the support to domestic industries, reducing the trade deficits, and enhancing domestic employment and economic capacity. Nonetheless, the efficiency of ISI has been contended, when critics pointed out that the potential for creating industries is overly dependent on governmental support.

Structuralist theories also emphasize the **importance of rectifying internal structural issues** that contribute to economic disparities within a country. This involves such initiatives as land reform, income distribution enhancement, and the strengthening of social and economic institutions, which are considered crucial for fostering equitable and sustainable economic environment (Ocampo, 2009).

However, structuralist theories have not been without **criticism,** especially from advocates of free-market economics who argue that excessive government intervention can lead to inefficiencies,

corruption, and reduced competitiveness. Practical proposals for implementation of structuralist concepts, such as ISI, yielded mixed outcomes. As a consequence, structuralist thoughts have evolved, with more recent approaches emphasizing such strategies as export-led growth, which should be carried out alongside or instead of the import substitution.

Structuralist theories provide a specific approach to view economic challenges of developing nations within the global economic context. They call for a reassessment of both external and internal structural factors, which influence economic development and advocate for significant state intervention to rectify systemic imbalances and encourage sustainable growth.

**The Dependency Theory** represents an analytical framework that examines international economic dynamics, particularly the interaction between developed and developing nations. It argues that the economic progress of developing countries, often in the Global South, is significantly hindered by their dependent relationships with developed nations in the Global North.

This theory emerged as a response to the limitations of modernization theories, which suggested that development followed a linear trajectory similar to Western countries. Scholars like A. G. Frank (1967), F. H. Cardoso (1979), and Th. Dos Santos (1970) played key role in developing Dependency Theory during the 1960s and 1970s. They argued that developing countries faced structural constraints imposed by the global economic system, which made Western-style development unrealistic for them.

According to Dependency Theory, the international economic system inherently favours developed countries due to historical colonial and imperial legacies. This system established economic relationships that facilitate **the transfer of resources from developing nations to developed ones**. This wealth transfer involves unequal trade practices, debt dependence, and economic policies that benefit developed countries at the expense of developing ones.

Dependency theory also emphasizes **the role of multinational corporations** and international financial institutions, such as the International Monetary Fund and the World Bank, which perpetuates economic dependency. These entities are often supported by developed nations they are seen as tools that maintain an economic status quo that limits the independent development of peripheral nations. For instance, structural adjustment programs, which are imposed by these institutions often force developing countries to prioritize debt repayment and open their markets to Western goods, which undermines their economic autonomy.

This theory argues that this dependent relationship results in a **'development of underdevelopment.'** Economic growth in developing countries is constrained by the needs and demands of the developed world, which leads to growth in specific sectors or regions but not to comprehensive national development. This exacerbates inequality both within developing countries and on the global economic stage.

**Critics of the dependency theory** argue that it overemphasizes external factors and does not take into account such internal factors as governance, policy decisions, and culture, which also significantly affect a country's development path. The rise of new economic powers in the developing world, such as China and India, challenges some assumptions of dependency theory and suggests alternative development paths.

Despite its criticism, dependency theory provides a valuable framework for understanding global inequalities and the challenges faced by developing nations. It puts light on the historical context of international relations, structural imbalances in global trade, and the role of influential international institutions and provides insights into global development complexities and persistent disparities between the North and South. It provides a critical perspective on international economic relations and highlights how historical and structural factors led to imbalances in the global system, where the development of the South is linked to and often constrained by their economic ties with the North.

The dependency theory constitutes a relevant contribution to discussions about global inequality, sustainable development, and international economic policies.

## 2.4. New Institutional Economics and Development

The New Institutional Economics (NIE) marks a transformative approach to comprehending the dynamics of development. It emphasizes the pivotal role of institutions in influencing economic outcomes. This approach is rooted in the seminal contributions of R. Coase (1995) with his concept of transaction costs, and further advanced by D. North (1990) with his insights on the historical impact of institutions. These theories reflected upon the critical areas of economic inquiry such as property rights, governance, and the underlying costs of economic interactions (Williamson, 2000; Acemoglu, Johnson, & Robinson, 2005).

NIE puts forward the notion that robust institutions are instrumental for creating an environment, which is supportive for development. They establish a framework that mitigates uncertainty and minimizes the frictional costs associated with economic exchange (North, 1990; Rodrik, Subramanian, & Trebbi, 2004). Thus, the agility and efficacy with which the institutions operate are instrumental for the patterns of economic progress and the broader economic development (Acemoglu et al., 2005).

In this sub-chapter, we will focus on the nexus between NIE and development economics and focus on how the design and functionality of institutions not only affect but also are affected by the economic development. The discussion will also articulate the pathways through which institutions affect economic performance and underline the criticality of institutional integrity on the road to development (Rodrik et al., 2004; Acemoglu & Robinson, 2012).

### 2.4.1. The Foundation of New Institutional Economics

The conceptual framework of NIE can be traced to the seminal paper of Ronald Coase, "The Nature of the Firm" (1937), which introduced the concept of transaction costs, i.e., expenses incurred in the process of an economic exchange. Coase challenged the neoclassical assumption of costless transactions and pointed out that these costs could influence market structures. Oliver Williamson (1985) expanded upon Coase's work and further developed the transaction cost framework and emphasized its role in the existence and organizational form of institutions.

Douglass North (1990), in his examination of the historical trajectory of economic systems, pointed to the function of institutions in economic history and thus, fostered the evolution of NIE as a comprehensive approach to economic analysis. Institutions, as defined by North (1990), represent the rules of the game in a society, encompassing both formal legal rules and informal social norms that govern individual behaviour and collective action. The foundation of NIE rests on the assumption that these institutions are key determinants of economic performance and that they influence the costs associated with economic activity and thus, shape the incentives and behaviour of economic agents (North, 1990; Williamson, 2000).

NIE represents a paradigmatic shift from the neoclassical model, which predominantly focuses on the allocation of scarce resources under conditions of perfect competition and full information. While neoclassical economics emphasizes equilibrium outcomes derived from individual utility maximization and profit optimization by firms, NIE brings to the forefront the importance of institutional structures in the economic equation (Aghion & Durlauf, 2005; North, 1990).

This shift entails a move away from abstract models of economic behaviour towards a deeper understanding that incorporates the complexities of real-world economic interactions. The institutional framework addresses the imperfections and asymmetries of information, the

heterogeneity of economic actors, and the socio-political context within which economic activity takes place (Aghion & Durlauf, 2005; Williamson, 2000).

The paradigm shift from neoclassical economics to institutional analysis, as fostered by NIE, does not render the neoclassical approach as obsolete but rather complements it by incorporating the institutional variables that were previously held constant or overlooked. This enrichment of economic theory provides a more holistic view of development processes by acknowledging that economic agents operate within a set of formal and informal rules that have profound effects on their behaviour and on economic outcomes.

The incorporation of NIE into development economics has led to a re-evaluation of policy prescriptions and development strategies. Traditional approaches that prioritized market liberalization and state retrenchment have been assessed from the perspective of institutional capacity and effectiveness. E.g., the success of the East Asian Tigers has been partially attributed to the role of strong institutions that guided and facilitated industrial policy and economic transformation in these countries (Amsden, 1989; Wade, 1990).

### 2.4.2. Institutions and Their Role in Economic Performance

The exploration of the role of institutions in economic performance is central agenda of the NIE. Institutions provide the structural basis of the economy that facilitates economic interactions. Institutions reduce uncertainty and establish a stable environment for transactions. They can decrease transaction costs and enhance economic efficiency (North, 1990; Williamson, 1985). The quality of institutions, i.e., how well they align with economic goals and adapt to new challenges, represents a critical determinant of economic success.

Acemoglu, Johnson, and Robinson (2001) provide empirical support for the institutional hypothesis and demonstrate that countries with more effective institutions tend to have higher levels of economic performance. Furthermore, Besley and Persson (2011) illustrate, how institutions impact the development through their influence on investment and productivity. The evidence suggests that institutional quality represents a more significant predictor of long-term economic growth than other factors, which have been traditionally emphasized in the neoclassical framework, such as capital accumulation or technological innovation.

NIE has also contributed to a deeper understanding of the variance in the development outcomes among countries with similar endowments of factors of production, but a different institutional landscape. The divergent paths of nations with comparable natural resources brings forward the significance of institutions for mediating the relationship between endowments and economic development (Acemoglu, Johnson, & Robinson, 2002). This approach points out to the need for context-specific institutional reforms that are adjusted to the socio-economic and political specifics of individual countries.

### 2.4.3. The role of Property Rights and Transaction Costs in Economic Development

The concept of **property rights**, even though often perceived simply as a legal claim to ownership, transcends this basic definition. It includes the authority to utilize an asset, reap financial benefits from it, and transfer ownership to others. In market economies, clearly specified property rights are instrumental. They bring predictability into the economic environment, empower individuals and businesses to make informed investment decisions and contribute to increased confidence in business exchanges. Harold Demsetz (2013) points out that clear property rights represent a cornerstone for the efficient functioning of markets. The absence of such rights, or their poor articulation, can lead to inefficiencies in resource allocation, which can be exemplified by the

phenomenon of the tragedy of the commons, where common resources are depleted due to individual self-interest.

**Transaction costs** represent the expenditures associated with the exchange and establishment of property rights. These encompass expenses for acquiring information, negotiating and making decisions, as well as monitoring and enforcing agreements. Coase's theorem (1960) considers an ideal economic scenario where, if transaction costs were non-existent, property rights would naturally converge towards those, who value them the most, thereby facilitating an efficient allocation of resources. However, in the real economic situations the transaction costs are positive. According to Coase, positive transaction costs justify the emergence of firms and various institutions, which are devised to streamline these costs (Coase, 1995).

**Implications of Coase Theorem for Economic Development**

Ronald Coase's theorem has reshaped the understanding of externalities and property rights. The theorem suggests that under certain conditions, specifically w**here transaction costs are minimal and property rights are well established, economic agents will negotiate an efficient allocation of resources, which will be ensured irrespective of the initial distribution of these rights.** The implications of the theorem for economic development are significant. The implication that the establishment of clear property rights could ensure the solution of market inefficiencies caused by the existence of externalities, changed the view not only on possible solutions of the externality problems, but also pinpointed the importance of well-defined property rights.

The developing nations also benefit from main message of this theorem, i.e., to prioritize the establishment and enforcement of property rights will improve the functioning of the market mechanism and help to resolve the externality problem. Also, this approach advocates for a system, where individuals and enterprises can directly engage in negotiation to address existing conflicts over the use of resources, which potentially allows to avoid the need for government intervention.

However, the ideal conditions assumed by the Coase Theorem, especially the assumption of negligible transaction costs, are only rarely met in the developing world. In these countries, the costs associated with economic transactions can be prohibitively high due to weak institutional frameworks, which may hamper the kind of free bargaining that was envisaged by R. Coase. In the context of developing countries, this gap between the theory and practice puts emphasize on the vital role that governments and institutions must play in providing the legal framework required for property rights to be effective and for markets to operate efficiently.

**Transaction Costs and the Problem of Development**

As explained above, transaction costs serve as a crucial metric for assessing the conduciveness of an economic environment. In the context of developing nations, the transaction costs are often exacerbated by **suboptimal institutional structures, including but not limited to, inefficient legal systems, endemic corruption, bureaucratic complexity, and a deficit of trustworthy information.** Such elevated costs act as a deterrent to economic transactions, limit the market expansion, and obstruct the smooth movement of resources, which negatively affects economic activities.

Thus, mitigating these transaction costs represents a strategic imperative for economic development. The effort and focused initiatives focused on refining legal structures, enhancing information accuracy, streamlining regulatory frameworks, and combating corrupt practices can significantly lower barriers imposed by the transaction costs. These reforms can catalyse the market activities, lead to more entrepreneurial ventures, foster investment, and support economic growth and prosperity.

The property rights and transaction costs framework introduced by the Coase Theorem provides a specific approach to examine the interplay between institutional frameworks and economic development. The policy makers in the developing countries should focus on establishing and safeguarding property rights and reducing the transaction costs and through this increasing efficiency of the market functioning and fostering economic progress. These institutional elements should play a central role in the development efforts, since they can contribute to faster economic progress.

### 2.4.4. Political Economy and the Development

Political economy studies how political and economic systems affect each other. It shows the importance of having such political systems, in which everyone can have a say in creating effective economic policies and rules that are necessary for sustainable growth. When political and economic systems support each other, they create predisposition for good public management and economic growth, which is the ultimate goal of any development policy.

- **The interplay between political and economic institutions**

The study of political economy looks at how politics affects economic policy and its results. It considers, how the actions of governments, the legislation, and the political processes shape how individuals and businesses do from the economic point of view. The political structures such as the kind of government and the electoral systems can have a significant impact on economic rules, which include property rights, how businesses should be run, and the overall workings of the market.

- **Connection Between Political and Economic Rules**

It is crucial how political and economic rules are interconnected and how they interplay for economic growth and development. Political systems that let everyone participate and have a say tend to create economic rules that contribute to fostering economic growth. This is because these political systems usually have mechanisms in place to make sure that the decisions about the economy are clear and that everyone can question them (Acemoglu & Robinson, 2012). This kind of oversight tends to support the property rights, fair competition, and the production of goods and services that are demanded by citizens. Such rules are necessary for a country's economy to develop in a desirable direction over time.

- **Political Systems and Policy Making**

Political systems are important for economic development because they affect the economic policies making. When policies come from a system, in which people can participate, they are usually the result of discussions and include ideas of many different stakeholder groups. This kind of involvement can lead to policies that take into account many different views, which is important for tackling the challenges of growing an economy. On the other hand, governments with totalitarian control may make policies that only help specific industries or groups, which can negatively affect the working of the market and slow down the economic development.

- **Economic Systems and Market Success**

Strong and transparent economic systems are equally important as political ones. Good economic systems provide a structure for markets to work well. They make sure that the property rights are respected, contracts are honoured, and markets are protected from too much interference. This kind of stability is key for bringing in investments and encouraging people to start new businesses, which helps the economy to grow. However, just having these systems in place is not sufficient, they need to work well, which depends on political leaders and their desire to actually want to keep them strong.

Thus, the willingness of political leaders to support economic performance and their political commitment are needed to keep the economic systems strong.

- **Good Governance and Growing Economies**

Good governance is essential to connect political and economic systems and to promote successful economic growth. This involves managing public affairs and resources in a clear, responsible and transparent way. Good governance ensures that economic policies are applied in a fair and effective way, which builds trust in the economy. The trust is crucial for the economy to run smoothly, and it also affects both local and international investment. Good governance also means protecting human rights, promoting fairness, and caring for the environment. These wider aspects of governance have large economic impact because they help create a stable and fair society where economic activities contribute to the positive development.

### 2.4.5. Corruption, Governance and Economic Growth

Combating corruption and ensuring good governance are pivotal for a robust economic framework. They guarantee efficient resource allocation, sustain public trust in leadership, and lay the groundwork for an economy rooted in fairness and equity. The adherence to these principles paves the way towards sustained growth and a prospering society.

Corruption represents an important barrier to the advancement of a nation's economy. It affects how resources are allocated, reduces confidence in governing bodies, and can weaken the credibility of the state. It manifests in various ways such as bribe-taking, misappropriation of funds, and favouritism, all of which occur, when officials abuse their public roles for private gain. Also, the effects of corruption are extensive: it can intimidate potential investors, slow down economic growth, and exacerbate the gap between the rich and the poor (Mauro, 1995). It also has the potential to redirect skilled individuals away from productive activities toward seeking unearned advantages (Murphy, Shleifer, & Vishny, 1991).

The robust governance characterized by open and transparent processes, accountable leaders, and dependable public services is crucial for counteracting corruption. Governance that enforces laws, ensures people's rights over their property, and nurtures a supportive environment for businesses is especially important. Moreover, the role of empowered community groups and an unrestricted media is critical in keeping a check on those in power (Kaufmann, Kraay, & Mastruzzi, 2009).

Strong governance also includes the appropriate distribution of fundamental services like transportation, education, and medical care. The state's role is central in this process, since it is typically the main provider of these services. When governance is ineffective, the distribution of these critical services is negatively affected, which has adverse effects on economic growth.

In the effort to identify the impact of corruption, it is important to consider, how it can affect economic priorities and administrative procedures. Corruption often leads to the neglect of public-interest projects in favour of those that bring undeserved advantages to government officials, and then, results in inferior infrastructure and services that are inadequate for a prospering economy. Widespread corruption can also erode citizens' trust in their government, lead to disengagement and a weakened societal agreement. This breakdown of trust can have widespread effects, cause a lack of community support for essential economic reforms and policy changes.

Corruption also plays a significant role in widening social inequalities. When funds are diverted to the selected few, the overall population would suffer from insufficient services, which reinforces poverty and limits social mobility. Then, this disparity can further disrupt the economic landscape and deter external investment.

It is clear that developing nations should focus on confronting corruption and have a comprehensive strategy in place that includes judicial reforms, fortifying institutions, and cultivating integrity. Anti-corruption bodies must have the autonomy and means to pursue and corruption must be effectively punished. Legal frameworks must be in place that would ensure that there are tangible repercussions for corrupt behaviour. Educational campaigns focused on fostering honesty and transparency can contribute to nurturing the culture resistant to corruption. Also, promoting ethical business practices and transparency can contribute to the decrease of corrupt activities.

### 2.4.6. Challenges and Critique of New Institutional Economics

The NIE approach has significantly shaped the understanding of the development processes, but it has also encountered substantial criticism related to its scope and application. The critics of this approach argue that even though NIE illuminated the role of institutions in economic performance, it also often neglects other critical aspects of development. This critique raises questions about the limitations of the institutional approach and led to the debate about the relative importance and effectiveness of formal versus informal institutions.

#### Limitations of the New Institutional Approach

One of the limitations of NIE approach is rooted in its potential to overshadow other significant factors of the development. The critics of this approach point out that the development is a multifaceted process, which is influenced by an array of factors, which include, but are not limited to institutions. For instance, cultural norms and values can have also important impact economic behaviour and societal changes, but these factors may be inadequately addressed within the institutional framework (Chang et al., 2002). Similarly, the ideology, regardless, if it is political, economic, or religious, can also shape the policy choices and economic strategies.

Also, international forces such as global market dynamics, foreign policy, or international institutions can play a decisive role in a country's development trajectory. The global context can impose constraints and opportunities that cannot be easily captured by a sole focus on domestic institutions. For instance, a country's economic performance can be affected by international trade policies, cross-border investment flows, and foreign aid.

The critics of the NIE also point out that it can be excessively general, apply a one-size-fits-all approach to institutions without sufficient consideration of specifics related to how they operate in different contexts (Rodrik, 2008). The institutions do not function in their isolation, but they interact with the economic, political, and social environment. Therefore, the understanding of the specific mechanisms through which institutions affect economic outcomes is essential to accurately assess their impact. This requires a more structured approach that considers local conditions, historical legacy as well as the specific nature of institutions.

#### Formal versus Informal Institutions

The NIE framework often emphasizes formal institutions, such as laws, regulations, and policies, and potentially puts insufficient value on the role of informal institutions such as traditions, customs, and unwritten social norms. However, informal institutions can be equally influential in shaping economic behaviour and outcomes than the formal ones. In many societies, informal institutions are deeply rooted and can be more effective in guiding behaviour than formal rules. For example, trust and social capital, which derive from informal institutions, can reduce transaction costs and facilitate cooperation in the economy. In those situations, where formal institutions are weak or lack credibility, informal institutions can provide the social infrastructure necessary for economic transactions.

However, the reliance on informal institutions can also have its drawbacks. Informal norms may resist change and uphold the status quo behaviour that is detrimental to the development, such as gender discrimination or resistance to technological innovation. Moreover, while it is possible to reform formal institutions through policy interventions, it is often a more complex and long-term process to change informal institutions, since it requires shifts in social attitudes and beliefs.

**Challenges in Operationalizing New Institutional Economics**

The application of NIE in policymaking is linked to a separate set of challenges. Institutional reforms are complex, and the effort to change established structures often encounters resistance from groups that benefit from the existing order (Grindle, 2004). These interest groups may have significant power and resources to obstruct the proposed reforms that threaten their privileges.

The **path-dependence of institutional change** represents another challenge. The institutions develop over time, and they are influenced by historical events and processes. As a result, new reforms must face the inertia of existing institutions, which can be deeply embedded in the economic, political, and social aspects of the functioning of a society. This path-dependence means that institutional change is not a mere technical exercise, but it is a process that involves addressing the heritage of history and culture.

It is without any doubt that NIE has contributed valuable insights into the role of institutions in the development. However, its critics highlight important limitations and challenges of this approach. The development is a complex phenomenon, which is influenced by many factors, including culture, ideology, and global factors, which may not be fully accounted for within the institutional framework. The discussions over formal versus informal institutions point out to the need for a balanced approach that recognizes the significance of both types of institutions. The policymakers must navigate the complexities of institutional change and take into account the resistance to reform and the path-dependence of institutions. Thus, the critique of NIE emphasizes that even though institutions are crucial, they are the part of a broader ecosystem of many development factors.

# Summary

This chapter explores the evolution of economic thought related to the economic development, from classical to contemporary theories. It focuses on how these theories have affected the policymaking and discusses their relevance in current economic conditions, particularly in the context of the developing nations.

The chapter points to the classical economic theories of Adam Smith, who advocated for a market-driven approach to growth and emphasized capital and labour as crucial factors. David Ricardo's theory of comparative advantage helps us to understand how nations can prosper through trade by focusing on their relative strengths.

Neoclassical theories provide a more analytical framework focusing on production factors and productivity scales. However, the application of classical and neoclassical models to the developing world has been criticized for them idealizing conditions that often don't hold in reality and raised concerns about their inclusivity and practicality.

The structuralist approach, which emerged in the mid-20$^{th}$ century and criticizes classical and neoclassical economics for their heavy emphasis on the market mechanism, highlights the importance of both internal and external structural factors for shaping economic trajectories. It advocates for state intervention to foster industrialization and modify structural barriers contributing to the underdevelopment.

In the context of the New Institutional Economics (NIE), the seminal contributions of Ronald Coase and Douglass North led to the realisation that institutions play an important role in economic

performance. NIE suggests that institutions' agility and efficacy are instrumental for economic progress.

However, the economic development is affected by multiple factors beyond formal and informal institutions. Thus, a comprehensive approach to the development is needed, which would consider this wider context and integrate insights from various disciplines and various perspectives to allow formulating and implementing policies that are context-specific, and effective.

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# CHAPTER 3: GROWTH AND CONVERGENCE

One well-known theory in economics, neoclassical growth theory, offers important insights into the dynamics of long-term economic development. It provides a thorough grasp of the interactions between the development of capital, technological advancement, and productivity growth, illuminating the elements that propel long-term economic growth. Growth accounting is a crucial instrument in this theoretical framework because it enables economists to break down economic growth into its constituent parts, such as labour, capital, and total factor productivity. This allows for a more in-depth examination of the factors driving economic progress. Under these circumstances, investment becomes apparent as a pivotal stimulant, driving the enlargement of manufacturing capabilities and the assimilation of technological advancements, ultimately promoting sustainable economic development.

Another essential component, technological change, shapes long-term economic development by stimulating innovation, raising productivity, and encouraging the formation of new industries. Furthermore, productivity a crucial indicator of economic performance reflects the efficacy and efficiency of resource allocation and is a crucial factor in determining the overall economic well-being of a country. Gaining an understanding of the complex forces driving economic development requires an understanding of the nuances of growth accounting and neoclassical growth theory. The foundation for comprehending the dynamics of economic development has been established by the neoclassical growth theory, which emphasises the importance of capital accumulation and technological advancement in promoting sustainable growth. Conversely, growth accounting is a potent analytical tool that helps economists identify the relative contributions of various elements, including labour, capital, and technological advancement, to overall economic growth.

The complex relationship among productivity, technological advancement, and investment highlights the complexity of economic development. Investment is a major force behind economic expansion because it promotes the growth of human capital, infrastructure, and technological capabilities, all of which set the stage for long-term development. With its capacity for transformation, technological change spurs productivity gains and innovation, influencing the course of long-term economic growth. Productivity is a key indicator of economic performance because it shows how effectively and efficiently resources are allocated, which emphasises its importance in promoting prosperity and sustainable development. This chapter attempts to provide an in-depth analysis of the basic ideas supporting economic growth by exploring the many facets of these concepts. To better understand the complex mechanisms driving economic development, we will examine neoclassical growth theory, growth accounting, investment, technological advancement, and productivity in detail. This will help researchers and policymakers promote inclusive and sustainable growth.

## 3.1. Neoclassical Growth Theory and Growth Accounting

The origins of neoclassical growth theory can be found in the mid-1900s when economists tried to explain and offer a theoretical framework for understanding factors that affect economic growth. Robert Solow, who significantly influenced the course of contemporary growth economics via his work in the 1950s and 1960s, established one of the cornerstones of neoclassical growth theory (Beaudreau, 2021). Solow's ground-breaking model often referred to as the Solow-Swan model emphasised how capital accumulation and technical advancements propel long-term economic growth. The Solow-Swan model explained how economies would eventually arrive at a steady state with balanced investment and depreciation rates by including the idea of declining returns to capital. Neoclassical growth theory was later improved and expanded upon thanks to this original conception, which gave economists a solid framework for examining the factors influencing economic growth. By

fusing Solow's observations with the idea of a steady state, Trevor Swan significantly advanced the neoclassical growth paradigm, building on his seminal work. Swan's insights contributed to strengthening our knowledge of how economies gradually converge on a path of sustained growth (Swan, 2022). His observations helped to define the equilibrium dynamics of economies and illuminate the factors that propel them towards a trajectory of balanced growth. Furthermore, the framework of neoclassical growth theory has been enhanced by the addition of human capital, technology diffusion, and policy interventions in later versions. This has made it possible to comprehend the intricacies that underlie long-term economic development on a more thorough level.

### 3.1.1. Basic Concepts and Assumptions

Long-term economic growth may be understood using the basic framework provided by neoclassical growth theory. Its theoretical underpinnings are shaped by several fundamental presumptions (Ferguson, 2018). These presumptions include the existence of competitive markets, diminishing returns on capital, and the idea of a steady-state equilibrium. Furthermore, it assumes that technological advancement is exogenous, which means that external forces rather than economic considerations dictate it instead of economic causes influencing it. Neoclassical growth theory's fundamental ideas and presumptions are briefly summarised in Table 3.1.

Table 3.1 Basic Concepts and Assumptions of Neoclassical Growth Theory

| Assumptions | Implications |
|---|---|
| **Diminishing Returns** | Suggests that the marginal product of capital decreases as more capital is accumulated, leading to eventual equilibrium. |
| **Competitive Markets** | Implies that factors of production are paid for their marginal products, ensuring an efficient allocation of resources. |
| **Steady State Equilibrium** | Indicates that economies tend to converge to a stable growth path over time, where investment and depreciation rates are balanced. |
| **Exogenous Technological Progress** | Posts that technological advancement is not directly influenced by economic variables, but rather by external factors such as scientific research and development. |

Source: authors

### 3.1.2. Key Contributions to the Neoclassical Growth Theory

Prominent economists who have developed and enhanced the theoretical foundations of economic growth analysis have made major contributions that have affected the evolution of neoclassical growth theory. Robert Solow's ground-breaking research in the 1950s transformed the discipline by emphasising how important technical advancement is to long-term economic development (Backhouse and Cherrier, 2017). In addition to offering a thorough framework for comprehending the processes of capital accumulation and technical advancement, Solow's ground-breaking model emphasised the significance of productivity growth in maintaining economic progress over the long run. His study established the foundation for further investigations and sparked an extensive scholarly conversation on the factors influencing economic growth.

Paul Romer's seminal studies from the 1980s and 1990s gave neoclassical growth theory a fresh perspective by highlighting the endogenous character of technological progress (Jones, 2019). Romer's observations centred on the significance of knowledge production and research and development (R&D) spending as long-term economic growth drivers. Romer's study emphasised the

role that ideas and knowledge play in influencing technological advancement, which highlights the value of intellectual capital and innovation in promoting long-term economic growth.

Additionally, Robert Lucas's work has significantly advanced neoclassical growth theory by clarifying the function of knowledge spillovers and human capital in the growth process. Lucas's work highlighted the essential role that human capital accumulation plays in promoting sustainable economic growth, emphasising the relevance of education and skills in improving productivity and creativity. His observations highlighted the necessity of investing in education and skill development as a way to promote long-term growth, expanding the theoretical understanding of the relationship between human capital, innovation, and economic progress (Jahanger et al., 2022).

### 3.1.3. Criticisms and Alternative Theories in The Realm of Economic Growth

Neoclassical growth theory has generated discussions and disputes among economists and researchers despite its substantial contributions to the area of economics (Drews and van den Bergh, 2017). It has been subject to several critiques and objections. A common critique of neoclassical growth theory is that it is predicated on the idea of decreasing returns to capital. Some economists contend that long-term sustained growth rates can result from technical innovations and breakthroughs counteracting the consequences of diminishing returns.

The narrow scope of neoclassical growth theory in explaining the impact of institutional variables on economic growth is a further point of criticism. The framework's detractors contend that it ignores the important role that institutional quality, governance, and property rights play in determining long-term economic trajectories by placing too much focus on physical capital and technical breakthroughs. Scholars are investigating alternative methods that incorporate institutional factors into the analysis of economic growth in response to the inadequate incorporation of institutional dynamics (Micelotta et al., 2019). This underscores the crucial role that institutional frameworks and governance structures play in promoting sustainable development.

Furthermore, the idea has come under discussion for treating human capital too simplistically and frequently ignoring the nuanced relationships that exist between skill development, education, and increased productivity. Opponents argue that the limited emphasis on the acquisition of physical capital ignores the complexity of human capital and its consequences for long-term economic growth (Bucci et al., 2019). This criticism highlights the need to include human capital dynamics in a more comprehensive understanding of economic development and has prompted economists to investigate alternative theoretical frameworks that place greater emphasis on the function of human capital as a driver of innovation, productivity, and economic growth.

### 3.1.4. Growth Accounting

Growth accounting comes out from the neoclassical growth theory. It is the measure to determine or calculate the contribution of factors of production to the economic growth. An explanation of growth accounting is provided below, along with methods for gauging economic growth, growth accounting components, and how growth accounting results should be interpreted.

#### 3.1.4.1. Methodologies for Measuring Economic Growth

Understanding the fundamental forces behind a nation's development requires an accurate measurement of economic growth. A range of approaches are utilised to measure the pace of economic growth, such as the application of GDP or GNP changes. An overview of the approaches used to measure economic growth and how each one contributes to the evaluation of overall economic performance is given in Table 3.2.

Table 3.2 Methodologies for Measuring Economic Growth

| Concepts for Measuring Economic Growth | Contributions |
|---|---|
| **Gross Domestic Product (GDP)** | Provides a comprehensive measure of the total economic output within a country's borders, encompassing consumption, investment, government spending, and net exports. |
| **Gross National Product (GNP)** | Measures the total output produced by a country's residents, including domestic production and income generated abroad. |
| **Gross National Income (GNI)** | Reflects the total income earned by a country's residents, encompassing income from domestic production and earnings from overseas investments and assets. |

Source: authors

#### 3.1.4.2. Components of Growth Accounting: Capital, Labour, And Total Factor Productivity (TFP)

Basis of the growth accounting is neoclassical, Cobb-Douglas production function. This neoclassical production function is substitute production function showing that the output of the economy depends o the labour and capital. The Cobb-Douglas production function might be written as:

$$Y = A * K^{\alpha} * L^{\beta}$$

We know that K represents capital and L represents labour. Parameters α and β represents the coefficient of elasticity of capital and labour. They show, how the capital or labour participate in production of output Y. For instance, if the α and β would have value of 0.5, we might simplifiedly said that 50 % of output is produced thanks to capital and 50 % thanks to labour. The variable A represents for other additional variables that are affecting the production of output but are not included in the capital as labour, such as technological progress. The variable A is also called total factor productivity. Breaking-down the causes of economic growth and assigning them to different elements such as labour, capital, and total factor productivity (TFP) is the goal of growth accounting (Bacovic, 2021). The expansion of the physical capital stock, which supports the rise of overall output, is referred to as capital accumulation. Production capacity and output levels are influenced by labour input, which includes both the number of workers and the quality of their work. Furthermore, TFP is a measure of how well inputs are used in the manufacturing process, considering changes in production methods and technological advancements. The elements of growth accounting. along with description of each factor contribution to economic growth are shown in Table 3.3.

Table 3.3 Components of Growth Accounting

| Components of Growth Accounting | Contributions to Economic Growth |
|---|---|
| **Capital** | Contributes to output growth through increased investment in physical capital, leading to enhanced production capacity and efficiency. |
| **Labour** | Contributes to output growth through the increase quantity and quality of the labour force, leading to increase in labour productivity. |
| **Total Factor Productivity (TFP)** | Reflects technological advancements and improvements in production techniques, contributing to enhanced efficiency and output growth beyond the contributions of capital and labour. |

Source: authors

The calculation of the economic growth is provided by the following formula that come from the adjustment of the Cobb-Douglas production function by its dynamization – growth rates of used variables:

$$\frac{\Delta Y}{Y} = \frac{\Delta A}{A} + \alpha \frac{\Delta K}{K} + \beta \frac{\Delta L}{L}$$

or alternatively as:

$$g_Y = g_A + \alpha g_K + \beta g_L$$

where $g_A$ represents the total factor productivity.

The higher the TFP, the higher technological progress of the country is assumed. As considering labour and capital as homogenous, the TFP shows how effective is the capital and the labour. The TFP might answer the question, why the output of the similar economies – with the similar labour and similar capital stock differs. The answer is the efficiency of their use that is assumed to be mostly affected by the technological progress. For that reason, TFP is often interpreted also as the level of technological level of a country. The calculation of the TFP seems to be an easy task for economist or statistician. However, it needs more effort. The main issue for the statistic is to estimate or calculate the capital stock. The second challenging issues is to estimate α and β as they can change over the time and generally, it is not easy to devoted the value of the output to labour or to capital. Even these difficulties, TFP is calculated or provided by statistics offices or by economic studies of academicians.

#### *3.1.4.3. Interpretation of Growth Accounting Results*

To comprehend the relative contributions of various elements to total economic growth, the interpretation of the growth accounting results is necessary. Economists and policymakers may more effectively identify the primary forces behind economic development and create focused plans for promoting sustainable growth by analysing the contributions of labour, capital, and TFP (Ahmed, 2017). Innovation and technology improvements, for example, appear to be important catalysts for sustained economic growth as compared to labour and capital input growth rates. A clear illustration of how to analyse growth accounting data is shown in Table 3.4, which highlights the role that TFP plays in determining overall economic performance.

Table 3.4 Interpretation of Growth Accounting Results

| Growth Accounting Results | Interpretation |
|---|---|
| **High Total Factor Productivity (TFP) Growth** | Indicates significant technological advancements and innovation, driving sustained economic growth beyond the contributions of capital and labour. |
| **Balanced Contributions from Capital and Labour** | Suggests that both capital accumulation and labour inputs are contributing proportionally to economic growth, indicating a stable growth trajectory. |
| **Low TFP Growth with Dominant Capital Contributions** | Implies that capital accumulation is the primary driver of economic growth, highlighting the need for investments in technological advancements and innovation to spur productivity gains and long-term development. |

Source: authors

It is easier to understand the methods used to measure economic growth, the elements that go into growth accounting, and the consequences of growth accounting results when real-world data and examples are used to provide context. Readers can comprehend the useful uses of growth accounting in assessing the dynamics of economic development and creating evidence-based policy interventions for sustainable growth by including data and figures in the debate (Pintér et al., 2018).

## 3.2. Capital Formation and Investment

Investment drives the expansion of production capacities and the advancement of technological capabilities, acting as a crucial catalyst for economic growth (Knoerich, 2017). It is crucial to the development of physical infrastructure, which includes energy systems, transportation networks, and communication technologies, all of which are necessary to enable the effective flow of goods and services. Investing in human capital also helps to create a skilled workforce, which in turn promotes innovation and entrepreneurship. This includes healthcare and education. This propels overall economic progress by resulting in the development of cutting-edge technologies and the emergence of new industries.

Investment also makes economies more resilient by encouraging diversification and lowering susceptibility to shocks from outside the economy (Sedita et al., 2017). Countries can foster an environment that is favourable to the growth and expansion of businesses by fostering the development of strong financial markets and encouraging the inflow of foreign direct investment. This in turn makes it easier for technology and knowledge to be transferred, encouraging the adoption of best practices and propelling the spread of innovation throughout industries. Investment, therefore, not only promotes rapid economic growth but also establishes the framework for inclusive, long-term development.

### 3.2.1. Solow-Swan Model and Its Implications

The pillar of neoclassical growth theory, the Solow-Swan model sheds light on the long-term factors that influence economic growth (Urbano et al., 2019). It highlights how the development of technology and capital accumulation affect an economy's production and growth path. This model aids in the understanding of how changes in capital and technology affect the steady state of an economy. The main elements and ramifications of the Solow-Swan model are listed in Table 3.5.

Table 3.5 Key Components and Implications of the Solow-Swan Model

| Components | Implications |
|---|---|
| **Capital Accumulation** | Indicates that an increase in investment leads to a temporary growth surge, followed by a return to the steady state growth path. |
| **Technological Progress** | Suggests that technological advancements drive long-term economic growth, leading to sustained increases in productivity and output. |
| **Convergence Dynamics** | Implies that economies with similar characteristics tend to converge to the same steady-state growth path, regardless of their initial conditions (Glawe and Wagner, 2021). |

Source: authors

The model is based on the production function that consider capital and labour as the factors affecting the output of the economy that might be written as:

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

The model assume that production function has constant returns to scale. This is simplification, but helps to understand the concept of the growth model. This assumption means that the z increase in the capital and labour will cause the z increase in the output, which is expresses as:

$$zY = F(zK, zL)$$

To continue with the analysis the production function is adjusted to express the output per one worker. This means that production/output, capital and labour are denominated by the labour that shows the number of workers. Here, as seen, the simplification is made that labour and workers is the same number what would not be always truth, but under assumption of natural rate of unemployment, such simplification works well. In this case the L/L gives us 1. As 1 is a constant, this number is not needed for the analysis of production function and the output depends solely on the capital. After this adjustment, the production function is as follows:

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

For the further analysis of production function, we will introduce small letters when considering any variable per worker; y = Y/L, k = K/L that might be written in equation as:

$$y = f(k)$$

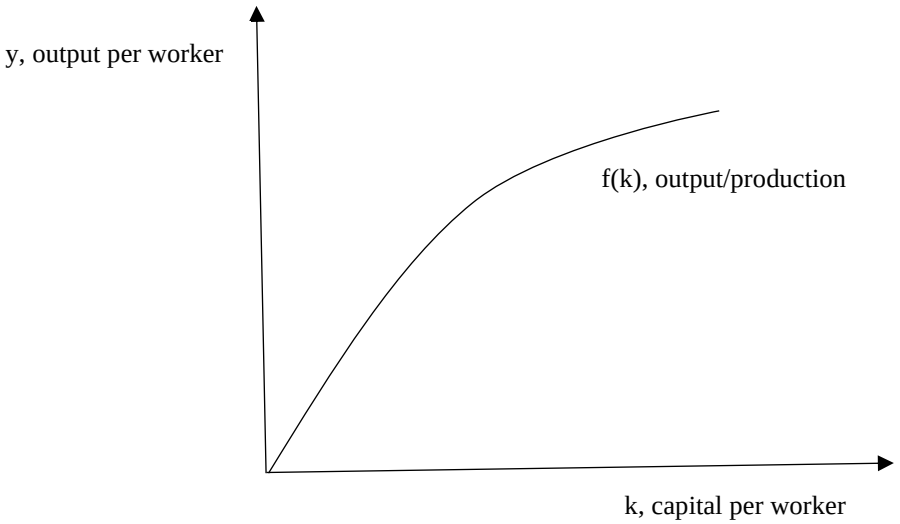


Figure 3.1 Production function

Graph on figure 3.1 illustrates the production function. The slope of the production function is given b the marginal product of capital (MPK). It shows additional output produced by adding 1 extra unit of capital to the process of production. MPK thus might be expressed as:

$$MPK = f(k + 1) - f(k)$$

The production function is increasing, but the additional output is decreasing. Graphically, production function became flatter by increasing capital per worker. The development of the production is due to the diminishing returns of capital as each additional unit of capital produce less of additional output.

In other words, when adding one unit of capital to worker when the low capital stock, this one unit of capital is more effective in comparison of adding the same unit of capital to worker when the stock of capital is higher and workers are well equipped with capital goods.

### 3.2.2. Role of Capital Accumulation

Sustainable economic development is based on the interplay of capital accumulation, investment, and savings. The portion of income that is saved for later use rather than being spent nowadays is known as savings. Savings that are directed toward investment activities help to build up human and physical capital, which promotes improvements in productivity and advances in technology. A nation's production capacities must be maintained and expanded to raise living standards and produce more goods and provide more services.

Additionally, directing savings into profitable ventures promotes economic diversification, lessens reliance on particular sectors of the economy, and builds a more stable and balanced financial system. Policymakers can promote economic stability and prosperity by establishing an atmosphere that is favourable to sustainable growth and development, which can be achieved through the promotion of a culture of savings and prudent investment.

Previously, we have analysed the supply – the production function. Further, we need to analyse the demand or consumption function in an economy. The demand is in model made of two variables. Output, which is also income, is divided between consumption per worker (c) and investment per worker (i) that are made from saving under conditions s = i. In the model, government expenditure and international relations in form of net exports are not introduced. Then, the demand would be written as:

$$y = c + i$$

When assuming that households save some fraction from their income, represented by the saving rate s that is assumed to be exogenous variable, and the rest is consumed, the consumption per worker might be expressed as:

$$c = (1 - s)y$$

Following the consumption function, the output per worker is then:

$$y = (1 - s)y + i$$

When expressing i in the function, i is created by the multiplying of rate of savings with the output and might be written as:

$$i = sy$$

The output of the economy is affected by the capital stock. The change in the capital – its growth, leads to the economic growth. There are two variables that affect the capital stock.

Firstly, it is investment that we have analysed above and the higher investment cause the higher capital stock resulting in higher output. The investment function (per worker) might be expressed as:

$$i = sf(k)$$

From the above introduced equation, we are able to realize that the investment function is the output function multiplied by the saving rate. The graphical solution is given in Graph on figure 3.2.

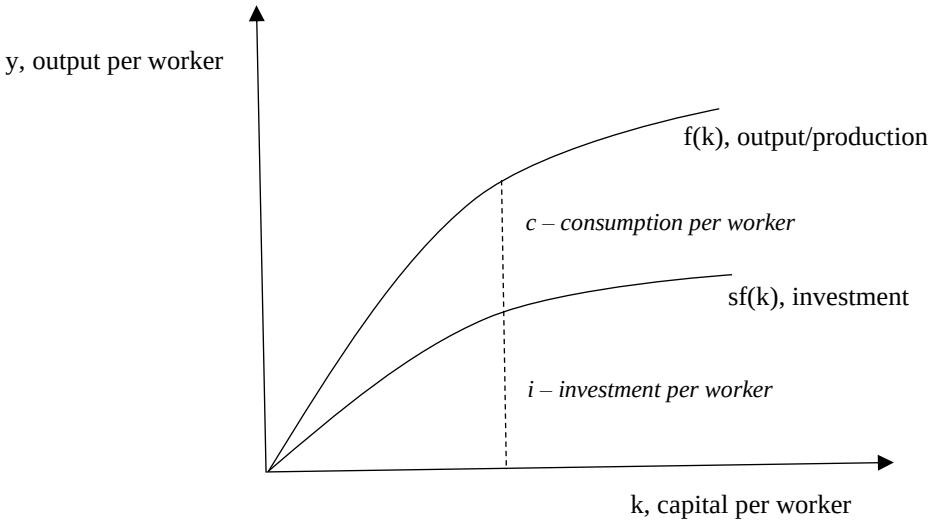


Figure 3.2 Production function and investment function

Secondly, the capital stock is affected by the depreciation that cause the wearing down of existing capital stock. Some part of capital is depreciated. The value of the depreciated capital is based on size of capital stock. Model assumes that the depreciation is constant at some level – depreciation rate that is labelled as δ. Figure 3.3. illustrate the depreciation function, which is liner function depending on the size of capital stock.

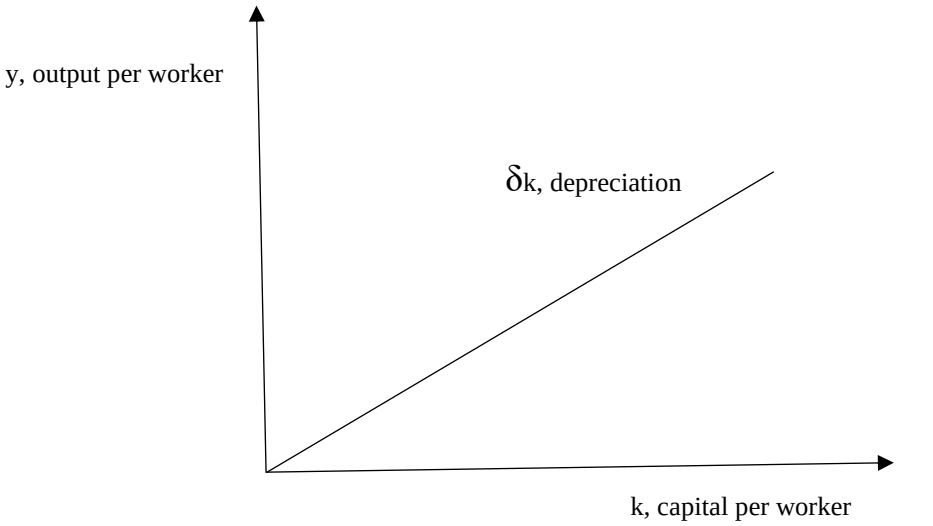


Figure 3.3 Depreciation of capital

To analyse the impact of investment (increasing capital) and depreciation (decreasing capital), the change of the capital stock per worker might be expressed as:

$$\Delta k = i - \delta k$$

Replacing the i by its function, we obtain:

$$\Delta k = sf(k) - \delta k$$

Joining investment function and depreciation function (both per worker) in one graph shows the steady state (k*). The steady state is situation in which is the volume of investment per worker the same as the depreciation per worker, thus, there is zero change in capital stock per worker. Each economy is converging to the steady state. If the investment per worker is higher than the depreciation per worker, the change in capital stock per worker is positive and capital stock per worker is increasing resulting in higher output. This means that the economy is achieving economic growth. Opposite situation is if the investment per worker is lower than depreciation per worker what will cause the decrease in the capital stock per worker resulting the decline in output produced. In the steady state, the capital stock per worker is not changing and the economy remains at the same level of output.

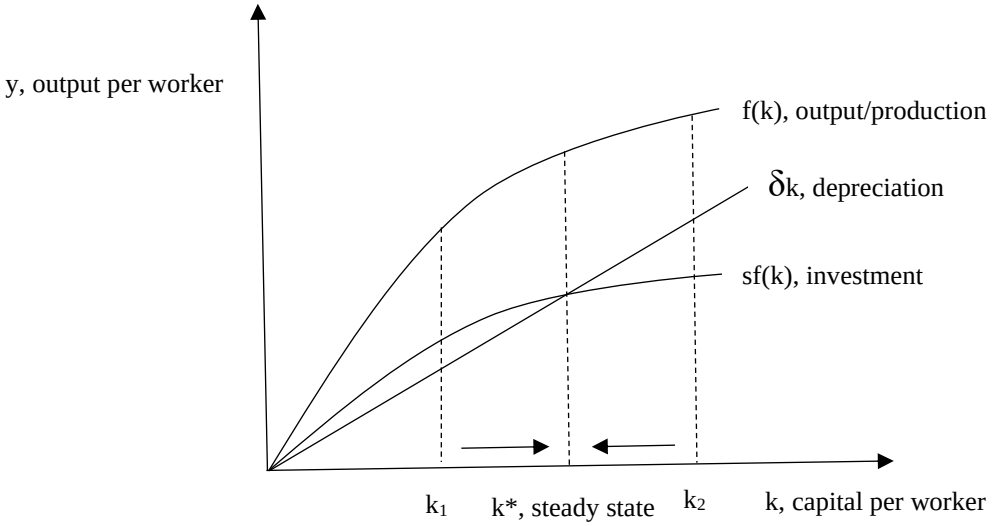


Figure 3.4 Steady state

The analysis of the steady state is very important for the development economics. It stays that countries with lower capital stock per worker might growth faster as countries with higher stock of capital per worker as the additional unit of capital is more productive (MPK is higher). As a result, poor countries are catching-up rich countries. This process is called beta convergence.

Clearly, the above described situation might be easily dispute when comparing the annual growth rates of poor and rich countries. Many of rich countries have also relatively high growth rates, often higher than poorer countries. The beta convergence is then not applicable. There is easy explanation of this situation that might come out form the Solow-Swan model. Countries might be achieving different steady states as there is no one steady state for all countries. As a result, the steady state of the poorer country might be at lower capital per worker while the steady state of richer country might be at higher capital per worker. As a result, countries are not converging to the same steady state and the growth rates might not follow the beta convergence.

Despite this fact, the Solow-Swan model was able to explain the catching-up of undercapitalised countries and their rapid growth after the World War II or explain the economic growth of post-communist countries during their transformation period.

## 3.3. Technological Change and Productivity

Technologies are driven force for the sustainable development. It is clear that countries that have adopted and develop new, modern technologies are able to achieve higher economic growth and the increase of the well-being. Adopting of new technologies will be reflected in the growth of the productivity. As generally known, there is just one factor that contributes to the economic growth – the productivity, while other factors affect the growth indirectly. If we assumed any of the growth factors as physical capital, education, resources, managerial skills or institutions, those factors primarily affect productivity and only via the productivity contributes to economic growth. The same situation is for the technological progress. Technological progress allows to produce goods or provide services in a more effective way. In other words, we are able to produce more at the same cost and within the same time period or produce for lower cost. In both cases, the sources might be reallocated to other production and produce additional goods. A result is the increase in the production per one worker meaning the more effective use of sources. When measuring economic growth, usually, the change in the GDP is considered in the short run. However, we might assume that the economic growth is only the long-term increase in the performance of the economy – the increase of the potential output, that might be achieved only by the more efficient use of sources that is the result of technological progress.

### 3.3.1. Role of Technological Progress

The long-term growth trajectory of an economy is influenced by capital accumulation and technical advancement, according to the neoclassical growth theory. Although it produces diminishing returns over time, capital accumulation the increase in the physical capital stock via investment contributes to short-term growth spikes (Kose et al., 2017). Conversely, under the neoclassical paradigm, technology advancement acts as an exogenous element and propels long-term economic growth and steady productivity gains.

Following the Solow-Swan model, the technological progress is included in the labour. The assumption is that the technological progress improves the effectiveness of the worker. Then, the model is not using the L for the labour but L*E meaning the effective worker. The capital and output per worker are also expressed as:

$$k = K/(L * E)$$
$$y = Y/(L * E)$$

The explanation of the technological progress in Solow-Swan model is as follows. As the k is defined as the capital per effective worker, increase in the number of effective worker due to the technological progress will cause the decrease in k – capital per effective worker. As the k is lower, the steady state is more onwards and economy has more length to reach the steady state meaning higher possible economic growth achieved.

Long-term economic growth is largely dependent on technological change because it promotes innovation, increases productivity, and the emergence of new industries. It is a major force behind structural change, making it easier for knowledge-based industries to replace labour-intensive ones. Businesses can now increase product quality, cut costs, and streamline production processes thanks to technological advancements, which boost economic growth and competitiveness in the

market. Additionally, as a result of technological advancement, new markets and creative goods and services are created, raising consumer welfare and raising living standards (Tabrizian, 2019). Policymakers can create an environment that is favourable to technological innovation by pushing the adoption of cutting-edge technologies and supporting R&D efforts. This will put their economies at the forefront of global competitiveness and support sustainable economic growth.

### 3.3.2. Impact of Investment on Productivity and Technological Change

Investment is a game-changer when it comes to productivity gains, technological advancement, innovation, and competitiveness in the global economy. Businesses can introduce new products, processes, and services that cater to changing consumer demands and preferences by dedicating resources to research and development (R&D) (Sjödin et al., 2020). In addition to increasing industry productivity, this ongoing investment in innovation promotes the growth of new industries, which creates jobs and develops a skilled labour force.

Investments in technology also make it easier for cutting-edge innovations like automation, artificial intelligence, and sustainable energy sources to be adopted. By increasing productivity, lowering operating costs, and improving product quality, the incorporation of cutting-edge technologies into production processes promotes economic growth and competitiveness in the marketplace. Investment plays a crucial role in determining the course of economic development by influencing productivity and technological change, which allows countries to take the lead in innovation and technological advancement on a global scale (Usman and Hammar, 2021).

### 3.3.3. Diffusion of Technology and Its Effects on Productivity

Through its ability to facilitate the widespread adoption of innovative practices and technologies across industries, technology diffusion plays a crucial role in increasing productivity. Businesses can take advantage of new technological developments to increase operational efficiency, simplify production procedures, and broaden their product offerings as they become more widely available and reasonably priced. Technology spreads more widely, increasing productivity and allowing businesses to generate more with the same amount of input (Anzoategui et al., 2019). This promotes economic development and growth. Additionally, as technology spreads, it promotes knowledge sharing and an innovative learning culture within the business ecosystem. Businesses can improve their technological capabilities and continuously increase productivity and efficiency by exchanging ideas and best practices. In addition to helping individual businesses, this cooperative approach to technology diffusion boosts the economy's general dynamism and competitiveness, creating an atmosphere that is favourable for long-term, sustainable growth.

### 3.3.4. Implications for Policy and Innovation Strategies

Encouraging research and development, entrepreneurship, and knowledge creation are all made more important by the implications of technological change for policy and innovation strategies. By supporting research institutes and technology incubators, encouraging a culture of lifelong learning, and making investments in education and skill development, policymakers can encourage technological innovation. Governments may promote technological breakthroughs and a thriving ecosystem of innovation and entrepreneurship by offering tax breaks for creative businesses and incentives for the private sector to invest in R&D (Rohatgi and Rao, 2017).

Additionally, by lowering obstacles to technology adoption, facilitating knowledge transfer, and encouraging partnerships between business and academia, policymakers can encourage the diffusion of technology. Governments can facilitate the widespread diffusion of technology and enhance productivity by establishing a regulatory environment that promotes open innovation and

the exchange of best practices (Surya et al., 2021). This approach can lead to sustainable economic growth. To guarantee that every societal group can take advantage of the opportunities brought about by technological advancement, policymakers should also give top priority to the establishment of digital infrastructure, encourage the adoption of cutting-edge technologies, and fund digital literacy initiatives.

### 3.3.5. Productivity

Productivity is a major factor in determining economic success and is crucial in determining how a country develops over time. Policymakers, economists, and business executives who want to support sustainable economic growth must comprehend the variables driving productivity growth, the neoclassical framework's methods for measuring productivity, and the policy implications for increasing productivity.

*Factors Influencing Productivity Growth*

Numerous elements that affect the efficacy and efficiency of resource utilisation in the manufacturing process have an impact on productivity growth. By increasing productivity overall, the incorporation of cutting-edge technology into production processes can result in increased automation, output quality, and efficiency. Investments in education, training, and skill development result in a workforce that is more knowledgeable and talented, which boosts productivity by expanding the labour force's potential (Kim and Park, 2020). When combined with R&D efforts, an innovative culture encourages the development and uptake of novel products and procedures that boost output. Policymakers who wish to put measures into place that support long-term economic development and sustained productivity growth must recognise and take into account these elements.

*Measurement of Productivity in The Neoclassical Framework*

Total factor productivity (TFP), a notion used in the neoclassical paradigm, is frequently used to quantify productivity. TFP captures the overall efficiency and technical advancement in the economy by representing the share of production growth that cannot be attributable to increases in capital or labour inputs. Productivity is viewed by the neoclassical method as a residual that indicates how well inputs may be combined to produce output (Balk, 2021). The difference between the output growth that was seen and the growth that was anticipated based on input (labour and capital) changes is commonly used to explain the formula for TFP growth.

With the use of this metric, economists may evaluate how much technical advancement and efficiency gains have contributed to total economic development. An examination of TFP trends offers valuable information about how well resources are used and how quickly technology is advancing to increase productivity (Dieppe, 2021).

*Policy Implications for Enhancing Productivity*

Increasing productivity calls for a planned, all-encompassing strategy. Legislators may promote both public and private investment in R&D to spur innovation and technical breakthroughs that boost productivity. Encouraging educational efforts and skill development programmes guarantees that the labour force has the competencies required to embrace novel technology and propel enhancements in productivity. Infrastructure investments, such as digital networks and transportation, may boost overall efficiency and eliminate bottlenecks, which will increase production (Moro Visconti and Morea, 2020). Policymakers may foster an environment that supports productivity growth and lays the groundwork for long-term economic development and prosperity by coordinating policies with these factors. The deliberate incorporation of these variables into policy frameworks guarantees a comprehensive and efficient method for augmenting productivity within the framework of neoclassical growth.

## 3.4. Case Study 1: The Impact of Technological Innovation on The Productivity

*Background*

Think about a developed economy's manufacturing sector that has lately experienced tremendous technical advancement. Production processes have been completely revolutionised by the use of modern automation and artificial intelligence (AI) technologies, which offer the promise of more productivity, lower costs, and better product quality (Javaid et al., 2022).

*Key Questions*

- Which particular indicators would you employ to evaluate how technological innovation affects productivity in this sector? Take into account variables like production per worker, affordability, and quality requirements.
- What impact has the use of cutting-edge technology had on the workforce? Examine how employment numbers, skill needs, and job satisfaction have changed.
- Evaluate the competitiveness of the industry following technological innovation. Are businesses in the industry becoming more competitive in the world market?
- Determine the possible obstacles that businesses may have when adjusting to these technological advancements. Investigate any opportunities that emerge from higher production as well.
- What regulations may be put in place to lessen any possible harm to the workers while maximising the benefits of technology innovation on productivity?

*Discussion*

Examining the case study offers an opportunity to explore the intricacies of overseeing technological advancement, considering the favourable and unfavourable effects on market dynamics, employment, and production (Schneider and Sting, 2020). Participants can investigate how industrial partnerships, workforce development initiatives, and governmental regulations contribute to a seamless shift to a technologically sophisticated environment.

## 3.5. Case Study 2: The Role of Investment in the Economic Growth of a Developing Country

*Background*

Envision a developing nation hoping to boost its economy by using its many unexplored resources. The administration is thinking of ways to draw in international and local capital to promote industrialization, infrastructural growth, and general economic advancement (Tri et al., 2021).

*Key Questions*

- Which industries should receive funding from the government first to promote equitable and sustainable economic growth? Think about technology, infrastructure, healthcare, and education.
- Analyse the possible advantages and difficulties of promoting foreign direct investment. How can the government harmonize national interests with goals of foreign investors?
- Talk about ways to reduce the risks involved in making significant investments, such as those related to political unpredictability, market volatility, and possible environmental effects.
- What systems should be introduced to control an appropriate operation of investment programmes? In what way may the government evaluate investment return using measures of economic growth?

*Discussion Points*

Participants can investigate the trade-offs and difficulties associated with deciding which sectors to invest in first, considering the nation's development objectives and resource limitations (Bhardwaj et al., 2019). The case study provides a forum for talking about how regulatory frameworks, international cooperation, and public-private partnerships may promote investment climates and sustained economic growth in underdeveloped nations.

## Summary

This chapter provides context on the development of neoclassical growth theory and important contributions from economists in the field. Neoclassical growth theory emerged in the mid-20th century as economists like Robert Solow sought to understand factors influencing economic growth. Solow significantly impacted the field with his seminal work in the 1950s-60s, establishing the Solow-Swan model which emphasized capital accumulation and technological progress as drivers of long-term growth. Other economists like Paul Romer and Robert Lucas further advanced the theory. Romer highlighted technology's endogenous nature and knowledge's role. Lucas clarified the importance of human capital accumulation. While neoclassical growth theory provided insights, it has also faced criticisms. One criticism is its assumption of diminishing returns to capital, as some argue sustained growth can result from innovations counteracting diminishing returns. It is also criticized for not fully considering how institutional factors impact growth and treating human capital simplistically. This has led to calls for alternate theoretical frameworks that place greater emphasis on humans, institutions, and capturing technological change's complexity in explaining long-run economic performance.

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# CHAPTER 4: HUMAN CAPITAL AND DEVELOPMENT

Chapter 4 explores human capital and its crucial role in shaping economic development. It emphasizes the importance of resource allocation in education, and points out to how financial investments significantly impact the quality of education. The examples used provide a clear link between educational funding and student outcomes. The chapter also discusses how training educators is crucial for enhancing teaching and learning outcomes, as evidenced by Finland's investment in teacher development, which has led to remarkable results.

In developing nations, funding for education often comes from a mix of domestic resources and international aid. Governments must carefully balance their budgets while donors supplement efforts with additional funding. However, translating these investments into tangible improvements requires transparent governance, accountability in fund allocation, and community participation in decision-making. Then, a comprehensive assessment system is needed to build upon the synergy between policy, resource distribution, and societal norms.

## 4.1. Introduction to Human Capital

### 4.1.1. Definition of Human Capital

The concept of 'human capital' was introduced by the Chicago economist **Gary Becker** in his influential book "Human Capital: A Theoretical and Empirical Analysis" (1964). Becker described human capital as the aggregate of knowledge, skills, and health accumulated by individuals throughout their lives, which influences their capacity for work and productivity. This perspective pinpoints the value of investing in education, training, and health as key drivers of an individual's economic productivity and consequently of their earnings.

This modern understanding of human capital builds upon earlier economic theories, particularly those of **Adam Smith.** Even though Smith did not explicitly label his approach as human capital enquiry, he emphasized the importance of skill development and education for enhancing workforce productivity, and thus, laid the grounds for later formalizations of the concept.

In the current context, definitions of human capital have expanded to encompass a broader scope. Institutions like the **World Bank** (2023) define human capital as it is encompassing the skills, knowledge, experiences, and personal attributes that enable individuals to create economic value. This expanded definition includes a diverse array of factors, such as experiential learning and such traits as creativity and adaptability, reflecting the evolving demands of the global economy.

The evolution of these definitions demonstrates a consistent recognition of the diverse attributes and investments that constitute human capital and enhance an individual's contribution to the economy. While Becker's definition was ground-breaking for establishing a formal understanding of the concept by focusing on the aspect of investment in people, the more contemporary interpretations have included a wider range of relevant skills and attributes, which create the human capital.

### 4.1.2. Historical Perspective and Evolution of Human Capital Theory

The concept of human capital has evolved significantly over time, since the vision of Adam Smith, in which he emphasized the importance of skills and knowledge as integral components of a society's wealth and pointed out that the labour productivity was greatly influenced by the division of labour.

The term "human capital" was first used in early discussions by economists like **Irving Fisher and Arthur Cecil Pigou (**Pigou, 1933, 2002, Fisher, 1906, 1907, 1930). Pigou pointed out that investment in human skills, is similar to investment in material capital. This notion became crucial for understanding triggers of economic growth and blurred the division between consumption and investment in productive capacity of an individual.

Pigou significantly influenced labour and welfare economics, essential for human capital theory. His exploration of labour market dynamics shed light on the **forces shaping employment and worker productivity.** Additionally, his works in welfare economics, provide a foundation for **appreciating human capital's role in economic productivity and well-being.**

Irving Fisher's contributions, even though centred on capital and interest theory, are indirectly relevant for human capital theory. His insights into capital accumulation, valuation, and investment, emphasize the economic rationale behind investing in human skills and education. Fisher's analysis provides a **framework for understanding human capital as a form of investment,** with potential returns influencing economic growth and individual prosperity.

The modern conceptualization of human capital in economic literature began with Jacob Mincer's article "Investment in Human Capital and Personal Income Distribution" (1958), followed by Theodore Schultz's contributions (1960, 1961).

**Theodore Schultz,** a Chicago economist, led research into the post-World War II recovery of Germany and Japan, contrasting this with the United Kingdom's slower recovery. Schultz concluded that the speedy recovery was due to a healthy and highly educated population. He argued that education enhances productivity, and that good health care maintains this investment, making people more productive. One of his main contributions was the contribution to the formulation of Human Capital Theory, developed together with Gary Becker and Jacob Mincer. Schultz's theory proposed that knowledge and skill are forms of capital and that investments in human capital increase both economic output and workers' earnings. This theory has been widely used to study the complexities of pay scales, although it has also been critiqued for potentially leading to biases regarding achievable investments for lower income workers.

**Jacob Mincer,** a key member of the Chicago School of Economics alongside Gary Becker, was instrumental in developing the empirical foundations of human capital theory. His book "Schooling, Experience, and Earnings," (1974), utilized data from the 1950 and 1960 U.S. Censuses to relate income distribution to education and on-the-job training. Mincer showed that annual earnings increased by 5 to 10 percent for every additional year of schooling during the 1950s and 1960s. He also noted a smaller, yet significant, return on investment in job training. Mincer's work led to the widespread use of what became known as Mincerian equations used in labour economics, which model wages as a function of human capital. This work has had a lasting impact on the field and made such variables like schooling and work experience standard measures of human capital.

Gary Becker's book, "Human Capital"(1993) is considered a standard reference in this field. Becker compared human capital to physical means of production and emphasized that like any other form of capital, investment in human capital (through education, training, medical treatment) affects its rate of return and productivity/output. His analysis drew parallels between human capital and physical capital. He argues that investments in education, training, and health care enhance an individual's productivity and earning potential. Becker's assertion that such investments yield returns similar to those on physical capital extended the economic analysis to areas traditionally overlooked by economists. Becker’s theory emphasized the importance of humans for economic development and pointed out that the returns on human capital were critical to both personal and societal economic growth.

The concept of human capital, as articulated by Becker, does not merely represent an analogy to physical capital but it means a profound recognition of the intrinsic value of human potential.

Becker's insight that the development of an individual's abilities through education and training is analogous to the enhancement of machines through investment was transformative. Also, his analysis went beyond the immediate economic benefits, considering the long-term effects of educated populations on economic growth, innovation, and social advancement. Becker's work laid the foundation for a vast economic inquiry, influenced the policy decision-making on education and workforce development. The investment in human capital became a key metric for evaluating economic strategies and social programs, reflecting on the critical role of human development in achieving sustained economic prosperity.

Contemporary **endogenous growth theories** regard human capital as a crucial factor in economic growth, recognize the role of education in enhancing the economic welfare of individuals. In the 1990s, the scope of human capital was expanded to include natural abilities, physical fitness, and health, since these are also important for

acquiring knowledge and skills.

Endogenous growth theory asserts that economic growth is primarily the result of internal factors within an economy rather than external forces. This theory emphasizes the significant role of human capital, innovation, and knowledge in driving economic growth. It also highlights the importance of **positive externalities and spill-over effects of a knowledge-based economy**, which are instrumental in fostering economic development. Policy measures, such as **subsidies for research and development or education**, are seen as vital in increasing the growth rate within some endogenous growth models by boosting the incentive for innovation.

In the mid-1980s, dissatisfaction with the common accounts of exogenous factors determining long-run growth led to a shift towards models that explicitly included the key determinants of growth. These models replaced the exogenous growth variable, such as unexplained technical progress, with models, where **growth is attributed to indefinite investment in human capital.** This approach recognizes the spill-over effect of human capital on the economy and addresses the issue of diminishing returns to capital accumulation.

Paul Romer, in his paper "Human Capital And Growth: Theory and Evidence," outlined a theoretical framework for understanding the role of human capital in a model of endogenous growth. This framework focuses on **differentiating between intangibles like education and experience, and knowledge or science, and how these factors affect production**. An important implication of this framework is the significance of the initial level of a variable, such as literacy, for understanding subsequent growth. This contrasts with the usual emphasis on the rates of change of inputs in growth accounting. Romer's empirical findings suggest that while literacy does not have additional explanatory power in a cross-country regression of growth rates on investment and other variables, the initial level of literacy does predict the subsequent rate of investment and, indirectly, the rate of growth. These insights from endogenous growth theory point to the transformative role of human capital as a driver of economic growth and shift the focus from external influences to the internal dynamics of economies.

Further advancements in the concept include the introduction of the idea of task-specific human capital by economists **Robert Gibbons** and **Michael Waldman** (2004). This concept highlighted that human capital is often accumulated in the specific form relevant to a particular task or skill set. Their research points out that the accumulation of human capital is more nuanced and takes up the form of the **specific human capital**, with its value greatly influenced by its relevance to distinct tasks or roles. This perspective implies that the acquisition of skills is most advantageous, when it is directly aligned with specific job functions, thereby increasing the efficiency. This task-centred view has profound implications for the structuring of educational and training programs, which should be developed based on the precise needs of the labour market to ensure that the developed skills are directly applicable and beneficial. The evolution of human capital theory reflects the changing

understanding of labour and productivity in economic theory and points out to the importance of investing in people as a means of fostering economic growth and development.

### 4.1.3. Relevance of human capital theory in development economics

In development economics, the concept of human capital represents one of the key ones. It accentuates the significance of investments in human aspects, i.e., education, healthcare, and vocational training, as an integral part of economic progress, which is parallel to the importance of investments in physical assets. Theories introduced by Theodore Schultz and Gary Becker (1993) highlight that a workforce that is educated, in good health, and possesses relevant skills can enhance productivity and drive innovation, which in turn leads to a more prosperous and dynamic economic environment.

Education, as a facet of human capital, equips the workforce with the skills, which allow them to navigate and adapt to shifts in market demands and technological progress. The research has consistently shown a robust link between education and income levels, both at personal and national scale. Pioneering study by Hanushek and Woessmann (2015) has been instrumental in demonstrating the direct relationship between cognitive abilities acquired through education, and such factors as individual earnings, income distribution, and overall economic growth. Their insights put a greater emphasis on the quality of education rather than the length of educational engagement.

The World Bank's World Development Report (2018) further contributes to this narrative by focusing on the changing dynamics of work and the critical role of human capital in adapting to these shifts. In increasingly technologically advanced and globally interconnected economies, the demand for skilled labour increases, which points out to the need for significant human capital investments.

Health, as another pillar of human capital, plays also a vital role. The research indicates that health advancements significantly contribute to economic growth rates. A study by Bloom, Canning, and Sevilla (2004) finds that a 1% increase in life expectancy is associated with a 0.04% growth in the economy. This is attributed to the fact that healthier individuals are more efficient in both learning and production, and it highlights the strategic importance of investing in health to achieve economic progress and development.

Ongoing professional development, including workplace training and adult education programs, is also crucial for sustaining and improving the employability of workers in a rapidly evolving economic landscape. Such continuous skill enhancement is essential for facilitating workers' flexibility and their ability to switch between industries, innovate within their sectors, and adapt to emerging technologies.

The human capital theory is an integral part of field of development economics, it points out to and justifies the need for targeted investments in education, health, and skill training as pre-conditions for achieving strong, inclusive economic growth.

## 4.2. Education as a Pillar of Human Capital

### 4.2.1. The role of education in economic growth and development

Among the various ways of human capital accumulation, education represents a fundamental pillar. Education is central to the generation human capital, through education individuals acquire the knowledge, skills, and competencies that are not only essential but also transformative in the rapidly evolving global economy. In this subsection, we look into influence of education on economic growth and development and discuss various ways in which education affects economic development.

- **Education and Labour Productivity**

One of the most direct ways through which education influences economic growth is by enhancing labour productivity. A well-educated workforce is inherently more productive, possessing the skills and knowledge necessary for efficient task execution. Research consistently demonstrates a positive correlation between education levels and labour productivity. For instance, a study by Mankiw, Romer, and Weil (1992) indicates that a one-year increase in average schooling in a country corresponds to a long-term economic growth increase of approximately 0.5%. Education also equips the workforce with adaptability, which is a critical aspect needed in the period of rapid technological progress. The high capacity to learn and adapt is needed, and individuals with strong educational backgrounds are better suited to acquire new skills and embrace technological shifts and contribute to the economies becoming more resilient to any disruptions.

Education plays a pivotal role in enhancing labour market efficiency. A well-educated workforce is inherently more productive, adaptable, and innovative. In the society, this enhanced efficiency translates into higher economic output and competitiveness. Empirical evidence, such as the findings of Psacharopoulos and Patrinos (2004), has shown that each additional year of schooling significantly increases an individual's earnings. Beyond personal benefits, this increased labour market efficiency influences the entire economy and creates the potential to drive economic growth and prosperity.

- **Education and Innovation**

Innovation represents an important driving force of economic growth, and education plays a key role to trigger innovation. Highly educated individuals are more likely to engage in research and development activities, contribute to the creation of novel technologies, products, and industries. P. Romer (1990) introduced the "endogenous growth theory," which emphasizes the role of knowledge and human capital acquired through education for fostering innovation and sustained economic growth. The experience has shown that such countries as South Korea or Finland, which have highly invested in their education system, have also improved their innovation performance, which demonstrates the intrinsic connection between education and innovation. Their highly skilled workforces are considered to be beyond the success of their vibrant innovation ecosystems. The fact that education equips individuals with the essential skills and knowledge required for engaging in research and development activities opens up the path for ground-breaking technological discoveries that shape entire industries and economies. Educational institutions, particularly universities and research centres, serve as crucibles for nurturing novel ideas, fostering a culture of inquiry and innovation, and producing the skilled professionals and researchers essential for innovation-led economic growth.

- **Education and Income Inequality**

Education also plays a pivotal role in mitigating income inequality within societies. A well-educated populace gains access to better employment opportunities and higher-paying jobs. This not only allows to increase standards of living of individuals, but also to narrow income disparities. The research by Piketty (2014) and Saez and Zucman (2016) highlights the positive impact of education on income distribution. Moreover, education serves as a potent tool for enhancing the social mobility. It empowers individuals from disadvantaged backgrounds and facilitates their access to higher-paying positions and breaking the cycle of poverty. Thus, public policies promoting access to education, such as scholarships and education subsidies, contribute to a more equitable economic development.

Educated individuals tend to experience superior health outcomes, greater civic engagement, and an enhanced quality of life. By fostering social cohesion, reducing disparities, and mitigating inequality, education creates an environment conducive to sustained economic development. The

World Bank's influential World Development Report (2018) underscores the pivotal role of education in poverty reduction and the enhancement of social welfare. It highlights the transformative power of education in improving overall living standards and contributing to economic development.

- **Investment in Education for Economic Growth**

Governments and policymakers acknowledge an important role of education in economic growth and development. They allocate substantial resources to enhance educational infrastructure, develop curricula, and improve teacher training. Additionally, international organizations like the World Bank and UNESCO call for increased investment in education to achieve sustainable development goals, e.g., the World Bank's Education Strategy 2020 underlines the significance of quality education in poverty reduction and economic growth.

In the era of globalization, education also became a critical determinant of a nation's international competitiveness. The World Economic Forum's Global Competitiveness Report consistently emphasizes the importance of education for a nation's competitiveness. Those countries that strategically invest in education are better positioned to adapt to the evolving demands of the global economy. They are better able to attract foreign investments, foster entrepreneurship, and effectively engage in international trade. This global perspective highlights, how education not only drives domestic economic growth but also positions of the countries in the interconnected world economy.

However, even though the impact of education on economic growth is undeniable, challenges persist. Access to quality education remains unequal across countries and regions and the disparities in educational opportunities contribute to global inequalities. It is essential that these disparities are addressed to create preconditions for the full use of education as a driver of economic development fully. Also, the rapidly evolving nature of work, which is driven by automation and artificial intelligence, present further challenges for education systems and necessitates that education remains relevant and equips individuals with the skills needed for the jobs of the future.

Education undeniably represents a pillar in the accumulation of human capital, which has a profound impact on economic growth and development. It enhances labour productivity, fosters innovation, reduces income inequalities, and promotes social mobility. Also, at current stage, education represents an important factor for fostering an inclusive and sustainable growth.

### 4.2.2. Education quality vs. quantity debate

The debate between education quality and quantity stands at the forefront of global educational discourse, presenting a pivotal challenge for policymakers, educators, and stakeholders. This dialogue hinges on determining the more crucial focus: the breadth of educational access (quantity) or the depth and effectiveness of learning experiences (quality). In the contemporary landscape, this debate gains significance amid varying socio-economic contexts and the evolving demands of a globalized world. Educational institutions and systems worldwide grapple with this dichotomy, striving to expand access while maintaining or enhancing the standard of education delivered. This discussion is not merely academic but has profound implications for the future workforce, societal development, and global competitiveness. The crux of this essay lies in the argument that an effective educational system necessitates a nuanced balance between quality and quantity, one that is thoughtfully adapted to the distinct needs and aspirations of diverse communities and nations. This balance is key to unlocking the full potential of educational systems globally, ensuring that they are inclusive, equitable, and capable of fostering comprehensive development.

Tracing the education quality vs. quantity debate reveals a transformation in educational paradigms, influenced by significant theories and global policies. Historically, education catered to an

elite minority, emphasizing quality. The 19th century expansion of public education systems marked a shift towards increasing educational access, thereby accentuating quantity. John Dewey influenced this discourse significantly. His experiential learning theory, advocating for learning through experience and critical reflection, underscored the importance of educational quality (Dewey, 1986). In the 20th century, international organizations such as UNESCO and OECD were at the forefront of shaping this debate internationally. UNESCO emphasized the right to education, advocating for broader education access (UNESCO, 2015). OECD highlighted the need to maintain educational quality by measuring student outcomes through such assessments as PISA (OECD, 2019). This indicates an ongoing effort to balance quality and quantity in education, which is very relevant for the developing societies.

- **Education quality and quantity issue in the developing countries**

The importance of education quality versus quantity in developing countries is a multidimensional issue that is linked to disparities in educational participation, attainment, and outcomes, as well as the problems linked to the quality of education. The UNESCO Institute for Statistics (UIS, 2023) data highlights these challenges, which makes it clear that there is the need for developing countries to balance both aspects of education to achieve sustainable development goals (SDG 4).

Inequalities in education are prevalent, the socioeconomic disparities in participation and attainment are strong, particularly in disadvantaged rural or poorer households. This inequality is amplified at higher levels of education, since the proportion of countries, which would achieve gender parity in completion rates decreases significantly from primary to upper secondary education. Gender disparities also affect completion rates at the primary level, and these differences are most pronounced in sub-Saharan Africa. These disparities extend to learning outcomes, where girls generally outperform boys in primary education, although inequalities in mathematics are more balanced at the lower secondary level.

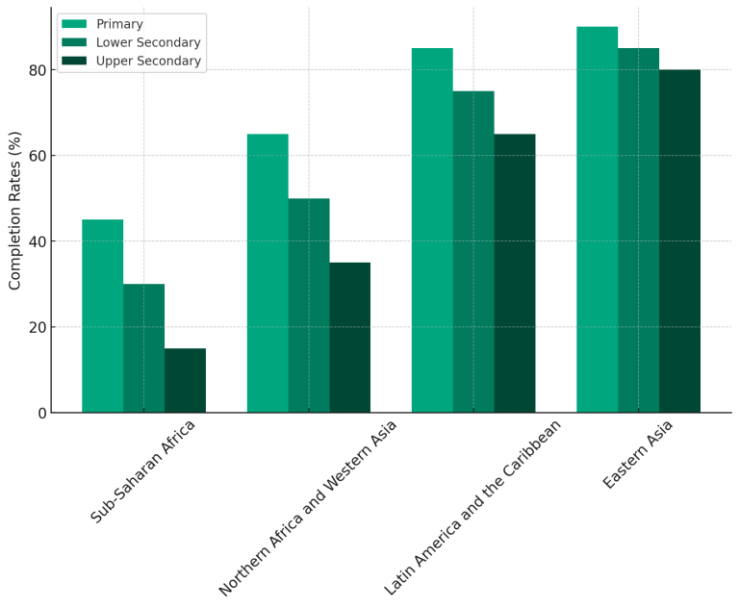


Figure 4.1 Education completion rates by level of education in developing regions
**Source:** UNESCO Institute for Statistics (UIS). (2023). Education Data Release 2023.

The figure 4.1 shows the education completion rates by level in different developing regions, and the data points to disparities in education in developing countries and if different regions, where the developing countries are located. The graph completion rates for primary, lower secondary, and upper secondary education in regions of Sub-Saharan Africa, Northern Africa and Western Asia, Latin America and the Caribbean, and Eastern Asia. The graph highlights the significant differences in educational attainment across these regions, which points to the challenges and discrepancies linked to achieving desirable quality and quantity of education in developing countries.

Significant proportions of children in low-income countries are overage for their grade level, with over-age rates exceeding 50% in some countries. This indicates substantial delays in educational progression and further exacerbates educational inequalities in these countries. Additionally, educational attainment for adults over age 25 shows considerable disparities within and between individual countries. For example, in most sub-Saharan African countries, fewer than half of adults have attained primary education, which represents a big contrast to the higher rates in such other regions such as Eastern Asia and Latin America.

Early childhood education (ECE) participation also varies significantly across regions. In sub-Saharan Africa, Northern Africa and Western Asia, only one in every two children participates in Early childhood education one year before primary education. This is considerably lower than the participation rates in regions like Europe and Northern America and it highlights a global disparity in access to early learning opportunities.

These data point to a critical need for developing countries not only to increase the quantity of education but also to enhance its quality to ensure equitable and effective learning outcomes. I tis essential to address these disparities and focus on both aspects of education are essential for fostering sustainable economic growth and social development in the developing regions.

### 4.2.3. Economic returns to education

The economic returns to education encompass both private and social benefits across various levels of education. Moreover, education is associated with both monetary and non-monetary returns.

- **Private returns to education**

Private returns to education represent direct benefits accrued to individuals as a result of their educational attainment. These returns manifest primarily in the form of **increased lifetime earnings.** According to the existing research, higher levels of education correlate with higher income. Especially tertiary education offering a sizeable wage premium. Thus, individuals with a bachelor's degree or higher can expect significantly greater earnings over their lifetime compared to those with lower levels of education (e.g., Mincer, 1960, 1961). People with higher level of education can find jobs more easily and have lower probability to remain unemployed.

The benefits of education, however, are not limited to monetary gains. Private non-monetary returns include **improved health outcomes**, attributable to a better understanding of health information and access to resources that promote a healthy lifestyle. Education also leads to **increased job satisfaction**, as it tends to open opportunities for more fulfilling and engaging work. Moreover, educated individuals often enjoy **enhanced social status and networks** that can lead to further personal and professional opportunities.

These returns can also vary by the field of study, with STEM and business degrees typically providing the highest earnings, while degrees in the social services and education fields may offer lower financial returns but provide other intrinsic rewards. Thus, comprehensive private returns to education encompass a broad spectrum of monetary and non-monetary benefits that together significantly enhance the well-being and socioeconomic status of individuals, which then **makes it a**

**good investment for a person and their families** to invest in education, since in the future it brings them monetary and non-monetary returns, which they will benefit from.

Table 4.1. provides an overview of key private benefits from different levels of education.

Table 4.1 Overview of private benefits from education

| ***Level of Education*** | ***Private Returns*** |
|---|---|
| ***Early Childhood*** | Foundational cognitive and emotional skill development.<br>Long-term educational attainment benefits.<br>Greater social and behavioural skills. |
| ***Primary*** | Essential literacy and numeracy.<br>Basis for lifelong learning and adaptability.<br>Reduced risk of early school dropout. |
| ***Level of Education*** | **Private Returns** |
| ***Lower Secondary*** | Higher probability of continued education.<br>Increased earning potential over primary education.<br>Improved employment stability. |
| ***Upper Secondary*** | Access to higher education and advanced training.<br>Greater employment opportunities and career options.<br>Enhanced social mobility. |
| ***Tertiary (Bachelor's, Master's, Doctorate)*** | Highest wage premiums, especially for postgraduate levels.<br>Access to specialized and high-status professions.<br>Increased job satisfaction and security. |
| ***Vocational and Technical Training*** | Direct alignment with labour market needs.<br>Higher chances of employment post-training.<br>Opportunity for self-employment and entrepreneurship. |
| ***Adult Education and Continuing Education*** | Skills upgrading for current employment.<br>Opportunities for career shifts and growth.<br>Lifelong earning potential enhancement. |
| ***Informal Learning (e.g., Online Courses, Workshops)*** | Personal and professional skill development.<br>Adaptability to new technologies and practices.<br>Networking and personal growth opportunities. |

Source: authors

- **Social returns from education**

The **societal benefits** of education extend beyond personal gains, affecting **communities** and **nations**. Education serves not just as a path for personal growth but also as the cornerstone for **societal progress**. Its social dividends are evident in the bolstering of **democratic engagement**, the decrease in **crime rates**, and improved **health outcomes**. Investment in education is linked to increased community **solidarity** and **civic participation**. The degree of these social benefits, however, varies across **educational levels**.

**Elementary education** establishes the essential skills of **reading**, **writing**, and **arithmetic**, necessary for continued learning and societal involvement. Nonetheless, the enduring **exclusion** from education, primarily due to **poverty**, poses a considerable hurdle. **Secondary education** further refines individuals' capabilities for economic contribution, yielding a workforce ready for **innovation** and **productivity**. Yet, disparities remain, especially for underprivileged rural young women in regions such as **sub-Saharan Africa**, underscoring the need for focused policies to bridge these divides.

**Tertiary and vocational education** impart specialized knowledge and competencies, culminating in advanced employment opportunities and driving **innovation** and **research**. These levels of education foster industry creation, economic **variety**, and **technological advancement**. Nevertheless, access and completion disparities are significant, particularly for individuals with **disabilities** and those from **marginalized groups**.

Education's societal benefits are not equitably experienced by all. **Educational segregation**, based on factors like disability, ethnicity, or economic status, can reinforce stereotypes and **discrimination**, which can alienate and diminish the wider advantages of education. Discriminatory practices, such as excluding **pregnant girls** from school or segregating **Roma children**, spotlight the uneven distribution of education's societal advantages.

These **societal dividends** of education are shaped by each society's unique **cultural**, **economic**, and **political contexts**. While quantifying these dividends poses challenges, the qualitative advantages are clear, contributing to improved societal **well-being**, **cultural enrichment**, and enhanced community **resilience**.

In **developing nations**, the pivotal role of education can act as a lever to break the chains of **poverty**. Education across all tiers fosters increased **fairness** and **inclusivity**, vital for enduring **development**. Consequently, in these countries, the societal dividends from education leading to a more equitable society are not only desirable but also essential. Policies must be **inclusive**, structural impediments dismantled, and investments in education seen as investments in the **collective future**.

The UNESCO Global Education Monitoring (GEM) Report 2020 highlights that less than **10% of countries** have comprehensive laws to guarantee **inclusive education**, and around **40% of low- and middle-income nations** failed to support disadvantaged learners during the COVID-19 pandemic closures. The report advocates for a focus on **inclusivity** as educational institutions reopen, aiming to build more resilient and equal societies. The findings suggest that the societal dividends from education in developing nations hinge on the elimination of such structural barriers and the enactment of **fair policies**, necessitating a re-evaluation of current educational strategies to ensure they contribute to broader social and economic goals as outlined in the **2030 Agenda for Sustainable Development**.

Table 4.2 Selected Social Returns from Different Levels of Education

| ***Level of Education*** | ***Social Returns*** |
|---|---|
| ***Early Childhood*** | Foundational cognitive and social skill development. |
| | Higher rates of primary school readiness and success. |
| ***Primary*** | Universal literacy and numeracy. |
| | Enhanced understanding of civic responsibilities. |
| ***Lower Secondary*** | Reduced gender disparities in education and society. |
| | Improved health outcomes and reduced healthcare costs. |
| ***Upper Secondary*** | Development of specialized skills for a diverse workforce. |
| | Lower crime rates due to increased engagement and opportunity. |

| *Level of Education* | **Social Returns** |
|---|---|
| ***Tertiary*** | High-level skills for innovation and leadership roles. |
| | Increased societal knowledge base and cultural development. |
| ***Vocational and Technical Training*** | Meeting specific labour market demands. |
| | Reduction in societal costs associated with unemployment and underemployment. |
| ***Adult Education*** | Lifelong learning opportunities leading to personal and professional growth. |
| | Greater adaptability of the workforce to changing economic conditions. |
| ***Informal Education*** | Community development and empowerment. |
| | Flexibility to address local societal needs and challenges. |

Source: authors

### 4.2.4. Financing investment in higher education

The **financing of education investments** involves a dynamic interplay between **public and private investments**, **cost-sharing mechanisms**, and the broader economic implications of **funding education systems**.

At **primary and secondary levels**, **public investment** plays a crucial role, as these education tiers are often viewed as public goods yielding significant **social returns**. Studies from the **World Bank** (2023) and **UNESCO** (2023) emphasize the government's role in providing **universal access** to basic education, thus, the role of governments for sustaining schools and compensating educators at these education levels is crucial.

For **tertiary education**, the consideration of substantial private returns from education shifts the narrative to a justification for a **cost-sharing model**, where both public and private sectors play substantial roles. At the **higher education** level, increased **private returns** explain the need for greater private contributions by students through **tuition fees**. **Human capital theory (**Becker, 1993) endorses private investment alongside **financial aid** to promote **equitable access**.

Thus, the economic analysis of returns from tertiary education clearly justifies the use of tuition fees to contribute to the costs at this level of education, however its social returns as well as the fact that there is a problem of using future skills of a student as a collateral for loans to finance he related costs by a loan from private financial institutions require also an active role of governments in financing the costs of tertiary education. Thus, the governments should develop **scholarship and grant schemes**, and guarantee **student loans** to ensure access to tertiary education to students coming from different social strata. The OECD's **Education at a Glance** (2023) reports provides a comprehensive overview of different models used by different nations to fund tertiary education and also provides insights into their impact on related **access** and **equity issues**.

**Vocational** and **adult education** often use a blend of various funding sources, including employer investment and individual contributions, reflecting expectations of enhanced **employability**. The financial considerations at each educational level based on balancing public and private funding to cover direct and indirect costs of education shape policy debates and choices.

Financing education in **developing countries** presents unique challenges and opportunities. **Public funding is often limited**, which necessitates innovative approaches to ensure that educational investments yield both social and private returns.

In these regions, **primary and secondary education often relies heavily on government funding,** which may be **supplemented by international aid and non-governmental organizations**, as

indicated by UNESCO (2021) and the Global Partnership for Education (2021). The policy focus at these levels is to provide universal access, which is a challenge given frequent resource constraints.

**Tertiary education financing** in developing countries is increasingly characterized by **cost-sharing models**, where students contribute to their education through fees, reflecting the higher private returns of higher education. However, as the World Bank (2020) suggests, this **must be balanced with financial aid systems** to prevent the exclusion of disadvantaged populations.

The investment in **vocational training** is particularly strategic in developing countries, as it can directly address the skills gap, increase employability, and contribute to economic development. Employers and private sectors are often involved in funding these programs, recognizing the direct benefit to the economy.

In developing as well as developed world, each level of education requires **careful financial planning and policy design** to ensure that **investments lead to desired educational outcomes** and broader economic and social development.

## 4.3. Educational Systems and Policy Implications

### 4.3.1. Common features and diversities among the educational systems

Educational access disparities represent a pressing issue worldwide. The UNESCO Global Education Monitoring Report (2021) casts light on the vast differences in accessibility, particularly between advanced economies and less developed regions in Africa and Asia, where strong, economic challenges, and cultural norms can hinder educational opportunities.

If we consider, e.g., **the discrepancy in school enrolment figures**, high-income nations boast almost universal primary education enrolment, whereas, in poorer nations, barely half the children of the appropriate age are enrolled in school and even fewer progress to secondary education. **Quality of education** also presents a contrasting picture. The OECD's PISA scores reveal that East Asian students often outperform in STEM subjects, while Nordic students lead in literacy, which reflects among others diverse educational strategies and curricular emphases. **Investment disparities** add to these issues. The World Bank's report (2020) notes a well-known fact that richer nations allocate more GDP to education, which then underpins better educational systems and outcomes in these countries. However, outcomes of educational systems not only reflect academic achievements but also the **width of access for all societal segments**. Reports by the Education Policy Institute (2021) indicate that inclusive education policies correlate with more uniform outcomes among students.

However, still developed economies typically showcase robust educational frameworks with high literacy and attendance rates, which stands in stark contrast to the resource-deprived and access-challenged systems in developing regions. Nordic nations are distinguished for their comprehensive educational measures that foster student welfare and equal opportunity, which commonly results in superior scholastic performance. On the other hand, **educational structures in East Asia**, even though they are associated with remarkable academic success of many students, are often criticized for inducing excessive pressure on students. Such areas as **sub-Saharan Africa and parts of South Asia** confront significant hurdles in elevating literacy and curbing school abandonment. Poverty and gender disparity are considered main contributing factors in this regard.

Financial contributions to education play a key role in its effectiveness. The OECD indicates a variance in GDP allocation to education between affluent and developing nations. Educational quality, e.g., proxied by such metrics as PISA scores, show that students in better founded systems are better able to meet contemporary challenges, with Northern European nations frequently leading these assessments. Also, **investments in educator training** are also crucial to make the difference in educational outcomes, as shown by countries like Finland, where substantial resources towards teacher development correlate with exceptional educational outcomes. A thorough comparative

analysis of these elements, grounded in global educational reports and scholarly research, will provide deep insights into how to shape educational systems for an effective educational improvement.

Established educational frameworks in industrialized nations often emerge from long-term investments in policy formulation, educator development, and school facilities. The prevalent high literacy rates in these countries can be derived from strategic initiatives focusing on foundational education skills. On the other hand, educational challenges in less developed regions, such as those in many sub-Saharan African countries, are complex and often rooted in **socioeconomic disparities and infrastructural inadequacies**. Research indicates that strategic interventions like incentivized schooling programs can alleviate such impediments to educational access.

**Divergent educational financing models** highlight a global debate regarding education as either a collective societal benefit or a private good. In affluent nations, significant GDP proportions are directed towards education, supporting comprehensive educational infrastructure. This contrasts with the aid-dependent educational models in less affluent countries, which tests the long-term viability of the system.

Educational outcomes, especially as evidenced by standardized global assessments, reflect the standards of the educational system. E.g., the superior performance of students from Nordic countries in these evaluations is often linked to **educational methodologies that foster analytical thinking and group learning, supported by extensive welfare networks**.

### 4.3.2. Access to Education

Access to education is considered to be a fundamental human right, yet its provision is uneven across the globe. UNESCO's Global Education Monitoring Report (2020) points to large disparities in educational access. At the same time, it identifies an almost universal reach in most developed countries. However, regions in Africa and Asia face formidable challenges, where issues like armed conflict, economic status, and social barriers prevent children from receiving basic education.

In developing regions, the obstacles related to education access are often systemic, they are not just about building schools but also about **creating environments where education can take place safely and effectively.** Such factors as gender discrimination, which particularly affects girls' education, and **the lack of qualified teachers** further exacerbate the situation. Moreover, **the distance to schools in rural areas and the indirect costs of education**, such as uniforms and books, can be prohibitive for many families.

In the policy domain, there have been **initiatives that have successfully tackled these barriers**. For example, the Education for All movement and the Sustainable Development Goals have set ambitious targets to ensure inclusive and equitable quality education. Such tools as conditional cash transfers to incentivize school attendance in Latin America have shown promise in improving access (Fiszbein, Schady, 2009). Similarly, community-based education programs in Afghanistan have been crucial in providing education in conflict zones (Burde, Linden, 2013).

Even though progress has been achieved with regard to access to education, achieving universal access to education necessitates sustained efforts, innovative solutions, and international cooperation. This is essential not only for individual empowerment but also for the overall development and stability of societies.

### 4.3.3. Quality and Curriculum Standards

Assessing educational quality and crafting curriculum standards involves a complex evaluation of diverse factors. **Standardized assessments,** such as PISA, represent just one tool in this process. They must be supplemented with **an analysis of student engagement, instructional quality, and fair access to educational resources. Developing curriculum standards** is a collaborative process reflecting

a society's educational aspirations. These standards must be **flexible, adapting to new societal needs and the evolving job market.**

A holistic approach to measuring educational quality also considers **the educational environment, teacher qualifications, and the provision of necessary resources. Outcomes-based evaluations, which track long-term educational impacts**, are essential in understanding the effectiveness of education systems. Insights from the pedagogical authorities can provide guidance on establishing robust and adaptive educational frameworks.

**The Programme for International Student Assessment (PISA**) provides insights into the comparative quality of global education systems by evaluating the competencies of 15-year-olds in reading, math, and science. This assessment points to the importance of curriculum design and the standards by which educational quality can be measured. E.g., Finland's educational success, for example, is attributed to its student-centred approach, which focuses on problem-solving, creativity, and critical thinking rather than rote memorization. Singapore's high performance is linked to a competitive, exam-oriented system with a strong emphasis on math and science education.

However, the analysis of education quality must look into the broader educational philosophies, teacher qualification standards, and societal values towards education that underlie a specific education system. For instance, educational researchers have explored how cultural attitudes and government policies in individual countries support rigour in educational standards. When trying to assess quality and set educational standards, a detailed look at the methodologies behind curriculum development and the pedagogical strategies employed across different educational settings and consider how they contribute to the learning outcomes, which can be captured by such assessments as PISA.

### 4.3.4. Teacher Training

The quality of teacher education is integral to student achievement. The research by McKinsey & Company (2007) of top-performing school systems, affirms that **successful academic systems invest heavily in teacher education and continuous skill enhancement.** Educator training encompasses a wide array of skills, including **contemporary teaching methods, deep subject knowledge,** and **awareness of students' diverse requirements**. Ongoing professional growth for teachers is essential, ensuring that they remain informed about the latest educational trends and findings. This is especially relevant in the current period characterized by a dynamic technological progress encompassing the use of such technologies as Virtual Reality (VR) and Artificial Intelligence (AI) in the education systems. Thus, the is the need to equip educators with comprehensive training to support an environment conducive to high educational standards.

Also, in the developing countries, effective teacher training is key for the educational improvement. Research indicates that these nations often face challenges in providing comprehensive teacher education due to the resource constraints. It should be also understood that enhancing teacher training involves not only **adopting modern pedagogical techniques but also contextualizing the curriculum to local realities**. Professional development opportunities are often scarce, making it difficult for teachers to access ongoing training. To address these gaps, organizations like UNESCO or the Global Partnership for Education provide support for teacher training initiatives. These efforts should be designed to improve educational outcomes by empowering teachers with the skills needed to overcome the challenges faced in their classrooms.

### 4.3.5. Funding Mechanisms

A deeper examination of funding mechanisms for education reveals that **investment is a critical driver of educational quality, particularly in developing countries**. The World Bank's World

Development Report (2020) underscores the higher allocations of GDP to education correlate with better educational infrastructure and outcomes.

But best practices in funding education involve not only **the amount of investment but also the effectiveness of its use**. This means ensuring **funds are equitably distributed and targeted where they are needed most**, i.e., toward such areas as teacher training, infrastructure, and learning materials.

In the context of developing countries, funding mechanisms often rely on a **blend of domestic resources and international aid**. Governments face the challenge of prioritizing education within tight budget constraints, while international donors and organizations seek to supplement these efforts. Ensuring that **investments lead to tangible improvements in educational quality requires transparent governance, accountability in the allocation of funds, and community involvement in decision-making processes.**

Also, the funding strategies must be sensitive to the local context, recognize the diverse needs across different regions and populations. For instance, rural areas might require different support than urban centres. Tailoring funding mechanisms to these specifics is key in the effort to maximize the impact of educational investment.

### 4.3.6. Educational Outcomes

Analysing educational outcomes requires an in-depth understanding that extends beyond basic statistics like literacy and graduation rates. Even though such figures illustrate the direct impact of education quantity and the socio-economic elements that influence educational persistence they do not allow to capture education quality and impact. Assessing performance of students on international tests, such as PISA, allows to yield insights into national educational strengths and allows to identify areas that require improvement. However, also these assessments may not encompass the full spectrum of student learning.

To enhance educational outcomes, especially in developing nations, one should design a comprehensive set of tools, a system of assessment that would examine the synergy between educational policy, resource allocation, and societal norms and reflect on the achieved educational outcomes. This examination should include, e.g., evaluation of student-teacher dynamics, curriculum relevance, and support for learners. Research and reports from international educational organizations provide the groundwork for such comprehensive policy analysis and development.

To further understand educational progress, it is essential to examine the deployment of educational strategies and their impact. In developing countries, specific measures such as enhancing teacher training, optimizing classroom ratios, and integrating digital tools are key for educational advancement. The success of these measures can be enhanced by the continuous evaluation and adjustment to align with the dynamic educational landscape. Collaborative efforts among government entities, educational organizations, and community stakeholders are crucial for designing and refining initiatives that create learning environments conducive to holistic student development.

## 4.4. Challenges and Opportunities

In education, the interplay between challenges and opportunities directly impacts the development of human capital. The forthcoming sub-chapter critically examines, how educational barriers, such as access disparities and quality gaps, influence the human capital accumulation. Also, we look into how these challenges can be reframed as catalysts for enhancing educational systems, thereby enriching the quality and quantity of the stock of human capital. This analysis will address the significance of education as a determinant of economic and social prosperity and puts the emphasize

on its role in equipping individuals with the skills and knowledge necessary for success on the labour market, their personal fulfilment and positive development of their respective economies.

- **Addressing inequalities in access to education**

Addressing inequalities in access to education is a multifaceted challenge that requires engagement of various stakeholders in the educational sector, from policymakers and community leaders to international organizations. These inequalities **manifest in disparities in educational resources, teacher quality, school infrastructure, and technological access, often exacerbated by socioeconomic, racial, and gender biases.**

Debates on this issue revolve around the implementation of equitable funding models, affirmative policies like provision of scholarships for marginalized groups, and the enhancement of learning environments to be more inclusive. The effective approach to addressing this challenge requires to **explore the interventions' efficacy, scrutinize the systemic roots of educational disparities, and propose actionable strategies to mitigate these issues**. Also, the considerations to the complex interplay between education and broader social dynamics.

In **developing countries**, addressing inequalities in education access becomes particularly complex. Factors such as **rural-urban divides, gender biases, and linguistic diversity often create substantial barriers to education.** For example, girls in some regions may face cultural barriers to attending school, or children in rural areas may lack access to schools. The response to these challenges requires **comprehensive strategies** that might include **building more schools in remote areas, providing transportation, launching gender-sensitive educational campaigns, and offering multilingual instruction to cater to diverse populations.** The Education for All (EFA) initiative and the Sustainable Development Goals (SDGs) particularly SDG 4, which aims to ensure inclusive and equitable quality education, provide frameworks for addressing these issues.

Developing countries facing such challenges must consider both **immediate interventions** and **long-term systemic changes** to create equitable education systems. This includes investing in teacher training, infrastructure, and learning materials, as well as **establishing policies that encourage school attendance for all children, regardless of their background.**

- **The impact of technology and online learning**

The rise of technology in educational contexts brings an **opportunity to narrow educational disparities.** Innovations in this field can **extend the reach of high-quality educational materials and experiences to regions where such resources are scarce**. The **widespread availability of online courses** and resources means that individuals from various socio-economic backgrounds can access learning from globally recognized institutions.

Yet, this shift towards digital education brings to light the **disparities in digital access, known as the 'digital divide,'** especially in less developed regions grappling with infrastructural challenges and limited connectivity. Current discussions revolve around strategies for ensuring equitable technology access, embedding digital literacy into education programs, and supporting the educational community in adapting to digital modalities. National and international should provide guidance on using technology to break down educational barriers. The necessary infrastructural and policy frameworks are needed to ensure that these technological solutions effectively address the inequities in educational access.

In the context of developing nations, the aspiration to benefit from new educational technologies is especially challenging. The divide in digital access hinders the broad adoption of online learning modalities. For these countries, the path forward involves **strategic partnerships focused on building technological infrastructure, making digital devices more affordable, and cultivating digital**

**skills among educators and students**. Engaging with this mission, governments and global entities must collaborate to ensure that the transformative potential of technology in education does not bypass the education systems in the developing world.

- **Future trends in education and human capital development**

Future trends in education and human capital development will be profoundly **influenced by technological advancements, globalization, and the increasing demand for a skilled workforce**. Analysts predict a **shift towards more personalized learning experiences, facilitated by artificial intelligence and data analytics.** This could lead to a **more adaptive curriculum** that better prepares students for the rapidly changing job market. Additionally, there's an **anticipated increase in lifelong learning and continuous professional development,** recognizing that skill acquisition is an ongoing process. This trend is likely to be supported by online platforms, which will offer a wider variety of learning opportunities.

In **developing countries**, the focus is expected to be on **improving basic access to education as a foundation for future human capital development**, with an **emphasis on digital literacy to bridge the global digital divide**. Discussions in this area prevail about whether the technology will exacerbate or diminish educational inequalities, but also consider the role of education in social mobility, and the balance between technical skills and broader educational objectives like critical thinking and civic engagement.

## Summary

The support of education and human capital accumulation is a key factor for ensuring progress in developing nations. Quality education serves as a keyway to build up human capital, which then is a key factor for fostering economic growth and sustainable development. However, challenges such as unequal access, limited financial resources, and the digital divide must be addressed comprehensively to ensure equitable development in this area. Bridging the existing gaps is crucial for achieving inclusive and sustainable growth not only in the developing countries, but also globally. The need to develop inclusive and equitable education systems that prioritize accessibility, funding, and technology integration must be the priority of all nations.

As we have demonstrated in the previous text, investing in education and human capital extends beyond individual pursuits and carries profound societal implications. Achieving sustainable development and growth requires supporting human capital development not only through accessible, high-quality formal education, but also through adult learning and other avenues.

The implications of these strategies for sustainable development are clear. A well-educated population represents the driving force behind economic growth, innovation, and social progress. Consequently, policymakers and other stakeholders must prioritize education as a key factor of human capital development and sustainable progress.

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# CHAPTER 5: NATURAL RESOURCES AND SUSTAINABLE DEVELOPMENT

Development, natural-resource use, and the environment have become so inextricably linked that they need to be jointly managed. This is a relatively recent phenomenon. It used to be that we could design industrialization strategies without too much concern for resource depletion, pollution, and climate change; or unleash a Green Revolution in agriculture without immediate concern for chemicals flowing into water tables and loss of biodiversity. Today's industrialized countries achieved their current levels of development largely without the burden of environmental constraints and certainly of the threats of climate change. This is no longer the case. The synergies have become so large that the very success of development is conditional on its impact on resource availability and environmental sustainability (see, for example, Al Gore's an Inconvenient Truth, 2009). Here are some examples.

**Water** use for irrigation in agriculture contributes to a global water shortage and deterioration of potable water quality. Eighty to ninety percent of the world's captured fresh water is used by agriculture, at a time when rapid urbanization and industrialization place new claims on water. Overdraft of underground water aquifers, often enhanced by farmers' electricity subsidies for pumping, as in India, leads to falling water tables. Water shortages in the major food-producing regions of the world are frequent enough to affect aggregate food supplies and prices. In most parts of the world, this will be made more critical by climate change. Declining water quality either requires expensive treatment or imposes threats on the health of consumers. The extensive pollution of China's rivers and the associated incidence of diseases are a case in point (Kahn and Yardley, 2007). What are some of the causes? They include unregulated negative externalities caused by use of chemical fertilizers and pesticides in agriculture and by factory effluents; ill-defined property rights over water, often an open-access resource, inviting overuse; lack of use of efficient technologies—for instance, to meter water flows or apply water through drip irrigation; lack of markets for environmental services to reward upstream watershed management that can improve water flows for downstream regions; lack of direct control over water management by water users; and the incapacity of the public sector to regulate water use.

**Deforestation,** especially in tropical environments, leads to local changes in rainfall patterns and greenhouse-gas (GHG) emissions that contribute to global climate change, the flooding of lowlands and silting of dams and irrigation infrastructure, desertification if the use of cleared lands for agriculture is unsustainable, and loss of biodiversity. With a deforestation rate of 7 percent per decade in Africa, forested area is reduced by half every 100 years. For the world, the rate of deforestation was 2.4 percent in the 1990s. Deforestation still continues unabated in Latin America and the Caribbean, and is accelerating in Sub-Saharan Africa (Table 5.1).

Table 5.1 Rates of deforestation by region

| | Average annual rate of change in forest area (100%) | | | | |
|---|---|---|---|---|---|
| Regions | 1990-4 | 1995-9 | 2000-4 | 2005-9 | 2010-11 |
| East Asia and pacific | -0.10 | -0.10 | 0.30 | 0.06 | 0.06 |
| South Asia | 0.02 | -0.01 | 0.44 | 0.12 | 0.12 |
| Latin America and Caribbean | -0.47 | -0.46 | -0.49 | -0.41 | -0.42 |
| Sub-Saharan Africa | -0.51 | -0.57 | -0.50 | -0.51 | -2.74 |

Source: world bank, world development indicators

The main reason for deforestation is expansion of land area for agriculture and livestock. Some of the causes are profitable farming, poverty pushing the poor into the extensive margins of agriculture, unassigned or incomplete property rights (where deforestation is sometimes used as a signal to establish property rights), and lack of rewards to conserve forests for their social functions through payments for environmental services.

Air pollution originates principally in the burning of coal and petroleum for transport, heating, and industrial production. Air pollution contributes to depletion of the ozone layer and the emission of particulate matters that in turn contribute to global warming and the melting of the icecaps and glaciers. Indoor air pollution and urban air quality are the most toxic forms of air pollution. The World Health Organization estimates that in 2012 air pollution caused the premature death of 7 million people worldwide. In India, more than half the population lives in places with such polluted air that they lose on average 3.2 years of life expectancy. Air pollution causing brown clouds that block sunrays has been blamed for the stagnation and even decline of rice yields in India (Auffhammer et al., 2006).

Air pollution can also be due to forest fires. Jayachandran (2009) analyzed the health costs of air pollution for Indonesia, where there were massive forest fires in 1997, set off by commercial logging companies in the context of drought in an El Niño year. Smoke implied a level of particulate matter in the air far in excess of safe levels and for extended periods of time. Monthly satellite images give a time series of levels of smoke that vary with time and space, allowing for the identification of health impacts. Jayachandran measured the impact on "missing children" according to cohort size for a sub-district, calculated from the 2000 population census. Children in utero (exposed to pre-natal smoke) are more vulnerable to smoke than children already born (exposed to post-natal smoke). Using panel data for sub-districts, the estimated equation is:

$$ln(Cohortsize)_{jt} = \alpha_j + \delta_t + \beta_1 Smoke_{jt} + \beta_1 PrenatalSmoke_{jt} + \beta_3 PostnatalSmoke_{jt} + \varepsilon_{jt,}$$

Where,

Cohort size is the number of people born in month t who are alive and residing in sub-district j at the time of the 2000 census,
αj is a sub-district fixed effect,
δt a month fixed effect,
Smoke is the pollution level in the month of birth,
and Prenatal Smoke
and Postnatal Smoke specify the timing of exposure relative to birth.

Results show that exposure to pre- and post-natal smoke explains 16,000 excess fetal and infant deaths, with an effect nearly twice as large for pre-natal compared to post-natal exposure. Valuing life at $1 million/person implies a loss of $16 billion compared to revenues for the timber and palm oil industry of $7 billion per year.

Global climate change due to GHG emissions results in exponentially rising temperatures and in the destabilization of rainfall patterns, with cycles of droughts and floods. The main sources of GHG emissions are energy consumption (63 percent), agriculture (15 percent), deforestation (11 percent), industrial processes (7 percent), and waste (4 percent) (World Bank, 2007). Since most of the deforestation is to expand the area cultivated, agriculture overall contributes no less than one quarter of total GHG, more than the world's fleet of cars. The issue of climate change for agriculture is consequently not only adaptation of farming systems to the new climate conditions, but also mitigation of emissions to reduce climate change. Climate change threatens world food supplies, and hurts poor people the most. Economic determinants of climate change include a massive market failure as air is a common property resource with no possibility of taxing its abuse or charging for improvements without an international agreement (Stern, 2007); negative externalities as polluters

are allowed to externalize part of their costs; private discount rates that are too high to reflect in current economic decisions the distant consequences of rising temperatures; and lack of public research in clean technologies.

Sustainable development goes beyond the use of natural resources. It concerns any issue of intergenerational equity related to the transmission of the stocks of assets that determine wellbeing. Stiglitz et al. (2009: 11) defined it as follows: “Whether levels of well-being can be sustained over time depends on whether stocks of capital that matter for our lives (natural, physical, human, social) are passed on to future generations.” The accumulation of debt by this generation that will have to be paid by subsequent generations is an important aspect of lack of sustainability. It is a major element in the current debate over high levels of public debt. It of course depends on why public debt has been incurred. If public debt supports investment and growth, future generations may benefit. If, however, public debt largely supports current consumption by this generation, with no growth effect of the type expected by Keynesians, then it clearly fails to meet the sustainability criterion in development. Natural resources play a crucial role in supporting human well-being and economic development.

However, the overexploitation and mismanagement of these resources pose significant challenges to sustainable development. Some text explores the intricate relationship between natural resources and sustainable development, examining the importance of responsible resource utilization and conservation strategies. Natural resources encompass a wide range of elements, including water, land, minerals, and biodiversity. These resources provide essential ecosystem services, support agricultural activities, and fuel industrial processes. Additionally, as noted by Smith et al. (2018), the sustainable use of natural resources is vital for ensuring the long-term resilience of ecosystems and human societies. The United Nations' Sustainable Development Goals (SDGs) provide a framework for addressing global challenges, including those related to natural resource management. Goal 15 specifically focuses on protecting, restoring, and promoting sustainable use of terrestrial ecosystems (United Nations, 2015). The integration of these goals into national policies and practices is essential for achieving a balance between resource utilization and environmental preservation. The sustainable development of natural resources is imperative for the well-being of current and future generations.

## 5.1. Natural Resources and Environmental Aspects of Development

We have seen that economic growth is the cornerstone of development, promising not only higher levels of wellbeing through higher consumption levels, but also facilitating the reduction of poverty, inequality, and vulnerability. Through taxation, it also facilitates the provision of health and education as public goods, even if there exists a wide margin for social choice, as we have just seen. Yet growth may not be sustainable due to two consequences of growth itself: increasing resource scarcity, in particular of energy, minerals, water, and land; and growth externalities such as emissions and climate change. Today, we may envy the prosperity yielded to some by growth, yet more than 5.6 billion people can only aspire to it. What would actually happen in terms of resource scarcity and pollution if the “other 80 percent” attained OECD living standards? Three prominent threats to sustainability are climate change, energy demand, and deforestation. We shall see in each case that the risks faced by least developed countries are especially serious because of their vulnerability to these threats.

**Energy sustainability**

As can be seen in Figure 5.2, the graph shows per capita energy consumption (kg oil equivalent) vs. per capita GDP, PPP (current international $). The size of the bubbles denotes total population per country. All values refer to the year 2011. Yet in many developed countries energy use has been stable for some decades, albeit at very different levels. In 2012, the citizens of EU-28 countries consumed roughly the same amount of energy as they did in the late-1970s. In the US, energy use per person has

changed little in almost half a century, while GDP per person has more than doubled. Energy consumption tracks closely rising per capita income. The large bubble in the uppermost north-east corner is the US, while the two very large bubbles near the south-west corner are India and China (left and right respectively).

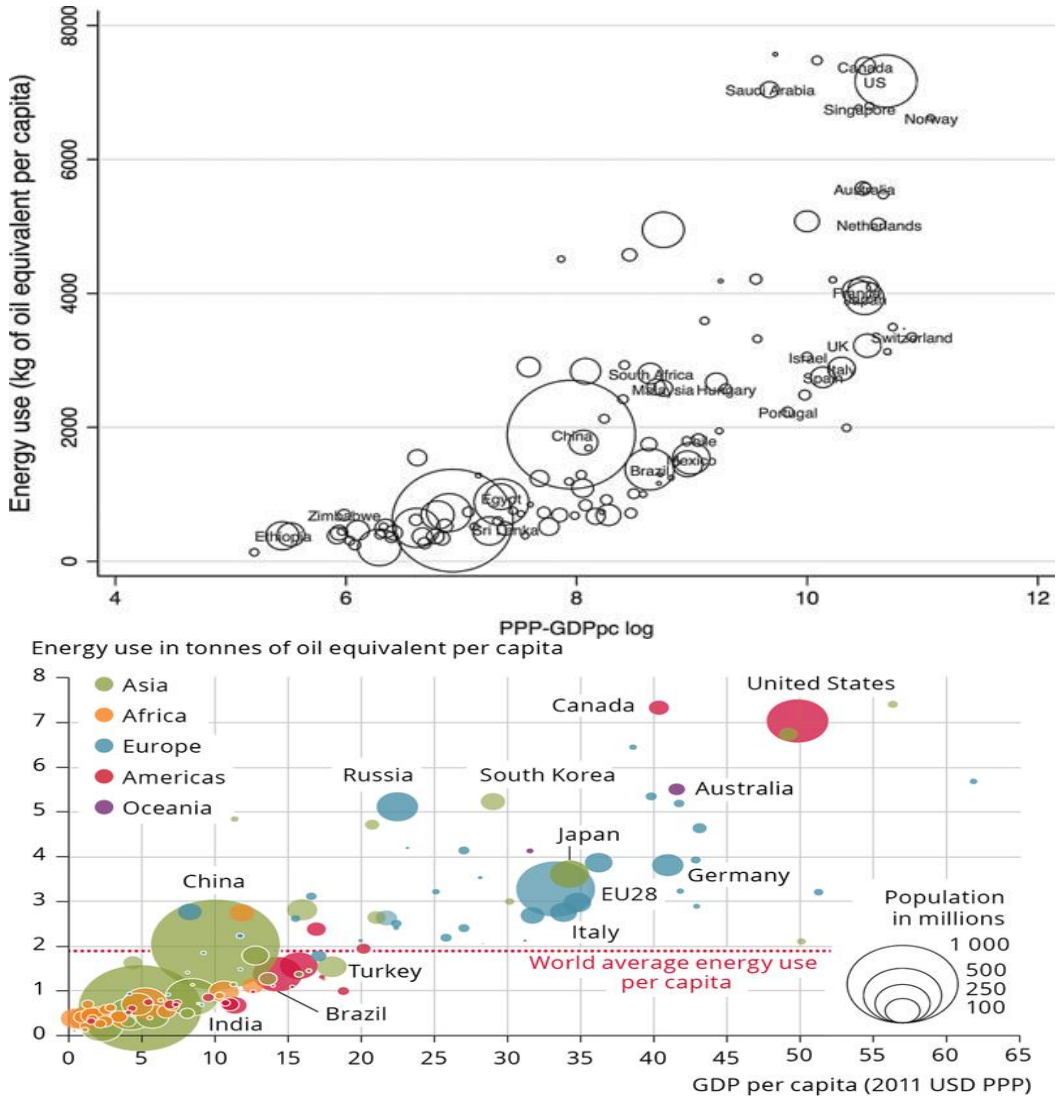


Figure 5.2. Correlation of energy consumption and GDP per person, 2011

Source: IEA, Statistics (energy-use data); World Bank, World Development Indicators (income and population data).

While these trends indicate a huge improvement in energy efficiency, it is clear that advanced economies remain very resource intensive. If developing regions adopt similar systems of production and consumption it will have huge implications for global resource demand. For example, if the current global population increased average energy use to EU levels it would imply a 75 % increase in world energy consumption, while an increase to US levels would imply a 270 % rise.

**NATURAL-RESOURCE USE**

Consumption and production rely on the input of natural resources, which are extracted from the environment and often processed or manufactured to form the final products and services that we produce and consume.

- This includes materials like metals and minerals that are used to create products such as steel for buildings, aluminium for cars, copper for electrical products and many other rare-earth minerals that go into making electronics such as smartphones.
- The farming that produces our food and drinks, and the clothes we wear, depends significantly on natural resources including land, soil and water, as well as ecosystem services like pollination.
- The products and services we produce and consume also depend on burning fossil fuels such as coal, oil and gas to generate the energy that powers machinery, factories, processing plants, transportation and the use of many products and services.
- Even services like finance, education, healthcare and telecommunications that don't produce physical products rely on infrastructure, technology and energy that are built and powered using natural resources.

The amount of materials used in production and consumption continues to rise at the global level and the rate at which materials are being extracted globally is outpacing both population and economic growth, meaning we are using more materials and less efficiently.
If business as usual continues, global resource extraction will increase 110% by 2060.

**ENVIRONMENTAL IMPACTS**

Unsustainable consumption and production practices not only deplete natural resources through the use of material inputs, but also cause environmental impacts as a result of the extraction, processing, manufacturing, consumption and waste disposal at every stage of a product or service lifecycle.
These environmental impacts of unsustainable consumption and production are driving the three planetary crises we are currently facing: climate change, biodiversity loss, and pollution.

**Climate change**

- One of the most well-known environmental impacts of unsustainable production and consumption is climate change, which is primarily caused by burning fossil fuels like coal, oil and gas to create the energy that powers economic activity. This energy is used for heavy machinery for mining and industrial farming; factories for processing and manufacturing products; trucks, ships and planes for transporting products; energy related to consuming products and services; as well as the energy to power the necessary disposal and treatment of waste leftover from production and consumption.
- In addition to energy, climate change is also caused by the extraction and production of certain materials, which can release greenhouse gases as a result of chemical processes like in making steel for buildings and infrastructure. The production of food and agricultural products is also a major source of greenhouse gases, through the use of fertilisers containing nitrogen, as well as the raising of livestock which excrete methane, and the clearing of land for farming and grazing cattle which reduces the amount of carbon that can be captured and stored by trees and vegetation and increases the amount of $CO_2$ in the atmosphere.

**Biodiversity loss**

- The ever-increasing amount of land that needs to be used for production and consumption, such as for agricultural, raw material extraction, forestry, or buildings and infrastructure, means clearing the land and removing all natural trees and vegetation. This destroys the biodiversity of the plant life on that land, and also harms animal and insect life through the

loss of their habitats. The consequences of this biodiversity loss are dire and are already damaging the life-supporting systems of food, water and air on which all living things on Earth depend.

**Pollution**

- The amount of pollution that is created as a result of unsustainable production and consumption is also causing great damage to the planet's life-supporting systems of food, water and air, and as a result harming human health and the health of the planet. While rubbish in the form of packaging or disused products is a major issue that harms both life in the oceans as well as on land, pollution doesn't just happen at the end of a product or services' lifetime. Pollution takes places at every stage of the value chain of a product or service, during the extraction of raw resources, the processing and manufacturing of goods, as well as distribution and consumption.

The consequences of these environmental impacts caused by unsustainable consumption and production can have a rebound effect that further reduces the quality and quantity of natural resources available. For example, unsustainable use of fertilisers in farming can end up reducing the quality of soil and water that is needing for future farming and fishing.

These environmental impacts are also deeply interconnected and affect one another, for example pollution contributes to climate change, and biodiversity loss is exacerbated by both climate change and pollution.

**SOCIO-ECONOMIC IMPACTS**

Natural-resource use and environmental impacts from unsustainable consumption and production also have socio-economic consequences for people around the world.

- Loss of natural resources and environmental damage can threaten livelihoods, especially of the more than one billion farmers in the world, leading to food and economic insecurity as well as nutritional issues.
- In addition to nutrition, pollution in land, air and water from unsustainable consumption and production also cause major health problems, especially for people living in poor countries.
- Loss of availability of natural resources and the livelihoods that depend upon them is also a major cause of conflict and war, which can jeopardise human rights, further damage the environment, destroy livelihoods and harm human health.

These socio-economic impacts caused by unsustainable consumption and production are also felt unequally throughout the world, thereby worsening inequality. It is the poorest people who are most directly dependent on natural resources for their livelihoods, and most exposed to risk from damage to these resources and environmental impacts, with the least means and support available to cope with the consequences.

**ENVIRONMENT AND NATURAL RESOURCES: CASE OF THAILAND**

Thailand is a country rich in natural resources, which have played a significant role in supporting local livelihoods and driving economic growth. Forests, watersheds, marine environments, and mineral resources have all been instrumental in supporting the Thai manufacturing, export, and tourism industries. However, rapid economic development over the past several decades has often occurred through the unsustainable exploitation of these natural resources. Economic priorities have often taken precedence over conservation in many cases (ICEM, 2003).

Thailand faces increasing environmental degradation in many regions, including the loss of biodiversity and declining wildlife populations, deforestation, desertification, water scarcity, climate change, and air and water pollution (World Health Organization, 2015).

**Environmental values**

To achieve sustainable development outcomes, it is essential to understand the trade-offs between economic growth and environmental values. There are several tools that have been used in Thailand to value the provision of ecosystem services and enable informed decisions to be made about the implications of the environmental impacts. For example, cost-benefit analyses (ReliefWeb, 2017) and ecosystem valuation tools, have been used to inform the design of payment for ecosystem service schemes that incentivize environmental protection.

In Thailand, it has been estimated that applying green growth policies (Suppatheerathada, J. 2013). that understand these trade-offs, may be worth US$2.06 billion to the national economy in terms of the potential to enhance the net present value of ecosystem services supplied by forests, wetlands, mangroves and coral reefs. This represents a 7.8% increase in economic growth when compared to a 'business as usual' scenario. The largest benefit to be realized from these policies is associated with water quality improvement and flow regulation services. For example, modelling the outcomes of protecting the ecosystems that provide these services suggest an 8.4% improvement from these policy changes alone.

In 2016, Thailand was ranked 20th in terms of national CO2 emissions, which accounted for around 327 metric tons, or 0.9% of global emissions. This corresponds to a slightly lower per capita emission rate (4.7 metric tons) than the global average (4.8 metric tons) (Global Carbon Atlas, 2017). Thailand's moderately carbon intensive economy contributes significantly to a high-country ranking (9th out of 140 countries) in the Global Happy Planet Index. This suggests that Thai people have had some success at building a sustainable economy that delivers a relatively high level of well-being (6.3 out of 10), moderate life expectancy (74.1 years) moderate inequality (15%), without requiring a large ecological footprint (2.7 global hectares/person). (New Economic Foundation, 2016)

Thailand's environmental values also attracts tourists, who provide a substantial contribution to the national economy. However, the rapid growth of this industry has also resulted in adverse environmental impacts. Natural resource depletion and environmental degradation associated with tourism poses many problems and improved management is required.

**Environmental Changes**

**Biodiversity**

Thailand's landscape comprises a wide range of habitats that support diverse flora and fauna populations. For example, at least 15,000 plant species have been identified in the country. Thailand is home to 15 distinct mountain ranges and 25 major watersheds connected to the Mekong River, Gulf of Thailand, and Andaman Sea. These support a broad distribution of plant species, as well as three dominant types of tropical forest (monsoon forests, rain-forests and mangrove forests).

Globally, Thailand has a moderately high level of biodiversity. However, this biodiversity has long been threatened by the exploitation of its natural resources without considering the sustainability of their use. Many taxonomic species have been listed on the IUCN Red List of Threatened Species as endangered, with some listed as critical and at risk of extinction if action is not taken to save them. For example, in 2016 Thailand had 58 threatened mammal species, 54 threatened bird species, 106 threatened fish species and 152 threatened plant species on this list, which is comparatively high compared to other countries in the region.

**Forests**

In 2015, the FAO reported that the percentage of land areas covered by forest was approximately 32.1% of total land area in Thailand. Improving this figure has been a part of the national agenda for some time. For example, the National Forest Policy (1985) outlined an aim to maintain forest cover at 40% in the 6th National Economic and Social Development Plan (NESDP) (1987–1991). This has been the target since that time and was more recently reiterated in the 11th NESDP (2012-2016). For the past several decades, several deforestation drivers have prevented Thailand from reaching the achievement of this outcome including: illegal land clearing and encroachment on forests, resort development projects, mining, and the construction of roads and hydropower dams.

A major form of forest degradation occurred between 1975 and 1993, when the area of mangrove forests in Thailand was almost halved (Havanond, S. 1997). The primary reason for this was large-scale encroachment of aquaculture ponds for intensive shrimp production into forested areas. Mangrove forests in Thailand are a crucial component of coastal ecosystems. About one-third of coastal areas in Thailand are bordered by mangrove forests. They provide food sources, nursery grounds, and habitat for various animals, as well as natural resources for Thai people, such as fisher folk, shrimp farmers, and charcoal producers who benefit from these productive ecosystems. Between 2000 and 2012, the rate of mangrove deforestation decreased significantly. However, Thailand is still one of the largest aquaculture producers in the world and the small areas of remnant mangroves in the country have needed to be heavily protected to mitigate further negative impacts (Richards D. & Friess, D. 2015).

In 2014, 18.8% of the total terrestrial area of Thailand was classified as a protected area, which is higher than the world average of 14.8%. Awareness of the need to conserve natural resources to address environmental problems for continuing Thailand's economic development has improved steadily. One key policy achievement was the imposition of a total logging ban in natural forests in January 1989. This was followed by the development of new forest conservation policies to enhance the protection of remaining forestry resources.

**Water Resources**

Thailand possesses abundant water resources, however the volume of renewable internal freshwater resources per capita has reduced from about 7,700 m3 per capita in 1962 to about 3,300 m3 in 2014, closely related to growth in population, as seen in the graph below. This represents increased water scarcity contributing to prolonged dry seasons in Thailand.

One major factor in this change has been the development of irrigation schemes, which has been essential to the development of Thailand's domestic and export agricultural industry to provide livelihood opportunities for Thai citizens. However, rainfall storage in Thailand averages only 30% of total rainfall volume, with shortages often occurring at the time when agricultural demand is highest. This has become a critical issue that has worsened over time.

This in turn has been a major factor in the decline in quality and quantity of water resources in aquifers and watersheds. For example, wetlands located in peri-urban areas in Thailand have become increasingly degraded through drivers such as their conversion to rice paddies, urban and industrial development, and pollution from industrial run off and pesticides (Birdlife 2003).

While Thailand has not recorded a significant change in overall rainfall with a changing weather condition, there has been diverging trends for precipitation in different parts of the country. For example, Central and Eastern Thailand have become significantly drier and the Northeast and Gulf regions, including Bangkok have become wetter. Climate change has resulted in more extreme weather events, including long, hot dry spells and flash floods and tropical storms, which have become more frequent and intense (Naruchaikusol, S. 2016).

**Environment policies**

In Thailand, conservation policies and regulations were reviewed with a focus on environmental sustainability as part of the 7th National Economic and Social Development Plan (1992–1996). This plan placed the protection of the environment as a major priority of the Thai government. It was aligned with the development of the Enhancement and Conservation and National Environmental Quality Act (1992) (Bhumibol Adulyadej, Rex 1992.) The aim of this legislation was to reform natural resources management and environmental conservation practices in Thailand, based on effective, transparent, and accountable monitoring. The Act was used to enhance public participation through decentralized management processes led by local authorities, adhering to 'polluter pays' principles.

Moving to the current situation, the 12th National Economic and Social Development Plan (2017–2021), has now evolved toward stated goals of "stability, prosperity, and sustainability" for the economy, society, and natural resources through a "sufficiency economy" philosophy. Environmentally friendly "green growth" for sustainable development is one of the key approaches intended to align with the 2030 Agenda of the UN Sustainable Development Goals.

As part of this agenda, the Thai National Assembly has also developed a 20-year National Strategy (2017–2036), which is being used by relevant line ministries such as Ministry of Natural Resources and Environment to developed policy frameworks that enable more sustainable environmental outcomes (Vimolsiri, P. 2017.). An example of this is the National Environment Quality Management Plan (2017–2021) (Karatna, P. 2017.). This policy highlights four main components related to natural resources management in Thailand, including environmental quality management, protection and rehabilitation of natural resources, increased efficiency of natural resource use, and international cooperation on climate change.

Thailand also complies with other global policy frameworks, including the Global Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets. Thailand intends to use these frameworks to meet international obligations to agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Ramsar Convention on Wetlands.

Under the leadership of Prime Minister General Prayut Chan-o-cha, Thailand's 4.0 policy is aimed at realizing a liveable society that possesses an economic system capable of adjusting to climate change and achieving a low carbon society. At the same time, Thailand intends to use this policy to push toward the goal of being a high-income country category. The challenge of progressing from a upper middle classification will involve the doubling of Thailand's current GDP per capita from US$6,357 per annum to US$12,236 per annum by using forms of socio-economic development that do not degrade environmental resources. Prompt actions of tree conservation are required for the future generations.

## 5.2. Sustainable Development Goals (SDGs) and their relevance to Development Economics

Human society has faced threats of resource shortages in industrial countries and increasing population pressures in developing countries. Worldwide economic development unavoidably brings to light the serious issue of its environmental and ecological impact in both industrial and developing countries. Historical experience of the past five decades tells us that economic growth cannot be achieved without consideration of the sustainable exploitation of natural resources, the protection and conservation of the environment, and an awareness of ecology. Sustainability is the dominant economic, environmental, and social issue for future economic development.

Sustainable development requires that we find new approaches to economic life, in terms of both production and consumption. It asks us to seek new levels of efficiency, to produce more with fewer resources and less waste. The fight against pollution requires new production processes, more

use of recyclable materials, and the development of regenerative or recyclable output components. We must explore how goods are produced, marketed, delivered, and thrown away, and consider the impact of economic development on natural and biological processes to see how the production process can be improved. Economic growth can be achieved only through the synergy of pluralistic institutions, technological innovations, and the market economic system.

Economics, we know, is the study of how society allocates resources to satisfy human needs. An analysis of how the economic system allocates scarce resources to differing and competing ends must include both the flow of natural and environmental resources into the production process and the flow of wastes from the production and consumption processes back to the natural environment. The quality of the natural environment directly affects the standard of living of society.

Classical economics emphasized the production side and made efforts to identify productive factors, such as labour or land. Land is the fundamental factor of agricultural production. Economists of the classical school always paid full attention to the sustainable exploitation of renewable resources and attached special significance to the fertility of arable land to allow continual crop production. In the nineteenth century, it would have been unthinkable to explain the dynamics of economy without giving special attention to the sustainable supply of natural resources.

However, in the great developments of economic theory that have occurred in this century, there is little explicit mention of natural resources and sustainability. One can read the extensive literature on economic growth without ever realizing that natural resources and sustainability might be a determinant of growth potential. The literature may reflect the fact that for the first two-thirds of the twentieth century, resource, environmental, and ecological constraints were not as serious for most industrial countries as they are today.

Developing countries, owing to the pressure of population increases, have had to pursue economic progress in spite of the environmental and ecological problems that emerged during the development process. They have little sense of the problem of sustainability. But sustainable development is not simple; countries differ in time, space, and level of economic development, and sustainability is therefore quite different for different countries. The obstacles to sustainability are shaped by many factors: social issues, market mechanism, environment, resources, population, industrial structure, urban and rural hierarchy, infrastructure, and geographic conditions.

## 5.3. Case Study 1: Implementing ITU-T International Standards to Shape Smart Sustainable Cities: The Case of Dubai

This chapter introduces the development, natural resource use and environment are becoming highly related and need to be jointly managed. For example, water use shortage in major food-producing regions of the world is affected to aggregate the food supplies and prices. This will be more critical by climate change. Additionally, lack of direct control over water management by water users and the incapacity of the public sector to regulate water use. Deforestation leads to local changes in rainfall patterns and greenhouses gas emissions that also contribute to global climate change and the use of cleared lands for agriculture is losing the biodiversity.

Sustainable development goes beyond the use of natural resources. For example, the accumulation of debt by this generation that will have to be paid by subsequent generations is an important aspect of lack of sustainability. More, it is depending on why public debt has been incurred.

Economic growth is the promising not only higher level of wellbeing through higher consumption levels, but also facilitating the reduction of poverty, inequality, and vulnerability. Taxation facilitates the provision of health and education as public goods, even if there exists a wide margin for social choices. Natural resource use and environmental impacts from unsustainable consumption and

production have socio-economic consequences for people, thereby worsening inequality. Sustainability is the dominant economic, environmental, and social issue for further economic development. And it required that we find the new approaches to economic life, both production and consumption.

Cases from Thailand such as environment and natural resources have played a significant role in supporting local livelihoods and driving economic growth. It has highlighted that environmental value and changes; policies are considered as prompt actions of tree conservation are required for the future generations. Case from Dubai introduces the Smart Sustainable Cities that realization that in Dubai, the best quality data for the KPIs were reported by the entities that had direct control and management over the aspect evaluated.

**Implementing ITU-T International Standards to Shape Smart Sustainable Cities: The Case of Dubai**
CASE STUDY DEVELOPED BY: Cristina Bueti ITU Focal Point on Smart Sustainable Cities International Telecommunication Union (ITU)

The administration of Dubai emphasizes that technology is an essential building block for improving quality of life. In this regard, Smart Dubai does not consider technology as an end goal but rather as a means to achieve sustainability. Dubai has established a group of objectives that focus on happiness and quality of life, as defined by the overarching Dubai Plan 2021. The vision of the Dubai smart city initiative aims "to make Dubai the smartest and happiest city on Earth". It focuses on addressing the most pressing urban environmental challenges and transforming the interaction between Dubai's residents and the environment and the economic and social services provided by its government using the latest technologies. In order to measure and benchmark its smart strategy, Smart Dubai decided to become the first city to pilot the Key Performance Indicators (KPIs) for Smart Sustainable Cities (SSC) in May 2015. Developed based on international standards developed by ITU, Recommendations ITU-T Y.4901 "Key performance indicators related to the use of information and communication technology in smart sustainable cities" and ITU-TY.4902 "Key performance indicators related to the sustainability impacts of information and communication technology in smart sustainable cities", the KPIs for SSC have provided measurable data and valuable reference points to Smart Dubai for shaping and refining its smart strategy.

**BACKGROUND**

The Smart Dubai initiative was launched by the Smart Dubai Office in March 2014 to unify and enhance existing ICT initiatives from the government; enable and deliver a citywide platform for the exchange of information and transaction of daily services; and provide a common platform for the public and private sector to work together and share the benefits of a smart city. Smart city is this case is defined as the efficient use of resources; seamless service delivery; safely protected people and information; and impactful business and life experiences.

ITU, being the UN specialized in ICTs, has always been at the forefront of fostering development in SSC. In 2014, ITU-T Focus Group on Smart Sustainable Cities (FG-SSC) established the groundwork and enunciated the fundamentals for transforming the vision of cities through the systematic inclusion of ICTs in the core of the sustainability considerations for smart cities. During the time that FG-SSC was undertaking its work, Dubai and ITU signed a cooperation agreement in May 2015 whereby Dubai committed to become the first city to pilot the KPIs related to city smartness and sustainability that were formulated by the FG-SSC.

**STRATEGY**

During the KPI assessment process, smart city activities were identified, and the collected data reflected a comprehensive integration of information communication technologies in the delivery of Dubai city services with the goal of achieving the aims of Smart Dubai.

The implementation of these KPIs has made Dubai the first city in the world to have analyzed the smartness and sustainability of its urban services taking the Recommendations ITU-T Y.4901and ITU-T Y.4902as reference. The standards that Dubai enacted in accordance with ITU recommendations initially focused on guidelines for ICT infrastructure access and safety (T1.1 ICT), which then were used to apply to all further standards related to Smart Dubai.

Regarding the environmental aspect, several municipal organizations established requirements for air quality levels (T2.1), instructions for waste management and water sanitation services (T2.2), specifications for the monitoring of noise pollution(T2.3) and guidelines for the creation of green spaces throughout the city (T2.5).

Economically, the Smart Dubai Office fostered greater productivity by adhering to regulations on providing online services to pivot towards more service and knowledge-based economy (T1.5). Dubai also created various programs and policies to promote greater citizen participation and social inclusion by following standards on economic equality (T3.6), and public sector development (T1.7).

In addition, the city implemented various initiatives to advance its citizen's quality of life by adhering to standards on e-learning educational programs (T3.1), health services (T3.2), and safety measures related to natural and unnatural disasters as well as threats to their ICT networks and users (T3.3). Furthermore, the Smart Dubai initiative revitalized its physical infrastructure under the guidelines on roadways, water and electricity supply facilities, as well as buildings (T1.6) with the aim to significantly reduce greenhouse gas emissions and promote a more efficient society.

**RESULTS AND IMPACTS**

- Dubai has introduced a secure and reliable ICT infrastructure for the provision of urban services to its citizens
- ICT-based technologies have been introduced for the delivery of water in Dubai. The city also has an effective smart metering system to monitor water consumption across the city
- Dubai has adopted the "Integrated Energy Strategy" to increase the proportion of clean energy sources (including renewable energy) in their urban energy mix
- Dubai has introduced SAAD, an e-service with cognitive computing technology to support business licensing and registration and to create an atmosphere of entrepreneurship
- Smart Dubai and DED work together to assess the impact of ICTs on economic growth to promote transparent reporting on economic initiatives
- Dubai has launched the Dubai Now app which allows for access to 2000 government services. This app was introduced with the aim of meeting the needs of the citizens and ensuring their happiness
- E-complain System was introduced in Dubai for citizens to regularly provide feedback on the public services.
- Police Eye in Dubai is being used to report any suspicious activity, by locating the reported location on the map. Through this, users can contribute to the security of Dubai.
- Dubai's Minor Accident reporting allows residents to take a picture and send it to the system using their mobile phones. This service(app)has been launched by Dubai Police for reporting small and minor accidents on the streets.
- Dubai has introduced several Smart SOS (Save our Soul) and wearable devices. Dubai has various service apps with location-based "Fast Emergency Alert" functions. For example, there is a smartwatch app that allows the user to ask for help. The app uses GPS information to provide the location of the user. These services are for citizens and residents of Dubai. The wearable and Smart SOS devices also have a new feature for the visually impaired, using which comments or complaints can be sent through the Dubai Police Application.

- Dubai's "Drive Mode" feature is both smart and innovative. It works only when the user is in drive mode. The App is capable of sending audio notifications about accidents near the user's location.
- Dubai has launched the "My Community…A City for Everyone" in 2016, which aims at turning Dubai into a disability-friendly city by 2020. The objectives of this initiative aim to promote equal opportunities, drive social cohesion, build social capital and minimize social exclusion.
- Dubai has adopted the Green Mobility Initiative to promote the use of hybrid and electric vehicles which consume less fuel and reduce greenhouse gas emissions.
- The Mohammad Bin Rashid Learning Programme in Dubai focuses on integrating technologies into the existing education system. This Program was established to further advance the United Arab Emirates' education system into the next phase of development through the application of world-class teaching techniques and advanced technology
- Dubai is working towards the introduction of electronic models in their hospitals which will facilitate better healthcare services to the community through telemedicine and teleassistance services.
- RTA has introduced ICTs into Dubai's traffic system for parking management, traffic circulations and public transport.
- Dubai has introduced the Carbon Abatement Strategy 2021 to reduce CO2 emissions.

**CHALLENGES & LESSON LEARNED**

A major lesson learned from the case of Dubai is the leadership role that Smart Dubai has taken to ensure that all entities work collaboratively on the smart city transition and the data collection and subsequent verification process for the KPIs. In line with this, aspiring smart cities and their entities should collaborate on the introduction of Implementing ITU-T International Standards to Shape Smart Sustainable Cities – The Case of Dubai 47 assessment frameworks that evaluate impacts of different services, and their overall contribution to the city vision.

The aspiring smart city and its entities are also advised to work together to build a robust and homogeneous city profile and baseline, aligned with the strategic pillars of their respective city (dimensions), governed by a central body that could take on the leadership and monitor the transition. In addition, it would be beneficial if aspiring smart cities documented the KPI collection process to identify and differentiate the data sources and data owners of the different indicators, subsequent to the standardization of smart sustainable city KPIs. Interested cities can use the ITU KPI-Collection Guide and adapt it to ground realities and its own collection process.

Furthermore, city stakeholders should consider establishing their own smart city dimensions based their existing governance structure and the dimensions set by the Recommendations ITU-T Y.4901 and ITU-T Y4902. Cities interested in implementing the KPIs for SSC should work with all entities to establish a timeline for data collection that can ultimately be standardized. This is being suggested based on the realization that in Dubai, the best quality data for the KPIs were reported by the entities that had direct control and management over the aspect evaluated.

**POTENTIAL FOR REPLICATION**

Cities commencing their smart city journeys can use ITU's smart sustainable cities KPIs as a reference and guideline to initiate the process of determining strategic smart city goals to improve the sustainability and smartness of the city.

Dubai's integrated approach to evolve into a smart city, along with a solid set of smart sustainable City KPIs, can facilitate the definition of global smart sustainable city goals and indicators for cities. This can be achieved through the sustained provision of guidance, methodological training, better information exchange, and the utilization of ICT tools.

Emerging smart cities could consider defining specific policies and programs for the continued professionalization of smart sustainable city experts around the globe. This could be done through the

creation of technical working groups, the development of specialized alliances with universities, the elaboration of specialized academic and entrepreneurship programs, etc. These activities will install innovation and further ensure the expansion of smart sustainable cities initiatives within the cities as well as worldwide.

## 5.4. Case Study 2: Financing Sustainable Development Amid Crises, Conflicts, and Beyond: A Case Study from Thailand

How can sustainable finance better support the country's path towards sustainable human development and the achievement of the SDGs?

This is an important question for countries around the world, including Thailand, particularly amid multiple crises, from the pandemic to climate change and global geopolitical conflicts, that have hindered the progress towards the SDGs. The repercussions from these crises emphasize more than ever the urgent need and opportunity to put in place a more fit-for-purpose financing framework that synergizes both public and private finance to ensure SDG achievement by 2030.

COVID-19 represents an unprecedented global human development crisis that affects every aspect of lives and social and economic activities. It is superimposed on unresolved tensions between people and the planet, and between the haves and the have-nots, disrupting progress toward the county's achievement of the Sustainable Development Goals (SDGs). The reality of climate change manifests in an increased volatility of weather events reflected in the loss of over 475,000 lives worldwide with US$ 2.56 trillion (in PPP term) as a direct result of extreme weather events during 2000-2019 (Germanwatch's Global Climate Risk Index, 2021). Developing countries are particularly affected by the impacts of climate change as they are more vulnerable to the damaging effects of a hazard and have lower coping capacity. Further, the ongoing war in Ukraine, along with sanctions imposed on Russia, creates yet another major shock to the global economy via supply chain disruptions, the rise in energy and food prices, the slowdown in international trade and tourism, and heightened volatility in the financial markets.

With the COVID-19 pandemic, Thailand's GDP fell by 6.2% in 2020, before growing by only 1.6% in 2021. Despite Thailand's marked progress in controlling the outbreak, the socioeconomic effects of COVID-19 are severe, as exports of goods and services account for about 70% of GDP with international tourism contributing 12% - 15% to GDP. Among the hardest hit were 20.36 million informal workers accounting for 53.7% of total employment and women employed in the worst-hit sectors such as tourism. The country's GDP growth estimation in 2022 is trimmed from 3.5 - 4.5% to 3.2% as the impact of the war is felt through the increase in the costs of living and exports is affected by the slower-than-expected global economy. The GDP growth for 2023 is projected to remain within the range of 3-4%.

It is undeniable that these multiple crises hinder the SDG progress around the world, including in Thailand. According to the Sustainable Development Report 2022, Thailand ranks 44$^{th}$ among 163 countries worldwide and 1$^{st}$ in the East and South Asia region on the progress towards SDGs. —with a score of 74.1, higher than the regional average score of 65.9. However, there is little progress in reducing inequality, supporting good health and well-being, and proving affordable and clean energy. Major challenges are presented in the goals related to zero hunger, good health and well-being, life below water, life on land, and peace, justice and strong institutions. Thailand is cited as one of the ten most flood-affected countries globally and is ranked ninth on the list of the top ten countries most affected by climate change from 2000 - 2019 by Germanwatch's Global Climate Risk Index 2021, with a significant risk that the poorest and marginalized groups will experience disproportionately greater

loss and damage. It is evident that efforts to tackle climate and environmental challenges need to be strengthened to stimulate the progress.

Beyond the pandemic, climate, and geopolitical crises, Thailand is one of the fastest-ageing countries in the world, given a low birth rate and increasing longevity of elder groups. The number of people aged 60 and over in Thailand now stands at about 13 million, accounting for 20% of the population. By 2050, Thailand's aging population is expected to increase to 20 million, accounting for 35.8% of the population. This poses greater health risks and will increase healthcare burdens on the government going forward.

Whilst the multiple global and domestic crises pose significant challenges to Thailand, they also represent an opportunity for the country to revisit its growth and development pathway as well as to reformulate its financing strategy to foster resilient, inclusive, and SDG-aligned development. This points to an urgent need to step up the role of financing as a key enabler to secure sufficient resources for safeguarding the country's SDG progress.

Thailand has made significant efforts in building forward better. During the pandemic, the Thai government launched a swift and comprehensive THB 1.9 trillion ($58 billion) stimulus package directed toward social protection and economic rehabilitation and an additional THB 500 billion (US$ 15 billion) loan for further economic and social recovery support. The public debt ceiling was raised from 60% to 70% of GDP to provide flexibility in policy implementation to tackle the pandemic and support the economic recovery.

The country follows the development pathway stipulated in the National Strategy (2018 - 2037) which emphasizes Thailand's vision of "becoming a developed country with security, prosperity, and sustainability in accordance with the Sufficiency Economy Philosophy". The upcoming 13th National Economic and Social Development Plan (2023 - 2027) will prioritize achieving high-value eco-friendly economy, society of opportunities and equality, sustainable way of life, and strengthening enabling factors for transformation. In COP27, Thailand reiterated its pledge to reach carbon neutrality by 2050 and net zero greenhouse gas emissions by 2065. As the 2022 APEC chair, Thailand emphasized the Bio-Circular-Green Economic (BCG) approach to promote green and inclusive growth, which became part of the Bangkok Goals endorsed by APEC members.

Despite multiple crises facing the country, Thailand's credit rating remains intact. Recently, Moody's maintained Thailand's credit rating at Baa1 - the same score as the previous year, owing to the country's continued economic growth trajectory, its robust financial sector, and its prudent public finance management. This reflects that Thailand has a solid foundation for attracting investment from both domestic and international investors.

To enhance the role of financing in supporting sustainable development, the Sustainable Finance Initiatives for Thailand were formulated, under which green, social and sustainability bonds and loans are issued. The proceeds are used to finance and refinance existing and future government loans or expenditures in the form of direct investment expenditures, subsidies, fiscal measures and operational expenditures. The Public Debt Management Office launched Thailand's inaugural sustainability bond in 2020 to promote growth of the environmental, social and governance (ESG) bond market in order to ensure that the Thai local bond market can become another driving force in tackling climate change and social issues. Currently, the market currently consists of THB 229.9 billion (US$ 6.7 billion) of ESG government and State Own Enterprise (Guaranteed) bonds (i.e., Sustainable bonds, Green bonds, Social bonds, and Sustainability linked bonds). Also, there has been an increasing interest in the issuance of ESG bonds in the private sector with a total bond outstanding of 118.6 billion baht (US$ 3.4 billion).

Still, more needs to be done to galvanize resources necessary to support the country's SDG achievement. Before the pandemic, UNESCAP (2019) estimated that, for Thailand to meet the SDGs, it will require around THB 1.27 trillion (US$ 40.9 billion) in additional annual investment from 2020 to 2030, equivalent to 50 baht per person per day. The estimate consists of investments in people (THB

513.5 billion or US$ 16.6 billion), prosperity (THB 426.1 billion or US$ 13.7 billion) and planet (THB 327.8 billion or US$ 10.6 billion). With the pandemic, the socio-economic and geopolitical challenges, and mounting climate and environmental risks, such additional investment needs to achieve the SDGs will be larger. On the other hand, Thailand's tax to GDP ratio was 17.2% in 2019, below the Asia and Pacific average of 21.0%, and below the OECD average (33.8%). From 2007 to 2019, the tax to GDP ratio in Thailand decreased by 0.3 percentage points from 17.6% to 17.2%. These figures indicate the urgent need for the country to not only enhance its public finance mobilization but to also increase the role of private finance to improve the overall management of available resources and mobilize additional resources to finance SDG-aligned priorities at national and subnational levels.

To strengthen development finance for sustainable development, 3 key areas need to be addressed.

**First, Thailand needs to put in place a comprehensive and fit-for-purpose financing framework that synergizes public and private finance to support the country's SDG advancement.** UNDP is assisting the Ministry of Finance and the National Economic and Social Development Council (NESDC) in formulating an Integrated National Financing Framework (INFF)—a tool to support the country in overcoming existing impediments to financing the country's sustainable development agenda, including those identified in the 13th National Economic and Social Development Plan (2023-2027). It lays out the full range of financing sources–looking at better alignment between financing and national objectives, at how fiscal space and policy options can better finance priority initiatives, and how to channel private sector resources towards building forward better, to contribute to a more inclusive and green development pathway. As a first step, UNDP is undertaking a Development Finance Assessment (DFA), which identifies the country's financing needs for development, including in 5 thematic priorities: tackling climate and environmental challenges, promoting equality, health sector, job protection and creation, and advancing digital finance for sustainable development. The outcome of the assessment will form the basis of a financing strategy, which will synergize a wide range of tools—from tax and budget to public debt, incentives, and other financial instruments—and leverage different types of financing to achieve greater impact. With a holistic financing strategy, the INFF will ultimately serve as a platform for policymakers, the private sector—domestic and international, and other development actors to, together, unlock new and innovative financing solutions both at national and subnational levels, bringing SDG-aligned investment to scale.

**Second, Thailand needs to better leverage private sector finance through the identification of SDG-aligned viable investment opportunities**. UNDP is partnering with the Securities and Exchange Commission in conducting the SDG Investment Opportunities mapping exercise for Thailand, building on the momentum of the private sector in contributing to SDG progress. The SDG Investor Map is an innovative tool that will help facilitate private investments for the SDGs by providing localized insights into investment opportunity areas where financial return and impact potential to advance the SDGs coalesce. This initiative will enable private investors to be equipped with insights on investment opportunity areas (IOAs) or investable solutions to pressing development needs. The Map identified 15 Investment Opportunity Areas (IOAs) across eight sectors, namely food and beverages, renewable resources and alternative energy, health services, transportation, financials, infrastructure, services and education. This will help Thailand in attracting the much-needed investment from the private sector on its sustainable development agenda.

**Third, Thailand needs to develop a holistic risk financing strategy to effectively manage the impacts of climate change and disaster risks.** Given greater risks and uncertainties surrounding the country, risk management and risk finance should be an integral part of Thailand's financing framework. Within the framework of the Tripartite Agreement between UNDP, the Insurance Development Forum (IDF) and the German government, UNDP has conducted a diagnostic study on inclusive insurance and risk finance for Thailand. The diagnostic report emphasizes the need for a comprehensive financing

framework to promote inclusive insurance and national disaster risk financing strategies to support the different phases of disaster risk management. It also identifies potential interventions and support required to create an enabling environment and facilitate market development for inclusive insurance and risk finance in Thailand and indicates opportunities to integrate risk transfer instruments such as insurance into ex-ante and ex-post risk financing. This will help mitigate the impact of risks on people, particularly the poor and most vulnerable populations who are often hit the hardest, upholding the Leave No One Behind principle.

Addressing sustainable development finance amid multiple crises is challenging as the pathway to achieving resilient, inclusive, and SDG-aligned recovery is not always linear when considering the dynamics and dimensions of the socioeconomic and environmental changes across periods. There is no silver bullet to tackle these crises, and concerted implementation of multiple policy options is needed. **The INFF** will serve as a framework that will improve the coherence between planning and financing, presenting a menu of policy options to realign and mobilize public and private finance. **The SDG investor map** will identify viable opportunities for SDG-aligned private investment and further unlock private finance for pressing development needs. This will be complemented by **the inclusive insurance and risk finance initiative** which would provide needs-based risk finance solutions for the country to weather the storms coming its way. Together, these tools have enormous potential for a catalytic shift in redirecting resources to more useful purposes, freeing up resources for development that are tied up elsewhere, and mobilizing new resources to maximize the chance of Thailand meeting the SDGs. This is the time for reshaping financing policies and frameworks and rethinking development pathways for a resilient, inclusive, and sustainable recovery particularly in the midst of crises, conflicts, and beyond.
(More reading source from: https://www.undp.org/thailand/blog/financing-sustainable-development-amid-crises-conflicts-and-beyond-case-study-thailand-1)

## Summary

This chapter introduces the development, natural resource use and environment are becoming highly related and need to be jointly managed. For example, water use shortage in major food-producing regions of the world is affected to aggregate the food supplies and prices. This will be more critical by climate change. Additionally, lack of direct control over water management by water users and the incapacity of the public sector to regulate water use. Deforestation leads to local changes in rainfall patterns and greenhouses gas emissions that also contribute to global climate change and the use of cleared lands for agriculture is losing the biodiversity.

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Economic growth is the promising not only higher level of wellbeing through higher consumption levels, but also facilitating the reduction of poverty, inequality, and vulnerability. Taxation facilitates the provision of health and education as public goods, even if there exists a wide margin for social choices. Natural resource use and environmental impacts from unsustainable consumption and production have socio-economic consequences for people, thereby worsening inequality. Sustainability is the dominant economic, environmental, and social issue for further economic development. And it required that we find the new approaches to economic life, both production and consumption.

Cases from Thailand such as environment and natural resources have played a significant role in supporting local livelihoods and driving economic growth. It has highlighted that environmental value and changes; policies are considered as prompt actions of tree conservation are required for the

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# CHAPTER 6: POVERTY, INEQUALITY, AND DEVELOPMENT

Development, poverty and inequality are different although intrinsically connected concepts. They are at the heart of Amartya Sen's Capability Approach and the UNDP human development approach, and they all have an impact on people's well-being.

Development has been traditionally associated to economic growth. This view was challenged by Sen's Capability Approach which introduced a paradigm shift in the way we understand development (Sen 1979a, 1985a, 1985b, 1987, 1989). This new development paradigm was constructed on two fundamental changes with respect to the previous approach. Development is now focused on the person as the unit of analysis instead of the economy, and the space in which progress is assessed is made of capabilities and freedoms instead of income. Thus, the basic question to ask when comparing societies is 'What is each person able to do and be?' – that is, Sen's approach goes beyond the total average well-being in a society, and rather looks at the opportunities available to each person. As Nussbaum (2011) notes, the approach "is focused on choice or freedom, holding that the crucial good societies should be promoting (…) a set of opportunities, or substantial freedoms, which people then may or may not exercise in action".

Several practical consequences emerged from this change of paradigm. The focus on persons meant moving from the concept of development to that of human development. These multiple dimensions of human development are flexible, meaning that every cultural and national context may have a different set of relevant dimensions (Sen, 2004). Finally, policy making changed drastically as it is now oriented to improve several dimensions to advance human development, such as education, health, living conditions, and not just to increase the income level of the economy. Human development is nowadays described as expanding people's freedoms, where freedoms entail the worthwhile capabilities people value, and empowering people to engage actively in development processes on a shared planet (Alkire, 2010). Capabilities are understood as the actual ability to achieve something. For instance, the capability to enjoy healthcare requires a health clinic with staff and medical supplies, and that patients are not refused treatment due to gender, race, age, or religion reasons.

The enlarging of people's freedoms and the empowering of people are not enough to conceptualize human development. The pursuit of advanced and long-lasting human development is made within a context of several constraints including resources, time, information, technology, political will, uncertainty, and institutional capacity. Consequently, the introduction of some procedural principles is also needed (Sen, 1979b, 1992, 1996). For instance, a growth boom that generates large gains for the richest keeping stable the outcomes of low and middle classes would, strictly speaking, be an expansion of human development, because it expanded the capabilities of some persons without impacting negatively on the freedom of any other. However, if there is a policy able to generate gains for the very poor while keeping outcomes of the richest unchanged, that policy would be preferred. Procedural principles thus help to set priorities and to rule out undesirable outcomes (Alkire, 2002; Sen, 2009). Examples of these principles are poverty reduction, efficiency, equity, sustainability, respect for human rights and responsibility.

What are the appropriate policies to improve human development? Economic growth is not strictly necessary, and it is not sufficient (Bourguignon et al., 2008). Some complementary policies have been suggested to achieve durable and long-term human development advances. They include stronger institutions, the formation of sustainable development networks, a strong and vocal civil society, stronger national accountability through countervailing powers and increased global

governance and responsibility, and increased international assistance in some contexts (UNDP, 1992, 1999, 2002, 2005).

Moving now into poverty, this concept has been traditionally defined using only one monetary dimension – typically, income level or consumption. In this one-dimensional approach, poverty is defined and measured as the percentage of the population whose income level (for instance, the per capita family income or the equivalence adjusted family income) is below certain poverty line or threshold defined in monetary terms.

The concept of poverty was also impacted by Sen's Capability Approach. According to Sen, poverty is a complex and multidimensional concept which needs to take into consideration people's diverse characteristics and circumstances. The poor generally lack not only income, but education, health, justice, credit and other productive resources, and opportunities. Thus, poverty should be seen as deprivation of capabilities, which then limits the freedoms to achieve something, rather than lowness of income. Sen argues that social evaluation should be based on the extent of the freedoms that people have to further the objectives that they value. Poverty in this framework becomes a 'capability failure' – people's lack of the capabilities to enjoy key 'beings and doings' that are basic to human life. The concept is inherently multidimensional.

Two immediate consequences arise from conceptualizing poverty as the deprivation of capabilities. The first one is the recognition of a negative association between poverty and human development, and ultimately between poverty and people's well-being. The second is a practical one and entails measurement issues. Conceiving poverty as a multidimensional phenomenon implies several challenges in terms of both information requirements (data on several dimensions is now needed in order to calculate a multidimensional poverty measure) and value judgments (the relative importance of the various dimensions needs to be defined). This is particularly relevant within the 2030 Agenda, as the Sustainable Development Goals (SDGs) launched in 2015 require countries to reduce poverty in "all its forms and dimensions".

Last but not least, the concept of inequality refers to how certain variables are distributed among persons, groups of persons, or countries. Traditionally, inequality has been focused on measuring the spread of the distribution of outcome variables, such as level of income, educational achievement, or health status, using well known measures such as the Gini coefficient, the Atkinson index, the Theil index, and percentiles ratios.

Sen's Capability Approach also reached the concept of inequality. In Sen's framework, equalizing outcomes should not be a goal, because not all people convert outcomes into well-being in the same way. The relation between outcomes and people's well-being depends on circumstances beyond people's control, such as age, gender, family background and disability. It also depends on social conditions, like health care systems, educational systems, prevalence of crime, and community relationships, among other factors. Thus, the goal should be to equalize the opportunities people have to practice their freedoms, and not the outcomes people obtain. In this framework, inequalities of opportunities are seen as constraints to people's choices and freedoms, impacting negatively on their human development and well-being (UNDP, 2005).

To sum up, human development, poverty and inequality are all essentially multidimensional and people-centered concepts. They all focus, although in different ways, on people's capabilities having an ultimate impact on people's well-being. Human development involves expanding the set of capabilities; poverty refers to the deprivation of capabilities, while inequality entails people having different abilities to choose and different freedoms. All these concepts have been shaped by Sen's Capability Approach, which brought drastic changes in policy making and important measurement challenges.

## 6.1. Poverty, Health, and Malnutrition

Goal 2 is about creating a world free of hunger by 2030.The global issue of hunger and food insecurity has shown an alarming increase since 2015, a trend exacerbated by a combination of factors including the pandemic, conflict, climate change, and deepening inequalities.

Reducing rural poverty, hunger, and malnutrition must be the keystone of any effort to improve rural lives. The first two Sustainable Development Goals call to "end poverty in all its forms everywhere" (SDG1) and to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture" (SDG2) by 2030. These goals seem distant, especially as the world becomes more urbanized and political attention has shifted away from rural areas, where most of the world's poor live and malnutrition is most prevalent. Despite progress, current trends suggest that most countries are not on track to meet the SDGs. International and national policies in place today for food security and nutrition, along with associated funding and investment, are inadequate to create significant change in these trends. But solutions are at hand. Improving the lives of the rural poor will require sustainable improvements in agricultural productivity that can foster structural transformation, raise rural incomes, and improve rural food security and nutrition. Some effective tools are available to help achieve these aims and put the world on track for the SDGs.

**CHARTING TRENDS IN RURAL POVERTY, HUNGER, AND MALNUTRITION**

Are poverty and hunger falling in rural areas around the world, and at what speed? These simple questions are at the heart of any analysis of whether we can meet the SDGs by 2030. But data are limited, especially on rural areas, and trends in various metrics of poverty, hunger, and their correlates are moving at different speeds, leaving the answers unclear. We review here trends from the primary databases on poverty and food and nutrition security, which focus on national-level data and available rural data. Rural poverty, defined as the number of people in rural areas living on under $1.90 per person per day, is estimated to have fallen by half between 2005 and 2017—with just under 500 million rural people now considered poor. With this rate of decline, many countries appear to be on track to meet the poverty targets, particularly the headline SDG1 target to end extreme poverty. The global rural poverty rate is currently 17 percent, in contrast to an urban poverty rate of 7 percent. For the limited countries with disaggregated data available, rural poverty rates are higher than urban poverty rates (using the $1.90 per day poverty line).

However, the gap between rural and urban poverty rates appears to be narrowing as overall poverty rates decline. The global rate of undernourishment or hunger (insufficient food intake to meet dietary energy requirements) saw a steady decline over recent decades, until it began stagnating or reversing in the past couple of years—falling from about 15 percent in 2005 to about 11 percent in 2016. The prevalence of hunger is highest in Africa south of the Sahara (22.3 percent) and South Asia (15.1 percent). In terms of absolute numbers of people, an estimated 821 million people were suffering from undernourishment in 2017, up slightly from 2016 and not much improved from 2000. Global progress in reducing child stunting (low height-for-age) has been substantial, with reductions in prevalence from 39 percent in 1990 to 22 percent in 2017. But 151 million children under the age of five are classified as stunted, with limited progress since 2000. Stunting is indicative of inadequate nutrition and poor health, and the interactions between the two.

For rural areas specifically, the picture is less clear, due to the lack of systematic data. National-level demographic and health surveys show that, for countries with disaggregated data, rural areas lag behind urban areas in reducing stunting rates. While most countries are making progress in both rural and urban areas, the rural–urban gap is narrowing in only a few countries. Similar overall trends and mixed progress in addressing rural–urban gaps can be seen for underweight (low weight-for-age) among children as well. Review of a number of case studies that disaggregate rural and urban data reveals mixed results—rates of undernourishment, stunting, and other indicators of hunger are often

higher in rural areas, but substantial variation arises in the size of the gap between rural and urban areas. Disaggregating the data on malnutrition by country and extrapolating recent malnutrition trends out to 2030 for those official indicators that are currently quantifiable and available for most countries—stunting, wasting (low weight-for-height), undernourishment, and child overweight—shows that for each of these indicators, less than half the needed progress to end hunger by 2030 is likely under a business-as-usual scenario (Figure 6.1). In the case of child overweight, current trends are moving in the wrong direction—overweight and obesity are increasing and expected to become more prevalent through 2030 (Box 6.1.). Making matters worse, business-as-usual trends may represent overly optimistic scenarios for many countries, because they do not reflect growing

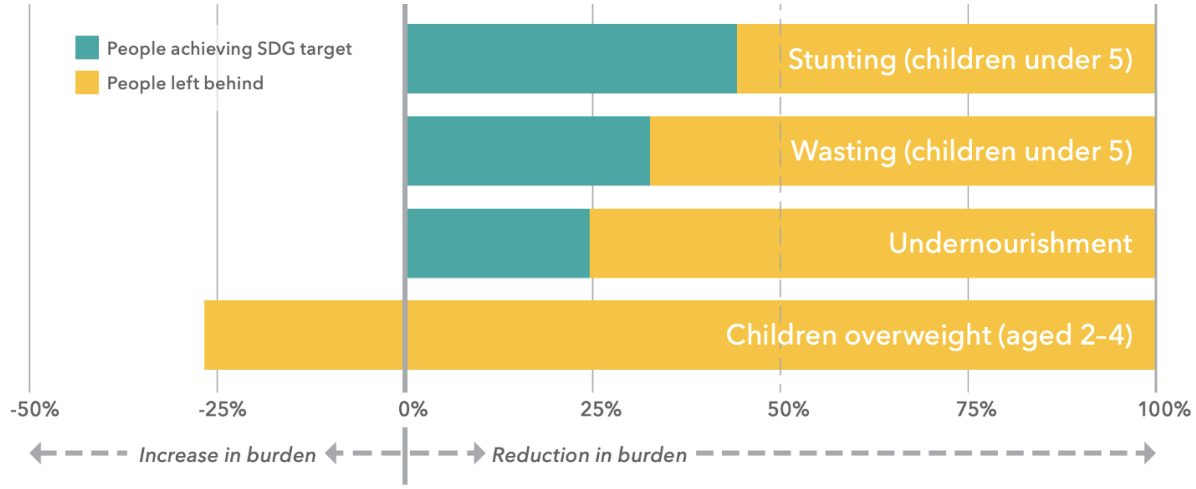


**Figure 6.1. Projected progress toward meeting SDG targets by 2030, business-as-usual scenario**
Source; H.kharas,J.W.Mcarthur, and K, Rasmussen, how many people will the world leave behind, assessing current trajectories on the sustainable development working paper 123 (Washington, dc, Brookings institution, 2018).

**Box 6.1. Overweight and obesity in rural areas**
"The rapid global rise in overweight and obesity has been driven primarily by urban areas, but increasingly, rural populations in low and middle-income countries are affected too, as incomes, livelihoods, and diets change. Recent data show that the overweight/ obesity gap between rural and urban areas is shrinking, and in some developing countries overweight is now more prevalent in rural areas. For women, overweight and obesity are rising more quickly in rural than in urban areas in many countries. And a recent review found childhood overweight in 81 developing countries was only 1.08 times higher in urban areas on average than in rural areas."

**Challenges to food security and nutrition**

Most notably, global warming could add 100 million more extremely poor people by 2030 and negatively impact food production and health. Conflict also threatens progress; in many fragile and conflict-affected states, reductions in hunger are too slow. These challenges threaten to leave rural areas further behind. Rural poverty and malnourishment are generally expected to move in the same direction, falling or rising together. For example, as a result of the food price spike in 2008, 100 million people likely fell back into extreme poverty, according to World Bank estimates, while hunger rose. Because of these kinds of experiences, it is common for policymakers to assume there is a close correspondence between rural poverty and food insecurity and to address food insecurity through anti-poverty programs. For example, former chief economist of the Food and Agriculture Organization of

the United Nations (FAO) Jomo K. Sundaram advocated strongly for social protection as the fastest route to ending hunger. In practice, we find a positive correlation between undernourishment and poverty at the global level, but the association is weak—just one-third of the movement in undernourishment is linked to movement in extremely rural poverty rates. Because rural poverty and undernourishment figures come from different sources and are determined quite differently, we should expect some divergence, but the degree of divergence between poverty and hunger measures highlights the need for better data.

## 6.2. Income Inequality and Distribution

Ricardo accorded the subject of income distribution in 19th century Political Economy is appropriate also in 21st century SocioEconomics. Although the field was relatively neglected by economists for several decades, in the last 15 years there has been a resurgence of interest driven partly by developments in economic theory and partly by major developments in the interpersonal income distributions within many developed countries (Atkinson 1997). In recent years the subject of economic inequality has developed in such a way as to have a life of its own separate from the obvious connection with the distribution of income, the distribution of wealth, the structure of wages and other related empirical topics. This distinct area of study has been built upon new insights in welfare economics and on the relationship to information theory (Cowell 2000, Sen and Foster 1997).

**Income**

Why the focus on income rather than some other measurable quantity? In many treatments of the subject income plays one of two roles, sometimes both:

- Income as a proxy for economic welfare. If one adopts an individualistic, welfarist approach to social economics then it is reasonable to be concerned with individual well-being or utility. In some respects, the flow of income captures this, but it has been argued that consumption expenditure may be a more appropriate economic indicator (Blundell and Preston 1998). It should also be acknowledged that individual well-being may be determined not only by the level of one's own income but also by its relation to the incomes of others (Ferrer-i-Carbonell 2005).
- Income as command over resources. This role of income can be interpreted in more than one way. If one has in mind spending power then perhaps disposable income (income after taxes and compulsory deductions?) may be an appropriate concept. But if inequality associated with economic power and status then a measure of wealth may be more appropriate.

The focus on income as conventionally defined clearly has shortcomings. An uncritical use of income in either of the above roles may neglect questions of time (people's incomes often change systematically over their lifetime) and of risk (people´s incomes often change erratically in the short run): more sophisticated income concepts can be used that take account of these factors, but it is harder to get reliable data to estimate them. Also left open are important theoretical and practical questions: for each type of income one needs to be clear about who or what the income receiver (a single person? a family or household? a firm? a taxpayer?); particular care must be taken when using standard data sources to make international comparisons (Atkinson and Brandolini 2001).

**Distribution of Income**

Distribution of income lies at the heart of an enduring issue in political economy—the extent to which government should redistribute income from those with more income to those with less. Whether government should redistribute income is a normative question, and each person's answer will depend on his or her values. But for many people, answering the normative question requires

understanding the facts about the current income distribution. The term "income distribution" is a statistical concept.

No one person is distributing income. Rather, the income distribution arises from people's decisions about work, saving, and investment as they interact through markets and are affected by the tax system. The 1990s and early 2000s witnessed the establishment of a growing body of work, increasingly precise, describing how the income distribution has changed. This work can be summarized in three points:

- The distribution of pre-tax income in the United States today is highly unequal. The most careful studies suggest that the top 10 percent of households, with average income of about $200,000, received 42 percent of all pre-tax money income in the late 1990s. The top 1 percent of households, averaging $800,000 of income, received 15 percent of all pre-tax money income.
- In the longer view, the path of income inequality over the twentieth century is marked by two main events: a sharp fall in inequality around the outbreak of World War II and an extended rise in inequality that began in the mid-1970s and accelerated in the 1980s. Income inequality today is about as large as it was in the 1920s.
- Over multiple years, family income fluctuates, and so the distribution of multiyear income is moderately more equal than the distribution of single-year income.

**Trends in Inequality**

The most frequently cited statistics come from the U.S. Census Bureau's Current Population Survey (CPS), the monthly household survey best known as the source of the official unemployment rate. Since 1948, the March edition of the CPS has collected household income information for the previous year, as well as the personal characteristics of household members—their age, education, occupation, and industry (if they work), and other data that help give insight into changing income patterns. Although this makes the CPS an indispensable statistical source, it has disadvantages as well. The CPS uses a restricted income definition: pre-tax money receipts excluding capital gains. This definition is further restricted by a "cap," currently $999,999, imposed on reported annual earnings for reasons of confidentiality. Together, these problems mean that CPS estimates of inequality omit the effects of taxes, nonmoney income such as government and private health insurance, and the portion of individual earnings that exceeds the cap.

A second source of inequality statistics is the U.S. Treasury's Statistics of Income (SOI), which summarizes income reported on federal income tax returns. SOI data contain no personal data on taxpayers such as age or education, and they cannot describe the precise shape of the lower part of the income distribution. The strengths of SOI data are their ability to accurately describe the upper part of the distribution—SOI income data are not "capped"—and to extend this description back to 1917, thirty years before CPS statistics begin.

**The Causes of Inequality**

In one sense, the growth of inequality in the last part of the twentieth century comes as a surprise. In the 1950s, the bottom part of the income distribution contained large concentrations of two kinds of families: farm families whose in-kind income was not counted in Census data, and elderly families, many of whom were ineligible for the new Social Security program. Over subsequent decades, farm families declined as a proportion of the population while increased Social Security benefits and an expanding private pension system lifted elderly incomes. Both trends favored greater income equality but were outweighed by four main factors.

- Family structure. Over time, the two-parent, one-earner family was increasingly replaced by low-income single-parent families and higher-income two-parent, two-earner families. A part of the top quintile's increased share of income reflects the fact that the average family or household in

the top quintile contains almost three times as many workers as the average family or household in the bottom quintile.

- Trade and technology. Trade and technology increasingly shifted demand away from less-educated and less-skilled workers toward workers with higher education or particular skills. The result was a growing earnings gap between more- and less-educated/skilled workers.
- Expanded markets. With improved communications and transportation, people increasingly functioned in national, rather than local, markets. In these broader markets, persons with unique talents could command particularly high salaries.
- Immigration. In 2002, immigrants who had entered the country since 1980 constituted nearly 11 percent of the labor force (see immigration). A relatively high proportion of these immigrants had low levels of education and increased the number of workers competing for low-paid work.

These factors, however, can explain only part of the increase in inequality. One other factor that explains the particularly high incomes of the highest-paid people is that between 1982 and 2004, the ratio of pay of chief executive officers to pay of the average worker rose from 42:1 to 301:1, and pay of other high-level managers, lawyers, and people in other fields rose substantially also.

**The Economic Case for Inequality of Wages and Incomes**

Inequality of wages and incomes is clearly bad if it results from government privileges. Many people would find such an outcome unjust, but even more important to many economists is that such inequality sets up perverse incentives. Instead of producing valuable products and services for their fellow citizens, as people tend to do in free economies, people in societies based on government-granted privileges devote much of their effort to pleasing, or outright bribing, government officials. In many African countries, for example, such as Côte d'Ivoire, Ghana, and Zaire, there are stark inequalities because the government has the power to take a high percentage of the wealth of the already poor and give a large amount of it to government officials or their cronies. And in many Latin American countries, for many decades a few families have had most of the wealth and have used government power to cement their privileges.

But inequality in wages and incomes in relatively free economies serves two important social functions. First, it gives people strong incentives to produce so as to make higher incomes and wages. Second, it gives people, and not just young people, strong incentives to get training or education that will allow them to perform well in higher-wage jobs. In his January 1999 Richard T. Ely lecture, economist Finis Welch put the point as follows:

- Wages play many roles in our economy; along with time worked, they determine labour income, but they also signal relative scarcity and abundance, and with malleable skills, wages provide incentives to render the services that are most highly valued. (Welch 1999, p. 1)

## 6.3. Rural Poverty, Agricultural Transformation, and Structural Changes

**Rural Poverty in Developing Countries**

The causes of rural poverty are complex and multidimensional. They involve, among other things, culture, climate, gender, markets, and public policy. Likewise, the rural poor are quite diverse both in the problems they face and the possible solutions to these problems. This pamphlet examines how rural poverty develops, what accounts for its persistence, and what specific measures can be taken to eliminate or reduce it.

Broad economic stability, competitive markets, and public investment in physical and social infrastructure are widely recognized as important requirements for achieving sustained economic growth and a reduction in rural poverty. In addition, because the rural poor's links to the economy vary

considerably, public policy should focus on issues such as their access to land and credit, education and health care, support services, and entitlements to food through well-designed public works programs and other transfer mechanisms.

About one-fifth of the world's population is afflicted by poverty—these people live on less than $1 a day. Poverty is not only a state of existence but also a process with many dimensions and complexities. Poverty can be persistent (chronic) or transient, but transient poverty, if acute, can trap succeeding generations. The poor adopt all kinds of strategies to mitigate and cope with their poverty.

To understand poverty, it is essential to examine the economic and social context, including institutions of the state, markets, communities, and households. Poverty differences cut across gender, ethnicity, age, location (rural versus urban), and income source. In households, children and women often suffer more than men. In the community, minority ethnic or religious groups suffer more than majority groups, and the rural poor more than the urban poor; among the rural poor, landless wage workers suffer more than small landowners or tenants. These differences among the poor reflect highly complex interactions of cultures, markets, and public policies.

Rural poverty accounts for nearly 63 percent of poverty worldwide, reaching 90 percent in some countries like Bangladesh and between 65 and 90 percent in sub-Saharan Africa. (Exceptions to this pattern are several Latin American countries in which poverty is concentrated in urban areas.) In almost all countries, the conditions—in terms of personal consumption and access to education, health care, potable water and sanitation, housing, transport, and communications—faced by the rural poor are far worse than those faced by the urban poor. Persistently high levels of rural poverty, with or without overall economic growth, have contributed to rapid population growth and migration to urban areas. In fact, much urban poverty is created by the rural poor's efforts to get out of poverty by moving to cities. Distorted government policies, such as penalizing the agriculture sector and neglecting rural (social and physical) infrastructure, have been major contributors to both rural and urban poverty.

The links between poverty, economic growth, and income distribution have been studied quite extensively in recent literature on economic development. Absolute poverty can be alleviated if at least two conditions are met:

- economic growth must occur—or mean income must rise—on a sustained basis; and
- economic growth must be neutral with respect to income distribution or reduce income inequality.

Generally, poverty cannot be reduced if economic growth does not occur. In fact, the persistent poverty of a substantial portion of the population can dampen the prospects for economic growth. Also, the initial distribution of income (and wealth) can greatly affect the prospects for growth and alleviation of mass poverty. Substantial evidence suggests that a highly unequal distribution of income is not conducive to either economic growth or poverty reduction. Experience has shown that if countries put in place incentive structures and complementary investments to ensure that better health and education lead to higher incomes, the poor will benefit doubly through increased current consumption and higher future incomes.

The pattern and stability of economic growth also matter. On the one hand, traditional capital-intensive, import-substituting, and urban-biased growth—induced by government policies on pricing, trade, and public expenditure—has generally not helped alleviate poverty. On the other hand, agricultural growth—where there is a low concentration of land ownership and labour-intensive technologies are used—has almost always helped reduce poverty. Finally, sharp drops in economic growth—resulting from shocks and economic adjustments—may increase the incidence of poverty. Even when growth resumes, the incidence of poverty may not improve if inequality has been worsened by the crisis.

**How Rural Poverty Is Created**

Numerous characteristics of a country's economy and society, as well as some external influences, create and perpetuate rural poverty:

- political instability and civil strife;
- systemic discrimination on the basis of gender, race, ethnicity, religion, or caste;
- ill-defined property rights or unfair enforcement of rights to agricultural land and other natural resources;
- high concentration of land ownership and asymmetrical tenancy arrangements;
- corrupt politicians and rent-seeking public bureaucracies;
- economic policies that discriminate against or exclude the rural poor from the development process and accentuate the effects of other poverty-creating processes;
- large and rapidly growing families with high dependency ratios;
- market imperfections owing to high concentration of land and other assets and distortionary public policies; and
- external shocks owing to changes in the state of nature (for example, climatic changes) and conditions in the international economy.

Biases in national economic and social policies can contribute to rural poverty by excluding the rural poor from the benefits of development and accentuating the effects of other poverty-creating processes. Policy biases that generally work against the rural poor include:

- urban bias in public investment for infrastructure and provision of safety nets;
- implicit taxation of agricultural products through so-called support prices and an overvalued exchange rate;
- direct taxation of agricultural exports and import subsidies;
- subsidies for capital-intensive technologies;
- favoring export crops over food crops; and
- bias in favor of large landowners and commercial producers with respect to rights of land ownership and tenancy, publicly provided extension services, and access to (subsidized) credit.

These policies can have both short- and long-term effects on the rural poor. The effects are particularly significant in the context of the structural adjustment programs that many developing countries have undertaken to restore macroeconomic stability and expand the capacity of the economy to increase production, employment, and incomes.

**Policies for Reducing Rural Poverty**

To design policies that have a chance of effectively helping the rural poor, the focus of policy should be on four major groups:

- small landowners who cultivate their land,
- landless tenants who cultivate another people's land,
- landless laborers who depend on casual or long-term employment in the farm or nonfarm sectors, and
- women, who could also be part of any of the three preceding groups.

All of these groups will benefit from good macroeconomic management—which helps keep inflation in check and maintains unsubsidized prices—because it facilitates sustained economic growth through private investment and competitive markets. Needless to say, unfair laws or poor enforcement of existing laws, exclusion of the poor from decision making, and pervasive corruption in the public sector are no less detrimental to the well-being of the poor than they are to the country's overall economic growth.

Achieving agricultural growth by applying new technologies is one of the most important ways to reduce rural poverty. The impact of such efforts on the rural poor, however, depends on initial

conditions, the structure of relevant institutions, and incentives. Research shows that agricultural stagnation has harmed the rural poor in sub-Saharan Africa by creating food shortages and higher prices that have reduced their ability to buy food and find work. Conversely, experience with the Green Revolution showed that rapid agricultural progress made a big difference in reducing rural poverty in parts of South Asia. Researchers have found that higher crop yields reduce both the number of rural poor and the severity of rural poverty. But these effects are strong only if certain conditions are met:

- land and capital markets are not distorted by a high concentration of ownership of natural resources (agricultural land), including unfair tenancy contracts, and repression in the capital markets (with restricted access to finance);
- public policy on pricing, taxes, and the exchange rate does not penalize agriculture and encourage or subsidize labor displacement;
- public investment in basic education and health care is high and used effectively; farmer literacy and good health have great influence on farm productivity;
- public sector support for agricultural research is strong and resulting improvements are made available to small farmers is effective;
- physical capital, like irrigation systems, access roads, is adequately maintained;
- safety nets and social assistance are available for the very poor, particularly the landless (casual) workers and rural women, in the form of public works programs, microfinance, and food subsidies; and
- the rural poor are directly involved in the identification, design, and implementation of programs to ensure effective use of resources and equitable distribution of benefits.

Since the rural poor are a varied group, we need to understand how macroeconomic changes and policies can affect them. The three major ways in which policies affect the rural poor are through *markets*, *infrastructure* (including public services), and *transfers*.

The markets in which the rural poor participate are those for products, inputs (labor and non-labor), and finance (from formal and informal sources). Several important features of these markets can affect conditions in rural areas.

The infrastructure that directly affects the rural sector's productivity and the rural poor's quality of life includes the economic (transport, communications, extension services, and irrigation) and the social (education, health care, water, and sanitation). Given that most elements of a country's infrastructure are provided through public funding, the level of spending, cost effectiveness, quality of service, and access of the rural poor to infrastructure and public services have important effects on human capital and productivity in rural areas.

Transfers, which are both private and public, provide some insurance against anticipated and unanticipated economic shocks. Most of the rural poor depend on private transfers among households, extended families, and other kinship groups. Public transfers can take the form of redistribution of such assets as land, employment on public works projects, and targeted subsidies for inputs and some consumer products. These transfers supplement or displace private transfers, depending on the policy instrument and how it is used. But these channels—markets, infrastructure, and transfers—do not work in the same way for all of the rural poor because each group has quite different links to the economy.

**Agricultural transformation**

Agricultural transformation may be broadly defined as the process over time by which the agrifood system evolves from subsistence oriented and farm centred into more commercialised, productive and off-farm centred (Laborde et al., 2018). Transformation is said to be inclusive if the results lead to food security and poverty alleviation and reach the socially and economically disadvantaged, in particular women, minorities, the disabled and the elderly. Agricultural transformation is a key component of

structural transformation, and the linkages between the two are such that isolating one from the other is either problematic or not feasible. Timmer (2012) posits that structural transformation historically follows a remarkably uniform pattern, namely:

- A decline in the [relative] share of agriculture in GDP and a decline in the labour/land ratio in agriculture. Misinterpreting this paradox and ignoring the agricultural sector in some countries may have caused stagnation, relative decline and enhanced poverty (Timmer, 1988, 2002; Vos, 2018).
- A commensurate rise in non-agriculture sectors, in particular urban/industrial/ modern service activities. A number of scholars have pointed out that the nonfarm sectors grow much faster, causing income disparity between farm and nonfarm sectors, which has at times caused pockets of persistent poverty (Otsuka, 2012). Johnson (1991) and Timmer (2012) argue that policies to reduce the income gap between the farm and non-farm sectors have usually derailed the process of transformation by artificially keeping an inflated labour force in the farm sector, which likely would have migrated to other sectors in the absence of such interventions.
- Rural to urban migration of labour – this directly relates to the preceding point. (iv). A demographic transition defined by falling mortality rates, gradual decline in fertility rates and a subsequent period of rapid population growth.

Agricultural transformation evolves through at least four distinct phases, and the role of public policies, strategies and investments vary accordingly (Timmer, 1988). The stylized stages, though not always clearly distinguishable, are very useful to analyse public interventions at different stages of agricultural development. The defined stages would also help policymakers determine the relevance of certain policy measures to specific settings/countries. The transformation stages and some of the key associated policy instruments may be roughly defined as:

- 'Getting agriculture moving' – Typically an early phase of agricultural development, when productivity per worker begins to increase, improved technologies are adopted and some labour force is released from agriculture. Key policy options during this phase typically are institutional change, new technologies, market structures, incentives, and significant investments in rural infrastructure.
- 'Agriculture as a contributor to growth' – The surplus generated in the first phase is tapped and invested in non-agricultural sectors, hence increasing their labor absorption capacity and facilitating labour exit from agriculture. During this stage, the agricultural sector continues to adopt productivity-enhancing technologies, and enhance enabling environment, including innovative institutional change and inclusive legislations. Key policy options may include establishing agriculture industry market linkages, as well as technology and incentives that support the creation of a sustainable agriculture sector.
- Integrating agriculture into the macroeconomy' – Progressive investment in rural infrastructure, market linkages and integration of factor and product markets between agriculture and other sectors facilitate the integration of agriculture into the macroeconomy. Factor productivity and income differentials between agriculture and non-agriculture sectors diminish, and market signals are transmitted to rural areas with relative ease. Managing trade, shocks in commodity markets and market interventions continue to be focus areas for policy in agriculture.
- 'Agriculture in industrialized economies' – During this stage agriculture is a much smaller sector of the economy and food expenditures occupy a small share in consumer budgets. The policy focus includes rural employment generation, income support to farmers, environmental protection and the supply of verifiable healthy diets. In addition, some of the issues in phase iii, in particular agricultural protectionism, managing commodity market shocks and environmental impacts continue to be relevant and the focus of policy agendas.

Laborde et al., IFPRI 2018, suggest two additional phases to the four mentioned by Timmer (1988). These are (i) subsistence agriculture and (ii) moving labour out of agriculture. In the Timmer formulation, the first one is ignored and the second is present throughout the transformation process. Nevertheless, the countries in this study do not seem to have had any significant pockets of subsistence agriculture during the period under consideration, and including this phase may not be relevant (Country Reports, EIU, WB-country at a glance).

**Structural Changes**

Structural changes in the economy is most frequently used to explain the transformation in the composition of production, employment, demand and trade, which appears along with the development of a country (Doyle, 1997.). Both in developed and developing countries (industrialized and those in the process of industrialization), occur constant changes in the composition of input and output, propelled by technology and a desire to achieve greater competitive advantage.

There are many different uses of the concepts of structure and structural changes in the economy. In this paper, will be using an approach supported by development economics, because it seems that econometric approach, indisputably respectable and significant, oversimplifies the analysis of the structure and structural changes, observing them through economic models as a simplified version of an economy. The most significant and distinguished changes in the economic structure that one encounters in the literature are the following:

- Changes (increase) of the accumulation rates (Rostow, Lewis),
- Changes of the sector composition of the economic activities, initially focused on the allocation of the employment (Fisher, Clark), and later on production and application of the factors (Kuznets, Chenery),
- Changes in the location of economic activities,
- Other aspects of changes of economic structure (demographic, distribution of income, etc.) (Syrquin, 1988).

Interrelated processes of structural changes which follow or are followed by economic development, we call structural transformation. The essence of structural transformation is the accumulation of physical and human capital, but also the changes in composition of demand, production, employment and trade. „The central phenomenon of what we call the structural transformation, are wide-economic occurrences, such as: industrialization, transformation of agriculture, migrations and urbanization. All these processes include a reciprocal interaction between the increasing income and the change in proportion of the supply and demand, and they are affected by macroeconomic and sector policies "(Chenery, 1988, pg. 205).

**Structural Changes in Development Economy**

Development economics evolved through an interaction between theoretical researches and empirical studies. Some of the basic theoretical approaches led directly towards the models of which some were the subjects of econometric tests and improvements, while others, due to their abstraction, became inadequate for further quantitative analysis. Development economics is explained as dealing with different issues of structure and growth in less developed (developing) countries (Syrquin, 1988). The analysis of economic structure appears in development economy, mostly in two forms, or through two approaches: micro and macroeconomic. The microeconomic approach studies economy, its market, institutions, mechanisms of resource allocation, creation and income distribution.

Such approach is strongly related to the economic theory with little accent on economic history or long-term processes of change of economic structure. The macroeconomic approach, however, perceives economic development as a set of interdependent long-term processes of structural

transformation which follow the growth. The main characteristics of this approach are: broader economic phenomena, such as: industrialization, urbanization, agricultural transformation, what Kuznets simply called „modern economic growth ". This is the essential comparative approach which draws the facts and information from the historical evolution of developed (progressive) economies and relationships among structural processes and growth between countries.

The earliest researches of development economics, point out aggregate demand as a central category. The importance of demand in development economics was especially emphasized in Keynesian economic theory, due to which it is called the economy of demand. Such development economics of the 1950s recognizes two key components of structural transformation- accumulation and sector composition. Both of them affect economic politics: the first one affects its aggregate level, and the second – certain disaggregate levels. Thus, it can be concluded that accelerated sustainable growth implies the increase in accumulation rate, but also a sustainable balance between different sectors in order to prevent disbalances at the markets of goods or factors. Approximately, at the same time, emerges a neoclassical interpretation of economic growth which supports a different view, and unlike the structural emphasis of aggregate demand, this interpretation focuses on aggregate offering. Long-term growth, according to neo-classicists, is entirely independent from the savings (accumulation) rate, and intersectoral disbalance is intolerable. Earlier researches and studies of economic structure discuss about harmonic changes in resource allocation depending on the income growth.

A significant contribution, in that sense, makes Engel's Law of demand and the universal reallocation of labour from agriculture to industry, later from industry to service/tertiary sectors. Post-war analyses of demand, production and the usage of factors stand out again in studying economic structure. Kuznets wrote that studies of long-term growth bear essential advantage measuring structural transformation as a whole, and not dealing separately with each its component. Such synthetical analysis of structural transformation as a whole, enabled noticing simple schemes of the increase of demand, production, trade and employment. Although Kuznet's results turned out to be „rugged "in the modern econometric analysis, it still stimulated wider research of the unique phenomena of development, which he calls „stylized facts ".

Development economics studies the methods of different sectors' adaptation to changes in demand, offer of factors and technology over time. Its analytical apparatus consists of models that can „catch "the differences between the sectors important for a concrete issue in question, but it also consists of various empirical studies that practically support theoretical views and anticipations.

## 6.4. Case study 1: The Nexus between Poverty, Inequality and Growth: A Case Study of Cameroon and Kenya

Using household surveys from Cameroon and Kenya, this case investigated how an income generating function (with effort and circumstances as its main arguments) is linked to poverty, inequality of opportunities, pro-poor growth, and shared prosperity.

The case has founded that human capital variables, education—for Cameroon and health— for Kenya, significantly affect the level and inequality of household economic well-being. Specifically, education human capital (years of schooling) is positively associated with household economic well-being in Cameroon, whereas an alternative measure of human capital in Kenya (sickness reporting rate) was negatively correlated with household wellbeing. Equalising education in Cameroon had the tendency to reduce inequality between 2007 and 2014. For Kenya, we found that sickness reporting mitigated inequality in the factual distribution in Kenya over the period 2005–2015, suggesting that its equalisation is inequality-augmenting. Thus, in both countries human capital improvements are good for welfare and for overall equity.

The pro-poor growth findings showed that equalising education would generate a gain in growth attributable to a decline in inequality in Cameroon. For Kenya, gains in growth in household

income are attributable to reductions in sickness reporting among the under-privileged, suggesting that better health strongly reduces poverty among individuals at the bottom of income distribution. The regression-based decomposition results further corroborated the high absolute and relative shares of the effort components of welfare when we consider education for Cameroon and health for Kenya.

In terms of shared prosperity, eliminating disparities in circumstances in the factual distributions improves shared prosperity, despite the differences observed by location, implying that horizontal economic inequalities can be addressed via public policies that reduce inequalities in opportunities. The changes in Palma ratios revealed that, whereas circumstances are Palma-ratio increasing in the factual distributions for Cameroon, they are Palma-ratio decreasing in Kenya, implying that country-specific contexts can affect effectiveness of redistributive policies in unexpected ways.

## 6.5. Case study 2: Thailand: Firming Recovery but Risks and Structural Challenges Remain

"Thailand's economy is projected to recover at a faster pace of 3.2 percent in 2022 from 1.5 percent in 2021 given the strengthening domestic demand and faster return of tourist arrivals," said Ishikawa. "The slowing global economy, supply chain disruptions, and high inflation are the key near-term risks. Structural reforms will be needed to raise Thailand's growth potential and to address the long-term challenges."

The hospitality sectors have benefitted the most from the strong rebound in tourism activities. Private consumption grew strongly, supported by robust tourism spending, labor market recovery and rising farm income. However, goods exports have slowed, reflecting the global economic slowdown. Inflation rose sharply due to the surge in global oil and commodity prices. Inflation is projected to rise to 6.4 percent in 2022, while core inflation is expected to continue rising steadily due to higher prices of prepared and cooked food.

Commercial banks' capital buffer is strong, and liquidity remains ample. Asset quality has remained stable while bank lending rose, partly reflecting the Bank of Thailand's (BOT's) expanded financial assistance efforts for borrowers and financial institutions. In particular, the long-term debt restructuring measure is aimed at reducing the debt burden commensurate with the reduced income of debtors. To help accelerate such pre-emptive long-term debt restructuring, the BOT temporarily eased some regulations for banks until end-2023.

Fiscal policy remains expansionary as the authorities continue to roll out fiscal measures to mitigate the impact of the pandemic and provide additional support to counter the higher cost of living. This includes fuel subsidies by government-backed institutions to help Thai households and businesses cope with the high inflation.

**Risks and vulnerabilities**

Downside risks to growth stem mainly from a protracted global slowdown, further supply chain disruptions, and the emergence of more virulent strains of COVID-19. A prolonged and sharper rise in U.S. interest rates would heighten the risks of capital outflows, a further increase in borrowing costs, and exchange rate depreciation pressure. Inflation may stay elevated for a longer period due to the withdrawal of price subsidies and higher wages.

In the medium-term, the high subsidy costs of quasi-fiscal operations borne by the government-linked institutions will increase the size of public debt. The significant economic scars from the pandemic can be a drag on growth in the long-term. Thailand will also need to address the structural challenges from a rapidly aging population, digital transformation and climate change.

**Policy recommendations**

The unwinding of COVID-19 fiscal support is appropriate as Thailand has achieved a high vaccination rate while growth prospects have improved significantly. The tapering of broad-based subsidies is encouraged while welfare support for vulnerable groups should be provided temporarily for this period of uneven economic recovery.

Fiscal consolidation focusing on revenue enhancement should be accelerated to rebuild fiscal space. Expenditure consolidation can be more gradual, complemented by effective allocation and management of public resources toward infrastructure development and structural reforms, which are necessary to transition to a more sustainable and digital economy.

Further normalization of monetary policy is appropriate given the risk of the elevated inflation becoming entrenched as the recovery continues to gain momentum. Monetary policy normalization, in close policy coordination with other government agencies, would help rein in excessive build-up of leverage in the economy.

BOT has been providing financial assistance measures in response to the COVID-19 situation, to support the funding needs of hard-hit borrowers and businesses and cushion the scarring impact on the economy. AMRO supports BOT's sustainable and time-bound debt resolution measures, and the authorities' close monitoring of banks' loan restructuring activities to ensure the restructuring method is properly applied to the affected borrowers. Authorities are also encouraged to remain vigilant over the high household debt burden. To rein-in excessive borrowing by households, the establishment of a Debt Service Ratio framework is encouraged.

Post-pandemic, efforts to boost public investments and enhance productivity of workers should be accelerated to raise Thailand's growth potential. The four new economic zones will further promote the economic development of regions across the borders of Thailand and deepen Thailand's trade and investment linkages with its neighboring countries. The social security system should also be enhanced to prepare for the aging population. On climate change, targeted and well-communicated incentives, and coherent policy support, will be crucial in driving Thailand's transition toward a greener economy. Financial digitalization, together with safeguards and sound risk management practices, can promote a more efficient and resilient payment system.

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## Summary

This chapter explores the role of development, poverty and inequality are different although intrinsically connected concepts. It has concluded that human development, poverty, and inequality are all essentially multidimensional and people-centered concepts. They all focus, although in different ways, on people's capabilities having an ultimate impact on people's well-being. Human development involves expanding the set of capabilities; poverty refers to the deprivation of capabilities, while inequality entails people having different abilities to choose and different freedoms.

Poverty, Health, and Malnutrition that improving the lives of the rural poor will require sustainable improvements in agricultural productivity that can foster structural transformation, raise rural incomes, and improve rural food security and nutrition. Some effective tools are available to help achieve these aims and put the world on track for the SDGs.

Income Inequality and Distribution that the subject of economic inequality has developed in such a way as to have a life of its own separate from the obvious connection with the distribution of income, the distribution of wealth, the structure of wages and other related empirical topics.

Agricultural transformation may be broadly defined as the process over time by which the agrifood system evolves from subsistence oriented and farm centred into more commercialised, productive, and off farm centred (Laborde et al., 2018). Transformation is said to be inclusive if the results lead to food security and poverty alleviation and reach the socially and economically disadvantaged, women, minorities, the disabled and the elderly.

Economic structure appears in development economy, mostly in two forms, or through two approaches: micro and macroeconomic. The microeconomic approach studies economy, its market, institutions, mechanisms of resource allocation, creation, and income distribution.

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# CHAPTER 7: ENTREPRENEURSHIP, ORGANIZATION, AND INNOVATION

In the evolving field of development economics, the entrepreneurship, organization, and innovation stand as compelling catalysts of economic transformation. This chapter focuses on the intricate interplay between these elements and their collective impact on development policies. In the first section, we focus on the essence of entrepreneurship within the development and discuss its contributions to economic dynamism. We also focus on illustrating how innovative business ventures can contribute to growth and prosperity. Next section addresses innovation as the driving force of development. We also explore the symbiotic relationship between innovation and entrepreneurship. We navigate through the concept of innovation ecosystems and discuss the role of government interventions for creating a conducive environment for innovative endeavours. The chapter also addresses the challenges and ethical issues relevant for entrepreneurship and innovation and related complexities, with the focus on rectifying market disparities and the adoption of ethical and sustainable business practices as well as focusing on the concept of social entrepreneurship as a vehicle for inclusive growth. Finally, the chapter concludes with the synthesis the key conclusions derived from the preceding discourse, provide strategic perspectives for policy formulation and practical engagement. Furthermore, it discusses prospective trajectories for academic inquiry and practical implementation for future endeavours in the area of entrepreneurship, and innovation within the broader framework of development economics and policy.

## 7.1. Entrepreneurship and Economic Development

### 7.1.1. Defining entrepreneurship in the context of development

In development economics, the concept of entrepreneurship is increasingly acknowledged as a key for advancing economic frontiers. **Entrepreneurs act as the catalysts who not only perceive gaps in the market but venture to fill them by deploying an array of resources, capital, labour, and intellectual capabilities, to innovate and deliver products or services that satiate emergent needs or address specific problems** (Acs et al., 2017). The role of entrepreneurship is particularly pronounced in the developing world, where it is often a mechanism for economic upliftment and a driver of societal progress (Naudé, 2010).

The entrepreneurial spirit within this context embodies the core of Schumpeter's (2004) creative destruction, fostering innovation and steering the reallocation of resources towards activities that enhance productivity and induce growth. In regions where traditional employment opportunities are insufficient, entrepreneurship emerges as a critical pathway to economic diversification and empowerment (Banerjee & Duflo, 2011). Hence, entrepreneurship in the development is not confined to the act of initiating businesses for profit generation; it represents **a comprehensive approach towards building a resilient economy, marked by inclusivity and sustainability** (Yunus, Moingeon & Lehmann-Ortega, 2010). Development-oriented entrepreneurship transcends the creation of enterprises and profits; it encompasses the broader **impact on social welfare, infrastructure, and the institutional environment.** Such entrepreneurs take the lead in bringing market-based solutions to developmental challenges, they often operate in environments characterized by scarce resources, limited infrastructure, and weak institutions. Their ventures often reflect a blend of economic goals with social needs, such as promoting environmental sustainability, enhancing education, and improving health outcomes.

This expanded understanding of entrepreneurship in development economies also emphasizes the role of the **entrepreneurial ecosystem**, which includes not only an individual entrepreneur but also

a **supportive network of policies, institutions, and resources that facilitate the process of new venture creation.** Government policies, access to capital, education systems, and a culture that encourages innovation and tolerates failure are all crucial components of this ecosystem.

Entrepreneurs in developing economies are often regarded as the prime drivers of innovation, employment, and productivity. The Schumpeterian view perceives entrepreneurs as **agents of creative destruction, who revitalize the economic landscape by introducing innovations that disrupt existing markets and create new ones** (Schumpeter, 2004). This disruptive innovation is crucial for development, as it leads to new industry formation and the obsolescence of inefficient firms and practices, thereby enhancing the dynamism within economies (Aghion et al., 2013).

Further, the role of entrepreneurs extends **to job creation,** which represents a fundamental aspect of economic development. Start-ups and expanding businesses founded by entrepreneurs are significant sources of new employment, they contribute to the reduction of unemployment and underemployment prevalent in many developing economies (Wennekers and Thurik, 1999). Entrepreneurs also contribute to economic development through **capital accumulation.** By mobilizing savings and drawing on investments, entrepreneurial ventures increase the capital stock, **lead to higher productivity and growth** (King and Levine, 1993). Moreover, entrepreneurs often **facilitate the diffusion of technology and knowledge within an economy, enhance the human capital and promote innovation at various levels** of the economic strata (Romer, 1990).

In **developing countries**, entrepreneurial activity can also be a **powerful force against poverty.** By creating economic opportunities, entrepreneurs can **elevate income levels and improve living standards.** They often provide **goods and services that address local needs**, which may be overlooked by larger corporations, thereby promoting inclusive development (Banerjee and Duflo, 2011).

Despite their critical role, entrepreneurs in developing economies face unique **challenges, such as lack of access to finance, inadequate infrastructure, and complex regulatory environments** (Bruton et al., 2010). Understanding these obstacles is essential for **policymakers** aiming **to create supportive ecosystems** that can unleash the full potential of entrepreneurs in driving economic development. The nurturing of entrepreneurial ecosystems can be perceived as a strategic imperative for development policies.

Entrepreneurs often act as a **balancing force in the market** by breaking monopolies and oligopolies, thus fostering a competitive environment that benefits consumers through better services and products at lower prices (Baumol, 1993).

The role of entrepreneurship in enhancing economic development also involves **increasing the diversification of the economy**. Diversification is essential for reducing dependence on a narrow range of economic activities, particularly in developing countries that may rely heavily on commodities or a single sector. By introducing new sectors and diversifying the economic base, entrepreneurs can mitigate the risks associated with economic volatility and enhance stability (Hausmann and Rodrik, 2003).

Entrepreneurs also play an important role in **international trade and globalization**. By entering new markets and expanding their reach beyond domestic boundaries, entrepreneurial firms contribute to the **integration of national economies into the global market**. This integration facilitates the flow of capital, goods, services, and technology, thereby increasing economic growth and development potential (Acs and Preston, 1997).

The **social dimensions of entrepreneurship** should also be taken into account. Social entrepreneurs in particular, who establish enterprises with the primary intention to address social issues and contribute to community development, have been recognized for their role in catalysing social change and development (Dees, 1998).

In the policy domain, there is a growing recognition of the need for a conducive entrepreneurial environment. Governments increasingly focus on implementation of policies that

support entrepreneurship, reduce barriers to entry, provide access to finance, offer tax incentives, and foster a culture of innovation and risk-taking (Lundström and Stevenson, 2005).

The contribution of entrepreneurs to market efficiency, economic diversification, global trade, and social well-being are critical for economic development. Thus, support of entrepreneurial endeavours are of paramount importance to national and international development agenda.

### 7.1.2. Selected case studies of entrepreneurial success in developing countries

In this section, we examine several case studies that illustrate the successful implementation of entrepreneurial ventures in the contexts of developing economies and consider broader implications for development.

- **Microfinance in Bangladesh: The Grameen Bank Model**

The Grameen Bank's innovative microfinance model, conceptualized by Muhammad Yunus, has sparked a worldwide movement towards micro-lending. The bank's methodology involves forming small borrowing groups as a form of collateral, which enables the unbanked population, particularly women, to access financial services. This empowerment has led to the creation of many small businesses, contributed to local economic development and improved the socio-economic status of millions people in Bangladesh. The model's success is reflected in its impressive repayment rate, which has been over 98%. This indicates the viability and sustainability of microfinance as a development tool (Yunus, 2004).

- **Mobile Telephony in Kenya: M-PESA's Revolution**

M-PESA's influence extends beyond mere financial transactions; it has catalysed a wave of entrepreneurial activities and services in Kenya. The platform's utility for paying bills, purchasing goods, and receiving salaries has effectively made it a substitute for a bank account for many Kenyans. Moreover, M-PESA has been instrumental in fostering a more inclusive financial system, with studies indicating that it has lifted 194,000 households out of poverty, which documents its transformative impact on the Kenyan economy (Suri & Jack, 2016).

- **Information Technology in India: The Bangalore Boom**

The rise of Bangalore as a global IT capital has been driven by both government support and private entrepreneurship. The city's development into a tech hub has had a multiplier effect on the Indian economy, it spurred the growth of ancillary industries, such as hospitality, real estate, and education. With IT exports surpassing $50 billion, Bangalore's IT industry has significantly contributed to India's foreign exchange earnings, which demonstrates the power of strategic entrepreneurship in leveraging human capital to drive economic progress (NASSCOM, 2012).

- **Renewable Energy in China: BYD Company**

BYD's transition from battery manufacturing to electrical vehicles and sustainable energy solutions is the epitome of the forward-thinking approach of Chinese entrepreneurship. The company's focus on R&D and its strategy to control the entire supply chain for its products has enabled it to reduce costs and improve technology integration. BYD's success has not only positioned China as a leader in EV production but has also supported the country's environmental goals and shows the role of strategic entrepreneurship in fostering industrial innovation (Liu & Kokko, 2010).

The previous case studies have highlighted the role of individual entrepreneurs and companies. However, it is also important to explore the broader entrepreneurial ecosystems that enable such success stories to happen.

- **Agricultural Innovation in Brazil: Embrapa's Revolution**

The Brazilian Agricultural Research Corporation (Embrapa) is a state-owned enterprise that has been pivotal in transforming Brazil's agriculture. It was founded in 1973. Embrapa introduced large-scale soybean production and other cash crops adapted to Brazilian soils, which were previously thought to be unproductive for such crops. This innovation significantly boosted Brazil's GDP and made the country a leading exporter of various agricultural products. Embrapa's research and development efforts exemplify the role of public sector entrepreneurship in promoting economic development through agricultural innovation (Alves et al., 2015).

- **E-Commerce in Nigeria: Jumia's Rise**

In Nigeria, the e-commerce platform Jumia, which was founded in 2012, has become a symbol of entrepreneurial success. It has tackled various challenges such as logistics, internet penetration, and payment systems to establish a robust online marketplace. Jumia has created thousands of jobs and provided a platform for local businesses to reach a broader market, thereby contributing to economic growth and digital transformation in Nigeria (Lunden, 2019).

- **Textile Industry in Bangladesh: The RMG Sector**

Bangladesh's Ready-Made Garments (RMG) industry has experienced dynamic growth due to entrepreneurial ventures capitalizing on low labour costs and an abundant workforce. The sector accounts for a significant portion of the country's exports and employs millions of workers. Entrepreneurs in the RMG sector have been instrumental in driving Bangladesh's economic development and increasing its participation in the global economy (Quddus et al., 2000).

These case studies demonstrate the profound ability of entrepreneurial initiatives to catalyse economic growth, drive innovation, and contribute to social welfare. They provide a blueprint for how developing countries can leverage entrepreneurship to achieve sustainable development goals. They also illustrate the diverse pathways through which entrepreneurial activity can drive development. These examples show that entrepreneurship can act as a powerful engine for economic growth, innovation, and social transformation across different sectors and regions. The common feature across all these cases is the **importance of a supportive ecosystem that includes access to finance, appropriate policy frameworks, and the availability of human capital,** all of which are critical for entrepreneurship and enabling it to effectively contribute to the economic development.

## 7.2. Policies to Encourage Entrepreneurship: Theoretical and Practical Insights

### 7.2.1. Theoretical Foundations of Entrepreneurial Policy

The formulation of policies to stimulate entrepreneurship is underpinned by economic theories that not only recognize the entrepreneur as the dynamic agent of change but also as an entity shaped by the policy and regulation within which it operates. Schumpeter's notion of 'creative destruction' underscores the **critical role of the entrepreneur in facilitating economic regeneration through innovation** (Schumpeter, 2004). Schumpeterian entrepreneurs are viewed as the vanguard, introducing new products or processes that obsolete the old, thereby propelling the cyclical nature of economic innovation and growth.

Extending beyond Schumpeter's initial insights, **William Baumol** provided a new perspective on how the institutional framework, i.e., the 'rules of the game', significantly influences the direction

and quality of entrepreneurship. Baumol (1990) postulated that the **same entrepreneurial impulses could lead to vastly different outcomes depending on the incentives provided by the prevailing economic and legal systems**. Where policies are aligned to reward innovation and value creation, entrepreneurship thrives in its most productive form. On the opposite, in environments where rent-seeking is more profitable due to policy distortions or institutional weaknesses, entrepreneurship may take on unproductive or destructive forms.

The Baumolian perspective is critical for understanding that **policy does not only enable entrepreneurship, but it also shapes its character and orientation**. For example, in a study examining venture creation across different countries, Djankov et al. (2002) found that lighter regulation of entry for new firms is associated with a greater proportion of productive entrepreneurial ventures. This correlation between the ease of starting a business and productive entrepreneurship highlights the specific role of policy in fostering a climate ripe for innovation or limiting it with imposing burdensome regulations.

The work of Acs and Audretsch (1988) and their distinction between 'opportunity' and 'necessity' entrepreneurship elucidates the role of policy in either scenario. **'Opportunity' entrepreneurship,** often associated with innovation, is more likely to flourish in environments where policies support R&D, intellectual property rights, and a robust financial sector. In contrast, **'necessity' entrepreneurship**, which arises from a lack of employment opportunities, may require a different policy approach that perhaps focuses more on training and skills development.

The theoretical frameworks of North (1990) on institutions and their direct impact on economic performance, and Rodrik (2005) on the critical role of the government in providing social insurance and public goods, expand the scope of policy considerations to include **the stability and predictability of institutions** as well as the **social safety nets that allow individuals to undertake entrepreneurial risks** without dire consequences.

The theoretical underpinnings of entrepreneurial policy suggest a complex interplay between the individual entrepreneur and the systemic structures that define the economic landscape. Policies derived from these theories should serve a dual mandate: to directly facilitate entrepreneurial activity through supportive measures and to indirectly cultivate a fertile ground where entrepreneurship can naturally thrive and positively contribute to the economic prosperity of a nation.

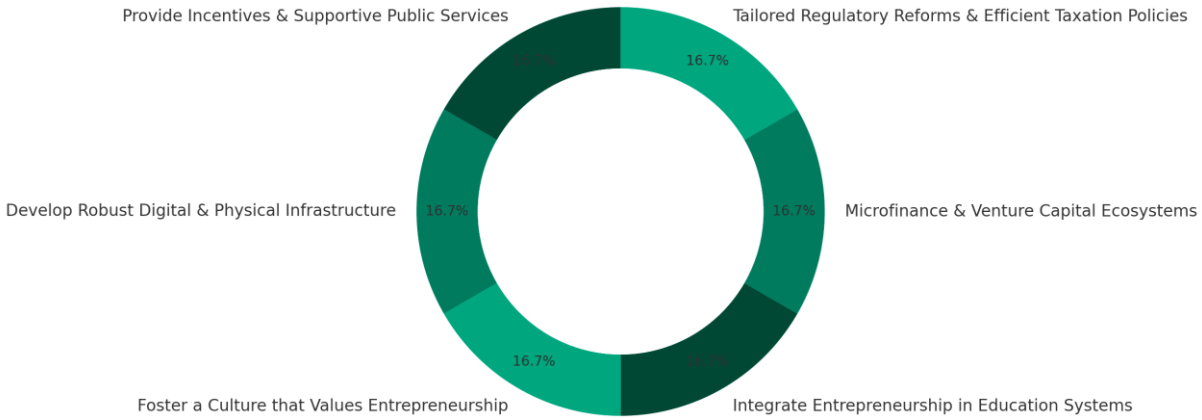


Figure 7.1. Key Strategies to Encourage Entrepreneurship in Developing Countries

The graph 7.1. visually presents the key strategies to encourage entrepreneurship in developing countries. Each segment of the graph denotes an equal part of the strategy, emphasizing that each aspect is crucial and contributes significantly to fostering a conducive environment for the entrepreneurship.

### 7.2.2. Policy Mechanisms and Their Efficacy

- **Regulatory Reforms**

The interplay between entrepreneurship and regulation represents a domain where the quality of the regulatory environment can either catalyse or constrain entrepreneurial dynamism. The World Bank's Doing Business Index, as an evaluative instrument, has put a spotlight on the regulatory burdens that businesses face globally. This index not only ranks countries based on the ease of doing business but also incentivizes governments to implement reforms aimed at streamlining business operations (World Bank, 2019).

Singapore can serve as the example of regulatory efficiency. Singapore's success in creating a conducive business environment is the result of deliberate policy choices aimed at regulatory efficiency. The state's approach to regulation is characterized by simplicity, clarity, and speed, with the use of technology creating a cornerstone of its strategy. Singapore's online business registration portal exemplifies the use of digital solutions to reduce bureaucratic friction, a strategy that has been emulated by other nations seeking to improve their regulatory environments (Menon, 2018).

However, regulatory reforms extend beyond the simplification of business registration procedures. They encompass a broader range of activities, including the enforcement of contracts, property rights, and investor protections. For instance, New Zealand, another top performer in the Doing Business rankings, has focused on creating a robust legal framework for settling disputes and protecting investments, which has been instrumental in building investor confidence and promoting entrepreneurship (World Bank, 2019).

Regulatory reforms also play a pivotal role in **reducing barriers to market entry.** Djankov et al. (2002) have shown that entry regulations affect the type and scale of firms entering the market. By lowering the cost and complexity of entry, more entrepreneurs are encouraged to bring their ideas to reality. For example, reforms in Rwanda have transformed its business registration process and lead to a significant increase in business registrations and, consequently, entrepreneurial activity (Rwanda Development Board, 2020).

An effective regulatory framework is also adaptive, able to respond to the evolving needs of the business community. The European Union's Small Business Act for Europe (SBA) represents an example of a policy framework that adapts to the changing landscape of entrepreneurship by providing continuous support through various phases of a business's life cycle, including start-up, growth, and business transfer (European Commission, 2008).

Additionally, in many developing economies, a significant part of entrepreneurship occurs within the informal sector. Here, regulatory reforms must balance the goals of formalization with an understanding of the complexities that drive informality. Research suggests that overly burdensome regulations can exacerbate the size of the informal sector, as firms opt to operate outside the formal economy to avoid regulatory costs (Perry et al., 2007).

Thus, the regulatory reforms that enhance the ease of doing business have clear benefits for entrepreneurship. However, the effort to achieve regulatory efficiency must also consider broader impact on market dynamics, the formalization of the informal economy, and the necessity for adaptability in response to technological and economic changes. As such, policymakers must **approach regulatory reform with a holistic perspective**, and ensure that regulations are not only eased but also strategically designed to enable and sustain entrepreneurial growth.

- **Financial Policy Instruments**

The accessibility of financial resources remains a bottleneck in the architecture of entrepreneurship. Financial policy instruments are varied and layered and each serves distinct parts of the entrepreneurial ecosystem,

**Microfinance** provides a powerful tool to foster financial inclusivity. It has evolved from providing small loans to offering a set of different financial products, including savings, insurance, and payment services, which are tailored to the needs of low-income populations and micro-enterprises. These services address a critical market gap, which has existed for individuals traditionally excluded from the formal banking sector. Studies of e.g., Banerjee and Duflo (2010), indicate that **microfinance can increase business investment and consumption and drive economic resilience.** However, the impact of microfinance on poverty alleviation is discussed and some studies suggest that its benefits are more incremental than transformative (Banerjee et al., 2015).

On the other end of the spectrum, **venture capital** (VC) is instrumental for supporting high-growth start-ups. The VC model provides not only capital but also mentorship and access to networks, which are invaluable for start-ups. The success of this model has led to its spread worldwide and many governments creating funds-of-funds or co-investment strategies to stimulate the local VC market. For example, the Israeli government's Yozma program in the 1990s provided tax incentives and matching funds to attract foreign VC investment, which was pivotal for the development of the country's high-tech sector (Avnimelech and Teubal, 2006).

**Public-private partnerships** (PPPs) in financial policy serve to share the risk inherent in funding entrepreneurial ventures. E.g., the U.S. Small Business Investment Company (SBIC) program capitalizes on this concept by providing government-backed loans to private investment funds that in turn invest in small businesses. This leveraging of private investment with public funds not only mitigates risk but also expands the capital available to small businesses (Dilger & Gonzales, 2011).

**Innovation in financial instruments** has also been a significant development. For instance, revenue-based financing allows businesses to repay investors with a percentage of their revenues, which provides a flexible alternative to traditional debt or equity financing. **Crowdfunding platforms** have democratized access to capital, enabling entrepreneurs to raise funds directly from the public. Such platforms not only provide funding but also market validation and community engagement (Mollick, 2014).

**Inclusive financing** extends the concept of financial access to ensure that financial policy instruments do not exclude certain groups, such as women or minorities. Such initiatives as the Women's Business Centres and programs focused on minority-owned businesses in the U.S. with the aim to foster diversity within the entrepreneurial ecosystem and provide access to financing for different groups (U.S. Department of Commerce, 2018).

Financial policy instruments represent a crucial element of a supportive entrepreneurial ecosystem, with the power to catalyse innovation, stimulate economic activity, and facilitate inclusive growth. Financial policy instruments face also challenges. There are concerns about the potential for market distortions, the sustainability of subsidy-dependent models, and the risk of debt overhang for borrowers. Policymakers must carefully design these instruments to ensure they are not only accessible but also lead to sustainable entrepreneurial growth.

- **Educational Strategies for Developing Entrepreneurial Skills**

Nurturing entrepreneurial capabilities through education helps to shape a society's entrepreneurial landscape. This involves embedding entrepreneurial principles across different educational tiers and cultivating a mindset geared towards innovation and proactive problem-solving.

The essence of educating for entrepreneurship goes beyond the conventional business instruction. It is related to fostering a **culture that encourages creative thinking, the ability to identify and seize opportunities, and resilience in the face of challenges**. Initiatives like the Entrepreneurship Action Plan by the European Commission illustrate this approach. This plan advocates for the integration of entrepreneurial learning at all levels of education, from primary school to university, thereby embedding an entrepreneurial ethos in students from a young age (European Commission, 2013). Finland's educational system is considered to exemplify this ethos. Known for its progressive and effective approach, it emphasizes such skills as independent thinking, collaborative problem-solving, and innovative project work, all of which are crucial in entrepreneurial ventures (Sahlberg, 2021). In the USA, specialized programs like the Network for Teaching Entrepreneurship focus on teaching entrepreneurial skills in under-resourced schools. These programs aim to develop an entrepreneurial mindset alongside foundational business skills and prepare students for diverse career paths, including starting their own ventures (NFTE, 2020).

Higher education institutions are increasingly incorporating practical entrepreneurship components into their curricula. This includes courses on **business creation, market analysis, and investment pitching.** Many universities also support student entrepreneurship through **incubators and accelerators**, **provide practical experience, mentorship, and access to funding**. MIT's vibrant entrepreneurial ecosystem represents is a prime example, it fosters student start-ups through a variety of programs and initiatives (Roberts & Eesley, 2011).

The concept of entrepreneurial education extends also into adult education, which reflects **the need for ongoing skill development** in response to the evolving job market. Adult education programs, including digital platforms offer flexible learning opportunities that are crucial for equipping individuals with the skills needed to adapt to new entrepreneurial opportunities.

Integrating entrepreneurship into education is not without challenges. One major hurdle is ensuring the **relevance and adaptability of the curriculum** in a rapidly evolving global economy. Moreover, the effective transmission of these skills **requires educators who are not only knowledgeable in entrepreneurship but can also deliver these skills effectively**. Strategies in educational settings that focus on entrepreneurship are crucial for instilling a culture of innovation and adaptability. Fostering entrepreneurial skills from early education and providing continued learning opportunities can prepare individuals for a range of professional paths in a current dynamic economic environment.

- **Taxation Frameworks and Entrepreneurial Dynamics**

The architecture of a nation's tax system also represents a significant factor that affects the entrepreneurial climate. The specifics of tax legislation, encompassing rates, compliance, and incentives, are critical factors that can either encourage or hinder the entrepreneurship.

Tax policies profoundly shape the economic landscape in which entrepreneurs operate. A tax regime that prioritizes **favourable conditions for start-ups and investors** can augment the attractiveness of entrepreneurial endeavours. This is particularly pertinent in developing economies where such policies can serve as catalysts for business creation and innovation. E.g., lower tax rates on profits, leave more capital in the hands of entrepreneurs, potentially fuel reinvestment and business expansion.

Ireland's approach to corporate taxation has successfully attracted multinational corporations, particularly in the tech sector and effectively created an ecosystem conducive to start-ups. This strategy has been instrumental in positioning Ireland as a tech hub within Europe (Van Reenen & Hall, 1999). Developing economies can be inspired by this example and tailor tax incentives to strengthen their r local entrepreneurial ecosystems, thereby enhancing their global competitiveness and economic diversification.

Beyond corporate tax rates, an array of other tax-related measures can significantly impact the entrepreneurial environment. R&D tax credits represent a pertinent example, since they incentivize companies to engage in innovation, which is a cornerstone of competitive and adaptive economies. Additionally, tax deductions for start-ups can alleviate the financial pressures during the initial phases of business development. By implementing such incentives, developing economies can stimulate local innovation and foster an entrepreneurial culture that supports economic development.

The tax compliance can present a substantial challenge, particularly for start-ups and small enterprises in developing regions, which often lack the resources to navigate complex tax systems. Streamlining tax processes and providing clear guidelines can alleviate this burden, free entrepreneurs to devote their energy to growth and innovation. Such initiatives as Rwanda's reforms, which simplified tax payment processes and reduced the time required for taxpayers to comply with tax obligations, exemplify the positive impact of such changes (RRA, 2020).

However, when formulating tax policies that encourage entrepreneurship, it is important to consider their fiscal implications. The challenge is to balance the aim of stimulating business activity with the need for fiscal prudence and equitable tax collection.

Taxation frameworks are a critical determinant of a country's entrepreneurial activities, especially in developing economies, where the need for stimulation of the economic activity is often more acute. Thoughtfully structured tax policies can create a fertile ground for entrepreneurs, drive innovation, investment, and broader economic growth while ensuring the sustainability of the fiscal system.

- **Challenges in Policy Implementation**

Implementing policies that effectively stimulate entrepreneurship is complex and subject to many challenges that can hinder their success. The journey from policy formulation to execution and eventual impact is often non-linear and subject to many influences and distortions that can alter the intended outcomes.

The impact of any policy is deeply **embedded in the context of the specific political, economic, and sociocultural landscape**. For instance, such policies as tax incentives, can be successful in one nation, but may not translate to another one with the same efficacy. Such factors as the existing tax framework, the level of government enforcement, public trust in institutions, and the sophistication of the financial system can play a role in their impact. Zolt and Bird (2005) discuss how variations in these factors can lead to different outcomes from similar policy initiatives.

A major challenge in policy implementation is **ensuring proper enforcement and compliance.** Policies are only as good as their enforcement mechanisms. Weaknesses in the judicial or administrative systems of a country can lead to a lack of compliance, which can undermine the objectives of the policy. For policies to be effective, they must be backed by a robust framework that can support and enforce their provisions.

The **existing economic infrastructure** can also significantly affect policy effectiveness. In countries, where the infrastructure is underdeveloped, even well-designed policies may fail to yield the desired results. For example, incentives aimed at fostering digital entrepreneurship would struggle in regions, where internet penetration and digital literacy are low.

**Cultural attitudes toward entrepreneurship and risk** can also influence the success of policy implementation. In societies, where failure is stigmatized, policies encouraging entrepreneurship may not lead to a significant rise in start-up activity. Similarly, if the culture favours job security over entrepreneurial risk-taking, this can dampen the impact of otherwise supportive policies.

Another challenge is represented by **the need for coordination across different policy domains.** Entrepreneurship is affected by a range of policies, including those relating to education,

trade, labour, and finance. Misalignment among them can lead to conflicting signals to potential entrepreneurs and investors, thereby reducing the overall effectiveness of the policies.

Policies also need **to be adaptive** to remain relevant. The rapid pace of change in technology and global markets means that what works today may not work tomorrow. Policymakers need to ensure that policies are **flexible and can be updated in response to changing conditions.**

The successful implementation of entrepreneurship policies requires an understanding of the complex interplay between various factors that influence the entrepreneurial environment. Policymakers must take these factors into account to ensure that the policies are not only well-designed but also effectively implemented, enforced, and adapted to changing circumstances.

- **Policy Evaluation and Adaptation**

Policies aimed at boosting entrepreneurship require an ongoing process of assessment and refinement. The rapid pace of change in technology and markets means that static policies may quickly become obsolete. To remain effective, policy measures must evolve together with the sectors they intend to support. However, establishing dynamic policies requires a **robust system for tracking economic and market trends.** By harnessing comprehensive datasets, ranging from broad economic indicators to granular insights on business performance, policymakers can gain a clearer picture of a policy's impact. This information is crucial for recalibrating strategies to optimize outcomes. The utility of feedback mechanisms in policymaking is also crucial They ensure that insights into the successes and shortcomings of policies, loop back into the policy formulation process. Such systems enable policymakers to refine initiatives, ensure alignment with the shifting landscape of entrepreneurship.

Countries like South Korea are examples of **best practice in the policy adjustment**, they frequently updating their support structures for tech start-ups to reflect global and domestic economic changes. Similarly, such initiatives as Chile's entrepreneurial program have shown the ability to pivot and reshape their frameworks to better align with the objectives of attracting and nurturing global start-up talent (Audretsch, et al., 2016).

However, adjusting policies in response to their effectiveness can be challenging due to the time required to observe outcomes and the complexity of attributing changes to specific policies. The interplay of various economic factors can often blur the direct impact of any single policy measure. Thus, for policies to remain relevant, the institutions behind them must be capable of agile and informed decision-making. This may involve **experimental policy-making approaches,** such as pilot projects, which can be tested, adjusted, and scaled based on performance. In a world where economic conditions and technological capabilities are constantly evolving, the policies that underpin entrepreneurial activities must be re-evaluated and updated regularly to ensure that they effectively continue to serve their purpose.

## 7.3. Innovation as a Driver of Development

The innovation has been recognized as a catalyst of economic advancement and development. This sub-chapter focuses on how innovation defined as **the application of novel ideas and practice,** is integral to fostering development and addressing complex challenges unique to developing countries.

Innovation propels the dynamism in economies through a cycle of renewal and competitive enhancement (Schumpeter, 2004). It is especially pertinent in less economically developed areas, since it creates pathways to overcome limitations and foster inclusion. The United Nations Conference on Trade and Development (UNCTAD) emphasizes the multifaceted impact of innovation and emphasizes the necessity to innovate for sustainable development in emerging markets. It highlights that innovation transcends technology, encompassing societal and infrastructural evolution (UNCTAD, 2007). Such comprehensive understanding of innovation includes not only the latest technologies but

also novel organizational structures and processes that can significantly elevate productivity and societal welfare.

Fagerberg and Srholec's view on innovation encompasses the adoption of non-technological advancements, such as new business methodologies and organizational reforms that represent essential components in settings where traditional research and development may not be as prevalent (Fagerberg & Srholec, 2008).

Critical role in nurturing innovation ecosystems is played by the policy frameworks. Lundvall et al. (2011) constructed a conducive environment for innovation in developing countries, which necessitates an integrated strategy that synergizes education, infrastructure, and policy, and fosters a fertile ground for domestic capability building and innovation dissemination (Lundvall et al., 2011).

### 7.3.1. The relationship between innovation, entrepreneurship, and economic development

Within the sphere of economic progress, particularly in developing nations, the interrelation of innovation and entrepreneurship emerges as a potent force to drive economic development. This sub-section explores the distinct yet interconnected roles of each of them.

As specified above, **innovation encompasses the introduction of novel ideas and methodologies that lead to improved products, services, or processes**. It is perceived as a spark that ignites potential advancements, brings new solutions that can redefine markets and enhance social welfare. Economically, innovation is often regarded as the initiator of developmental drive, equipping societies with the mechanisms to address challenges and elevate the standard of living of the citizens.

**Entrepreneurship** is distinct from innovation, and it represents **the act of launching and managing a new business venture to capitalize on market opportunities.** Entrepreneurs act as the conduits through which innovations reach the market, translate novel ideas into viable commercial solutions. They manage the means to navigate innovations from concept to the marketplace, fuel job creation and economic diversification. In environments with less-developed economies, entrepreneurship becomes especially crucial, since it serves as a bridge over structural gaps that may impede economic progress.

Thus, while innovation lays the groundwork for potential market evolution, entrepreneurship is the driving force that actualizes this potential into economic growth. Entrepreneurs identify the value in innovations and organize their implementation, driving economic expansion. Thus, the dynamic interplay between innovation and entrepreneurship is essential for economic development, particularly in the context of developing economies where these forces can significantly influence the pace and trajectory of growth.

The policy interventions must recognize the vital link between innovation and entrepreneurship. Policies that foster an innovation-friendly environment and support entrepreneurial ventures can accelerate economic development. Investments in education, infrastructure, and the fostering of a regulatory framework conducive to business ventures are critical. These policies can empower innovators and entrepreneurs and set foundations for sustainable economic growth.

### 7.3.2. Innovation ecosystems

In the contemporary landscape of global economic development, innovation ecosystems are to support the growth and dynamism of modern economies. These ecosystems are **networks where entrepreneurs, companies, investors, and various institutions converge and interact to foster innovation and economic growth.** Silicon Valley serves as the preeminent model of an innovation ecosystem, characterized by a dense concentration of high-tech companies, a vibrant venture capital scene, and a rich network of collaborative ties among various economic actors. Saxenian (1994) captures the essence of Silicon Valley's success by highlighting the **role of a unique regional culture**

**that promotes openness, information sharing, and flexibility, thus, fuels innovation and entrepreneurship.**

While Silicon Valley offers a blueprint, replicating its success in **developing economies** requires adapting its principles to local contexts. Challenges such as **limited access to venture capital, underdeveloped legal and regulatory frameworks, and a scarcity of technical skills can impede the growth of similar ecosystems** in these regions. However, by focusing on the development of human capital, fostering governmental and regulatory support, and encouraging the flow of knowledge and technology, developing economies can cultivate their own innovation ecosystems. As an example of a successful development of the innovation ecosystem can serve Bangalore, which rose as a tech hub and in that regard it is often compared to Silicon Valley, reflecting India's strategic focus on IT education and software development. Similarly, Israel's transformation into the 'Startup Nation' reflects the impact of proactive government policies, robust R&D investment, and a culture that encourages risk-taking and innovation (Senor and Singer, 2009). Both regions illustrate the potential for developing economies to leave traditional industrial development behind by fostering innovation-driven growth.

However, innovation ecosystems in developing economies are not limited to technology sectors. They also encompass **social innovation, addressing local challenges such as healthcare, agriculture, and energy.** These areas present opportunities for impact-driven entrepreneurship, which can be both commercially viable and socially beneficial (George et al., 2012).

Nurturing innovation ecosystems requires strategic development policies to be in place. This includes **investing in research and education, improving intellectual property rights protection, and creating incentives for entrepreneurship.** Mazzucato (2011) argues for the state's role in driving innovation by acting as an investor of first resort, fostering the creation of new markets and enabling the private sector's involvement in innovation.

Governments in developing countries can provide the necessary support structures, including funding for research and development, creating incubators and technology parks, and facilitating partnerships between academia and industry. The importance of government intervention in kick-starting innovation ecosystems is highlighted by the fact that in many developing economies, the private sector is often hesitant to invest in unproven ventures (Mazzucato, 2011).

At the same time, developing countries face distinct **challenges in building innovation ecosystems.** These include limited access to funding, inadequate physical infrastructure, and a shortage of skilled labour. Additionally, there may be cultural and institutional barriers to entrepreneurship, such as risk aversion and lack of support for failure. Addressing these challenges requires targeted policies and programs that can nurture the specific components of an innovation ecosystem (Naudé, 2010).

**Universities and research institutions** in developing countries are increasingly recognized as **key players in innovation ecosystems**. They serve as hubs for knowledge creation and dissemination and provide the human capital necessary for innovation. Partnerships between these institutions and industry are vital for translating research into market-ready solutions (Breznitz and Murphree, 2011).

Similarly, international collaborations also play a vital role in the development of innovation ecosystems in developing countries. **Knowledge transfer from more developed innovation ecosystems,** through partnerships or diaspora networks, can provide valuable insights and resources. These international linkages can accelerate the growth of local innovation ecosystems by providing access to new markets, technologies, and investment (Saxenian, 2005).

### 7.3.3. Government policy tools to foster innovation

As governments in the developing countries endeavour to promote innovation and thus, stimulate economic growth, in the context of this effort, a multi-tiered policy approach is essential.

Innovation in developing countries often transcends conventional technological breakthroughs and encompasses a broad spectrum of improvements in products, services, or methodologies that enhance quality of life and economic efficiency. Thus, it encompasses incremental changes that may significantly impact social and economic outcomes (Bessant & Tidd, 2007).

**A sound legal and regulatory environment** is the basis upon which the innovation thrives. Effective policies that safeguard intellectual property, promote fair competition, and regulate market activities are instrumental in building up confidence among innovators and investors (WIPO, 2019).

The support of building up a skilled workforce through **targeted educational initiatives** is also crucial for sustainable innovation. Governments must **invest in educational systems that emphasize STEM fields, critical analysis, and entrepreneurial skills,** and thus, equip individuals with the capabilities required to drive and sustain innovation (Schwab & Samans, 2016).

Governmental **support of research and development activities** is a direct method of boosting innovation. This can take the form of subsidies, tax incentives, or direct funding, particularly in those sectors that are strategic for national development but may be considered too risky by the private sector (Mazzucato, 2011).

**The collaboration between the public sector and private entities** can harness the collective strengths of both spheres, blending the stability, available funding, and market agility. These public-private alliances are vital especially for such projects that aim to construct the physical underpinnings of innovation ecosystems, such as specialized business hubs and incubators (Etzkowitz & Leydesdorff, 2000).

Innovators in developing nations would hugely benefit from such financial instruments as grants, tax credits, and preferential loans, which can mitigate the inherent risks of innovation. These fiscal tools are especially crucial in supporting the progress of innovation from idea creation to the to market exploitation (Lerner, 2002).

**A successful innovation system** requires infrastructure, which is not only physical, but also encompasses the digital sphere. Governments must develop policies, which will prioritize the establishment of robust innovation infrastructure that facilitate the seamless operation of businesses and the exchange of ideas (Acs et al., 2016).

The government policies can also assist start-ups in **scaling operations,** which is vital for their evolution to robust enterprises. Such policies should encompass market access facilitation, business development services, and guidance for engaging with international markets (Autio et al., 2014).

The dynamic nature of innovation necessitates that policies were regularly revisited and refined. Consequently, this adaptive approach requires a feedback mechanism, where policy effectiveness is regularly evaluated and recalibrated in response to economic changes and needs of the development (Audretsch et al., 2016).

Table 7.1 displays main factors that can support innovativeness in a developing country. Each row in the table corresponds to a specific factor and is accompanied by a brief description of how it contributes to fostering an innovative environment.

Table 7.1 Factors Supporting Innovation

| FACTOR | DESCRIPTION |
|---|---|
| **LEGAL AND REGULATORY FRAMEWORK** | Establishing laws and regulations that protect IP rights, ensure fair competition, and provide a stable business environment. |
| **EDUCATION AND SKILLS DEVELOPMENT** | Investing in quality education, particularly in STEM and entrepreneurial skills, to create a skilled workforce. |

| FACTOR | Description |
|---|---|
| **RESEARCH AND DEVELOPMENT SUPPORT** | Providing funding, tax incentives, and subsidies to encourage R&D activities in emerging sectors. |
| **PUBLIC-PRIVATE PARTNERSHIPS** | Facilitating collaborations between government bodies, academic institutions, and private sector firms. |
| **FINANCIAL INCENTIVES** | Offering tax breaks, grants, and subsidized loans to reduce the financial barriers for start-ups and innovators. |
| **INFRASTRUCTURE DEVELOPMENT** | Building the necessary physical and digital infrastructure that enables businesses to operate and innovate effectively. |
| **MARKET ACCESS AND EXPANSION** | Assisting businesses in accessing new markets and scaling up operations through trade agreements and support services. |
| **ADAPTIVE POLICY MECHANISMS** | Creating a feedback loop for policies to be continually assessed and updated based on their effectiveness and changing economic conditions. |

Source: authors

## 7.4. Challenges and Ethical Considerations in Boosting Entrepreneurship and Innovation in Developing Countries

### 7.4.1. Challenges to entrepreneurial and innovation effort

The promotion of entrepreneurship and innovation in developing countries is a multifaceted endeavour, fraught with challenges and ethical considerations. This section delves into the complexities and proposes a structured approach to addressing them.

- **Access to Capital and Resources**

In developing economies, access to capital and resources emerges as a big challenge for aspiring entrepreneurs and innovators, which is deeply intertwined with the structural inadequacies of these economies. The financial markets in developing countries often lack the complexity and depth found in more developed economies. This underdevelopment is characterized by a lack of financial instruments, limited access to credit, and a banking sector that may not be fully equipped to assess and manage the risks associated with financing new entrepreneurial ventures (Beck & Demirguc-Kunt, 2006). Venture capital and angel investments, which play a significant role in funding innovation in advanced economies, are typically scarce. There are fewer entities willing to invest in high-risk, early-stage ventures, and the networks that facilitate such investments are less established (Acs & Szerb, 2007).

Potential entrepreneurs often face challenges in providing the collateral required for traditional loans. Furthermore, credit scoring systems may be underdeveloped, making it difficult for lenders to assess creditworthiness and for entrepreneurs without a credit history to obtain loans (Stiglitz & Weiss, 1981). Microfinance has been promoted as a solution to the funding gap faced by micro-entrepreneurs. However, while microfinance institutions (MFIs) provide much-needed capital, they typically offer smaller loan sizes that may not be sufficient for scaling businesses or funding innovation that requires significant upfront investment (Banerjee & Duflo, 2010).

In response to these challenges, some developing economies have seen the rise of alternative financing models, such as crowdfunding platforms, which can provide entrepreneurs with access to a broader pool of potential investors. However, these models often require a robust digital

infrastructure and regulatory frameworks that may not be present in all developing economies (Mollick, 2014). Also, some governments have intervened with policies aimed at providing grants, subsidies, or state-backed loans to start-ups. However, these initiatives require careful design to avoid market distortions and ensure that funds are allocated efficiently to ventures with the most potential for growth and impact (Lerner, 2002).

Beyond financial capital, developing economies also need to focus on building networks that can provide entrepreneurs with access to knowledge, mentorship, and market connections. These resources are crucial for turning innovative ideas into successful businesses (Burt, 1992).

- **Infrastructure and Technology Gaps**

Infrastructure and technology serve as the core of any modern economy, facilitating communication, trade, and the efficient operation of businesses. In developing countries, however, entrepreneurs often face infrastructural deficits that can severely impede their ability to innovate and compete. **Reliable internet access**, a basic prerequisite for digital innovation and **global connectivity,** remain sporadic, with bandwidth often insufficient to support modern, data-intensive applications. **Transportation systems**, too, are frequently underdeveloped, which results in logistical challenges that can increase costs and delay market entry for new products. Similarly, **inconsistent electricity and water supply** can disrupt production and reduce operational hours, compounding the difficulties faced by businesses in these regions (Foster & Briceño-Garmendia, 2010).

**The technology divide** between developed and developing nations is not solely a matter of infrastructure; it extends to the **adoption and integration of technology in business processes**. In regions where cutting-edge technologies are not readily available or affordable, businesses are unable to leverage tools that could significantly enhance productivity and innovation. This gap also reflects in the **digital literacy of the workforce**, which is crucial for the absorption of new technologies and for fostering an innovative culture within firms. The slow pace of technology transfer further exacerbates this divide, leaving developing economies behind as technological advancements continue to accelerate globally (Lee & Lim, 2001).

To bridge these infrastructure and technology gaps, strategic interventions are essential. **Investments in ICT infrastructure** can democratize access to the internet, enable entrepreneurs to join global markets and digital platforms. **Upgrading transportation networks and utilities** can reduce the cost of doing business and enhance the competitiveness of local products. Furthermore, **fostering partnerships with technology providers** can facilitate the transfer of knowledge and skills necessary for the local development of technology solutions. Governments can also **incentivize private investment in infrastructure** through public-private partnerships and other investment-friendly policies, ensuring a collaborative approach to overcoming these systemic challenges (World Bank, 2016).

- **Regulatory and Bureaucratic Obstacles**

Entrepreneurs in developing regions often confront an intricate complexity of regulations that can discourage them in their ventures before they even begin. The labyrinth of administrative procedures required to start and maintain a business can be daunting, consume valuable time and resources that could otherwise fuel innovation and growth. Simplification of these processes is not only linked to an administrative improvement, but it means a fundamental shift that can unleash entrepreneurial potential and drive economic progress (De Soto, 2000).

Institutional stagnation, marked by procedural lethargy and inflexibility, poses a formidable barrier to the entrepreneurial dynamism, which is necessary for innovation. This sluggishness often creates opportunities for corrupt practices, as businesses may find themselves compelled in such a way to navigate a system prone to rent-seeking behaviour. To counteract this, it is an imperative to

introduce agility and transparency into the bureaucratic machinery, create equal conditions for all businesses and build up investor confidence (Kaufmann & Kraay, 2008).

Reforming the bureaucratic system should be based on streamlining regulatory pathways and deploying technology to make government services more accessible. Introducing digital platforms for business registrations and compliance, reducing the steps for obtaining permits, and ensuring consistent enforcement of regulations can significantly lower the barriers for business operations. Cultivating a regulatory ecosystem that is conducive to business activities nations can not only promote innovative enterprises but also draw in vital foreign direct investments that are often deterred by bureaucratic complexity (World Bank Group, 2019).

### 7.4.2. Ethical Considerations of Entrepreneurship and Innovation System Development

In the endeavour to foster entrepreneurship and innovation within developing countries, navigating the ethical considerations is as crucial as it is complex. These countries stand at a juncture, where the push for economic advancement must be carefully balanced with the imperative to uphold equitable practices, protect the environment, and maintain the integrity of intellectual property rights. The ethical framework within which innovation is nurtured will not only influence the immediate landscape of business and technology but will also have lasting impacts on societal norms, ecological health, and the global reputation of these emerging markets. It is within this intricate interplay of progress and principles that such policies and practices must be developed that will ensure that the path of development is both responsible and resilient, inclusive and innovative, creating opportunities that are accessible to all segments of society while safeguarding the environment and respecting the intellectual property rights.

- **Inclusivity and Equality: Broadening the Impact**

The progress towards entrepreneurship and innovation must be underpinned by a commitment to inclusivity and equality. It is critical to design and implement policies that dismantle barriers to entry for historically underrepresented groups. This not means only ensuring **equal access to financial resources, training, and mentorship programs** but also actively **promoting diversity** within the entrepreneurial ecosystems. The efforts must be made to **empower women**, who are often disproportionately affected by funding disparities, and to provide platforms for the voices and ideas of marginalized communities. By incorporating the principles of inclusivity into the innovation policies, developing economies can benefit from a full spectrum of talent and perspectives, which is crucial for driving robust and equitable economic growth (UN Women, 2015).

- **Environmental Sustainability: Harmonizing Progress with Nature**

Entrepreneurship's pursuit of innovation must **align with ecological concerns.** As ventures seek to innovate, they should also strive to **minimize their environmental footprint**. This dual focus requires **embedding sustainability into business models** right from the outset. Governments can play a pivotal role by **incentivizing green innovations** and **establishing standards that encourage sustainable practices** across industries. Moreover, entrepreneurs themselves should guard the environment, recognize that true innovation lies in solutions that deliver economic benefits while preserving the planet for future generations. This approach is not only ethically sound but also resonates with an increasingly eco-conscious consumer base, opens up new markets and opportunities (UNEP, 2018).

- **Intellectual Property Rights: Navigating the Knowledge Economy**

Intellectual property (IP) rights remain at the centre of innovation, provide inventors and creators with the legal protection necessary to benefit from their efforts. However, the monopoly rights conferred by IP laws can sometimes slow down the innovation process they are meant to encourage, particularly if they limit access to knowledge and tools critical for further innovation. In developing economies, the **challenge is to strike a balance between safeguarding the rights of creators and not impeding collaborative efforts that drive collective advancement**. Policies should aim to **create an IP regime that incentivizes innovation while also enabling knowledge sharing,** especially in critical areas like medicine, where access to information can have profound implications for public health (Correa, 2000).

## Summary

In the quest for progress, developing nations are increasingly looking to entrepreneurship and innovation as vital instruments for economic progress. Entrepreneurial ventures translate inventive concepts into practical applications, while innovation supplies the necessary ingenuity. Together, they have the potential to bypass traditional industrial paths, propel economies directly into more sophisticated, service-oriented industries. Yet, achieving this leap demands overcoming significant obstacles, such as the **scarcity of financial resources, technological gaps, and the need for reformative policy environments** (Banerjee & Duflo, 2011).

The experience gained from diverse policy initiatives across the developing world has highlighted **the efficacy of integrated strategies that tackle the complex dimensions of fostering entrepreneurial and innovative activity**. Effective policy measures typically encompass a blend of R&D support, financial stimulus, educational advancements, and the promotion of an inclusive culture that champions diversity and equitable access to entrepreneurial opportunities. The agility and precision of these policy measures are crucial and allows for rapid adaptation to economic shifts (Collier, 2008).

If developing economies want to optimize the benefits of entrepreneurship and innovation, it is an imperative to implement policies that will create a supportive and sustainable ecosystem. This encompasses not **only infrastructure and capital investment** but also the support of a **social ethos that values inventive endeavours**. The **global community** also plays a pivotal role in enabling the diffusion of technologies and knowledge, which are essential to bridging developmental disparities (World Bank, 2017).

The trajectory of developing nations is increasingly intertwined with their capacity to participate in and contribute to the global innovation milieu. The challenge lies in transcending mere technological adoption and moving towards active engagement in the international innovation. Prospective growth models suggest an **amplified focus on development that is both sustainable and inclusive** and allows leveraging innovation to tackle universal challenges such as environmental sustainability and social equity (Stiglitz, 2012).

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# CHAPTER 8: FACTORS OF GROWTH AND DEVELOPMENT

Economists generally agree that economic development and growth are influenced by four factors: human resources, physical capital, natural resources and technology. Highly developed countries have governments that focus on these areas. Less-developed countries, even those with high amounts of natural resources, will lag behind when they fail to promote research in technology and improve the skills and education of their workers.

Table 8.1 Economic factors That Influence Growth & Development

| Factor | Explanation |
|---|---|
| Primary product dependency | • In 2022 copper exports from Zambia accounted for 70% of their total exports & primary products in excess of 90%. They are suffering from over-specialisation<br>• Primary products tend to have a very low-income elasticity of demand (YED). As world income rises, there is a less than proportional increase in demand<br>  ○ This means that there is limited scope to continue increasing demand<br>• Primary products have very little added value<br>  ○ Exporting manufactured products raises the added value, incomes & profits |
| Volatility of commodity prices | • Due to the inelastic nature of both the demand & supply of commodities, small changes in demand or supply can lead to large changes in price<br>• In 2020, 25% of Bolivia's GDP was generated by exports. Commodities accounted for 60% of its exports<br>  ○ When commodity prices rise, GDP rises - & vice versa<br>• A more diversified range of exports prevents this<br>• |
| The savings gap: Harrod-Domar model | • In the 1950's two economists identified the savings gap as a major constraint on growth<br>• The Harrod-Domar model identified the following benefits of increased savings<br>  ○ Increased savings → increased investment → higher capital stock → higher economic growth → increased savings<br>• Based on this, any intervention (foreign or governmental) to increase the capital stock in an economy will lead to growth<br>• There are many criticisms of the model including<br>  ○ It does not account for many other factors such as labour productivity, corruption, technological innovation<br>  ○ It was created based on data from wealthier industrialising nations as opposed to very poor undeveloped countries<br>  ○ It focused only on physical investment & ignored other types such as investment in human capital (labour) |

| Factor | Explanation |
|---|---|
| The foreign currency gaps | • Foreign currency gaps develop for a number of reasons<br>  ○ Oil importing countries have to pay more (reserves decrease) when world oil prices rise whereas oil exporting countries receive less (less flowing in) when world oil prices fall<br>  ○ Large international debt payments may require continual outflows of currency<br>  ○ Capital flight due to uncertainty or sanctions<br>• This means that central banks are forced to use their reserves to buy vital imports<br>• Developing a diversified, healthy export market prevents foreign currency gaps from developing |
| Capital flight | • Occurs when money or assets rapidly leave a country<br>• This may happen due to political upheaval, economic sanctions, war, or changes to government policy (e.g. interest rates)<br>  ○ Sanctions applied to Russia in 2022 resulted in $75 billions of capital outflows<br>• Capital flight reduces the money available for investment, reducing growth & development |
| Demographic factors | • If the dependency ratio is high it means there is less money available for savings & investment<br>• Many developing countries have high dependency ratios |
| Access to credit & banking | • Financial institutions enable individuals & firms to borrow money which can be used for investment or to generate growth<br>• A lack of financial institutions prevents this from happening |
| Infrastructure | • Good infrastructure reduces business costs & attracts foreign direct investment<br>• Some developing countries have such poor infrastructure that it makes it difficult to generate economic activity<br>  ○ This is one reason why China has invested so heavily in infrastructure projects in Asia & Africa as it unlocks economic potential |
| Education & skills | • Investing in this supply-side policy increases the potential output of the country (shifts the production possibility frontier outwards)<br>• Higher education/skill levels → higher human capital → increased productivity → higher output → higher income |
| Absence of property rights | • In many countries, property is the main household asset which can be used to secure loans or generate income<br>• A lack of property rights in some developing countries prevents this from happening |

Source: authors

**Non-Economic Factors**

Non-Economic factors that include socio-economic, cultural, psychological and political factors are also equally significant as are economic factors in economic development. We discuss here some of the essential non-economic factors which determine the economic growth of an economy.

a. **Political Factors:** Political stability and strong administration are essential and helpful in modern economic growth. The stable, strong and efficient government, honest administration,

transparent policies and their efficient implementation develop confidence of investors and attracts domestic as well as foreign capital that leads to faster economic development.

b. **Social and Psychological Factors:** Social factors include social attitudes, social values and social institutions which change with the expansion of education and transformation of culture from one society to the other. The modern ideology, values, and attitudes bring new discoveries and innovations and consequently to the rise of the new entrepreneurs. The outdated social customs restrict occupational and geographical mobility and thus pose an obstacle to the economic development.

c. **Education:** It is now fairly recognized that education is the main vehicle of development. Greater progress has been achieved in those countries, where education is wide spread. Education plays an important role in human resource development, improves labour efficiency and removes mental block to new ideas and knowledge thus contributes to economic development.

d. **Desire for Material Better me:** The desire for material progress is a necessary nt precondition for economic development. The societies that focus on self-satisfaction, self-denial, faith in fate etc. limit risk and enterprise and thus keep the economy backward.

## 8.1. Demographic Factors and Development

**Three demographic revolutions**

World population has gone through three demographic revolutions, each with huge spurts in population size. During the Neolithic period, some 10,000 years BC, associated with agriculture displacing hunting and gathering as the main source of food (Diamond, 1997). It is estimated that world population was around 1 million. During the agricultural and industrial revolutions in today's industrialized countries, during the 1700–1880 period. World population reached 1 billion in 1800. When the health revolution reached developing countries from the 1940s, following the introduction of DDT to control malaria, polio vaccines, and antibiotics such as penicillin. By 1950, world population was 2.5 billion.

**The demographic transition**

The demographic transition is a one-time population explosion that occurs as death rates fall ahead of birth rates. It comes to an end when birth rates also decline, eventually converging with death rates. This is illustrated in Figure 8.1. for industrialized (Figure 8.1a) and developing (Figure 8.1b) countries. In industrialized countries, the demographic transition has been completed, with low birth and death rates, and a correspondingly low population growth rate. In developing countries, the transition is still in progress, with a low death rate and a high birth rate, and a high population growth rate. As these two figures show, most population growth today comes from developing countries. The challenge in overcoming the population explosion in these countries is to reduce the birth rate, as death rates have already started to decline with the diffusion of the health revolution.

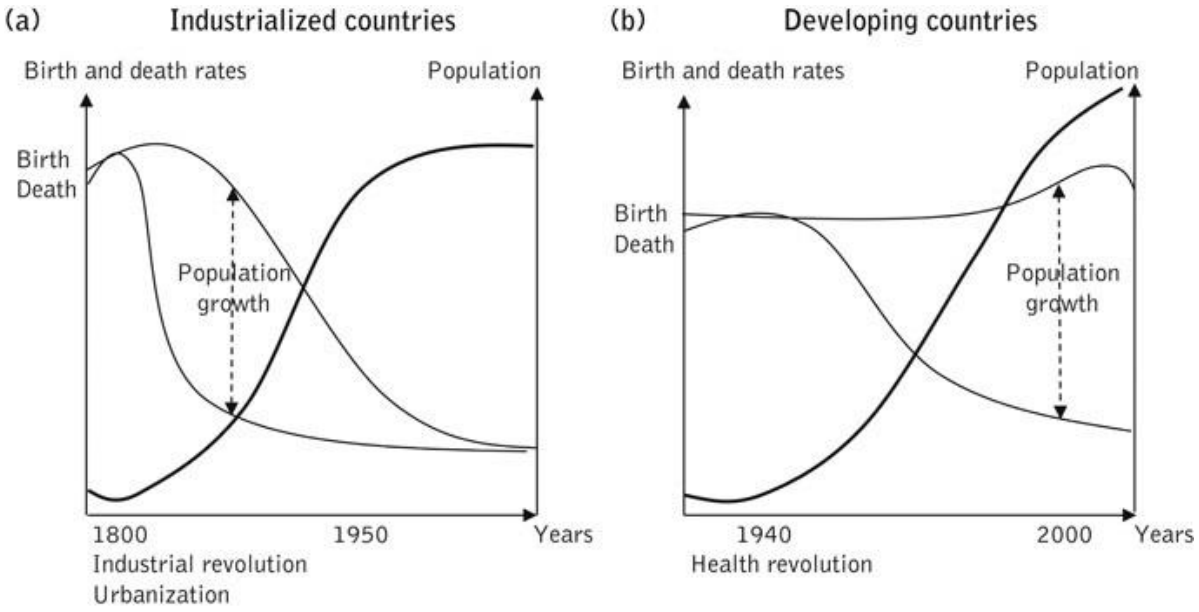


Figure 8.1. The demographic transition in industrialized (a) and developing (b) countries. Birth and death rates in thin lines; total population in heavy line

**Causes of Population Growth**

What explains population growth? For Malthus, population growth was held in check by food availability. For modern demographers, population growth can be explained by the calculus of economic advantage made by a couple deciding how many children to have. The ability to not exceed this number in turn depends on the availability of contraception.

**Malthus: the dismal economics of hunger**

or Reverend Thomas Malthus, who in 1798 wrote An Essay on the Principle of Population, the "passion between the sexes" always pushes population growth ahead of growth in food supply. As a consequence, population growth is held in check not by demographic restraint but by food scarcity and famines. This is because population grows at a geometric (multiplicative) rate while food availability (measured in number of people that can be fed) grows at an arithmetic (additive) rate, as shown in Figure 8.2. Whenever the population growth rate exceeds the food availability growth rate, people die due to "gigantic inevitable famines, wars, epidemics, pestilence, and plagues," in Malthus' own words. There is a stable equilibrium, where the growth in food availability determines the growth of population.

The Malthusian position on the inevitability of starvation as population runs against the limits of food availability has persisted. Paul Ehrlich (1968), in his book The Population Bomb, predicted the inevitability of "famines of unbelievable proportions," with "hundreds of millions of people starving to death" in the 1970s and 1980s due to overpopulation. For Ehrlich, the policy implication was not technological, but the need to rapidly bring world population under control, reducing the growth rate to zero or turning it negative. He suggested that foreign aid to countries such as India, with insufficient programs to limit population growth, should be canceled, as any economic gain would be eliminated by population growth.

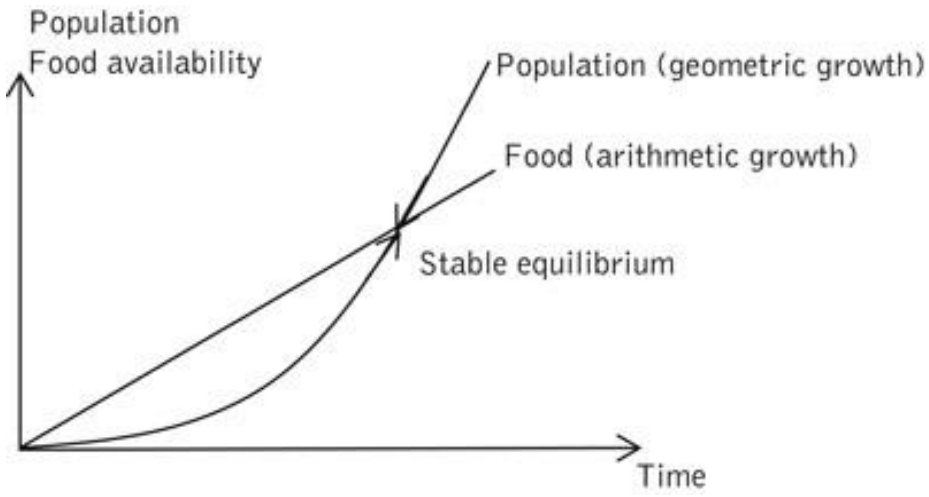


Figure 8.2 Malthusian population equilibrium: the dismal economics of hunger

Other modern neo-Malthusian positions include the report of the Club of Rome, The Limits to Growth (Meadows et al., 1972), which predicted exponential growth in population, industrialization, and pollution, with slow growth in food production. Using a world growth model, the Club of Rome expected petroleum resources to be exhausted by 1992 and iron by 2065. Even with successful exploration for energy and minerals, growth would come to an end by 2070.

Malthusian predictions have been criticized, and proven wrong by events. Fertility has declined due to changes in the logic of family size and the availability of contraception, and there has been much technological change in food production, allowing food availability to grow exponentially. Although world population continues to grow, and tensions still exist in food supply keeping pace with population, food is no longer a global constraint on population. The Green Revolution averted mass famines in India at the time of Ehrlich's predictions. Sen (1981) showed that the Bengal famine of 1943, in which 3 million people died, was not due to lack of food relative to population, but people's lack of access to available food. Poverty, rising food prices, and inadequate food-distribution systems were to blame rather than population explosion and absolute food scarcity. Sen argued that countries with democratic forms of governance and a free press have never suffered from extended famines. Thus, while local famines and resource scarcity (for example, in Rwanda, where land scarcity likely contributed to genocide) can be induced by population growth, markets (with prices signalling scarcity and inducing response) and states (though public goods and social protection) are likely to help avert neo-Malthusian doom through technological and institutional innovations.

Growth theory has also been used to explain how an economy can shift away from a Malthusian world, where income per capita is held stagnant by population growth, to a Solow world, where population can grow without implying a decline in per capita income. Hansen and Prescott (2002) propose a model with two technologies: a Malthus technology, where output is a function of technology, land, labour, and capital, and a Solow technology, where output is a function of technology, labour, and capital, but not of land. If land is in fixed amount, and population growth responds to income (as in Malthus), then population growth will bring down wages and increase land rents, two regularities observed in the pre-industrial world—in England before 1800, say. Once TFP has become sufficiently important, the Solow technology becomes more profitable than the Malthus technology. Decreasing returns to labour (with fixed land) are replaced by constant returns to scale, as in the Solow production function. Labour productivity can now increase even with population growth. Population growth is no longer a factor of stagnant real wages. The key to the story is that technological progress started to occur in the Malthusian world, allowing labour productivity to rise and making the Solow

world superior. Rising labour productivity gives value to investment in education, and can induce a demographic transition due to the fact that children are no longer important productive assets for subsistence production (Rosenzweig and Evenson, 1977), and the quality of children is more important than the quantity (Galor and Weil, 2000).

All in all, there are reasons to investigate the population's impact on economic development – with its inherent social and demographic characteristics – regarding the growth theories. Firstly, the actual level of public welfare is described only through human consciousness. Secondly, a particular person with its desires and needs forms the tasks for public production. So, the population plays the roles of the aggregated producer and consumer of goods and services simultaneously. The agent's economic behaviour causes and, at the same time, is caused by the upper interests, which are represented by the social groups (e. g., nations, economic classes, strata). The crucial changes in the population's number, density, and age structure affect public production. Passed through the centuries of slow and uneven growth, the world population reached 1.0 billion nearly two hundred years ago. Before the first so-called demographic transition, expected human life was critically short, both births and deaths were countless, while the population was generally young. After the transition mentioned above, mortality and eventually fertility severely declined; the population growth rates accelerated and then – considerably unequal for advanced and emerging countries – lowed again, matching low fertility, extended life span, and an aged population. In the second half of the past century, the total population growth rate accelerated. The global demographic changes have brought decisive transformations, reshaped both the economic and demographic life-cycles of the individuals and restructured communities.

The population's characteristics were significant economic growth determinants. So, their composite effect on the development is everlasting and should be adequately examined. The issues related to the key economic growth factors have been at the centre of economics since its origin. Five centuries of profound investigations produced several sustainable development theories, but the uncertainty still remained. In the vast majority of those theories, the main demographic variables are regarded as endogenous determinants.

The comprehensive influence of the population change on economic development and performance is somewhat ambiguous. The population growth could be supportive, restrictive, or neutral to economic growth. The population numbers and density's variation are commonly interconnected with considerable shifts into the respective community's age structure (described as the population's distribution across different age groups). The agents' behaviour (e. g., economic) enormously varies depending on the stages of the individual's life. Hence, the nations with a high proportion of children are supposed to devote most of their inherent resources to the childcare programs.

The expected slowdown in population growth and labour force participation rates will have implications for long-run economic growth and the composition of growth. The key determinants of the economy's longer-run growth rate are labour force growth and structural productivity growth — how effectively the economy combines its labour and capital inputs to create output. Demographics suggest that labour force growth will be considerably slower than it has been in recent decades, and this will weigh on long-run economic growth.

In addition, in theory, the aging of the population may also have a negative effect on structural productivity growth. Over the past five years, labour productivity, measured by output per hour worked in the nonfarm business sector, has grown at an annual rate of only about a half of a percent; over the entire expansion, it has averaged 1 percent. While some part of the slowdown is likely cyclical, reflecting persistent effects of the Great Recession on investment spending, structural factors are also weighing on productivity growth. Older workers tend to stay longer in their jobs than younger workers, who are more likely to change jobs and employers. This allows older workers to gain deeper experience,

which can be positive for productivity growth. At the same time, lower labour mobility means workers may remain in jobs that are not the best match to their skill sets. This would be a negative for productivity growth. Indeed, one study finds that both short tenures and long tenures adversely affect productivity growth. And historical evidence suggests a hump-shaped relationship between age and productivity, with productivity increasing when a person enters the workforce, stabilizing, and then declining toward the end of a person's work life. Research also indicates that an individual's innovative activity and scientific output peaks between the ages of 30 and 40, although that age profile has been shifting older over time.

Labour mobility and business dynamism, including the number of start-ups in key innovative sectors like high-tech, have been declining for some time. Whether dynamism will remain low is an open question, but the aging of the population is here to stay. So far, the magnitude of the negative effect of the aging workforce on productivity growth appears to be quite small. Even so, the demographics-induced slower growth of the labour force and the possible dampening effect on productivity growth suggest that longer-run output growth will likely remain below the 3 to 3.5 percent rate seen over the 1980s and 1990s, unless there is some effective countervailing policy response.

In addition to affecting the economy's trend growth rate, demographics will likely affect the composition of growth by shaping aggregate consumption, saving, and investment decisions. Increased longevity means that people will need to save more over their working life to fund a longer retirement period. This is especially true given the degree of underfunding of public pension plans at the state and federal levels. Demand for healthcare will continue to rise, and an aging population will place different demands on the housing sector than a younger population, affecting the demand for single- versus multi-family properties, for owning versus renting, and for residential improvements that allow older adults to age in place. By affecting the composition of output, changes in the age distribution have the potential to affect the business cycle. Because of its cyclical and structural implications, demographic change also has implications for monetary policy. Let me talk about three.

## 8.2. Labour Markets and Development

It's important and useful to study both the macroeconomic and the microeconomic views of the labour market. Each view can inform government and business outlooks, policies, and actions regarding employment. And the labour market plays a major role in any economy.

At the macroeconomic level, supply and demand are influenced by domestic and international market dynamics, as well as factors such as immigration, the age of the population, and education levels. Relevant measures include unemployment, productivity, participation rates, total income, and gross domestic product (GDP). At the microeconomic level, individual firms interact with employees, hiring them, firing them, and raising or cutting wages and hours. The relationship between supply and demand influences the number of hours employees work and the compensation they receive in wages, salary, and benefits.

According to macroeconomic theory, the fact that wage growth lags productivity growth indicates that the supply of labour has outpaced demand. When that happens, there is downward pressure on wages, as workers compete for a scarce number of jobs and employers have their pick of the labour force. Conversely, if demand outpaces supply, there is upward pressure on wages, as workers have more bargaining power and are more likely to be able to switch to a higher paying job, while employers must compete for scarce labour.

The microeconomic theory analyses labour supply and demand at the level of the individual firm and worker. Supply—or the hours an employee is willing to work—initially increases as wages increase. No workers will work voluntarily for nothing (unpaid interns are, in theory, working to gain

experience and increase their desirability to other employers), and more people are willing to work for $20 an hour than $7 an hour.

**The employment problem in developing and industrialized countries**

The employment problem takes different forms in different countries. In developing countries, few people can afford to be openly unemployed. Because there is typically no formal social assistance provided to the unemployed, everyone able to work has to generate a living in some way, with different degrees of success. This is the role of the informal sector, where entry is easy, labour productivity is low, labour regulations such as paying the legal minimum wage and respecting work-safety codes are absent or not respected, taxes are not paid, social benefits are absent, and value-added is generally not counted in GDP (though it is often guesstimated). Informal-sector employment can range from self-employment shoe-shining, selling lottery tickets on the sidewalk, and garbage recycling to employment in sweatshops, where working conditions are harsh, pay is low, there are no social benefits, and workers' rights are not recognized. Because entry to the informal sector is easy, it provides a survival strategy for unskilled workers and new urban migrants. A large informal sector, sprawling urban slums, lack of public services for slum dwellers, and high congestion externalities are symptomatic of a developing country's urban environment. It is important in this context to induce more firms to enter into the formal sector, allowing them access to formal financial institutions and public support (Levy, 2008) and their workers better conditions.

The labour problem in industrialized countries is different. In continental Europe, employment conditions tend to be rigid, union power is high, and social benefits comfortable. The problem is a relatively high rate of unemployment as employers are careful about hiring new workers that are expensive and that they will have a hard time dismissing should they want to. In the US, by contrast, employment is more flexible, union power generally weak, and social benefits limited. Jobs are often available on a part-time basis, with few if any social benefits. As a consequence, the labour problem has historically been less one of employment than of remunerative wages and social protection for unskilled labour. Over the last 25 years, real wages for unskilled labour have been falling steadily, and disparities between skilled and unskilled workers have been rising, contributing to the rise in inequality. At the end of 2014, the unemployment rate was 5.6 percent in the US compared to 10.4 percent in France, 13.4 percent in Italy, 23.7 percent in Spain, and 25.8 percent in Greece (Trading Economics, online). The labour problem in continental Europe has been one of creating more jobs, while in the US it has been one of creating better jobs.

**Indicators of unemployment**

Given the fact that there is little open unemployment in developing countries due to lack of unemployment insurance and other formal social-safety nets, there is a bigger underemployment than unemployment problem. Characterizing employment requires indicators that include but go beyond open unemployment.

**Employment in the formal and informal sectors**

The formal and informal sectors are interrelated. As Hernando de Soto (1989) argued, excessive regulation in the formal sector can push economic activity into the informal sector; and high wages paid in the formal sector, above the full-employment equilibrium, can push employment into the informal economy. These high wages can be due to feather-bedding in public-sector employment, minimum-wage legislation, labour unions effectively lobbying for higher wages for their members, and "efficiency wages," whereby employers pay wages above the full-employment equilibrium wage as a way of increasing worker productivity or efficiency (Akerlof and Yellen, 1986). We analyse these in the next section.

The impact on informality of formal-sector wages set above the market-clearing equilibrium can be seen in Figure 8.2. Workers who cannot find employment in the formal sector at the set high wage crowd into the informal economy (shifting the supply curve of labor from S to S'), depressing wages WI in the informal sector, which then becomes a refuge for the formally unemployed. The higher the formal-sector wage relative to the full-employment equilibrium wage, the lower the equilibrium wage in the informal sector.

Surveys conducted by the ILO (International Labor Office, 2002) have shown the enormous magnitude that the informal economy can reach. Informal employment is defined as not receiving social-security benefits through employment. Recent estimates are that informal employment makes up 48 percent of non-agricultural employment in North Africa, 51 percent in Latin America, 65 percent in Asia, and 72 percent in Sub-Saharan Africa. Some 70 percent of informal-sector workers are self-employed. ILO studies have also shown that the informal economy is highly heterogeneous (Tokman, 1989). Part of it is disguised unemployment, a large refuge sector for workers unable to find employment in the formal sector. This segment of the informal sector tends to be counter-cyclical to formal-sector employment: when formal-sector employment contracts due to a recession or to rising formal-sector wages, employment in the informal sector expands. But part of the informal economy is complementary to the formal sector, in particular subcontracting with formal-sector firms. This segment of the informal economy is pro-cyclical to formal-sector employment.

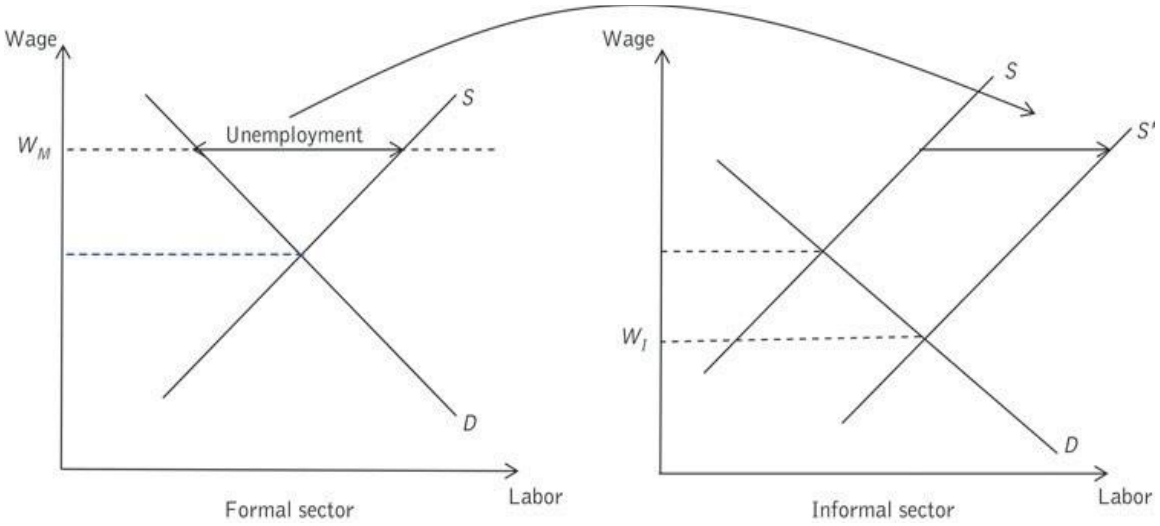


Figure 8.3 Link between wages in the formal and informal sectors

**Rural–Urban Migration**

Migration is a huge phenomenon, both domestically and internationally. Domestic migration is mainly rural–rural and rural–urban, and only urban–rural when unemployment or adversity strikes in the urban environment. Domestic migration can be seasonal, short-term, long-term, or permanent. It can be pushed by adversity, or driven by opportunity. And it can be at the initiative of the migrant, or part of a household strategy focused on the role of remittances for household welfare. We discuss here rural–urban migration, and consider international migration later. Migration is part and parcel of a normal pattern of sectoral and geographical resource reallocation in the process of development. As

such, it can be a source of efficiency gains. Domestically, it is the essence of structural transformation and internationally it is part of the globalization of a labour market. It can be an important force for development, with the potential for extensive benefits for both developing and industrialized countries. Remittances, in particular, create an extraordinary opportunity to finance development projects in some of the poorest emitting regions, if these regions have development potential and can channel the transfers toward productive investments. Yet migration is a difficult process to manage, both nationally and internationally, with a tendency for excessively rapid displacement of populations that are too often inadequately prepared to be absorbed productively in the receiving areas, and toward areas that are often not prepared to absorb them productively and culturally.

## 8.3. Infrastructure and Development

Since the beginning of the 1990s, a number of empirical studies have found that public investment in infrastructure has a positive and significant impact on output. In his seminal work, David Aschauer (1989) triggered a long overdue dialogue among economists and policymakers when he published a study arguing that much of the decline in the United States of America's productivity in the 1970s was precipitated by declining rates of public capital investment. Aschauer's work suggested extremely high returns on public infrastructure, with the marginal product of government capital in the region of 100 per cent per annum or more. This would imply that one unit of government capital paid for itself in terms of higher output within a year or less. Given these results, it is not surprising that Aschauer's work was to initiate the "public infrastructure debate" which has since resulted in numerous academic studies (Gramlich, 1994). Despite the fact that the original headline elasticity claims of Aschauer have been reduced over time, overall the abundant literature concludes that a stock of infrastructure assets has a positive and significant impact on the rate of output growth (Agénor, 2011; and Straub, 2008). Infrastructure tends to be particularly important along the process of structural transformation, as developing countries move away from primary to secondary and tertiary economic industries. In a recent paper, Battacharya et al. (2012) show how for most developed economies a temporary boost in investment and infrastructure spending has indeed been necessary to move to the next stage of economic growth and development.

The success or otherwise of economic development process depends largely on the available resources and an enabling environment. Resources such as capital, manpower and technology are necessary inputs in the growth process. However, the efficiency of these inputs and the sources of economic growth endeavourers largely depend on the available enabling environment as defined in part by the available infrastructure are public goods and services that goes into the production process as Complementary inputs for traditional factors of production such as capital, labour and entrepreneur. They help to increase returns on investment by reducing production cost and improving transition efficiency. The availability of infrastructure facilities and services as well as the efficiency of such services largely determine the success or otherwise of all other production endeavourers. Investments in infrastructures such as energy, water, transportation and communication technologies promote economic growth and help to alleviate poverty and improve living conditions in developing countries (OECD, 2006)

There is broad consensus that infrastructure is beneficial to growth and development. Infrastructure contributes to growth and development via productivity gains, and by reducing adjustment costs, especially for small firms, increasing the durability of private capital and markedly improving health and educational outcomes (Agénor and Moreno-Dodson, 2006). Infrastructure development, moreover, can facilitate trade and foreign direct investment and has the power to foster intraregional trade and investment flows, thereby creating regional markets, and in the process further accelerate growth and reduce poverty. Together with expanded demand, infrastructure development can also encourage supply diversification and regional economic convergence.

Nonetheless, infrastructure development in the developing world, where it is needed most, has been very limited except in certain parts of East Asia (Fay et al., 2011). Financing has been a major constraint: recent estimates for a step change in infrastructure expansion to support growth acceleration and development put the gap in the financing needed at between US$1.25 and US$1.5 trillion per year, an amount equivalent to 5–6 per cent of developing country gross domestic product (GDP). Most current investment in infrastructure comes from the public sector. Private investment is about US$150–US$250 billion, or scarcely 1 per cent of developing country GDP (Battacharya et al., 2012).

The private sector alone is unlikely to increase its investment substantially in infrastructure in the near future, due to externalities and the risks involved. Infrastructure development is a multifaceted task that typically requires large-scale funding involving complex financial engineering, an appropriate regulatory framework, active public policy and above all human, technical and institutional capacities. Support for infrastructure development may take different forms. This note for the first session of this multi-year expert meeting examines three specific initiatives and mechanisms which have informed discussion of development cooperation in this area: privatization, PPPs and financing from RDBs.

Infrastructure capital, which includes transport-related facilities, water and wastewater treatment facilities, telecommunications, and energy generation, transmission and distribution, is often mentioned as a crucial prerequisite for the success of development policies. Infrastructure matters because it can affect a wide range of economic activities, having a direct impact on both firms' production capabilities and consumers' consumption possibilities. In addition to these microlevel and household impacts, infrastructure can support above all productive diversification and promote intraregional trade and investment, including through trade facilitation. The micro and macro effects of infrastructure contribute to growth acceleration, while the services infrastructure provides to households can help further enhance labour productivity and bring about poverty reduction. On average between one-third and one-half of infrastructure services is for final consumption by households (Prud'Homme, 2004). The remainder corresponds to intermediate consumption, mostly by firms. For small producers and local firms of developing countries, access to distant markets and contacts with potential clients rely on the existence of a suitable and relatively cheap transport and telecommunications network. Furthermore, deficient electricity networks, plagued by frequent power outages and unstable voltage, may induce high costs and even deter some types of investments. Infrastructure can therefore expand the productive capacity of an area, by both increasing resources and enhancing the productivity of existing resources.

**The role of regional development banks**

RDBs have played a vital role in financing infrastructure projects. The long-established regional banks – AsDB, AfDB, IADB and EIB – have filled in important financing gaps in infrastructure investment since their creation in the 1950s and 1960s. That gap, and the resulting under provision of infrastructure, was particularly acute in the 1980s and 1990s in various parts of the developing world, especially in Latin America and the Caribbean and sub-Saharan Africa, due to fiscal adjustment policies that many Governments undertook during the period (Estache, 2010). Among the regional banks, EIB was created in the 1950s with the clear mandate of financing infrastructure to support regional integration. As a consequence, EIB has allocated a significant proportion of its total loans to infrastructure – initially, 48 per cent of total bank loans, and later 44 per cent of the total (Griffith-Jones et al., 2008). Among the other three regional banks, AfDB and AsDB both have a focus on infrastructure, while IADB places more emphasis on social projects (Ocampo, 2006). However, in all three cases, a lower proportion of loans is provided to infrastructure compared with EIB. Moreover, lending to "regional public goods", which include regional infrastructure projects, has been less than 1 per cent of their total loans (Birdsall, 2006). The infrastructure spending needs are not distributed evenly across

different developing regions. Estimates published in 2008 and summarized by Estache (2010) indicate that, as a proportion of GDP, the highest spending needs, when operational and maintenance costs are included, are found in South Asia (11.3 per cent), followed by the Middle East and North Africa (9.2 per cent) and sub-Saharan Africa (8.9 per cent), while the lowest needs are in Latin and Central America (4.4 per cent). These percentages reflect, to an important extent, average income per capita levels in these regions, with lower income countries needing more infrastructure spending as a proportion of GDP. In absolute terms, the East Asia and the Pacific region has the largest financing needs accounting for nearly 37 per cent of total needs of developing countries. Developing countries therefore face massive infrastructure needs, but the financing gaps are equally vast. Although private sector investment in infrastructure has grown since the early 1990s (Fay et al., 2011), continued growth in the future is held back by a number of factors, a main one being the perceived and actual excessive risk due to asymmetries in information. Lenders do not have sufficient information for pricing risk appropriately and for monitoring. Infrastructure projects also tend to be long term, which increases perceived risks and uncertainty about future returns. Moreover, such projects tend to generate social benefits that are greater than private benefits, a gap that is not internalized in private sector profit calculations. Regional infrastructure projects further affect the private sector's willingness to invest due to complexity in the regulatory framework for cross-border projects and the political risks involved.

## 8.4. Case study 1: How does China pay for her infrastructure?

The Chinese government has consistently maintained public spending on infrastructure development as a means of modernising its economy. In the last decade, government stimulus programs and development plans have driven significant growth in infrastructure investment which has increased from US$0.62 trillion in 2008 (13% of GDP) to US$2.1 trillion in 2015 – accounting for approximately 20% of GDP.

Nonetheless the investment challenge remains acute, with research conducted by McKinsey forecasting the infrastructure investment needed in China to be approximately US$16 trillion through to 2030. This constitutes an investment of 6.4% of GDP, just to maintain stock of assets at current levels.

In 2019, China invested over US$120 billion in its ten largest infrastructure projects by value, despite its economy showing signs of slowing growth. In terms of source of capital, public funding continued to provide the majority of that investment, but interview-based discussions highlight a concerted attempt in recent years to expand international private investment.

The increased government investment has seen China improve markedly in terms of its infrastructure quality ranking. In the 2018-2019 World Economic Forum Global Competitiveness report ranked China 36th in terms of infrastructure quality, improving from 46th overall in the 2017-2018 report. Interviews with policy makers and prospective investors highlight that the scale of economic ambition pertaining to infrastructure quality will necessitate a pronounced increase in private infrastructure financing, which will be a comparatively new phenomenon.

In contrast to developed economies such as the UK, where approximately 70% of infrastructure is funded by private sources, infrastructure investment in China has historically been undertaken by the state. The Global Infrastructure Hub estimates that total Infrastructure investment in China amounted to US$3.3 trillion over the five-year period 2013-2018. It is noteworthy however that private investment constituted a mere US$10 billion of that total.

The Chinese National Bureau of Statistics (CNBS) confirms that 78.9% of fixed assets infrastructure investment by value (approx. US$1,986 billion) are classified as "stateholding", while the remaining 21.1% (approx. US$530 billion) is financed by either public-private joint ventures or private sector investors. Furthermore, as highlighted by Ansar et al, state-holding investment has had the most

pronounced growth, from US$0.5 trillion in 2008 to US$1.45 trillion in 2015, which is largely a direct consequence of government-led development programmes initiated after the 2007/08 Global Financial Crisis.

There are emerging opportunities and reforms which may alter the infrastructure investment landscape and present extensive opportunities to international investors. Interviews with policy makers and advisors showcased how China's continuing urbanisation offers a major flow of extensive infrastructure projects and associated investment opportunities. In addition, a number of institutional investors contributing to this research implied that major reforms and guidelines have improved the investment environment and paved the way for significant international investment in railways, gas pipelines, telecommunications and clean energy in recent years. From a very marginal position, the private investment market has expanded markedly in recent years, constituting circa 9.4% of the entire market composition in 2008 (equivalent to US$60 billion) and increasing to approximately 18.3% (or US$461billion) in 2017.

More reading from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1564-913X.2005.tb00571.x

## 8.5. Case study 2: Thailand: Infrastructure resilience at the cornerstone of risk-informed development

Thailand, like many countries in the region, is uniquely positioned to take advantage of the dividends offered by resilient infrastructure given the tremendous growth it has experienced in its construction sector due to increasing urbanization and economic growth.

As the Chair of Association of Southeast Asian Nations (ASEAN) for 2019, Thailand's commemoration event also celebrated the ASEAN Day for Disaster Management. The event was organized by the Ministry of Interior's Department for Disaster Prevention and Mitigation (DDPM), which has the lead for promoting disaster risk reduction and risk-informed development within the Thai government. A close partner of the UN Office for Disaster Risk Reduction, the DDPM sought to highlight its multi-partner and multi-sectoral approach to building infrastructure resilience.

Praising the participation of many partners, Mr Chainarong Vasanasomsithi, the Deputy Director-General of DDPM, said in his opening remarks: "For disaster risk management to be successful, they require the strong cooperation that we have here today," adding that "the event today is a good opportunity for the relevant network partners to share knowledge, activities and projects that have been implemented to create safety in schools, hospitals, and communities."

Investments in infrastructure have reached a record level globally, and Asia is expected to need investments of USD 1.7 trillion per year in infrastructure to maintain its growth trajectory. Thailand is no exception as it has become an upper middle-income country over the last few years with the second largest economy in Southeast Asia. From being a predominantly rural economy, more people now live in the urban areas than in the rural areas. Poverty levels have declined substantially over the last 30 years. Such a rapid transformation puts pressure on existing and increases demand for new infrastructure.

However, not all of its infrastructure investments are built to be resilient. This puts its development gains at risk from disasters. Asia is estimated to bear direct physical losses of USD 126 million per day as a result of extreme weather events and geophysical hazards.

"Thailand is in the midst of an economic transformation. However, unplanned development, climate change, and hazards like earthquakes, are all risks that Thailand faces. Countries must invest to protect against the disaster risk or pay an even heavier price later. The benefits of investing in resilient infrastructure outweigh costs by a ratio of 4 to 1. Yet, resilience is not an add-on to development – we cannot construct a building and then make it resilient. For the resilience dividend to be realised, risk

must be embedded into the development planning and processes," said Dr Animesh Kumar, Deputy Chief of the UNDRR Regional Office and one of the key speakers at the event.

To accelerate this, UNDRR highlighted the potential role of the Coalition for Disaster Resilient Infrastructure, led by the Government of India with support from UNDRR and other organisations. Launched at the Climate Action Summit this year, the Coalition will function as a multi-country and multi-stakeholder partnership on thematic areas like risk assessments, infrastructure resilience standards, financing and recovery and reconstruction.

The event featured various activities organized by partner organizations, such as a knowledge exchange forum, several quiz games, a room-sized earthquake simulator, a virtual reality simulator, and Bangkok Metropolitan's mobile disaster knowledge car.

Sponsors and organizers of the event included the Thai Red Cross, Bangkok Metropolitan Administration, Thai PBS Television Station, Thai Insurance Association Civil Society, UNDRR, the UN Development Programme, World Vision Thailand, the Asian Disaster Preparedness Centre, Plan International, Stockholm Environment Institute, and the School Road Safety Club.

## Summary

This chapter introduces that economic development and growth are influenced by four factors: human resources, physical capital, natural resources, and technology. Highly developed countries have governments that focus on these areas. Less-developed countries, even those with high amounts of natural resources, will lag when they fail to promote research in technology and improve the skills and education of their workers.

Demographics will likely affect the composition of growth by shaping aggregate consumption, saving, and investment decisions. Increased longevity means that people will need to save more over their working life to fund a longer retirement period. This is especially true given the degree of underfunding of public pension plans at the state and federal levels.

The employment problem takes different forms in different countries. In developing countries, few people can afford to be openly unemployed. Because there is typically no formal social assistance provided to the unemployed, everyone able to work must generate a living in some way, with different degrees of success.

Migration is a huge phenomenon, both domestically and internationally. Domestic migration is mainly rural–rural and rural–urban, and only urban–rural when unemployment or adversity strikes in the urban environment. Domestic migration can be seasonal, short-term, long-term, or permanent.

Infrastructure is beneficial to growth and development. Infrastructure contributes to growth and development via productivity gains, and by reducing adjustment costs, especially for small firms, increasing the durability of private capital and markedly improving health and educational outcomes (Agénor and Moreno-Dodson, 2006). Infrastructure development, moreover, can facilitate trade and foreign direct investment and has the power to foster intraregional trade and investment flows, thereby creating regional markets, and in the process further accelerate growth and reduce poverty.

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# CHAPTER 9: MACROECONOMICS OF DEVELOPMENT

Economic development refers to the process of developing economic growth and changes or improvements in the structure of the economic system as well as political and social systems that result in improved welfare of the people (Sen, 1999). It is one of the important missions of every government to create a good living, employment, and a good quality of life for the people, which is the economic issue. Reviewing the history of development studies has found that the economic development and modernization in past eras was being the “Core Values” of Development. This may become the goal of economic development. There are threefold: (1) making everyone able to be self-reliant and can access necessities for living sustenance: The Ability to Meet Basic Needs. (2) Making everyone have self-esteem is having a state of being. A complete person who is respected and accepted. and (3) Making everyone have freedom, not being a slave. Anyone can make choices or determine their own future. (Acemoglu & Robinson, 2012). The study of economic development is one of the newest, most exciting, and most challenging branches of the broader disciplines of economics and political economy. Although one could claim that Adam Smith was the first “development economist” and that his Wealth of Nations, published in 1776, was the first treatise on economic development, the systematic study of the problems and processes of economic development in Africa, Asia, and Latin America has emerged only over the past five decades or so. Although development economics often draws on relevant principles and concepts from other branches of economics in either a standard or modified form, for the most part it is a field of study that is rapidly evolving its own distinctive analytical and methodological identity. (Mankiw, Romer & Weil, 1992). The nature of development economics, traditional economics is concerned primarily with the efficient, least cost allocation of scarce productive resources and with the optimal growth of these resources over time to produce an ever-expanding range of goods and services. Traditional neoclassical economics deals with an advanced capitalist world of perfect markets: consumer sovereignty; automatic price adjustments; decisions made based on marginal, private profit, and utility calculations; and equilibrium outcomes in all product and resource markets. It assumes economic “rationality” and a purely materialistic, individualistic, self-interested orientation toward economic decision making (Easterly, 2001; Easterly, Levine & Roodman, 2004). Development besides creating economic growth also the goal is to efficiently manage resources, helping the population eat well, receive comprehensive welfare, and reduce social inequality. The public sector and institutions can support the strength of the economy and society through various processes, including the role of public finance of the state. Central Bank Monetary Policy operate the protection of ownership of legal entities on human capital development, educational institutions and health including the market system and the role of financial institutions in the expansion of the manufacturing sector (Sachs, 2003; Hausmann, Rodrik & Velasco, 2008). Therefore, economic development will bring about changes in both the economy and society, with the following objectives: 1) economic growth to create products and services more or cause real income per person to be higher 2) having economic stability, it means having balance in various markets, leading to sustainable economic development. 3) having economic equality, it means being fair in the distribution of income and setting prices, giving the people a living. 4) having economic freedom, it means having the freedom to choose a career and the way of life of each person for the better living of the people. 5) having economic stability, it means having confidence. 6) stabilize the financial position of the country and the country's financial institutions so that the government can allocate the country's resources for the benefit of the majority of the country's people. 7) there is peace both inside and outside the country. People receive a thorough education, accessible and healthy.

## 9.1. Fiscal Policy and Development

Countries that are considered underdeveloped or developing countries are countries where people in the country have an average real income lower than the income of people in developed countries. These countries will have: The characteristics are as follows: 1) There is little saving, as the people in these countries have a low real income per person, so there is no income left for savings. 2) There is low investment due to low levels of savings. When investment is low, capital accumulation therefore occurs less. Production will use more labour than machines, causing production efficiency to be low as well. 3) There is high income inequality. The economic status of rich and poor people is very different, and most people are poor. 4) There are customs and a culture that is not conducive to people in the country being businessmen. 5) Most of the products produced are primary products and there are few types, causing the country to have little export income and 6) There is a dense population, causing most of the national income to be used for public consumption, with no remaining savings. 7) Natural resources have not yet been fully used or use it unworthily due to lack of knowledge using technology in to use natural resources and adding value.

### 9.1.1. The Foundations of Fiscal Policy

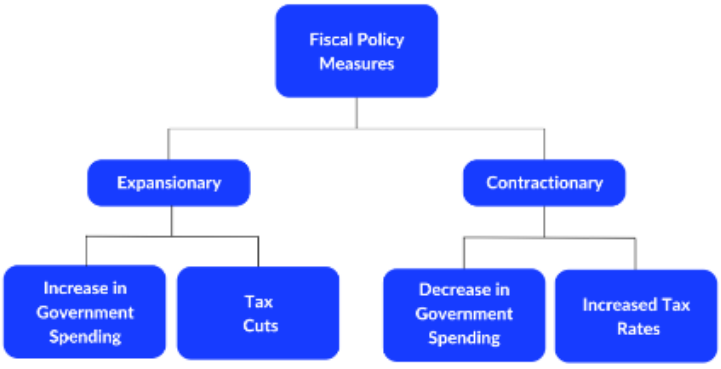
Fiscal theory and policy cover important content regarding government fiscal measures. Let's start by explaining the market economy. Definition of efficiency government duties, ttheory of intervention in the market system for reasons of external effects and the case of public goods including government expenditure measures. It consists of spending to help underprivileged groups. Social security and health insurance system for government revenue measures contains an overview of various types of taxes. Efficiency impact on economic growth includes personal income tax theory, corporate income tax and public debt. All topics are presented with both theoretical and policy examples that have been implemented in many countries around the world. (Lucas, 1993; Lucas, R. E. (1988). In Economics and Political Science Fiscal policy called in English as fiscal policy, is the use of government revenue collection in term of taxes and government expenditures to influence the national economy. The use of government revenue and expenditures to influence macroeconomic variables evolved in the post-great recession period. When the traditional way of managing the economy loses popularity, fiscal policy is based on the theories of John Maynard Keynes who is a British economist. It is theorized that changes in government taxation and expenditure levels influence aggregate demand and economic activity levels. Monetary and fiscal policy are key strategies used by governments and central banks to achieve their economic objectives. The combination of these two policies allows the organization to target inflation and increase employment. It is also designed to keep the gross domestic product growing and the unemployment rate close to the natural rate of 4 – 5 percent (Kramer, 2019). Therefore, it is implied that fiscal policy is used to maintain economic stability during the business cycle (O' Sullivan & Sheffrin, 2003).

### 9.1.2. Components of Fiscal Policy

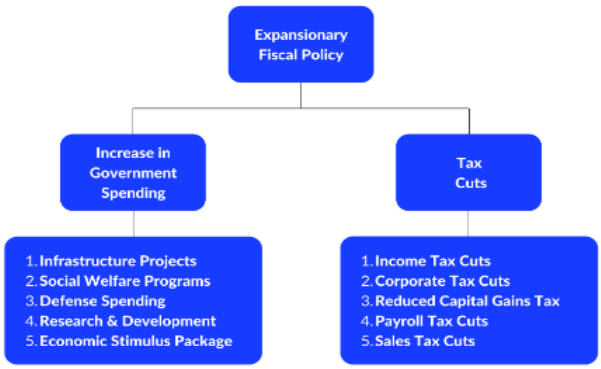
Fiscal policy is the policy that the government uses to control or drive the economy. To make the economy grow and have stability by using tax money is collected from the public as a tool for issuing fiscal policy. Fiscal policy principles were introduced in the United Kingdom by the economist John Maynard Keynes, whose ideas influenced other economic factors whether it is the rate of economic growth, inflation, demand, and supply and employment rate. Fiscal policy refers to the government's policy regarding the expenditure of public sector revenues, namely taxes, revenues other than taxes, government expenditures, and public debt, to be used as a tool for maintaining economic stability, including allocation resources, income distribution, full employment, and price stability. The main principles of fiscal policy are not just to improve the economy. But it also helps

protect the economy from various crises such as recessions or controlling the rate of economic growth and creating economic stability.

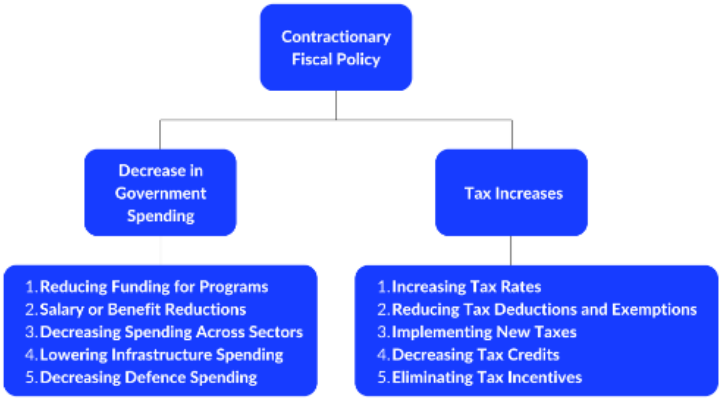
Governments have two basic tools to help achieve their main fiscal policy goals:
Taxes, including taxes from various businesses and taxes from the public. This is the main method for circulating money in various sectors. State expenses, after tax collection, tax will be used for essential government expenses such as maintenance, employment, contributions, public health, and labour, etc. The more money the government spends, the more likely it is that cash flow will return to the national economy. As a result, demand for products produced by the private sector and service providers has increased. Fiscal policy is a tool that governments use to stimulate or stabilize the economy during periods of financial uncertainty or economic volatility.




When the market is experiencing fluctuations that may threaten the stability of the economy, policymakers may adjust government spending and taxes to influence spending patterns. However, effective implementation of fiscal policy requires careful consideration of various factors, including economic conditions, policy objectives and public debt management. Fiscal policy plays an important role in promoting long-term economic growth by efficiently allocating resources for infrastructure development through research and development, education, and other key sectors of the economy. Governments can lay the foundations for sustainable growth. Additionally, tax incentives and subsidies can stimulate private investment. Promote entrepreneurship and create employment opportunities is by adopting prudent fiscal policies that support private sector investment and innovation. Countries can achieve higher productivity, increased competitiveness, and better economic efficiency.



Conversely, during periods of overheating or inflationary pressures. contractionary fiscal policy, this includes reduced government spending and increased taxes. It can help reduce excessive spending, control inflation, and maintain price stability.




The implementation of fiscal policy may take many forms. It depends on the economic context and policy goals. When policymakers aggressively adjust government spending and taxes in response to economic conditions This is called discretionary fiscal policy. Alternatively, when progressive tax systems or social safety nets are used to stimulate or deter during economic fluctuations. This is called an automatic fiscal stabilization system. In the end, using prudent fiscal measures, the government can increase macroeconomic stability, improve living standards, and create an environment conducive to inclusive and sustainable development (Costa, 2023).

### 9.1.3. Counter-Cyclical Measures

"VUCA world" refers to a world where conditions of volatility, uncertainty, complexity, and ambiguity. It is a term coined by the United States Army War College. After the end of the Cold War But it was reintroduced after the hamburger crisis a few years ago. With this VUCA situation, it is an issue that poses a challenge to "Sustainability" of the world's economy and society. Each country therefore has expectations of fiscal policy that has changed from before. This is what the International Monetary Fund (IMF) calls "smart fiscal policy." (Easterly, 2001). Due to budget constraints that each country must spend on fighting COVID-19 and various uncertainties result in the use of wise fiscal policy needing to consider the form of "Do More with Less" is important. Here, it is necessary that the country's fiscal policy must respond to the following 5 key factors.

1. Fiscal policy should be the opposite of the economic cycle. The Counter-cyclical fiscal policies means that the government must reduce budget expenditures or increase taxes during economic expansion and will increase budget expenditures or reduce taxes during periods of economic slowdown. In doing so, this will result in fiscal policy having the characteristics of helping to maintain economic stability more, reduce the chance of fiscal shortfall and there is a trend of fiscal policy being more "Automatic Stabilizers" that will lead to sound fiscal performance. Conducive to maintaining stability and promote economic expansion will be better in the long run.
2. Fiscal policy should support long-term economic growth. Fiscal policy should be growth friendly, which means that fiscal policy must facilitate activities that create long-term economic expansion of the country. This means promoting growth primarily on the supply side rather than stimulating only the demand side. In doing so, it must be ensured that fiscal policy is conducive to increasing both the quantity and quality

of 1) capital factors, which include machinery, tools, and equipment; including quality infrastructure, 2) labour, which includes the creation of human capital such as education and training, public health, including creating employment opportunities and 3) increasing productivity such as investing in technology development that will help raise the level of production of goods and services. The IT system development Including the development of small and medium enterprises is including to create the new entrepreneurs.

3. Fiscal policy should promote inclusion, which means using fiscal policy to cover the disadvantaged in the country such as households that are truly poor. This is another problem in developing countries like Thailand that still do not have appropriate targeting mechanisms. As a result, most fiscal policies are issued in the form of a universal model. This is because the fiscal burden is likely to increase. Determining the target group to receive fiscal benefits is therefore a matter that needs to be studied and find current action plans. Both using a conditional cash transfer policy or using a negative income tax rate are models that should be adopted in the context of a developing country like Thailand.
4. Fiscal policy should be supported by a strong tax capacity. In the past, many governments have implemented fiscal policies that have the potential to create continued deficits. This problem arises from many developing and underdeveloped countries around the world, all of which have a need to use fiscal policy for national development. On the other hand, these countries have low tax collection ability. Therefore, it is necessary for the government sector to increase efficiency and create new approaches to tax collection, whether it be 1) increasing efficiency in collecting personal income tax to be more comprehensive, both from existing tax evaders and from the outside economy; various systems, 2) should focus on collecting taxes from the asset base such as more land tax and inheritance tax, and 3) find ways to increase consumption tax as necessary. and use those tax dollars to use the welfare system appropriately and to the target group.
5. Fiscal policy should be prudent because economic uncertainty may result in fiscal policy being used more than estimated. This is especially true for developing countries where fiscal policy is decided by the judgment of the country's administrators rather than by the implementation of rules. As a result, the implementation of fiscal policy may be imprudent. Therefore, the budget process should be 1) adjusted to support the government's long-term fiscal responsibility including supporting to increase transparency such as preparing medium-term budget plans, 2) improving fiscal rules and enforcing them into law. To help control the use of discretion by the government in implementing fiscal policy or reduce the bias in creating a budget that continues to run deficits, and 3) establishing an independent fiscal organization to support the budget preparation process including to add the information that used for verification from the parliamentary system and the public sector which in the case of Thailand. An independent fiscal organization of this nature is called a "PBO" or Parliamentary Budget Office.

But the problem is not what to do, but "even though we know how to improve But no one will be willing to improve accordingly," because it means money will be lost as well.

### 9.1.4. Infrastructure Investment and Productivity

Sustainable infrastructure refers to energy, transport, telecommunications, water, and waste projects that are socially, economically, and environmentally sustainable (Bielenberg, Kerlin,

Oppenheim & Roberts, 2016). Socially sustainable infrastructure is a project designed to meet citizens' needs for access to public utilities, to reduce poverty and to reduce sensitivity to climate change. Examples of socially sustainable infrastructure are including the distribution of renewable energy to unelectrified rural areas to increase household incomes and improve livelihoods by reducing time spent on housework. Economically sustainable infrastructure creates jobs. This promotes GDP growth, does not burden the government with unpaid debts or burden customers with exorbitant fees and aims to strengthen the capacity of local suppliers and developers. Environmentally sustainable infrastructure reduces carbon emissions during construction and operation and supports the transition to a lower carbon economy through requirements such as high energy efficiency requirements. Environmentally sustainable infrastructure is resilient in the face of climate change threats, such as sea level rise. It also helps address local environmental issues such as water supply and air quality issues (Rodrik, 2008). Sustainable infrastructure projects have cash flow characteristics that are attractive to long-term investors. For example, renewable energy assets can provide income that is consistent with inflation over the long term. As a result, many sustainable infrastructure projects may be more attractive to institutional investors and a larger part of institutional portfolios than is currently the case (Rottgers, Tandon & Kaminker, 2018). Several structural factors, especially the digitization and electrification of the global economy, are driving infrastructure investment. The growth in data volumes has led to major changes in the communications infrastructure, environmental goals and reducing the cost of renewable energy. It requires investment in renewable energy, intelligent network and storing more energy. Wireless is also being transformed by electrification and digitization. In addition, to support automatic driving, large investments are required in electric vehicle (EV) charging infrastructure and communications infrastructure (Richli, 2022). Sustainability trends, especially net zero carbon policies impact future infrastructure development projects. Many countries have established policies to achieve net zero carbon targets. Therefore, infrastructure is critical to creating a sustainable world and can generate long-term profits for fundamental investors.

Summarize, sustainable infrastructure refers to energy, transport, telecommunications, water, and waste management projects that are socially, economically, and environmentally sustainable. Infrastructure is essential for building a sustainable world and can generate long-term profits for fundamental investors. Infrastructure businesses must also manage increasingly complex transmission networks. Over the past several years, many companies have made significant investments in sustainability, both for their own benefit and in response to government policy. Sustainable infrastructure is only considered successful if it can reduce the number of people without adequate access to energy, water, or both. This requires huge investments and creates opportunities for investors to invest in sustainability.

### 9.1.5. Taxation Policies and Social Equity

Currently, economic policies in many countries do not focus only on expansion. But it also places importance on inclusive growth. The problem of inequality has received more attention. Because it is a mirror that reflects how much benefit each group of households will receive from inclusive economic expansion. In addition, inequality that has been high for a long time may undermine the overall growth rate and stability of the economy. Inequality reflects economic and social inequality showing in the Lorenz Curve (2009 vs. 2019).

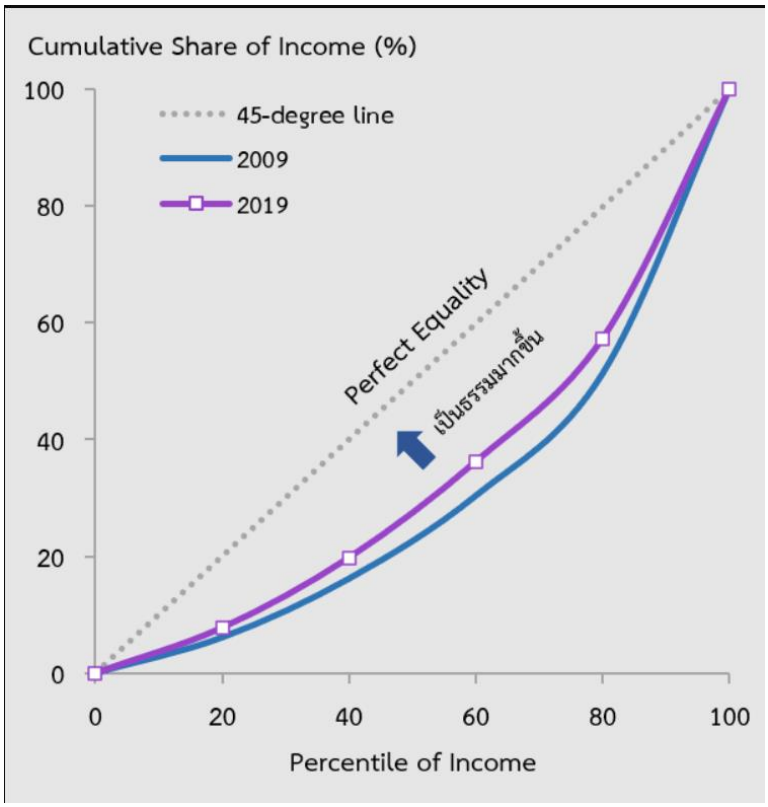



Figure 9.1 Lorenz Curve (2009 vs 2019); Ronapab, 2021

A study by UNESCAP (2018) divided the definition of inequality into 3 areas as follows:

1. Results (Outcome): Reflected from household economic data, it is commonly measured from 3 dimensions: income, consumption expenditures. and wealth. In practice, this can be measured in many ways, such as finding the Gini Index / coefficients that can compare data from many countries, creating the Lorenz Curve. It reflects changes in inequality in each period (Figure 9.1) and calculating the rate change in income, consumption expenditure or wealth for households in each income group in one period compared to another. Measuring inequality in outcomes is often used as a starting point for analysing other areas of inequality.

2. Opportunity: Considering the ability to access different basic rights and services, as a result, each group of households has a different quality of life, such as access to housing assistance, access to educational and public health services, financial services, technology news including the use of income tax deductions. It is varied according to income level. Inequality in opportunities can be assessed both quantitatively, such as counting the number of people with access to various basic services, and qualitatively, such as measuring the quality of hospital services according to international standards.

3. Impact: Consider the effects of external factors called external shocks that affect households, such as natural disasters, epidemics, and technological changes. The size of the impact for each household group is often not the same for two main reasons:

3.1 External factors have different effects on households, such as flooding only in the southern region in Thailand causing the average income of households in the southern region to decrease.

3.2 Internal factors of households having different basic resources called endowment cause even households to face the same type of shocks. But they may be affected unequally, such as the COVID-19 outbreak. It has less impact on businesses that can adapt to selling products through

online channels than businesses that cannot adapt. Or people who live in slums and inappropriate environments have an easier chance of contracting epidemics, etc.

3.3 Regardless of the cause of the disparity in impacts, they make the differences in opportunities and outcomes even more evident.

The important point is the three aspects of inequality are interconnected, and Figure 2 shows the root causes of inequality that can be alleviated through policy, except for inequality that arises from some basic resources, such as innate ability that are unequal.

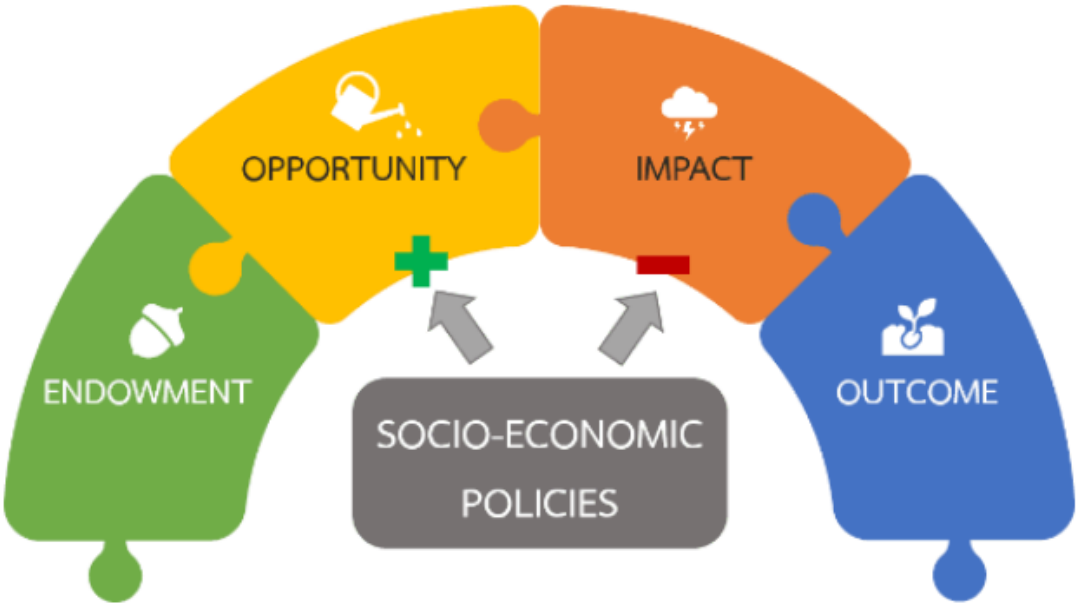



Figure 9.2 Making policies to solve the problem of inequality in a sustainable way (Ronapab, 2021)

However, solving the problem of inequality in a sustainable way should focus on two aspects: 1) increasing opportunities and creating a shield to reduce shocks from external factors for households. 2) making policies that focus on solving inequality problems in just one area, such as paying transfers to increase income for low-income earners.

Even though it can help reduce inequality in impacts, but it is still not considered a sustainable solution. This is because people with low incomes still lack the opportunity to access resources that will increase their abilities to earn enough income to survive causing them to continually rely on government assistance. More than that Low-income, low-skilled workers are also likely to be more severely affected by the economic crisis. It takes longer to adjust than other groups of workers. Therefore, it is the burden of the government sector to pay enormous amounts of compensation to support this group of people. Designing policies to reduce inequality for households must be systematic. Starting from increasing the ability to earn income both from work and investment such as labour and capital income for households to increasing the efficiency of tax revenue allocation and government transfer expenditures or redistribution by:

1) Policy to increase household income measures effectiveness through all channels, including the Gross Inequality value calculated from the total household income or “Household Market Income” and the Net Inequality value calculated from the household disposable income or “Household Disposable Income”, which is equal to the total income after deducting tax plus transfer money received from the government.

2) Tax and transfer policy effectiveness is measured by the difference between Gross and Net Inequality to compare household income inequality before and after the implementation of tax and transfer policies. This large difference reflects tax collection that does not increase or reduce inequality and the efficiency of tax revenue allocation to reduce inequality through government transfer payments.

Conclusions and important policy implications, in the past, for example, Thailand's inequality problem has improved somewhat. But it is still considered high compared to the world average. The problem of inequality that has accumulated over a long period of time has a detrimental effect on long-term economic growth. It is expected that after the COVID-19 crisis ends, the inequality problem will become even more severe. This is because low-income households are the ones most affected through both income and education. Reducing inequality is a structural policy that cannot be easily achieved. And it takes a long time to see clear results. In the past, problem-solving policies still focused on the root cause and did not do it systematically, so to solve the problem sustainably in the future policies to reduce inequality problems should give weight to policies that increase income-earning opportunities for households and reform of tax and transfer spending. If every sector is aware of the impact of such problems and work together to solve problems seriously. It will bring the economy back to growing at its full potential, strong, inclusive, and more sustainable in the long term.

### 9.1.6. Social Spending and Human Capital Development

Social spending, a key component of fiscal policy, serves as a powerful mechanism for human capital development, underlining the pivotal role of governments in enhancing the well-being and capabilities of their citizens. By addressing economic disparities and ensuring a basic standard of living, these programs contribute to the overall stability and inclusivity of society (International Labour Organization, 2020). Human capital is the most valuable factor of production among all other factors of production. Because in addition to performing production duties must also be responsible for future production but before humans can become a quality factor of production, there must be investment to acquire skills, experiences, things that humans have accumulated molded together until we have become who we are today. We will call this "human capital".

human capital development, it is a process that is carried out to develop human capital so that it has the potential to be ready to perform the missions that the organization has assigned it to perform. The tool used for developing effective and acceptable human capital is human resource management like human resource development. It is considered the art of selecting new people and using old people in a way that will produce results and work from those people as much as possible Both quantity and quality (Nigro & Nigro, 1976) through setting goals of human resource management called Target of Human Resource Management which is the basic principle according to the concept of "RDMU" which has the following goals: 1. Recruitment and Selection 2. Development 3. Maintenance and 4. Utilization.

It cannot be denied that investing in 'human capital' is necessary for both individuals and society. Many studies confirm that investing in human capital, developing, and providing basic education for children and youth, who are socially vulnerable groups, gives results that are 'worth it', there is a tendency for a return on investment to be greater than the money invested. Even though investing in human capital is worth it. But under limited resources that still need to be answered are: How should we invest in human capital in the most cost-effective and sustainable way?

### 9.1.7. Fiscal Policy and Monetary Policy Coordination

In each country, people responsible for overseeing the economy are the government and the central bank. The government uses fiscal policy, and the central bank uses monetary policy to take care of the domestic economy. Monetary policy refers to issuing policy using the central bank's

financial tools, such as interest rates, money supply, and exchange rates or determine the cost of borrowing or the money supply in the economy. The Bank of Thailand (BoT) uses the policy interest rate. It is the main tool for conducting monetary policy. Monetary Policy: The central bank issues policy where finance is society's financial operations used to exchange goods and services. Fiscal policy: The government issues policy. Finance is the financial operation of the government sector, both income and expenditure. Monetary policy is divided into two types: accommodative monetary policy and tight monetary policy, with both policies used for different purposes. An accommodative monetary policy is monetary policy in which the central bank wants the economy to expand when the economy is sluggish or wants to stimulate the economy by reducing the policy interest rate. That is, when the reference interest rate decreases. This causes interest rates on loans and deposits to decrease. There is an incentive to borrow more and deposit less causing the investment employment increases. The economy expands. For example, in 2020, the MPC cut interest rates by 0.25 % to reduce the impact of COVID-19 control measures. Buying government or private bonds to inject liquidity into the financial system causes money to enter the government and private sectors. The amount of money in the economy increases, consumption occurs, invest more within the economy, such as the US Federal Reserve's QE. By using money to buy bonds, commercial banks lower long-term interest rates. It increases liquidity for commercial banks to lend money to stimulate the economy. Reducing the proportion of cash reserves of commercial banks, this causes commercial banks to have excess cash that can be used for lending to stimulate the economy. For example, in 2021, Bank of China lowered the cash reserve rate for commercial banks to 8.9 % so that financial institutions can lend an additional 1 trillion to the system yuan or approximately 5 trillion baht. While tight monetary policy is monetary policy used by central banks to slow the growth of the economy. This policy contrasts with an accommodative monetary policy, such as increasing the policy interest rate, selling government or private bonds, conducting QT, and increasing the proportion of cash reserves of commercial banks.

Using current monetary policy, many central banks have begun adjusting monetary policy. It raises interest rates and takes liquidity out of the economy from the current inflation situation. After the use of accommodative monetary policy is during the COVID crisis of 2020. After the US Federal Reserve or Fed implemented the QT to measure and bring liquidity back to the central bank and raise interest rates. This has caused many central banks to adjust their monetary policies in line with the Fed due to the pressure of international interest rate differentials to maintain financial stability abroad. For example, the Hong Kong Monetary Authority (HKMA) raised interest rates immediately after the Fed raised interest rates because Hong Kong uses a strict exchange rate fixing system. In addition to the Fed raising interest rates, inflation is another factor that causes central banks to adopt tight monetary policies. For example, the Bank of England (BOE) raised the policy interest rate from 0.25 % to 1.25 % to solve the problem of inflation from the Russia-Ukraine war. In many developed countries, it has gradually changed monetary policy from before, such as reducing or stopping easing monetary policy. For example, cancelling QE and turning to QT instead of the Fed or cancelling the control of bond yields by the Reserve Bank of Australia. However, there are some countries that do not follow the Fed's monetary policy or change the original monetary policy, such as the Bank of Japan which maintains the policy interest rate and bond yields or the Bank of China that cuts interest rates to stimulate the economy.

### 9.1.8. Challenges in Fiscal Policy Implementation

The implementation of fiscal policy, despite its potential benefits, is fraught with numerous challenges that governments must navigate to achieve their economic objectives effectively. The study named “Cyclical variation of fiscal multipliers in Caucasus and Central Asia economies: empirical evidence” (Shah & Afridi, 2023) focuses on estimating fiscal multipliers and evaluating the effectiveness of fiscal policy in the Caucasus and Central Asia economies over the medium term. In the

face of economic downturn problems, an important tool for revitalizing and stimulating the economy is “Fiscal policy,” especially government spending and various tax measures. Fiscal policy to fight this round of economic crisis is different from the past. One needs to 'rethink' about the public debt. How is government spending, taxes, and fiscal discipline? What are the short-term and long-term concerns of fiscal management? And what should I do to stop worrying? Management on the 'debt trajectory' clearly affects long-term economic growth. If the government can manage the trend of debt so that it does not grow endlessly. Even if the number is very high, it is not a problem. Therefore, the government cannot clearly determine the public debt criteria for each country. How much is bad? It all depends on many factors. Fiscal sustainability is defined as: A level of public debt that does not threaten economic growth and it does not weaken foreign investors' confidence in government bonds. Within this framework, the main factors affecting fiscal sustainability include: 1. Debt profile, that is, who holds the debt. When does the debt expire? And how much is the burden of debt? And 2. The trend of debt or debt trajectory is the direction of debt change which depends on the cost of repaying the debt and the need to borrow more in the future.

### 9.1.9. External Debt and Fiscal Sustainability

External debt poses significant challenges to fiscal sustainability, requiring careful management to avoid adverse consequences for a nation's economic health. Fiscal sustainability or fiscal stability in the medium and long term, including fiscal discipline is important for Thailand. Because in addition to making the government, private sector, and the public confident in the country's fiscal stability, it also helps build confidence for both domestic and foreign investors and the country's fiscal credibility on the world stage, such as international financial organizations and credit rating agencies. If comparing public policy to investment in creating public debt, one should consider the 'returns' and 'costs' of debt creation. The reward for incurring debt is the provision of adequate and thorough public services. Increase the potential for economic growth and distribute income are more equally. This will return to good tax revenue growth while cost is the interest rate that the government must pay to borrow. Because the government collects taxes to repay public debt. The costs will then revert to being expenses of people in the economy in the future. Finance will be stable. In addition to referring to the balance of income and expenses. It must also be considered whether the spending creates worthwhile public benefits or not. From a macroeconomic perspective, debt does not create worthwhile economic benefits. Besides the income of the population reflects the country's ability to pay off its debt. The numbers therefore reflect that the ability to repay debt has increased behind the debt burden. This means that the Thai economy has less 'room' to create new debt. When creating new debt is limited. The government sector therefore lacks flexibility in spending to maintain economic stability in the short term. The economic system is therefore vulnerable to negative factors in the surrounding environment. In addition, the government sector will lack investment capacity to increase the potential for long-term economic growth.

### 9.1.10. Fiscal Policy in Developing Countries

Fiscal policy in developing countries is a dynamic and complex endeavour marked by unique challenges and opportunities. The government sector is considered to play a huge role in the economic development of the country. This can be seen from the experiences of various countries. The government sector is responsible for setting and implementing strategies, providing basic utilities, providing public services to create a good quality of life for people including setting and maintaining laws so that people can live together peacefully. In many cases, the government sector in many countries has become the source of economic problems. The most recent example is in European countries. The government sector of the country has spent too much money to provide welfare to the people and civil servants in the country until causing a state of insolvency and ultimately leading to a

state of economic crisis for the country. The role of the government sector in economic development has received widespread attention from academics. One way that many studies have focused on is the issue of the government's fiscal policy and the country's economic growth. Fiscal policy is primarily concerned with government spending and taxation. In the past, the focus was on the size of the government. Because from an economic point of view, Government performance often creates distortions that result in losses in terms of economic efficiency. Therefore, the government should limit its role to only what is necessary. That is, the government should be limited in size relative to the country's GDP level. However, the issue has recently changed. It is said that the size of government may be less important than the policy behaviour of the government itself. That is, large governments in some countries can create economic growth for the country. The government is focused on building the country's long-term potential and implementing policies with discipline. The concept of this group of studies focuses on the potential economic growth of a country, which involves development on the supply side rather than the demand side. That is, a country will have potential development if the domestic production sector is good. It is necessary to use various forms of production factors such as physical capital, labour, and production technology developed both in terms of quantity and quality.

Developed countries focus on resolving financial sector problems. Stimulating the real economy and trying our best to make new monetary and fiscal policy initiatives of each country are consistent. While many countries are using the expansion of public sector balance sheets as a tool to stimulate economic growth. But those countries still must consider their credit in the future including the fiscal capacity of the country. On the other side, one has (a) middle-income countries with excess capacity both in producing and exporting industrial goods for consumption; to high-income countries including high demand for capital goods; and (b) low-income countries with excess capacity to produce commodities. In middle-income and low-income countries, there is evidence that investment in infrastructure has slowed for some time. Due to various chronic problems such as past and present financial and fiscal limitations, quality of governance in the country technical ability to select appropriate projects political economy issues and much more. Therefore, while developing countries have different capabilities to implement fiscal measures to stimulate domestic demand. This world economic crisis is likely to present investment opportunities with specific goals to increase future productivity and bring these countries to a position that will create greater competitiveness after the crisis has passed. Investing in infrastructure is therefore the investment in the economic sector that seems to make the most sense. This is because it is an investment that provides high returns and has a huge positive impact on other sectors.

### 9.1.11. The Role of Fiscal Institutions

Fiscal policy It is a policy that the government collects income from taxes and government spending, which is a tool to maintain economic stability, such as in the case of unemployment, inflation, and product prices being too high or too low. It measures to change tax rates either in terms of increasing or decreasing tax rates or changes in the amount of government spending. Fiscal Policy Office its mission involves recommending and preparing policies and measures for the fiscal system, financial system, as well as the macro-economy and international economy. Increase competitiveness and promote sustainable economic and social development are including the development of a standardized administrative system and modern technology to monitor, supervise, evaluate, and report on the results of various policies or standards related to the Ministry of Finance as well as enhancing knowledge, understanding and acceptance of policies and results to target groups. The public and general agencies are both domestically and abroad by having the following powers and duties: a) Fiscal policy and tax policy: it is regarding finance and taxes to be consistent with government policy, monetary policy, savings, and investment policy. Its duty is to recommend and prepare policies, plans, and measures regarding the financial system, savings, investment, and capital market development as well as planning and implementing international financial and banking cooperation.

Moreover, the international organizations are suit the situation and goals of the country's macroeconomic and microeconomic policies. b) Macroeconomic policy and international economics: Its duty is to recommend and prepare policies and measures regarding the macro-economy and international economy including planning, coordinating, and implementing international financial and fiscal cooperation and international organizations to meet international obligations and comply with government policy and related laws. c) Other aspects: Its duty is to be a coordination centre with relevant agencies to prevent and suppress offenses that are economic and financial crimes including recommending policies and measures to investigate and follow up on offenses related to informal financial businesses.

### 9.1.12. Innovations in Fiscal Policy

In an era of rapid technological advancements and global interconnectivity, innovations in fiscal policy are emerging. Digital taxation, green fiscal policies promoting environmental sustainability, and novel approaches to address income inequality are examples of contemporary innovations. Innovation means new things that arise from the use of knowledge and creativity. It is a beneficial to the economy and society through experimentation or have been developed in stages. It is starting with invention to development, which may be in the form of a pilot project and then put into practice. It is different from the previous practice. Innovation is therefore a new idea, practice, or invention that has not been used before or is a development and modification of something that already exists to be modern and more effective. When innovation is used, it will help work to be more efficient and more effective than before. It also saves time and resources. Fiscal institutions play a pivotal role in shaping the effectiveness and credibility of fiscal policy within a nation. These institutions encompass the organizational structures, rules, and procedures that govern how fiscal decisions are made, executed, and monitored. Public sector innovation refers to new government work that arises from the use of knowledge, skills, experience, and creativity in development. They create change and value called “Public Value” or economic and social benefit. This may take the form of new policies, new services, new processes, or new products. Innovation is classified as the following:

1. Policy Innovation is a policy initiative. New laws and rules are to be modern, appropriate and up to date with the situation including having connections with the national strategy.
2. Service Innovation is innovation used to develop and create value in government services. Improving services or creating new services is to improve the efficiency of public service, such as mobile service units online legal entity registration, etc.
3. Management/organizational innovation is called “Administrative or Organizational Innovation” involves creating or improving new procedures, new process as well as developing the quality of administration to increase efficiency in government operations or the process of organizing a new organizational structure or setting up a new system that results in restructuring relationships between various stakeholders.

## 9.2. Monetary policy and development

Monetary policy, as a crucial tool in the economic policymaker's toolkit, plays a central role in shaping the development trajectories of nations. Integrated monetary policy creates power from combining tools. Moving towards comprehensive policy implementation, timely and consistent is with the new context integrated monetary policy and create power from combining tools. In the present, amidst the complex economic structure and high connectivity between various sectors, coupled with the COVID-19 outbreak that has had a severe impact on the economy on a wide scale. This is an impetus for central banks in many countries to accelerate the use of various tools to deal with the crisis. The development of the Integrated Policy Framework (IPF) to systematically analyse the combination of tools is therefore very important. To be able to use tools to solve problems at the point

and to sequence the use of tools appropriately. Without expecting too many results from any one tool. This article presents a combination of policy tools that are appropriate in the Thai context. To answer the challenges that the economy will face in the next period. Integrated policy instruments (IPF) is an approach to central bank policy that has been applied in many countries. To meet the increasing challenges of policy makers due to the complex interconnection of economic and financial sectors, emerging market countries (EMs), including Thailand, also face fluctuations in capital flows. Moves and exchange rates have increased since the global financial crisis. The central bank may not be able to let the policy interest rate be the only tool to bear the burden in solving every problem. We therefore see central banks in EMs combining other tools, such as FX intervention, to manage exchange rate fluctuations or policies to maintain the stability of the financial system. Macroprudential policy (MaPP) to manage the accumulated risks in the financial sector, the role of the IPF is becoming more important and allows central banks to combine a variety of tools. This will increase the efficiency of policy implementation to achieve the central bank's goal of maintaining stability of the economy and financial system.

### 9.2.1. The Basics of Monetary Policy

Monetary policy constitutes a fundamental aspect of economic management, primarily overseen by a country's central bank. The delicate calibration of interest rates reflects the central bank's efforts to maintain price stability while supporting economic growth (Barro, 1997; Barro & Sala-i-Martin, 2003). Central banks utilize a range of instruments, including open market operations, discount rates, and reserve requirements, to influence the money supply and credit conditions. By adjusting these variables, central banks aim to steer the economy towards a path of stable inflation, low unemployment, and overall economic well-being (International Monetary Fund, 2020). Important duties of all central banks are the determination of monetary policy. In each country, the people responsible for overseeing in the economy are the government and the central bank. The government uses fiscal policy, and the central bank uses monetary policy to take care of the domestic economy. Types of policies and their impact on the economic system. Monetary policy refers to issuing policy using the central bank's financial tools, such as Interest rates, money supply, and exchange rates to determine the cost of borrowing or the money supply in the economy. The central bank uses the policy interest rate. It is the main tool for implementing monetary policy. Monetary policy is divided into two types: accommodative monetary policy and tight monetary policy, with both policies used for different purposes. An accommodative monetary policy is monetary policy in which the central bank wants the economy to expand when the economy is sluggish or wants to stimulate the economy.

1) Reducing the policy interest rate when the reference interest rate decreases. This causes interest rates on loans and deposits to decrease. There is an incentive to borrow more and deposit less. It causes investment and employment increases. The economy expands.

2) Buying government or private bonds to inject liquidity into the financial system causing money to enter the government and private sectors. The amount of money in the economy increases. Consumption occurs and invest is more within the economy, such as the US Federal Reserve's QE by using money to buy bonds. Commercial banks lower long-term interest rates. It increases liquidity for commercial banks to lend money to stimulate the economy.

3) Reducing the proportion of cash reserves of commercial banks. This causes commercial banks to have excess cash that can be used for lending to stimulate the economy. For example, in 2021, the People's Bank of China lowered the cash reserve rate for commercial banks to 8.9 % so that financial institutions can lend an additional 1 trillion Yuan or approximately 5 trillion baht to the system. While tight monetary policy is monetary policy used by central banks to slow the growth of the economy. This policy contrasts with an accommodative monetary policy, such as increasing the policy interest rate, selling government or private bonds, conducting QT, and increasing the proportion of cash reserves of commercial banks. Many central banks have begun adjusting monetary policy. It raises

interest rates and takes liquidity out of the economy from the current inflation situation after the use of accommodative monetary policy during the COVID crisis of 2020.

### 9.2.2. Interest Rates and Economic Activity

One of the primary tools of monetary policy is the control of interest rates. Lowering interest rates encourages borrowing and spending, stimulating economic activity. Conversely, raising interest rates can cool an overheating economy, combat inflation, and encourage savings. The policy interest rate is set by the central bank. It is the most important interest rate that affects other interest rates in the economy. Policy interest rate is the rate at which the central bank pays interest to commercial banks that deposit money or is the rate at which the central bank collects interest from commercial banks that borrow money. The policy interest rate will affect the interest rate that commercial banks charge customers who are borrowers or depositors. What monetary policy essentially does is. It determines the opportunity costs of using money which is known to the public in the form of interest. Interest is considered the cost of the opportunity to use money because when a loan is made between two parties. The party that received the money can use that money. As for the party that lends the money, they will temporarily lose the opportunity before getting their money back. The interest paid between the two parties is the cost of the opportunity gained by one and lost by the other. Such costs affect economic transactions. If costs increase, there will be fewer people who will have the opportunity to use that money. For example, investors don't want to borrow money because the costs are higher. The good thing is that people are willing to sell that opportunity such as those who save money, buyers of bonds and debentures will get more benefits because of higher interest rates.

Interest tools and this includes the exchange rate, which is a tool that the central bank tends to use infrequently, especially in the past 10 years allowing the Central Bank to set objectives in 3 major areas:

(a) make the economy more active in times of economic stagnation or slow it down in times of economic overheating.

(b) cause the price level to increase or decrease continuously for a period; This is better known as inflation.

(c) Bring borrowing activities to an appropriate level, not too much, not too little. For example, not creating excessive household debt in cases where interest rates are low for a long time.

All three objectives share the same goal of stabilizing the overall economic system in the medium to long term. Which has many proofs in the history of the world economy and every country's economy. It can be said that it is a pre-condition of economic growth and development that makes people's lives better in a sustainable way.

### 9.2.3. Inflation Targeting

Inflation targeting is a widely adopted monetary policy framework that central banks use to guide and communicate their objectives for price stability. By embracing new technologies, addressing inequalities, and coordinating efforts with fiscal authorities, central banks can contribute to a more resilient, inclusive, and sustainable development trajectory for nations around the world (Krugman, 1994; 1991). What monetary policy essentially does. It is determine the opportunity costs of using money. Which is known to the public in the form of interest. Interest is considered the cost of the opportunity to use money because when a loan is made between two parties. The party that received the money can use that money. As for the party that lends the money, they will temporarily lose the opportunity before getting their money back. The interest paid between the two parties is the cost of the opportunity gained by one and lost by the other. Such costs affect economic transactions. If

increases, there will be fewer people who will have the opportunity to use that money. For example, investors do not want to borrow money because the costs are higher. The good thing is that people are willing to sell that opportunity such as those who save money, buyers are buying bonds and debentures. It will get more benefits because of higher interest rates. Interest tools and this includes the exchange rate, which is a tool that; for example, the Bank of Thailand tends to use infrequently, especially in the past 10 years allowing the Bank of Thailand to set objectives in 3 major areas:
(a) making the economy more active in times of economic stagnation or slow it down in times of economic overheating
(b) causing the price level to increase or decrease continuously for a period; This is better known as inflation.
(c) Bring borrowing activities to an appropriate level, not too much, not too little. For example, not creating excessive household debt in cases where interest rates are low for a long time. The awareness of roles is the responsibilities of the world bank. It includes setting monetary policy to create a stable financial system. Maintain the prices of goods and services do not change too quickly and excessively. Until it can affect the business sector and people. By taking care of price stability. If considering the management context within the Central Bank's target framework with a fair mind by choosing tools under legal legitimacy. It is indeed a correct implementation of monetary policy that is difficult to deny.

Inflation Targeting, Central bank supervision became very popular in those days. This began with reforming the duties and roles of the Reserve Bank of New Zealand, which was created by the Reserve Bank of New Zealand Act of 1989, which established the Governor of the Reserve Bank of New Zealand. It has an obligation to maintain price stability as its primary duty. There is a clear written contract between the governor and the government.
In case study, the Bank of Thailand's setting of the inflation target framework can be criticized academically. This is a point of observation that many economic academics have made. They questioned whether maintaining the policy interest rate at 2.5 percent was really an effective way to maintain the inflation target. First, the inflation target framework set by the Bank of Thailand have a duty to take responsibility. It consistent with the factors of inflation arising from supply, especially the supply that occurs outside the country. This is because the policy interest rate will affect the efficiency of gross domestic spending. But it is difficult to manage aggregate supply to a controllable level, such as expenses related to public utilities. The government is providing subsidies currently. If the government cancels or reduces subsidies, can the Bank of Thailand reasonably predict that setting the interest rate unchanged will be able to effectively alleviate the inflation problem or keep the inflation level within the target framework, etc. The duties and responsibilities of the Bank of Thailand start from the issuance of and manage government banknotes and bank cards, supervising and inspecting on financial institutions, setting and implement monetary policy. Be a government banker and securities registrar, establish or support the establishment of payment systems. Manage currency exchange rates under the currency exchange system including managing assets in currency reserves. According to the law on currency and control the exchange of money according to the law governing exchange control. Central bank's inflation targets framework and policy interest rate. In other words, The Bank of Thailand has only managed price stability. But supervise and take responsibility for various types of work. Anxiety is probably inevitable about that. Bank of Thailand

## 9.3. Exchange rates and development

Thailand uses a floating exchange rate system. The Bank of Thailand (BoT) has not set the currency at any one value. But we will take care to keep the value of the currency within an appropriate framework consistent with the fundamentals of the Thai economy. In the past, the BoT has closely followed developments in the value of the baht. There is a set of measures to ensure that short-term funds do not affect exchange rates too much. This will have a continuous impact on entrepreneurs who

do business. In some periods, the baht strengthens or depreciates quickly. If it is not consistent with the economic fundamentals, the BoT will take care of it appropriately. Exchange rates refer to the value at which one country's currency can be exchanged for another currency. It represents the relative worth of different currencies in the global market and plays a crucial role in international trade, finance, and investment. The movement of the currency such as baht in any direction, is like two sides of a coin, with both people benefiting and people losing. For example, the baht strengthening by 1 baht may cause the exporter's income to disappear. But the other side of the fact is “Expenses from having to import goods” such as oil, machinery, raw materials from abroad has decreased as well. Therefore, considering changes in exchange rates and their effects must look at both the source and the beneficial side, and the disadvantageous side. Movements in the value of the currency are a result of both external factors such as the economic situation and monetary policy of major countries. International trade policy (Politics and Geopolitics) and domestic factors such as basic economic factors foreign stability and political stability. In the future, risks and exchange rate fluctuations are likely to increase both from the monetary policy implementation of major countries such as the United States. and geopolitical risk problems (Geopolitical risk) in many regions Under this world context Currency changes are difficult to predict. Business operators should not waste time guessing or speculating on exchange rates. But one should manage risks and build tolerance to exchange rate fluctuations through regular risk management. The economic factors or variables that determines the movement of currency values and transactions in the foreign exchange market They are numerous and highly dynamic. Predicting or forecasting currency exchange rates is therefore difficult. There are many economic theories that attempt to predict changes in the value of currencies. and the exchange rate system through the relationship between exchange rates interest rate and inflation This will reflect the spot exchange rate (Spot Rate).

## Summary

Macroeconomic policies influence the distribution of income within a society. Addressing poverty and inequality involves not only fostering economic growth but also implementing policies that ensure the benefits are shared more equitably. This includes social safety nets, education initiatives, and targeted poverty reduction programs (Collier, 2007; Collier & Dollar,.2002). The Human Development Index, encompassing factors like life expectancy, education, and income, provides a comprehensive measure of a country's development beyond economic metrics. Improving human development is a critical aspect of the macroeconomics of development (United Nations Development Programme, 2019; Acemoglu, Johnson, & Robinson, 2001). Therefore, the trends and directions of social, economic, and political change at the macro level or at the global level are determined by five basic factors that change at the macro level: 1) the increase in the number of the middle class population with economic influence; 2) changes in the world's political culture due to the influence of the mass media; 3) shifting economic power bases from the Western world to the Eastern world; 4) changes in science and technology towards Industry 4.0; and 5) changes in energy, environment and safety. These changes will affect the direction of future economic and industrial expansion both at the global and regional levels. As the example of Thailand in the context, it is one of the countries facing such changes, Thailand and the Thai industrial sector must urgently understand the factors that will change at the macro level to raise the level of national development and change in domestic industry to help adjust the country's development strategy and define organizational strategies. It can seamlessly connect with those changes to increase the efficiency of sustainable development of the country and domestic industry.

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# CHAPTER 10: INTERNATIONAL TRADE AND DEVELOPMENT

International trade and development are intricately woven into the fabric of the global economy, shaping the fortunes of nations and individuals alike. The nexus between these two phenomena is a dynamic force that transcends borders, fostering cooperation, economic growth, and shared prosperity (Acemoglu & Robinson, 2012). In recent decades, the globalization of supply chains and the emergence of new technologies have reshaped the landscape of international trade and development. The rise of digital trade, e-commerce, and global value chains has presented both opportunities and challenges for nations seeking to harness the benefits of the global marketplace. Moreover, the COVID-19 pandemic has underscored the interconnectedness of the world economy, emphasizing the need for resilience and adaptability in the face of unforeseen disruptions (Baldwin, 2016).

## 10.1. International trade and balance of payments

International trade is a cornerstone of the global economy, facilitating the exchange of goods and services across national borders. Balance of Payment (BoP) or international balance of payments (IBoP) means the account recording the total receipts total trade and investment expenses that the country has paid or received from abroad in a period of 1 year. The balance of trade and payments account is a collection of statistics on the exchange of goods and services between countries, divided into the exchange for goods that a country needs are called debits. The exchange of goods and services sent to people abroad for what they need is called credit. The characteristics of a country's trade balance are divided into 3 characteristics as follows:

1. Favourable balance of trade indicates that the country has a higher value of exported goods than imported goods.

2. Unfavourable balance of trade indicates that the country has less value of exported goods than imported goods.

3. Equilibrium in balance of trade shows that the country's export value is equal to the value of imported goods in the balance of payments.

Balance of Payment consists of 4 important accounts:

1. Current Account consists of:

Trade balance means an account that shows the comparison of the value of exported goods with the value of imported goods. For example, if the value of exporting goods is greater than the value of importing goods, it means that the country will have more income from exporting goods than the expenditure on ordering imported goods, called trade balance surplus. But in the case where the value of exporting goods is less than the value of importing goods, that is, the country's income from exporting goods is less than the expenditure on importing goods, we call it a trade balance deficit. But what if the two differences are zero, we will call it balance of trade balance.

Service balance refers to the account that reflects international trade in services, such as freight, insurance, transportation costs, tourism revenue, investment income, income from labour and other services

Income is the return received from investment and operating a business abroad, such as interest, salary, dividends.

2. Capital Movement Account: There are 2 types of international capital movements:

1. Direct investment for example, Japan came to invest in building a car assembly plant in Thailand.

2. Indirect investment, such as taking money to buy stocks or depositing it in a commercial bank, the returns received is dividends or interest

Donation account or transfer payment is an account that records transactions related to donations, aid and various transfers received or transferred by the country to foreign countries.

3. Intonational Reserve Account:

Contains gold, foreign currency and Special Drawing Rights: SDR received from the IMF for using as international reserves. It is an account that shows the position of the balance of payments. It is the movement of international reserves to compensate for the difference between the total amount of foreign currency received and the foreign currency that must be paid in the current account, capital account, and donation account over a period of 1 year.

### 10.1.1. The Dynamics of International Trade

The economic dynamics of the world is very volatile currently. Economic agencies and the Bureau of Economic Research have both revised their estimates. The frequency of forecast revisions has clearly increased. This is not because economic models or models fail to make predictions or that economic predictions using tools like econometrics are not effective. If it is because of the rapid fluctuations of the capitalist system, borderless globalization, and high uncertainty. At least 8 reforms and economic restructuring in the transitional period will be proposed and these proposals will be submitted to the government reform council. What the government will do or not do is a political decision. Reform must both improve competitiveness and reduce the problem of unfair distribution of wealth and income by reforming the government's tax and revenue systems. Accelerating investment in economic infrastructure and investment in human resources, land reform and land tenure, reform of the social welfare system, agricultural reform population, restructuring of the manufacturing sector, budget reform and adjusting the strategic focus “Quality of life” and sustainable development. The details are as follows:

1. Reform of the tax system: Therefore, it is necessary to reform the tax structure, tax rates, tax base, and use tax tools to manage the economy, society, and politics for the better. Tax measures can manage the economy both in the dimension of promoting economic expansion (Investment tax reduction consumption or production activities), distribution of wealth (Increase property taxes and inheritance taxes), support competitiveness (Reducing taxes on certain types of raw materials or factors of production) and stimulates investment in science and technology (Tax reduction to stimulate investment) and helps in social management (Sin tax to control vice activities) and environmental problems (taxing various pollution taxes) as well as strengthening democracy By making political parties and political institutions more publicly owned through tax donations or donations to support political parties that can then be used.

Tax deductible: The government must collect taxes in a more progressive manner and expand the tax base, especially property taxes. The government income figure should be pushed up to a level of approximately 20 % of GDP, so the fiscal position is stable and does not affect economic expansion.

Tax restructuring is inevitable. tax push Property tax, which is a tax collected from the property base, will help the state reduce its reliance on taxes collected from the income base. Things that can reduce economic inequality in society.

2. Accelerate investment in economic infrastructure according to example of the 2 trillion-baht project and the 350-billion-baht water management project, adhering to the principles of transparency

and efficiency in operations. and investing in human resources by reforming the education system and public health service system to ensure thoroughness and quality. Make everyone have access to quality and thorough service.

3. Push for land reform and decentralize land ownership and production factors.

4. Reforming the social welfare system: using the welfare state mechanism in conjunction with the welfare society by reducing populist measures or policies.

5. Reforming the agricultural sector to have higher yields per area, reduce costs, and increase bargaining power for farmers through the cooperative movement. Gradually reduce measures to intervene in prices or support prices that go against market mechanisms too much. Increase the balance of the agricultural and industrial sectors in the Thai economy.

6. Adjust the population structure by increasing the birth rate to avoid problems. High dependency rate in the future and entering the aging society too quickly.

7. Adjust production structure using technology and reduce energy use.

8. Develop the economy using “Quality of life” is the goal of development, Sustainable development by taking care of Environment and social responsibility

International trade is founded on the principle of comparative advantage, wherein countries specialize in producing goods and services in which they have a relative efficiency.

### 10.1.2. The Balance of Payments Framework

The balance of payments is a systematic record of a country's economic transactions with the rest of the world over a specific period. It is the net result of income and expenditure from international transactions both in the real economic sector and financial sector. This will affect the value of the country's currency to become strong or weak. The balance of payments, a simple explanation, is the country's income minus the country's expenses. The income and expenses of each country are divided into 2 parts:

- Current account balance that reflects the real economy
- Capital account balance that reflects the financial sector

The current account balance consists of 4 parts:

1. The trade balance is the value of merchandise exports minus the value of the country's total merchandise imports. The trade: for example, is Thailand exports, such as exporting cars and the trade is that Thailand imports, such as importing crude oil.

2. Service balance is the value of service exports deducted by the total value of service imports of the country. For example, the services that Thailand exports, such as foreigners traveling in Thailand and for service expenses, such as expenses for studying abroad for Thai people.

3. Income-Expenses from work and investment is such as Thai people working abroad or invest abroad and receive returns. So, Thai people sent the money back to Thailand. Expenses from work and investment is such as foreigners coming to work in Thailand or invest in Thailand and receive returns. So, foreigners send money back abroad.

4. Income-Expenses from transfers and donations, for example, Thailand provides financial assistance to foreigners. It is considered an expense. As for if Thailand receives aid from abroad, it is considered income.

The capital account balance consists of 2 parts:

1. Capital account consists of

- Activities of transferring or transferring funds both in monetary and non-monetary form such as transfer of rights to capital goods, international transfer of fixed asset rights.

- Buying and selling assets that cannot be produced such as international trade in copyrights, patents, concessions. If the country purchases it, it is a national expense. If sold, it is the country's income.

2. Financial accounts consist of

- Foreign direct investment
- Investing in securities, both equity and debt instruments
- Investing in financial derivatives (Calculated from profits or losses from derivative contracts)
- Other investments such as loans and deposits

When all income and expenses of the country are combined, it can be written as an equation that:

Balance of payments = current account balance + capital account balance

If the country's income is more than the country's expenditure (Balance of payments is +), we call the balance of payments “surplus”.

If the country's income is less than the country's expenses (Balance of payments is -), we call the balance of payments “deficit.”

If the country's income is equal to the country's expenditure, we call the balance of payments “balanced”.

What you need to understand well is a balance of payments surplus or deficit is not enough to tell whether the country's economy good or bad.

For example: Countries with a balance of payments deficit, it may be that the country's exports (income) have not decreased, but the country's expenses increased from importing a large amount of machinery to expand production capacity. If it is like this, it does not mean that the potential of the country's economy will worsen.

In summary, the balance of payments is in surplus or in deficit. It can only be said that at that time the country had income coming in expenses paid out by the country. Which if there is more income entering the country than expenses, this will create a higher demand for the country’s currency than foreign currency. And it is also a factor that makes the country’s currency stronger. On the contrary, if there is less income entering the country than expenses, it is also a factor that causes the country’s currency to depreciate.

### 10.1.3. The Impact of International Trade on the Balance of Payments

We normally record the inflow and outflow of foreign currency in the balance of payments, which consists of three important parts: the current account balance, financial account balance or capital account and the Reserve Bank Account of the Central Bank

1. Current account balance is a measure of money coming in and going out of the country from the trade balance (exports minus imports of goods), services (such as tourism financial services, etc.), transfers (such as grants from/to other countries), and payments to owners of factors of production (such as interest, rent, and repatriated profits). If money from abroad enters the country more than money flows out. For example, if exports are more than imports and have a lot of income from tourism, we would call it a current account surplus. If the money coming in is less than the money going out, it is called a current account deficit.

2. Financial accounting (Or some people call it the "Capital Account") measures money coming in and out of the country from investments. This includes net direct investment (Investment from abroad minus investment from country abroad), investment in securities (Foreigners buy country stocks or bonds Minus country’s people buying foreign stocks or bonds) and all international lending.

If we have more capital flowing into the country than money flowing out, we call it the country's financial account surplus.

3. The reserve account of the central bank, in the same period, how much did the central bank intervene in the value of the currency by buying/selling foreign currency?

By general, the principal balance of payments is the sum of these three balances which should always be zero. If the central bank does not intervene in the value of the currency at all, the currency should adjust itself so that balance of payments balance. That is, if the country has a current account deficit, there must be a financial account surplus in order to "finance" the current account deficit with funds in some way. Otherwise, the currency must continue to weaken. But if there is an intervention in the value of the currency, the sum of the current account balance and the financial account balance would be equivalent to central bank intervention. For example, if there were surpluses on both the current account and the monetary account, this means that the central bank will probably have to intervene in the value of the currency by buying more foreign currency to accumulate as reserves.

The relationship between international trade and the balance of payments is evident in the way trade activities influence each of the three main components. Important imports of capital goods in addition to machinery used for industrial purposes. Trade balance and current account balance even though exports are increasing but imports are accelerating very much. This resulted in a trade surplus of 4.4 billion US dollars, slowing down from a surplus of 7.2 billion US dollars in the same period last year, while the balance of services and donations were in surplus because interest expenses of the private sector decreased from the same period last year. A lot this resulted in the current account surplus of 7.0 billion US dollars, compared to 9.2 billion US dollars in the same period last year. Net capital movement deficit was 8.2 billion US dollars, increasing from the same period. Last year there was a deficit of 7.5 billion US dollars due to repayment of foreign loans up to 7.4 billion US dollars. Same period in the previous year, foreign loan repayments amounted to 11.1 billion US dollars of this amount, 2.7 billion US dollars were premature loan repayments, which was a major cause of the liquidity of the baht in the country allows potential private businesses to raise baht from the domestic market to pay off foreign debt to reduce exchange rate risk. In addition, the value of the baht during the second quarter was quite stable. Therefore, motivating the business sector to expedite debt repayment to foreign countries to reduce risks in business operations. As for debt repayment in the commercial banking sector, it decreased from the same period last year. Because the debt balance of the international banking business has decreased significantly from payments made in the previous year.

The current account balance provides three important aspects of information. First, the current account tells that a country has foreign currency flowing in and out through the real economy. It is the export and import of goods and services. and sending money back to the country in which how much? This indicates the country's competitiveness. If there is a large surplus, it means that exports exceed imports compete well with locals. The current account balance is usually quite consistent and difficult to change. If a country has a deficit, it will be in deficit for a while. Unless there is a major change, such as a crisis or a drastic change in the value of the currency. This is different from the inflow and outflow of capital. That is changing quite quickly. Second, the current account balance indicates that a country is accumulating assets or liabilities with other countries in the world. If a country has a current account surplus, it means that there is a deficit in the financial account or there is a net capital outflow or intervention by purchasing foreign currency, which is the accumulation of foreign assets or reduce foreign debt. On the other hand, countries with current account deficits, there must be a net inflow of capital. It is as if they are accumulating "debt" from foreign countries or reduce assets abroad whether debt through borrowing or debt through other investments that might flow back out someday. Third, the current account balance reflects the difference between "savings" and "investment" in the country. Countries that have a current account surplus is a country where savings is greater than investment (both private sector savings and government savings). There is excess

savings that you do not know what to do with it until having to send savings to accumulate abroad or there is domestic money being used (domestic demand) less than the income generated and investment takes place abroad instead of within the country.

For countries with current account deficits, it is a country that is borrowing money from abroad to invest. Because savings in the country are not enough and have a huge current account deficit compared to the size of the economy over a long period of time. Therefore, it is often a warning signal that the economy may be overheating. Because investment exceeds the savings the country must accumulate a lot of debt and there may be balance of payments problems. That is, there is not enough foreign currency to support capital outflows in the future if confidence disappears.

If you recall, for example, Thailand before the 1997 crisis, it had a current account deficit of more than seven percent of GDP for many consecutive years. Until country's currency was attacked with the reserves were completely depleted. If so, the country that has a large current account surplus, it should be good news, shouldn't it? If you look at it from the perspective of economic stability, the answer is "yes". Current account surplus means even though there is a problem of capital outflow, we still have money flowing in from the trade surplus and services to support us. And the currency probably will not depreciate quickly. But if we look at economic growth, it is worrisome. Because it means that the country is deleveraging or gradually reducing debt, which may mean that the economy is growing more slowly. Because the demand for investment in the country is less than savings and investments of Thai people are happening abroad. Especially, now we are running a current account surplus. It is not because we can export more. But this is because imports are shrinking. Even though our exports still have negative growth. But the contraction in imports was more severe from falling oil prices, decline in imports of goods for consumption according to economic conditions and imports of machinery and raw materials that slowed down along with production and investment. This caused us to have an unexpected current account surplus. And if looking from the savings and investment side, the large current account surplus, this means that we are in a state of overflowing savings in the country. We spend less domestically than the country earns. And people in the country do not know what to invest their savings into. The problem of uncertain economic conditions sluggish world trade and loss of the country's competitiveness and attractiveness in investment opportunities causing investors to delay further investment. If looking at the production capacity utilization of Thai manufacturers, it still does not really see the need to invest more and it is worth noting that in the past few years. More Thai investors have gone to invest directly abroad than foreign countries have come to invest in Thailand and investors are diversifying their investments to invest in more foreign markets. If you think of it another way when we can save costs from oil prices and reducing other imports. For example, people used to fill up 3,000 baht per tank of gas. Now there are over a thousand baht remaining. The money saved is not used to consume other products and did not invest further. But it turned out to be mostly savings until the country's savings overflowed as seen. Even though we have a fiscal deficit which increases the demand for savings in the country. But it is still not enough to absorb the current overflowing liquidity. The obvious symptoms, it is a situation of low interest rates across the entire line that has never been seen before. The Thai government's ten-year bond interest rate only 1.7 percent remains at the end of last year that it was still around 2.5 percent, which must be considered the lowest interest rate in Thai history. And it is almost equal to the policy interest rate. Now the government can borrow for a period of twenty years obtained at a cost of 2 percent only. And government bond interest rates are lower than the policy interest rate until the maturity of five years. This means that investors are willing to hold long-term bonds at interest rates lower than the short-term interbank rate which may be translated as the market is predicting that the Marginal Propensity to Consume (MPC) may have to cut interest rates in the future or financial institutions and investors with extra money want to invest in safe assets rather than risking it.

As for the fiscal policy side with the country's overflowing savings, the lowest interest rates, the fiscal debt burden is not yet very high at present, but the future is uncertain and private investment

is not yet easily occurring. It is imperative that we push public investment to lead economic recovery along with support from monetary policy, even though public investment is limited and does not come easily. However, those investments must also be worthwhile and beneficial to the country in the long run.

### 10.1.4. Challenges and Considerations

Developments in the current account balance have caught the eye of economic analysts and are used to summarize the stability of foreign economies. However, interpretations of current account data often lead to distorted and inaccurate conclusions. This is because current account balance analysis under the concept of mainstream economics has important logical limitations that are overlooked. The current account balance and international capital flows, the differences that should not be overlooked. The current account balance provides limited information on transnational capital flows and a country's financial stability. However, interpretations of current account data often lead to distorted and inaccurate conclusions. This is because current account balance analysis under the concept of mainstream economics has important logical limitations that are overlooked. It is widely practiced analysing international financial linkages through the lens of the current account balance. The said information is used in 2 main dimensions. In the first dimension, the current account balance equals net capital flows reflects changes in a country's financial position or international investment position. The current account balance is therefore used to analyse and draw conclusions about the direction of international capital flows. For example, countries with current account surpluses are often seen as lenders to deficit countries. In the second dimension, the current account balance is seen as reflecting cross-border borrowing. Therefore, such information has been used to assess the financial stability of the country. For example, concerns that countries with current account deficits will be at risk of financial crisis. But current account balance data cannot completely indicate the financial status of a country and may lead to distorted conclusions about financial stability. According to the definition of national income accounts or national accounts, which measure the use of the economy's output. The current account balance is the difference between saving and investing in a closed economy. Productivity is equal to use. The current account balance is therefore equal to zero by default. For an open economy, the current account balance can be positive or negative due to international trade. For example, in cases where imports are higher than exports, Thailand is "buying" the produce by granting financial claims to foreign countries. Foreigners are holding more Thai assets. General analysis therefore often uses the current account balance as a reflection of cross-border borrowing. Under this view, foreign lending is creating output in quantities greater than what is used for consumption and investment in the country. Meanwhile, borrowing from abroad is using more output than the economy produces. The definition of this type of borrowing does not focus on the exchange of financial securities but rather on tracking the movement of international output.

In the above definition, savings are income or output that is not immediately consumed. In a closed economy, or for the world, the only way to save is by producing output and not consuming that output which is investment. Whether it is creating capital goods or accumulating inventory. Therefore, saving and investing are different sides of the same coin. The savings should not be viewed as a source of money that can support investment. Savings according to the definition of the national income account does not reflect the amount of money available to support spending but is the result of each type of spending. The real limit to spending is not savings, but the ability to raise funds (financing), which is a cash-flow concept, or the movement of cash flow that reflects the ability to acquire purchasing power whether from selling assets or borrowing. Investment and spending are required. It relies on fundraising, not savings. The process of generating income and saving occurs only when there is spending. That is, the ability to raise funds is what creates savings. For example, a company pays salaries to employees at the end of the month after that has already been produced. This case, it is like

the employee providing working capital to the company. The employee allows the company to "borrow" their labour in advance of receiving compensation. When the product comes out, the proportion consumed determines savings and investment during that period. In this case, the funds that is the credit in the form of revolving credit that employees give to the company before production is what allows savings and investment in the economy to take place. All economic activities are possible only because funds are raised. The source of the money is not savings but some form of credit.

The main flaw of mainstream analysis is that without a clear enough distinction between saving and financing, as explained by Borio and Disyatat (2016, 2011), the current account balance simply reflects the movement of net resources between countries. But it does not indicate actual cross-border capital flows or borrowing closely linking the current account balance to borrowing reflects the analytical logic of a moneyless economy. In such a system, borrowing takes the form of a direct exchange of goods and services. The lender needs the goods to be loaned before they can be delivered to the borrower. Resources accumulated in the past are therefore necessary for production and investment processes. In an economy where goods are exchanged directly (barter), financing and saving are one and the same. When adding the role of banks under this logic, banks require deposits before they can lend. But the real financial economy is more flexible than this. The ability of commercial banks to create new purchasing power by creating deposits along with granting loans results in financing and saving being completely separated (Disyatat, 2011).

While international trade offers numerous benefits, it also poses challenges and considerations, particularly in the context of the balance of payments. Therefore, the challenges and considerations as the benefits from challenges and considerations such as:

1.. Any products that cannot be produced in one country can be purchased from other countries, allowing each country to have more products to meet demand.

2. What products can be produced domestically: But it has a high cost. When compared to other countries, that country will not produce, but will choose to produce only products that have lower costs and are skilled. Then send it to sell and exchange. One will get good quality products and it is cheaper than producing it ourselves.

3. International trade creates knowledge and expertise in producing specific products according to one's expertise. This creates an incentive to invent production techniques for higher quality and lower prices.

4. Foreign trade provides developing countries with more modern production models. Existing resources can be used to produce more for export.

5. Staying abroad allows developing countries to know how to use foreign technology. To develop the country to be more prosperous, such as improving production is improve construction, housing develop roads and various energy sources.

The international economic transactions that allow international payments to occur It consists of three main types of transactions: purchases and sales of goods and services, money transfers, and purchases and sales of financial claims.

### 10.1.5. Policy Implications

In the balance of payments, the difference between savings and capital is reflected in the difference between net and gross capital flows. The current account balance shows net capital flows that come from trade in goods and services. But the data does not show financial transactions on securities exchanges, which make up most of all international capital. In open countries, total capital

flows tend to be higher than net capital flows. The current account balance thus reflects only a fraction of the transnational financial transactions taking place. When realizing the difference between saving and fundraising the distortions arising from current account balance analysis can be seen along two main dimensions.

1. Distortions in the analysis of global pattern of financial flows

Current account balance data are often used to summarize the direction of international capital and borrowing flows. Countries with current account deficits are viewed as borrowers from surplus countries, such as the current account deficit of the United States. Surpluses in emerging economies are often interpreted as reflecting capital flows from these countries to the United States. But, current account data cannot reveal the structure of international borrowing at all. It is true that a country's current account deficit always corresponds to another country's current account surplus. But this does not mean that there is borrowing taking place between surplus countries and deficit countries. Consumption and investment in each country may rely on various sources of capital both inside and outside the country. And there is no mechanism that determines whether the claimant of a country with a current account deficit is necessarily a country with a surplus. For example, Thailand's current account deficit with Japan does not mean that Thailand has increased debt with Japan. Thailand's higher foreign debt could be held by any country. Thai companies importing goods from Japan may pay for goods by transferring US dollar deposits that exists in a commercial bank in the United States to a Japanese company that sells. In this case, holdings of assets in the United States, a decrease in Thailand's current account deficit will be matched by Thailand's current account deficit (net inflow), while Japan's current account surplus will be reflected in increased US asset holdings (net outflow). The overall result of the deficit, the current account balance between Thailand and Japan is US asset holdings. The decreased for Thailand and US asset holdings increasing for Japan, therefore, the state of the current account balance. Therefore, it cannot indicate changes in the geographic structure of transnational claims.

2. Distortions in the analysis of the country's financial stability

Another dimension that is widely practiced is using current account balance data to assess a country's financial stability. The countries with current account deficits are at risk of financial crises caused by disruptions to capital flows is an example of an often-common conclusion. Improving current account balances are often seen as the precursor to so-called “sudden stops” of financial crises, with a sharp decline in the current account deficit being interpreted as a depletion of capital, leading to a deficit. Liquidity in the economy and direct financial crises but in reality, financial crises are caused by disruptions to the gross flows that support assets and support spending. When spending stops, imports will inevitably decrease and lead to a smaller or positive current account deficit. The adjustment of the current account balance is the only cause that reflects the adjustment of economic activity. This is consistent with several empirical studies that suggest the most predictive variable of a financial crisis is rapid credit expansion. The ability of the current account balance to guide the likelihood of a financial crisis disappears. Importantly, excessive credit expansion that has led to hugely damaging crises in the past has often been accompanied by current account surpluses, such as in the United States before the Great Depression and Japan in the late 1980s. Many countries with current account surpluses are currently experiencing overheated financial conditions and credit that is expanding relatively quickly, such as China. For these countries, focusing policy on solving the current account surplus problem by stimulating internal consumption (demand rebalancing), it risks creating financial stability problems as happened in Japan in late 1980s.

Effective policymaking is crucial to harness the benefits of international trade while managing its challenges. The movement in society to apply, for example, His Majesty the King's Sufficiency Economy Philosophy over the past decade has been most evident in the areas of rural development and poverty eradication. However, interest in seeking ways to apply and integrate the Sufficiency

Economy Philosophy in social policy formulation to create a more balanced and reasonable public policy. This may be the result of awareness of the connection and impact of public policies on each other and that there should be preparation to face and deal with policy impacts early on. In an era where trade and investment were liberalized, it was accepted that it was necessary and important for the prosperity and stability of society, discussions, or questions about the social impact on the economic objectives of public policy often end with the explanation: Comparing public policies with different goals from different viewpoints seems to be a complicated matter. Or it may not have much effect because the ideology or the basis of thinking behind the policy is already very different. in the circle of those involved in public health policy making the most challenging question at present is how to reconcile national economic goals and the income-generating benefits of expanding the medical service industry under the Health Service Central Policy. with the goal of developing policies that focus on protecting people's rights and welfare, such as the universal health coverage policy The main objective of this report is to review the body of knowledge regarding the Sufficiency Economy Philosophy. For its application as a tool for balancing the two public policies. By surveying the development and dynamics of the idea of Sufficiency Economy and the health system and presenting tools for creating balance under the Sufficiency Economy framework for use in analysing the consistency of public policy with the Sufficiency Economy philosophy.

## 10.2. Trade policies and development

Analysis of the role of the current account balance in the 2008, global financial crisis is a good case study of the distortions that can arise from the above ideas. One view that is widely advocated (Bernanke, 2009; King, 2010; Krugman, 2009) is to link the crisis to imbalances in the current account position of countries. Under this logic fragility in the US Financial Economy, it was at the centre of the global financial crisis. It stemmed from capital inflows from countries with current account surpluses, which at the time included countries in Asia and emerging markets with high reserves accumulation, such as Japan, China, and the Petroleum Exporting Countries. Savings are higher than investment in these countries creating a phenomenon. “Global savings glut” results in capital flowing into developed countries that have current account deficits, especially the United States. This has a deficit of up to 5 percent of GDP and has led to accommodative financial conditions. Decreasing risk premiums as well as credit expansion and rising asset prices in these countries excess savings in emerging countries flowing “backwards” into developed countries is therefore the root cause of the fragility in the global financial system that ultimately leads to the crisis. From this perspective, groups of countries with a balanced or near-balanced current account balance, such as the United Kingdom and the euro area, it does not play much of a role in the process of accumulating financial fragility or in driving the dynamics of transnational capital flows. This exploration delves into the multifaceted interplay of trade policies and development, examining how nations craft and implement strategies to harness the benefits of international trade while addressing domestic priorities Collier, 2007). There is a 5-step participatory public policy driving process: 1) join in understanding and express opinions, 2) join in selecting public policies, 3) join in putting policies into practice, 4) join in evaluating results, and 5) join in reviewing policies. And with the main policy in the 4 strategic issues of the Armed Forces Development Command, giving importance to working with people, communities, and national security, therefore, the application of participatory public policy to drive work according to the commander's policy. Military Development Command can do Under the scope and agreement of all sectors. Through driving work that gives importance to the "Mountain Moving Triangle" consisting of 1) knowledge (Knowledge) 2) social movement (Social movement) and 3) policy link (Policy link). manage to cause Co-creation of knowledge (Co-creation of knowledge) Co-management (Co-management) and receiving joint benefits (Co-benefits) equally Studying the guidelines for driving work in the above format is only a study of documents. The concept should be introduced the proposed process was

tested through a research process. To be able to confirm the results of the concept and can expand the results or serve as a model for the operations of other units of the Armed Forces.

### 10.2.1. Trade Liberalization and Economic Growth

In essence, trade liberalization emerges as a dynamic force that not only fuels economic growth but also demands strategic and adaptive policymaking for nations to harness its full potential (Caves, Frankel & Jones, 2007). Today one lives in an economic system that has experienced both good and bad economic periods. When the economy is good, most people tend to feel happier because they have money to use easily. It's different from when the economy is bad, in addition to feeling like you can't spend much. Some people may have to stop or change jobs altogether. So why does the economy have good and bad periods? And what role does the government play in helping people and solving economic problems? Let's understand this matter in this article. First, one will get to know what the economic system is and how it works. From the figure below is the economic cycle.

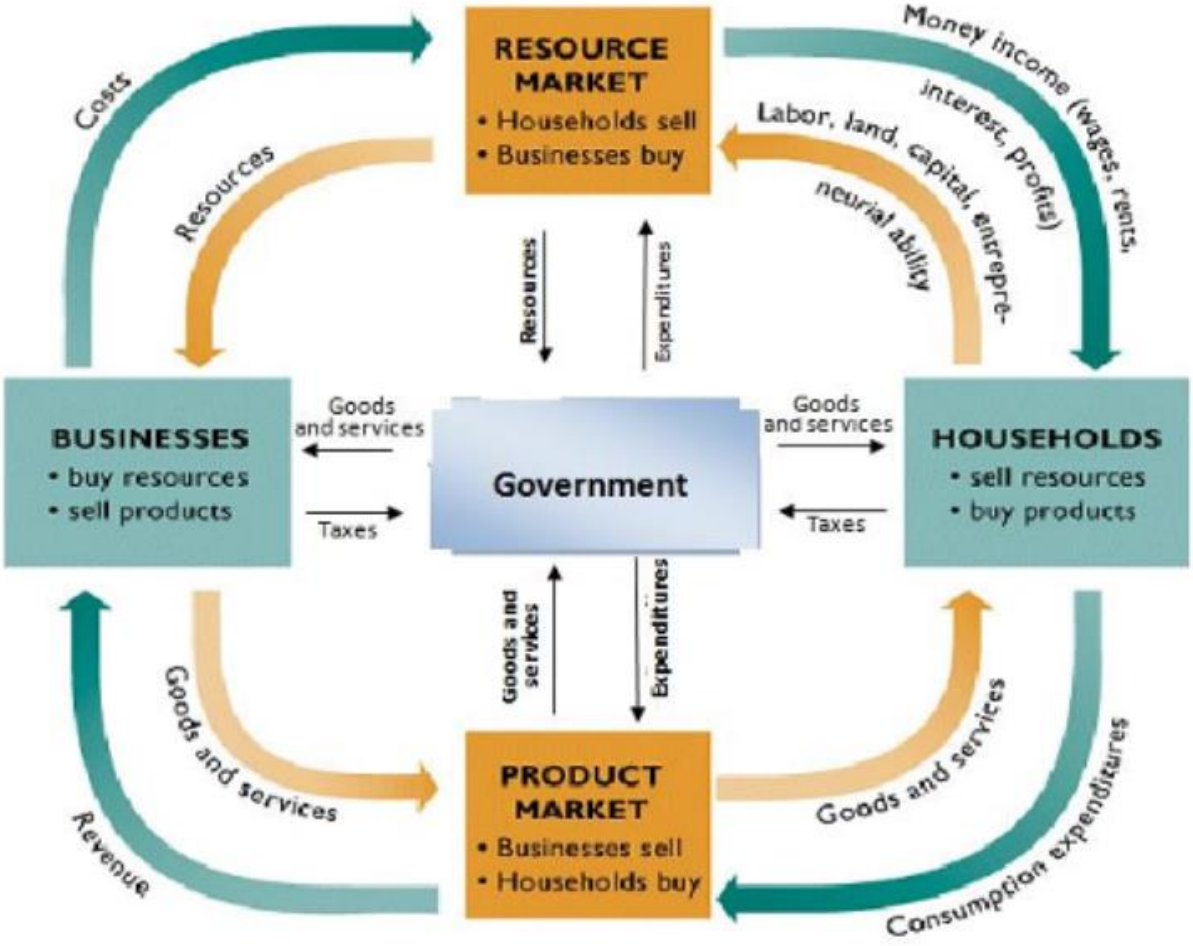


Figure 10.1 Economic Flow

*Source http://study-aids.co.uk/dissertation-blog/circular-flow-model-economics/*

### 10.2.2. Environmental Sustainability and Responsible Trade

Business is related to the environment both as a creator and as an impactor. This is because most of the raw materials used in production are natural resources that are limited. But this contrasts with the demand for resource use which tends to increase continuously and when analysed along the value chain, the environment is highly related to business. From the production of goods and services, transportation or delivery of goods, marketing, and sales to consumers to the use of products and services by consumers themselves. All related to the energy use, water use, waste generation and pollution including greenhouse gas emissions. Running every type of business requires energy. Since the activities of transporting and storing raw materials production of goods and services, transportation or delivery of goods and services to customers, marketing, and sales to consumers to the use of products and services by consumers. The energy that businesses use such as electrical energy and fuel for production. Electrical energy uses in the office, using oil for transportation and travel, these are all basic factors for the operation of every business and are energy from non-renewable sources. Businesses should therefore manage energy wisely to achieve maximum efficiency. Including considering options for using alternative energy is such as solar energy, water energy, wind energy, and biomass energy. It replaces the limited use of energy from fossil fuels. This helps manage business risks in relying on energy from non-renewable sources and ensure that the business will have sufficient energy sources for use in the long term. Efficient energy management therefore not only helps businesses reduce costs. But it also helps create stability in having sufficient alternative energy sources in the long term. Importantly, it reduces the use of fossil energy and reduces environmental impacts. This creates a good conscience for living together and shows the responsibility of the business towards society and the environment at large.

Water is involved in business operations, both in the production of goods and services, as well as for consumption. The current water crisis shows that businesses need to consider efficient water management to reduce the risk of creating an impact on the environment and the business. The types of water that businesses generally use include tap water and raw water from various sources. That must be managed well as well. The water crisis that is challenging and can affect business today has 3 main issues:

1. water shortage: This is caused by the continuously increasing demand for water to support the expansion of business and the world population. Including the problems of natural disasters and global warming cause uncertainty in the amount of water in many areas.

2. water quality deteriorates: From contamination or pollution in water sources that increase production costs. Many companies must conserve and develop watersheds to restore the abundance of water sources. That will be used in production processes or invest in building an efficient wastewater treatment system.

3. Inadequate or unequal access to water sources of communities in many areas: Therefore, good governance in water management and consideration of human rights in accessing quality water sources are important issues that businesses should consider. Especially when businesses share water resources with communities. The effective water management is therefore something that businesses must focus on. You should use water wisely for maximum efficiency. Reducing water uses reusing water and reusing water after treatment.

Businesses create garbage and waste in almost every process throughout the value chain, such as waste generated from the process of acquiring raw materials. Transportation and storage of raw materials produce goods and services. Transportation deliveries goods and services to customers. Marketing and sales to consumers uses of those goods and services by consumers. Businesses

therefore need to pay serious attention to garbage, waste, and pollution management. To avoid violating legal requirements or not being granted a license to operate by communities and societies that have suffered. Garbage, waste, and pollution are divided into 4 types:

1. Compostable waste is waste that decays and decomposes quickly, such as vegetable scraps, fruit peels, food scraps, leaves, meat scraps, etc.

2. Recyclable waste is packaging waste or waste materials that can be reused such as glass, paper, plastic scraps, UHT beverage cartons, beverage cans, scrap metal.

3. Hazardous waste is contaminated waste, hazardous materials such as explosives, flammable materials, oxidizing materials, toxic materials, and disease-causing materials. radioactive objects. Hazardous waste is contaminated waste, hazardous materials such as explosives, flammable materials, oxidizing materials, toxic materials, and disease-causing materials. radioactive objects that cause genetic changes, Corrosive objects that cause irritation, etc.,

4. General waste is any type of waste other than the above three types of waste. The previous one is difficult to decompose and not worth reusing, such as plastic wrap, containing detergent, instant noodle packets, plastic bag stained with food scraps.

Businesses can effectively manage garbage, waste, and pollution by giving importance to reducing, reusing, or recycling, adjusting the production process, reshape products, packaging, or business models. And then promote a circular economy that emphasizes the importance of material selection and product design. Using innovation and technology in relevant processes throughout the product life cycle include helping to raise awareness, to help change consumer behaviour, to choose products or services that take care of the environment. These actions not only reflect the responsibility of businesses to reduce their impact on society and the environment. But it also helps manage operating costs, manage business risks and regulatory compliance risks for the sustainability of business and society.

Organizations want and need to ensure that sustainability is at the heart of their business transformation, from company objectives to Work standards and investment strategies to circular economy aspirations Environmental impact and supply chain standards. The challenge is for organizations to live up to their commitment to the new standards of work. This is done by ensuring that these messages are at the start of the sustainability journey at their core. Or in other words, making changes to deliver all aspects of the business in line with sustainability principles. The organization needs to: Embed sustainability into their purpose and culture, change for sustainability, creating sustainability for people as “society” in ESG, Differentiate yourself with sustainable investing. Sustainable business is no longer a single, isolated area of responsibility. Rather, it is an agenda of many stakeholders and part of the overall social and environmental ecosystem. Policies promoting responsible trade encourage the adoption of green technologies, incentivize sustainable practices, and incorporate environmental standards into trade agreements Finger & Kreinin, 1979). Responsible trade not only contributes to ecological preservation but also establishes a framework for a more sustainable and ethical global economy (Feenstra & Taylor, 2017). Doing business with ESG in mind is taking care of the environment. Social responsibility and good corporate governance are like a mirror that reflects the company business operations. Make it stand out from competitors. Because that means the business has a standardized risk management model. Helps reduce investment risk. Therefore, it is an interesting business.

### 10.2.3. Technology Transfer and Innovation

Thailand is currently facing the era of “Big Data”, which has led to the application of Artificial iintelligence (AI) technology, including Blockchain, which will help support Big Data and AI. In addition, we are also facing the era of automation (Automation) where machines are changing to robots that

work connected to Internet of Things (IOT), technology or Digital Twins. Including facing the era of access (Digital Access) that must pay attention to the security of data that resides in the cloud and consider various regulations, not just personal information but also includes various company data. Finally, there is the era of connectivity (Digital Connect) where digital technology will take your business to a new world, new supply chain or a new platform that must focus on sustainability.

Sustainability will be a driving force towards new goals of the business sector. But at the same time businesses must focus on two words: moving forward carefully and moving forward with strength. At the same time, if digital technology is applied to achieve sustainability, it will be Sustainability Competitive Advantage, which is the point where everyone must always consider how to achieve these goals. And what we all should always be aware of is Thailand, it is currently facing the era of Big Data, which has led to the application of Artificial Intelligence (AI) technology, including Blockchain, which will help support Big Data and AI. In addition, we are also facing he era of automation (Automation) where machines are changing to robots that work connected to IoT technology or Digital Twins. The seamless exchange of knowledge, expertise, and technological advancements between nations is essential for narrowing the global development gap and fostering a dynamic and interconnected world (Frankel & Romer, 1999). As for moving towards being a sustainable company, the first thing that the business sector must focus on is the matter of 'people' because if people lack knowledge about sustainability. Also, he does not understand that how can technology help achieve this goal? It will be difficult to reach the goal. A sustainable company must know business processes from upstream to downstream, including marketing, which must be able to be adjusted according to the situation. In addition to people and marketing, 'business practices and production processes' are another thing that will help increase the productivity of the business sector and enable the company to achieve its sustainability goals. while the financial sector and digital technology, it is equally important and that is the mission of our Digital Economy Promotion Agency (DEPA) to promote the application of digital technology in the Thai business sector. one has measures to promote investment in various forms. As for moving towards being a sustainable company, the first thing that the business sector must focus on is the matter of 'people' because if people lack knowledge about sustainability Also, I do not understand that how can technology help achieve this goal? It will be difficult to reach the goal. A sustainable company must know business processes from upstream to downstream, including marketing, which must be able to be adjusted according to the situation. In addition to people and marketing, 'business practices and production processes' are another thing that will help increase the productivity of the business sector and enable the company to achieve its sustainability goals. while the financial sector and digital technology is equally important and that is the mission of our Digital Economy Promotion Agency (DEPA) to promote the application of digital technology in the business sector. One has measures to promote investment in various forms.

To move towards becoming a sustainable company, the first thing that the business sector must focus on is the issue of 'people' because if people lack knowledge about sustainability, also, do not understand that how can technology help achieve this goal? It will be difficult to reach the goal. A sustainable company must know business processes from upstream to downstream, including marketing, which must be able to be adjusted according to the situation. In addition, to people and marketing, 'business practices and production processes' are another thing that will help increase productivity for the business sector and enable the company to achieve its sustainability goals. While the financial sector and digital technology is equally important and that is the mission of our Digital Economy Promotion Agency (DEPA) to promote the application of digital technology in the Thai business sector. We have measures to promote investment in various forms. Whether it is Smart VISA, Long Term Residence, Capital Gain Tax, including digital service accounts that will facilitate investors and leading technology companies coming to invest in Thailand to create a Digital Solution, it will help solving the country's various problems. At the same time, there is an ecosystem that is prepared to support the arrival of technology and digital innovation. Finally, we want to say this: Opening

investment opportunities for world-class technology developers or service providers, we want all companies to join in transferring various skills and knowledge to Thailand. It is not just about selling the technology, but his point will ultimately help create sustainability.

### 10.2.4. Trade Agreements and Regional Integration

Free trade agreement means an agreement between two or more countries with the aim of to reduce trade obstacles between each other to a minimum to create "Free Trade" or free trade between contracting countries. The free trade zone can be created at 3 levels:

1. Multilateralism in the World Trade Organization (WTO) is a trade agreement and negotiation between 153-member countries (information as of 23 July 2008), which helps increase the balance of interests in negotiating and creating trade networks in the world economy as well regional integration.
2. The regional integration is a grouping of countries that are in the same region to reduce tariffs between each other, such as creating a continental free trade zone, North America (NAFTA) etc.

Bilateral Agreement is a trade agreement between two countries in order to benefits for reducing import taxes between each other without giving such benefits to other countries such as the Thai-Australia Free Trade Agreement, the United States-Singapore, etc.

The Regional Comprehensive Economic Partnership (RCEP) is, for example, Thailand's 14th free trade agreement or FTA. It is a large trade contract. Covering is approximately 30 percent of global GDP, which ASEAN proposes to promote trade between member countries and trade with partners in free trade agreements (FTA), consisting of 10 ASEAN member countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore. Thailand and Vietnam, along with five other ASEAN trading partners, namely Australia, China, Japan, New Zealand, and South Korea, with the aim of eliminating trade barriers and promoting investment. To help emerging economies keep pace with other countries in the world, RCEP was developed from the concept of ASEAN+3 / ASEAN+6, which is ASEAN's strategy under the AEC Blueprint in which ASEAN wants to maintain its role as the centre (ASEAN Centrality). Driving larger economic integration in the region On November 15, 2020, 15 RCEP ministers signed the RCEP Agreement at the 4th RCEP Summit (RCEP SUMMIT) via videoconferencing. This is because the RCEP agreement consists of member countries with different levels of development. It is also the first free trade agreement that some member countries have together, such as China and Japan, etc. As a result, member countries cannot open their markets to other member countries, equally this results in the importation of the same product from one member country may receive benefits from the importing country. That are different from products imported from another member country. For this reason, the RCEP Agreement has established additional conditions to be used in determining whether goods to be exported and can be obtained from the country of origin to receive customs tax benefits. This is to prevent evading a country's higher tax rate on exports of goods. By carrying out a small production process in a country that has better tax benefits. The RCEP member countries that have opened different markets include 7 countries: China, Japan, Korea, Indonesia, Philippines, Thailand, and Vietnam.

## 10.3. Regional economic integration and development

Economic integration in different regions can generally be divided into 4 forms: (1) Free Trade Area (2) Customs Union (3) Customs Union Grouping in the form of a common market (Common Market) (4) Grouping in the form of a common market (Common Market) (4) Grouping in the form of

a common market Economic Union. This exploration delves into the multifaceted dynamics of regional economic integration and its impact on development (Todaro & Smith, 2011). The economic integration is that two or more countries agreed to formal economic cooperation. It may be carried out through economic cooperation organizations that have been established. Economic integration is usually a grouping of countries that are geographically located in the same region. However, economic integration may also occur between countries that are far apart. But they can face the same economic problems with cooperation in solving problems and maintain mutual economic benefits.

### 10.3.1. Foundations of Regional Economic Integration

The process involves a spectrum of integration stages, from preferential trade agreements, where members grant each other preferential access to their markets, to more advanced forms such as customs unions and common markets, which involve deeper economic cooperation (Corden, 1984). The first level is the so-called integration. Free Trade Area (Free Trade Area) is a grouping where member countries allow free movement of goods between them, that is, there are no customs duties and no quotas. The second level is a deeper integration than the first level, called the Customs Union. It is a type of integration that, in addition to being a free trade area, Member states have also been successful in harmonizing customs duties applied to goods originating from third countries at the same level. The third level is a grouping that one calls a common market. That is, goods and other factors of production, including capital, labour and services, will have free movement among member countries. The nature of the integration into a common market will be deeper than a free trade zone. In the matter that Free trade zones will allow for only one type of production factor: products can move freely. But in the common market, the factors of production that will be open for free movement have 4 parts: apart from goods, there are also capital, labour, and services, which also have free movement. It is specific to allowing free movement of the last three types of factors of production. It means adjusting the law so that it is equal or has the same characteristics. for member countries. The fourth level is a deeper integration into a common market. one calls it an economic or monetary union. Economic Union or Monetary Union, this type of economic integration would mean a deeper integration into a common market because in addition to allowing the factors of production to move freely, it also means success in coordinating economic policies and finance between member countries. The last level is the highest level. one calls it the “Total Economic Union”. In this type of grouping, Member countries have achieved a level of success in implementing their policies and finances in a unified manner. The difference between the four levels is Economic and Monetary Union and the fifth level is the perfect level. It is exactly the point that at the fourth level, Member States have achieved only economic policy coordination, that is, there is still some level of divergence. But in perfect economic integration, member countries will pursue a single economic and financial policy. Especially, after the changes in the world system in the post-Cold War era. It determines and is the catalyst that causes the need to join groups. To expand bargaining power and create competitive potential in such company, one can see that NAFTA and AFTA were formed around the same time. that causes economic integration It can be said that it is caused by various factors.

### 10.3.2. Trade Creation and Diversion

This specialization leads to increased efficiency and fosters the creation of new trade opportunities within the integrated market. Trade creation and trade diversion are fundamental concepts associated with regional economic integration, shedding light on the impacts of such integration on global trade patterns (Wacziarg & Welch, 2003). International marketing is about getting to know the potential international audience your brand is interested in reaching. Understanding the

Value of International Marketing and continued investment in global marketing and advertising. With a little marketing management and attention to different target groups, This makes international marketing not much different from the work your business conducts within the country.

**1) Trade Creation:** This dynamic is particularly advantageous when countries specialize in the production of goods for which they have a relative efficiency, contributing to overall economic growth and prosperity (Irwin, 2002; Krueger, 1978).

**2) Trade Diversion:** Mitigating trade diversion risks requires careful consideration of the economic dynamics within the integrated region (Rodrik, 2011).

### 10.3.3. Market Access and Increased Opportunities

The removal of barriers encourages cross-border investments and the establishment of businesses within the integrated region. This influx of foreign direct investment (FDI) contributes to job creation, technology transfer, and infrastructure development (Deardorff & Stern, 1998). This expanded market access stimulates economic growth by providing businesses with new opportunities for trade and investment (Hufbauer, Schott & Elliott, 2007). Marketing is important for every organization. That is determined by the customer including thorough research precise targeting and careful planning as well as selecting appropriate inbound and outbound marketing techniques. To attract additional business from current and potential customers. Highly targeted marketing segments your market into groups of customers whose needs, preferences, and purchasing patterns most closely resemble your products and services. Targeting your marketing activities at a specific customer group. Because it increases selectivity and makes it easier and more cost-effective for businesses to generate leads. Develop cost-effective marketing and sales strategies are create and convert many customers to increase sales and profitability. Using both Inbound Marketing and Outbound Marketing techniques to build your sales with new sales opportunities all the time.

### 10.3.4. Economies of Scale and Efficiency Gains

In the present era, the issue of competition in world society has changed from the old era. It changes from the competition of the great powers during the colonial era to find new resources and markets. Currently, various countries have turned to competition to expand economic power instead of expanding military power. The number of World Trade Organization (WTO) members and more than 180 observer countries around the world shows that countries are playing a role in international trade competition. However, countries with small economies face obstacles in competing with countries that have high economic growth such as United States, India, and China. Countries in ASEAN are aware of this disadvantage and have formed economic integration into ASEAN. To strengthen the economy is in the region and increase economic competitiveness on the world stage. However, economic integration will not only make ASEAN competitive or increase economic bargaining power only on the world stage, but it also makes the economy within that region better. This will affect the people, making their living conditions better as well. Through integration, participating nations can exploit economies of scale. Economic integration is when two or more countries come to an agreement officially cooperate in the economy. Normally, economic integration is a grouping of countries that are geographically located in the same region. However, economic integration may occur between countries experiencing the same economic problems through cooperation in solving problems and maintaining common economic interests. For example, Abolition of customs duties using a common trade policy issuing measures to eliminate trade barriers between each other, when there is economic integration. Member countries determine special privileges to countries that join groups or create special measures to protect the economies within the group from the penetration of economies outside the group.

### 10.3.5. Investment Flows and Infrastructure Development

Successful integration often relies on institutions that can navigate and resolve conflicts, enforce agreements, and provide a stable foundation for economic collaboration (Rajan & Subramanian, 2011). From ASEAN economic integration at present, there is a lot of emphasis on the establishment of the ASEAN Economic Community (AEC), where integration into a single market will allow for freer trade and investment within the region. The collection of customs duties will be less causing many countries to be worried. As a result of the opening of ASEAN free trade, each country's income will decrease. If any country has strategies and policies that take advantage of trade liberalization even though the state will have decreased revenue from customs taxes, the state will collect more taxes from other sources such as income tax, value added tax, etc. Despite intense economic competition, but if you look at it positively, one will be able to use products at a cheaper price including the cost of production materials will also be lower. This depends on adjustment and use of economic opportunities both from the public and private sectors. How to proceed to get the most benefit! Therefore, it can be concluded that ASEAN economic integration will have a positive impact on the economies of countries in the region only if member countries adapt their economic policies and structures to the new trade rules. who want to increase production factors because raw materials are cheaper skilled workers can move more easily, which causes labour to compete to increase their skills? Including investment and capital movement rules that will be international and more connected to.

In summary, ASEAN is a regional international organization that arose in the midst of two or three important world historical events. First, ASEAN emerged after World War II and countries were recovering from the damage of the war. Second, ASEAN emerged amidst the emergence of countries that gained independence from Western colonizers. Out of the 5 founding nations, 4 countries have recently gained independence and are currently developing their own countries: Malaysia, Singapore, Indonesia, and the Philippines. Lastly ASEAN was born during the Cold War and the competition between various superpowers that played an important role in Southeast Asia. This affects the policy making and cooperation of various countries in the region. Therefore, in the early stages of the establishment of ASEAN members must therefore work together to create regional stability as a foundation for cooperation for economic development. and when the world context changes. The Cold War and competition between superpowers were more relaxed. ASEAN members have therefore developed more economic cooperation such that it has become the core of economic cooperation in the Indo-Pacific region today.

### 10.3.6. Case Studies in Regional Economic Integration

One sees that the European Union's integration characteristics are complex and have different levels of depth. In the European Union countries which is the most profound integration. The so-called financial, economic, and political union, collectively known as the "European Union", consists of 12 countries: France, Germany, Italy, the Netherlands, Belgium, Luxembourg, England, Denmark, Ireland (Ireland), Greece, Spain and Portugal, which has been achieved since the end of 1992 of the European single market or the European Common Market. It is aiming towards financial, economic, and political union. In the future on a basic basis Maastricht Treaty which means in the future, the integration of these 12 countries, if it meets the expected goals. It will be a grouping that is not limited to just the economic dimension. But extends to the political dimension. This means coordinating policies regarding defence and foreign affairs. In Europe, besides the European Union, there is also the integration of another 7 countries in the form of a free trade area. This is called the European Free Trade Area EFTA, which consists of Sweden, Norway, Finland, Ireland, Austria, Switzerland, and Liechtenstein which has been brought together since 1959 by the initiative of England. When England

left from being a member of the European Association in 1973, the European Free Trade Area Association What we call EFTA now has 7 countries remaining, which are brought together in a way that allows industrial goods to move freely among member countries. However, four member countries of the European Free Trade Area - Austria, Norway, Finland and Sweden - have applied to become members of the European Union. And if the voting mechanism is completed, they may become members from 1995 onwards. Between the European Union and the European Free Trade Area, there has been a relationship before in the form of a free trade area, that is, Countries of the European Union and the 7 countries of the European Free Trade Area. It has committed to allowing the free movement of goods between 19 countries. That product It is limited to industrial products. Since January 12, 1994, the countries of the European Union and the European Free Trade Area has been an agreement to make a treaty called the "European Economic Area", which is equivalent to expanding deeper integration. free trade zone It covers capital, labour and free movement services in 18 countries (because Switzerland withdrew) or in other words, these 18 countries were established to expand into a quasi-European single market.

The Belt and Road Initiative (BRI) led by China aims to connect economies across Asia, Europe, and Africa, illustrating the evolving nature of regional economic collaboration (Wood, 1994). As nations navigate the complexities of regional economic integration, the potential for shared prosperity, enhanced competitiveness, and strengthened geopolitical influence positions this phenomenon as a pivotal force in the ongoing evolution of the global economy (Krugman, Obstfeld & Melitz, 2014). It may be concluded that today's economic integration has occurred in every region and has spread widely. As a result of the stimulus from the expansion of the world economy, competition based on a world without borders. Based on business competition, it is a world of competition and cooperation in the economy and business. Economic integration is therefore a symbol of the world in the new era that we call Post-Cold War Era It is a new world that is organizing world order. Economic integration is therefore one element of what we call 'economic integration'. New World Order.

## Summary

International trade is one factor that causes the growth and development of a country's economy. Different countries have different resources. Tastes are diverse and the cost of producing products is different. Make each country trade and exchange with each other. However, trade often has obstacles such as tax measures and non-tariff measures becoming a trade barrier. It is resulting in the benefits that should be gained from trade, whether it be the value of trade between domestic income value and economic growth is not as high as it should be. Therefore, different countries have been development into economic integration to help facilitate trade between each other. As well as being able to negotiate trade with more countries, the integration must be developed more and more. To benefit member countries with as much bargaining power as possible. As well as the country must be ready to truly receive benefits. Both economic growth and sustainable national development contribution. This intricate interplay encompasses a multitude of factors, ranging from trade policies and regional integration to the role of technology, sustainability considerations, and the impact of globalization (Dixit & Norman, 1980). The process of international trade provides participating nations with expanded market access, a fundamental driver of economic growth Winters, 2004). Globalization, propelled by rapid technological advancements, has transformed the dynamics of international trade. Digital platforms, e-commerce, and automation have reduced the barriers of time and space, enabling businesses to connect and transact globally (Stiglitz, 2002).

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# CHAPTER 11: FOREIGN AID AND DEVELOPMENT, FDI AND DEVELOPMENT, EXTERNAL DEBT AND FINANCIAL CRISES

The study of development economics looks into the complicated relationships between many aspects and variables that affect the finances, cash flow, lending and debt of developing countries. These include foreign loans, foreign direct investment (FDI), and foreign aid. The field of development economics looks at what happens when global economic forces come together. Social growth can happen faster with help from other countries, usually developed ones or foreign groups (Tien et al., 2021). This kind of help could come in the form of providing finances or help with technologies, or digitalization. Foreign direct investment, can help with aspects like transferring information, creating jobs, and building important infrastructure (Owusu-Manu et al.,2019). Multinational companies have put finances into the economies of other countries. Despite all benefits from FDI or aid, however, foreign debt might increase and make the economy less stable and do not developed in expected pace.

The chapter focus on determining how much of a country's growing economy can be attributed to its foreign debt, foreign direct investment (FDI), and help from other countries. There are several studies examining this issue. The study shows that even though these traits might help growth and development, they may also have some problems, like relying on others, unequal wealth distribution, and financial problems that need more research (Mohsin et al., 2021). The chapter provide description of foreign aid, foreign direct investment and external debt in affecting the development of developing countries. In addition, financial crises are examined as well. The history has brought many knowledges in this area. There are many examples of these aspects, but each case is different and therefore is difficult to find some unify solution how to treat with foreign aid, foreign investment and how to manage external debt of developing countries to enhance the economic growth and well-being. The fast changing global economic, social or political environment does not help to adequately find solutions to improve the well-being in developing countries.

Foreign aid, foreign direct investment and external debt have consistently influenced the direction of nations' development over the course of history. The beginnings of foreign aid have been historically linked to the Marshall Plan, an economic initiative initiated by the United States in the aftermath of World War II to assist wrecked European nations (Brussee, 2020). This event initiated a transformation in the way aid was regarded as a mechanism for reconstruction following World War II, and it established the groundwork for succeeding worldwide initiatives aimed at development. Concurrent with the progression of foreign aid, FDI possesses an extensive historical structure. In the late 19th century, European powers reinvested in territories, creating the foundation for economic imperialism and sparking the FDI boom. Developing countries attracted FDI during the postcolonial era to stimulate industrialisation. The Asian Tigers, for example, implemented strategic foreign direct investment (FDI) to revolutionise their economies, thereby stimulating swift expansion and progress.

The historical progression of external debt jointly demonstrates the complicated dynamics of global finance. A sharp rise in financing to emerging economies occurred during the 1970s, which supported infrastructure initiatives and economic expansion (Song and Zhou, 2020). The economic difficulties faced by debtor nations and the widespread reorganisation of debt caused by the excessive borrowing that characterised the debt crisis in Latin America of the 1980s served to emphasise the dangers of such practices (Mitchener and Trebesch, 2021). A fundamental shift occurred in approaches to development during the 1990s. Transitioning towards market-oriented reforms, foreign aid was increasingly linked to policy recommendations that advocated for economic liberalisation. Additionally, FDI stimulated expansion, particularly in emerging markets such as China and India (Luo

et al., 2022). The onset of the twenty-first century brought about unique obstacles, as the worldwide financial crisis brought to light weaknesses within the global financial system as a whole. In a nutshell, the historical progression of external debt, foreign aid, and FDI can be attributed to a complex interaction between economic, geopolitical, and developmental factors. Historical insights inform present-day policies, underscoring the necessity for an intelligent and flexible strategy to promote sustainable development on an international level.

## 11.1.Foreign Aid and Development

There are several possibilities to fund the balance on goods and services of a country. Methods for funding the balance are foreign direct investment, loans, remittances and foreign aid. Due to the low income, respectively the GDP, the access to the loans might be very difficult. If developing or less develop country was able to obtain a loan, usually, it was provided by the international organizations as Organization of Cooperation and Development, some of the United Nations organisations or from the organisations within World Bank group or by International Monetary Fund. The market-based loans would be not provided to country due to the relatively high uncertain about the future repayments and ability of country to repay the loan back. Many of developing and less developed countries have got funding from foreign aid schemes.

One of the options to provide the aid to countries is to provide loan at very low or not interest to be repaid. This would help countries to receive funding for reforms, infrastructure development or other investment activities that would not be implemented if the commercial loan with higher interest rate needs to be asked. In addition, some part of the debt or interest might be forgiven and countries have not to repaid it back.

Through the examination of foreign aid throughout history, one may get valuable insights into the ways in which international assistance has evolved and the ways in which it influences development. According to Achenui (2021), the earliest instances of assistance may be found in the Marshall Plan, which was adopted after World conflict II with the intention of restoring peace and stability to Europe affected by conflict. As a result of shifts in global economic systems, geopolitical dynamics, and the emergence of new contributors, foreign aid has evolved throughout the course of history. When it comes to comprehending the driving factors behind foreign aid programmes and the changing nature of donor-recipient relationships, it is vital to have an awareness of the historical context.

### 11.1.1. The reasons to provide aid to developing and less developed countries

There are to mainstream opinions about providing aid. Starting with the opinion that would not provide the aid to the developing countries, this assume that the aid is the measure of developing economies to achieve their goals in developing countries. For instance, the supporter of this opinion claim that the aim is the way how developed economies support repressive regimes serving for their needs or vice versa support the change of regimes that are not acting in favour of them and there is any economic or development intention to improve the well-being a such country. In addition, providing aid creates a tight relation or even dependence of country to its donor what might be assumed as the nowadays colonialism and dependence on the one or several countries. The worst situation might occur when the aid includes also military aid or supporting of military units, respectively supporting the political or military putsch. Many times, is then aid aimed to countries with the strategic interest of a donor.

On the other side, supporter of the international aid claim that aid is to reduce poverty, avert famine and diseases, support the health care system for the most vulnerable people and ensure at least a minimal living standard. Another role of the aid might be ensuring democratic principles in

supported countries. Generally, developed countries provide aid to developing and less developed countries for the long-term goals such as economic growth, increasing trade, transform to democratic society or to keep the democracy in a country, protect medical services and ensure the health care infrastructure to be build or renovated, support education or underline social, health-care, pension, agricultural or financial reforms. All these goals have the main reason, that is the increase of well-being in developing countries, less developed countries or countries in transition. Clearly, the aid is provided usually by the most developed countries or by international organizations as those has accepted their international responsibility for the global development.

For the purpose of investigating the complex relationship that exists between development outcomes and international aid, a number of theoretical frameworks have been developed. There is a well-known paradigm known as the modernization hypothesis, which asserts that foreign aid and FDI encourages economic growth, social change, and institutional development, all of which contribute to the advancement of recipient countries (Chankseliani, 2022). According to the Modernization Theory, FDI and assistance are vital for fostering economic development. Because FDI and aid supports countries in different stages of modernization, these two factors are crucial for promoting economic progress. According to Rostow's "Stages of Economic Growth" model (Fedorova, 2023), nations go through a number of stages as they pass through the process of transitioning from traditional cultures to modern, developed economies. There is a correlation between FDI/foreign aid and the introduction of new management practises and technologies, as stated by Muda et al. (2020). On the other hand, foreign aid is a catalyst for development since it provides financial resources for education, infrastructure, and healthcare.

On the other hand, the dependency theory puts doubt on this optimistic view by arguing that foreign aid may increase economic inequities and enhance developing nations' dependence on outside assistance (Cramer et al., 2020). This theory offers a counterargument to the optimistic evaluation. The political economy approach and the human capital theory are two more models that provide insights into the ways in which development trajectories are affected by foreign aid by providing additional models.

The last examined is institutional theory. This theory draws attention to the significance of institutions in determining the ways in which foreign aid and FDI impact the results of development. Effective institutions, such as property rights, legal frameworks, and governance structures, are necessary for sustained economic growth over the long term (Grey, 2019). There is a possibility that both FDI and foreign aid, respectively assistance will have an effect on the growth of the quality of institutions. FDI has the potential to bring about new practises and standards inside institutions, whilst support may assist in the enhancement of capability (Liao et al., 2020). This is accomplished by highlighting the relevance of institutions in both economic growth and economic performance. The quality of the institutions, according to his argument, is a significant factor in determining whether or not development attempts are successful. The Worldwide Governing Indicators (WGI), which are an instrument that is often used to evaluate the quality of governing institutions all over the globe, are provided in the study that was conducted by Ardielli (2019). In addition to highlighting the significance of effective governance to economic development, it provides a rigorous approach to assessing the quality of institutions. Different viewpoints on the function of FDI and foreign aid in development are provided by these theories. While institutional theory underlines the crucial role that strong institutions play in determining development outcomes, modernization theory stresses the linear evolution of countries through phases of growth (Amundsen, 2023).

### 11.1.2. Aid effectiveness

The most of the aid is focused on the improving of well-being of the poorest part of the population in form of providing food and agricultural products, clothes and medical services, aid is

aimed also to other fields. There is no a dispute about this humanitarian form of aid that prevents the deaths of people. However, discussion is on the providing aid to reforms, infrastructure development or similar areas. The main concern is about the use of the sources by the local governments that might be used to increase or emphasize the government power rather then contribute to real development. As a result, receiving country deals with aid bureaucracy, corruption or supporting of political aliens of the governing bodies as government, president or their political party. The effectiveness of the aid is also limited by the knowledge of local managers who might have just low or any experience and skills with managing such projects. The development aid might cause the decrease in the managerial skills of aid receiving countries as the development project might be managed (due to incompetence of receivers' managers) by the donors that supervise all activities. Also, the role of official institutions in receiving country is weakening. On the other side, if the development projects would be managed by local managers and by local institutions, the results of the aid would be much lower and the assumed effect of the development project would be reduced or even endangered. Most of the development projects insist on the sustainable outcomes of used funds. For that reason, continual monitoring, supervision and review is required. In addition, monitoring and assessment of consequent and ensuing activities is provided. To see also the positive aspect of aid in the field of management and institutional capacity building, international projects and cooperation with foreign experts increase the competences of local managers that would be able to monitor and manage project at the donors´ standard. The same would be applied for the increasing the capacity of institutions. To increase the effectiveness of the aid, the aid should be conditioned by meeting with some criterions set by donors. Such criterions might be the democratic freedom, working jurisdiction – mainly in the field of corruption, providing adequate reporting and the overall effort of developing country towards the development. Considering this, the effectiveness of the aid lies on the donors. Countries or institutions providing aid must create and set well designed development programs with objective and measurable goals, provide adequate trainings to recipients, endure the correct reporting and regularly assess the outcome of program during its implementation as well as monitor the sustainability of program after its termination. Only good design of programs avoids possible ineffectiveness, corruption or poor results that will not help to development of recipients as was expected.

The most of the development aid is directed to the poorest, less developed countries. Many of them are hampered by a high dependence on aid as the process by which aid makes not significant contribution to self-sustained development (Riddell, 1996). This dependence on donors relates to food and other material aid that is then not produced in a country. In addition, the high volume of aid affects negatively the exchange rate and the country is competitive to export goods and services.

The effectiveness of international aid has been the subject of criticism and discussion in a substantial body of literature, regardless of the reasons that led to its creation. Questioning the efficiency of support in reaching sustainable development goals, academics and practitioners have identified concerns such as conditionality, corruption, and the probable downsides of aid reliance (Gunawan et al., 2020). The subject of whether or not aid has a role in assisting recipient countries in becoming more self-sufficient and experiencing economic progress is still up for debate. Traditional methods of providing help have also been re-examined as a result of concerns over the power relations that exist between donors and beneficiaries, as well as the paternalistic nature of aid partnerships (Karuga et al., 2023). The effect that foreign aid has on the progression of sustainable development is a topic that is constantly being criticised. Conventional aid methods, which are characterised by hierarchical approaches and a lack of ownership in the nation that is receiving the assistance, are said to commonly result in dependence and to impede sustainable development, as stated by Bhattacharua and Khan (2020). In this manner, the importance of shifting towards assistance efforts that are more targeted and outcome-driven, as well as those that improve local institutions and communities, is at the centre of the discussion.

## 11.2. Foreign direct investment and development

To start with the analysis of the inflow of the capital to the countries that have several positive spillover effects and support the development or transition processes, the explanation why the capital flow in the form of the foreign direct investment (FDI) is necessary. Most of the countries is defined as open economies, which have economic relations with other countries. A closed economy is more-less theoretical abstraction nowadays. The GDP of a country is measured by the following equation:

$$Y = C + I + G + (Ex - Im)$$

and known that C is the consumption of household, I represent the gross investment of firms or capital formation, G is government expenditure, Ex is export and Im is import, respectively the variable Nx – net export might be used instead of Ex-Im. This equation represents the national income, as well as the expenditure of particular market entities. The variable national saving might be derived from the equation as we know that savings is part of the income, which was not spend (consumed) by consumers as well as by government that is expressed as:

S= $Y - C - G$

The equation then might be rewritten also as:

$$Y = C + S + G$$

which would we also get if we assume that all savings are transformed to investments and the equality S = I is applied.

Comparing the expenditure and the national income, the following equations is obtained:

$$C + I + G + (Ex - Im) = C + S + G$$

When subtracting C and G from the equation the savings function will appear:

$$I + (Ex - Im) = S$$

Or, by adjusting, the investment equation is seen as well:

$I = S + (Im - Ex)$; respectively: $I = S - (Ex - Im)$

The difference between import and export would be defined as the capital import. If the import in country exceed the export, there not deficit in balance on goods and services. Such situation might be financed by borrowing or by attracting investments from abroad, which means the capital inflow to a country. In other words, the volume of investments in the country consists of domestic savings and capital imported to the country.

Many of the developing countries and countries in transition are characterised as undercapitalized and at the same time, domestic savings are very low. Thus, the capital inflow to countries subsidized for low domestic savings allowing countries to realize higher volume of investments that the country would do without the inflow of foreign capital. The inflow of foreign investment allows a host country to spend more than it is able to produce, to import more than export and to invest more than it saves.

Under the capital flows, often the FDI is understood. The FDI represents the capital flow that is based on the long-term relations to the affiliation foreign investor had invested to and the investor has the effort to own majority or manage the affiliation. The FDI is considered as the most stable form of the capital flows as the relationship to manage or to own the foreign affiliate or at least creates prerequisite to ensure the stability of the capital inflows. To the contrary, portfolio investments are

more volatile as their main purpose is to get the highest profit as possible by trading the shares of companies with no effort or intention to participate at the firm management. Such investments are short-term and often change the country of the investment based on the current conditions of financial markets. Developing countries and the less developed countries rely on FDI as these create the jobs and decrease unemployment, help to increase production, increase the well-being, brings new technologies and overall spillover effects have positive impact on economy and society. Even many negative aspects of the FDI, such as the arisen of dual economy, depredation of sources, low value added and environmental aspects, positive effects prevail and countries are willing to attract and host any foreign investment.

There are three development stages of the FDI inflow. The first stage is associated with the reduction of the knowledge, skills and technology restrictions or limits of the host economy. The second stage relates to the savings gap when FDI substitute domestic savings that would be necessary for planned investments. As there is not enough domestic savings, foreign sources need to be used. The last stage relates with the changes in the exchange rate that consequently affects volumes of import and export to and from a host economy of foreign investment. To summarize, there are three gaps that FDI is able to cover – skill limit, saving gap and foreign exchange gap. Based on the equations above, the exchange gap would always be the same as the saving gap. The issue is however not the gap between savings and investment but between the different economic agents who decide about these two variables. Planned savings depends on the decision of households or other subject in the economy based on their income or income distribution in a country. On the other side, investments are determined by the returns on capital expected by investors. Similarly, when incorporating export and import, export depends on international (world) prices and income in foreign countries that represents customers for exported goods, but the import is determined by world prices, domestic income and its distribution. For this reason, the discrepancies between export and import and savings and investments are very common due to independent decision of other economic agents. If the planned investment minus planned saving is higher than planned import minus planned export, the investment will not be realized.

The expansion of the FDI inflow globally, affected also developing countries started in 80s and continued at 90s. At the beginning of the FDI boom, the most developed countries have located their investments in developing countries. This direction of often considered as north-south FDI flows due to the location of investment in the south hemisphere, where most of the developing countries is located. In addition, many of FDI was allocated in other developed countries, e.g. within the OECD countries or in countries in transition after the break of the central planning and transition to market economy. Later, many of emerging countries became more and more developed and have also provided foreign investments. The closer to the millennium, the more FDI was directed from newly developed countries and the higher flows emerged also in south-south direction. Presently, huge portion of the FDI flows is generated by the countries that are catching-up the most developed countries, but their level of industrialization, increase of well-being and economic performance is increasing in a very high pace. However, there is still many developing countries that rely on the FDI and would not be achieved any progress if FDI was not flowing to a country. The main reason for developing countries to attract foreign investment is due to the technology transfer. The multinational corporations, which invest is the developing countries usually bring new, technologically advanced equipment, or at least better technologies than were formerly used. As a result, multinational corporations contribute to the technological development of a host country. On the other side, some of the countries are not really open to foreign investments, even hostile toward investors as they realize that the main goal of the corporations in the profit of the parent company – investor, while the profit and other aspect of running business in subsidiaries is on the back burner. As most of the multinationals are huge conglomerates often exceeding by their turnover the volume of the GDP in a host country, they act as the equal partners to governments when negotiating about the condition to

enter a host country. It is necessary to note that not all FDI is just focusing on the performance of the parent firm and other affiliations are subordinate to this goal. In many cases, investors locate research, development or other activities to foreign affiliation as host country disposes conditions for this activity, e.g. has enough skilled and educated labour, own strategic materials or investor is efficiency seeking and the activities in host economy is cheaper as it would be if provided by parent company.

Benefits of the running business in the developing country might be as follows (Nafziger, 2006):

- Financing a saving gap or deficit in balance of payment.
- Obtain a specialized goods or services necessary for domestic production.
- Acquire new technologies and innovative methods to increase the productivity.
- Employ domestic labour and increase the educational level.
- Improve managerial and entrepreneurship skills and provide trainings for them.
- Create forward and backward linkages to domestic companies.
- Provide contacts with foreign financial institutions, access to foreign markets to sell production or obtain factors of production.
- Generate tax revenue from profit of a company as well as from incomes of employees.
- Support a host country competitiveness and enhance the foreign trade.
- Increase GDP of a host country, increase domestic demand and thus contribute to increasing of well-being in a host country.

On the other side, there are also some cost related with the operating of multinational corporation in a host country, which might be (Nafziger, 2006):

- Creating or increasing the technological dependence of a host country on foreign sources.
- Not providing of new technologies, patents or methods to foreign subsidies in order to protect them as subsidies might be considered as rival.
- Adopting technologies that cannot be use in the home country of investment, but allowed in a host country. A host country obtains newer technology as used, but from global perspective, it is not the newest or the most technologically advanced.
- Establishing a dual economy with technically developed foreign affiliations and domestic institutions with low technology level.
- The growth of income inequalities due to the dual economy as part of the employees (employed by foreign affiliations) have higher income as those working for domestic companies. Also, FDI is often more beneficial to skilled workers than it is to mental labour (Yin and Choi, 2023).
- Increase of the unemployment due to inappropriate technology and dispatching of domestic companies due to dual economy.
- Attracting other foreign in companies to serve as suppliers resulting in dispatching of domestic firms from market (often leads to bankruptcy of domestic entrepreneurships).
- Low tax liabilities due to the internal pricing methods and setting prices between parent company and foreign affiliation.
- Repatriation of profits to parent company.
- Affecting domestic policy and decision-making process.

For the purpose of capital allocation, technological knowledge and know-how, and managerial competence from parent country to host country of investment, FDI is considered as crucial factor of

economic growth. Increasing the capital flows into a host country enhance higher domestic investments and improving performance of domestic firms, job creation and decrease of unemployment. FDI allows firms from developing countries to access and integrate into the global economic chains by providing access to new markets and technologies. In addition, foreign direct investment is linked to enhanced levels of productivity and competitiveness, which contribute to the growth of the economy in the long run. According to empirical studies, there is a positive correlation between FDI and economic growth. For instance, research conducted on emerging countries like China and India has shown that FDI inflows have been a significant contributor to the economic expansion of these countries (Kadafi et al., 2023). There are a number of theoretical frameworks that have been developed in order to get an understanding of the relationship between economic development and FDI. The flow of foreign direct investment is largely governed by three elements, according to the eclectic paradigm proposed by John Dunning (Dunning, 2000). These factors include ownership advantages, location advantages, and internalisation advantages. The aim of this theory is to explain different FDI flows between countries. It means, why some countries are able to attract more number or more value of foreign direct investment than others. There are several examples of success stories that have been driven by FDI like Singapore, South Korea, and Taiwan, which have gone thought economic transformation processes (Finocchiaro, 2023). These countries purposefully attracted foreign direct investment by enacting laws that were favourable to business, making investments in infrastructure and education, and developing surroundings that were favourable to investors. The positive benefits that FDI has had on their industrialization and export-oriented development plans are clearly shown by the fact that their living standards have increased and that they have made technical improvements.

On the other hand, the dependency theory (similar as for foreign aid) provides different approach. According to this theory, foreign direct investment has the potential to worsen the existing economic inequalities by allowing rich countries – investors, to use the labour and other resources of developing countries and benefit from this situation. Foreign direct investment is criticised due to fact that it might lead to an economic dependence of host country on parent country of investment that decreases the autonomy of developing country and increases economic and social imbalances between countries.

Development of a country relying on the FDI presents challenges. As countries are competing to each other to attract foreign investments, the race for investment allocation is launched. In many cases, any investment is welcomed not considering the labour and working conditions and environmental aspects of pollution or other environmental aspects. In addition, any change in conditions, e.g. termination of investment incentives might lead to disinvestments, which means that investor is leaving the host country and shift the production to other country. The stability of FDI is then questioning, affecting economic instability in a host country. According to Ullah et al. (2021), the engagement of multinational corporations in the extraction of natural resources without implementing appropriate environmental standards rise the question of ethical concerns. In conclusion, research on foreign direct investment and development sheds light on the complex link that exists between FDI and the expansion of the national economies. The intricacies that are highlighted by theoretical approaches and case studies indicate how important it is to give thorough policy considerations (Hajro et al., 2023). This is despite the fact that foreign direct investment is commonly accepted as a stimulant for economic development. The attraction of foreign direct investment for development purposes has to be balanced by ensuring that it supports inclusive and sustainable aims, that it removes impediments, and that it maximises the positive benefits that foreign direct investment has on the long-term economic prospects of a nation.

## 11.3. External Debt and Financial Crises

The causes and consequences of a nation's external debt may come from a wide range of sources. A common method of accumulation is via the use of loans and borrowings from foreign sources. In addition to trade imbalances, economic downturns, fiscal mismanagement, and an excessive dependency on short-term capital inflows, there are a number of additional factors that contribute to foreign debt (Agyeman et al., 2022). According to Ighodalo Ehikioya et al.'s research from 2020, countries may take on foreign debt in order to pay for deficits in their balance of payments, financially support infrastructure projects, or get through challenging economic times. The accumulation of external debt may have severe consequences that extend to both the social and economic arenas. Excessive quantities of foreign debt might make it impossible to repay the debt, which would imply that a country's resources would be better used paying interest rather than pursuing investments that would be lucrative. According to Masuku and Jili (2019), this occurrence has the potential to inhibit economic progress, exacerbate poverty, and diminish the government's capacity to deliver essential public services. In addition, the creditworthiness of a country may be diminished, which would make it more challenging for the nation to get advantageous terms on any future borrowing. The excessive debt is always evinced in the decreasing well-being in a country.

The effect of the financialization of society as a trigger for the accumulation of foreign debt is the subject of a debate that has taken place more significantly in recent times. It has been suggested by Elkhishin and Mohieldin (2021) that increased financial interconnectedness has rendered countries more susceptible to interruptions in global liquidity, which has therefore contributed to the build-up of foreign debt. The perspective that is being presented here emphasises the significance of taking into consideration the structural adjustments that are occurring in the international financial system in addition to the amount of debt, which has the capacity to influence the dynamics of debt.

The intricate connection between foreign debt and financial crises has been a frequently discussed topic in the field of economic writing. Over-reliance on borrowing from outside sources, especially in foreign currencies, may put nations at risk of exchange rate fluctuations and other vulnerabilities. Financial instability may be brought on by abrupt changes in interest rates or exchange rates, which can cause the actual burden of debt to rise quickly. Currency crises, debt defaults, and banking crises are common manifestations of financial crises linked to foreign debt. Examples of instances when foreign debt was a major contributing factor to the onset and severity of financial instability include the Asian Financial Crisis of 1997 and the debt crisis in Latin America during the 1980s (Koh et al., 2020). These crises brought to light the interdependence of the world's financial markets and the possibility of contagion, underscoring the need for efficient systems for managing foreign debt to reduce systemic risks.

A comprehensive and coordinated strategy is needed to manage foreign debt for sustainable development at both the national and international levels. International institutions like the World Bank (WB) and the International Monetary Fund (IMF) are essential in helping nations struggling with debt by offering financial support and debt relief. Concessional financing, capacity-building initiatives, and debt restructuring are a few of the strategies used to manage the challenges posed by foreign debt. Ethical approaches to managing external debt highlight the need for prudent lending and borrowing behaviours. The goal of initiatives like the Debt Service Suspension Initiative (DSSI) and the Heavily Indebted Poor Countries (HIPC) Initiative is to lessen the burden of debt on the most vulnerable countries (Essers and Cassimon, 2022). But maintaining sustainable debt management also requires tackling systemic problems including lending terms openness, encouraging lenders to make responsible loans, and bolstering the resilience of national financial institutions. Often, barriers to receive help to decrease indebtedness in a country are factors as unstable political situation, violation

of human right, forbidden press freedom to inform public, inadequate reforms or any aspects relating to aroused suspicion from corruption or frauds.

The empirical examination of the complex correlation between foreign debt and crises in finance has played a crucial role in demonstrating vulnerability and variables that may initiate economic downturns (Khan et al., 2023). A wide range of methodologies have been utilised by researchers to investigate historical cases to comprehend the complicated nature of this changing linkage. An influential investigation conducted by Gunay and Can, (2022) investigated the historical trends of global economic downturns and recognised elevated levels of foreign debt as a prevalent predecessor. Their broad examination of the effects of foreign debt on structural stability in finance stretched generations. The research emphasised the tendency for nations with high levels of international debt to experience significant downturns and become more vulnerable to financial crises. Extending upon this groundwork, Belhadi et al., (2021) attempted a key empirical investigation, focusing on an extensive sample of developing nations. Investigation emphasised the association between external debt and financial emergencies, with particular emphasis on the potential instigation effect of a sudden reduction of capital flows. A particular threshold level of foreign debt was identified by the study as the point at which countries encountered a significantly greater likelihood of financial crises.

Recent research by Mohsin et al., (2021) shows the complicated relationship between the composition of external debt and the dynamics of crises. The results of research demonstrate that nations with a greater dependence on short-term external debt had a greater vulnerability to financial crises; this underscores the significance of debt structure in conceptualising systemic vulnerabilities. However, literature is not absent from the debate. According to Dey and Tareque, (2020), the influence of external debt on economic downturns is dependent on a range of factors related to context, such as the success or failure of policy frameworks and institutions. This detailed perspective emphasises the necessity of a comprehensive models that exceeds a conventional, one-size-fits-all methodology. Empirical research about the relationship between external debt and financial crises has made substantial contributions to the knowledge concerning the complex interconnections among these factors (Sufi and Taylor, 2022). All of these studies emphasise the significance of considering debt levels, macroeconomic environment and global economic factors when formulating policies that are intended to prevent or mitigate the negative effects of financial crises. Within the research that has been compiled on debt crises, the efficiency of policy solutions is a key topic of discussion. As Kim (2020) points out, during times of economic downturn, the conventional wisdom typically suggests cutting down on expenditure, which has the potential to make the situation much more miserable. In this discourse, the relevance of unconventional policies that attack the core causes of the financial crisis and support economic rehabilitation is made plain. These policies are intended to foster economic recovery. When all of these criticisms and arguments are taken into consideration, it becomes abundantly clear that the decisions on how to respond to financial crises, the efficiency of foreign aid, the impact of foreign direct investment, and the management of foreign debt are highly reliant on the circumstances and conditions. Design of policy, any taken solution or measure is the result of discussions and continuous conversation of a developing country with investors, aid providers, creditors and international organizations. However, there is not unified designed that would fit to all. In addition, the interdependence of these components is becoming more relevant, which highlights the need of implementing a complete and cohesive approach in each and every facet of development planning.

## 11.4. Case study 1: The Impact of Successful Foreign Aid Program

In the early 2000s, Ethiopia, an expanding East African economy, had widespread poverty, poor healthcare, and inadequate education (Kiguba et al., 2023). Ethiopia worked with an alliance of contributing states and international organisations to develop a successful foreign aid programme in response to its pressing need for outside help (Shen et al., 2023). Ethiopian assistance targeted many vital sectors. Massive infrastructure investments created schools, hospitals, and paved highways. Vaccination programmes, sickness prevention, and hospital infrastructure construction dominated healthcare reform (Hasselbeck et al., 2021). The assistance was designed to finance local firms and provide skill workshops to boost the economy.

Ethiopia changed drastically in the decade after. Transportation upgrades have increased business and travel. Education improved, increasing literacy and knowledge (Auld et al., 2020). Healthcare reform has enhanced people's health and made them stronger, lowering mortality rates. Ethiopia has been able to sustain assistance programme success for many reasons. Local ownership was shown by the Ethiopian government's strong involvement in development planning and execution (Asrat et al., 2022). Community engagement and effective leadership gave inhabitants a sense of control over their surroundings, which increased their pride.

Ethiopia's example may help other growing countries. Effective financing programme implementation shows the need of an integrated approach targeting education, infrastructure, and healthcare (Msimango, 2023). The Ethiopian experience also highlights the need of smart investment in development and poverty reduction.

## 11.5. Case study 2: FDI in Emerging Markets - Challenges and Opportunities

International corporations invested heavily in Indonesia, a rising Southeast Asian market, in the early 2010s (Eckardt, 2008). With abundant natural resources, a growing consumer market, and a crucial regional trade position, the country received interest for mineral extraction, manufacturing, and infrastructure (Ayuk et al., 2020). Despite the economic benefits, Indonesia faced various challenges caused by foreign direct investment. Local mining and industrial firms faced intense rivalry from overseas firms (Isabelle et al., 2020). Due to unequal distribution of FDI benefits, concerns were raised about natural resource exploitation and income inequality.

The FDI inflows brought its results. More individuals may find work in their area thanks to job creation (Baskoro et al., 2019). Infrastructure investments, technologies and knowledge from multinational corporations have enhanced business in the country. By accessing global supply networks, local enterprises increased their foreign consumption (Kano et al., 2020). The long-term effect and operation of FDI in Indonesia depends on whether economic benefits spread to society. It's important to assess Indonesia's environmental protections considering its biodiversity (Syarifuddin and Damayanti, 2019). Sustainable development must balance economic growth and environmental protection to preserve all-natural resources for future generations.

## 11.6. Case study 3: Managing External Debt and Financial Crises

Venezuela's economy increased fast in the early 2010s owing to high petroleum prices and government spending. By the mid-2010s, oil prices plummeted, management of a country failed, and corruption caused the nation to fall into a serious recession. Venezuela's mounting foreign debt has caused food and drug shortages. Venezuela's international debt was unable to manage. The country's economy is fragile because of oil exports and volatile prices on world market. Venezuela struggled to service its international debt when oil prices sank (Monaldi et al., 2021). Venezuela's economic situation has exacerbated due to investor confidence and credit rating declines.

Venezuela has taken many steps and measures to address its mounting foreign debt. Debt relief talks are easing immediate repayment limits. Budget cutbacks and expenditure simplification steadied the economy (Steel and Harris, 2020). To reduce the economy's dependence on oil income, financing sources were diversified. As known, Venezuela is struggling with political, social and economic crisis due to hyperinflation that is continuously affecting country since 2016. The hyperinflation is also causing financial and debt crisis as the Venezuela´s debt has dramatically increased. Venezuela is an example of a country that is not able to manage external debt, is struggling with financial crisis and is also politically unstable.

## Summary

Foreign aid, foreign direct investment, external debt, and financial crises literature review comprehensively examined how these factors or aspect of economics affect development and financial security in developing countries. Foreign financial and technical aid promotes socioeconomic development and is mainly focused on ensuring minimal standard of living as food or clothes or is focused on promotion of reforms supporting economic development. Foreign direct investment is crucial in aspect of production. Foreign investment may boost knowledge transfer, employment, and infrastructure development. It recognises that external debt might threaten economic stability and often countries are caught in debt trap. Chapter also included some historical facts. It explains how the Marshall Plan and foreign direct investment transformed developing countries to developed economies. It also explores external debt trends, including the 1980s Latin American debt crisis and the 1990s market-oriented reforms. Reviews of empirical studies on foreign debt and financial crises emphasise the vulnerability of high-debt economies to economic downturns. A country's financial crisis risk depends on its external debt composition and structure. Beside the positive effects of foreign direct investment and foreign aid, there are some critiques and debates pointing out negative aspects of investment and aid. Foreign aid is criticised due to its non-transparency and helping also to population that would not need it. The outcome outcome-driven, locally oriented aid would be an appropriate solution. Income disparity may result from foreign direct investment, emphasising the requirement for inclusive policy. Foreign investment is criticised for following the profit of parent company, shifting profit from a host country or for allocation of not advance technologies due to their prohibition of use in country of investor. Thus, host country is not receiving new, modern and advanced technologies. In case of indebtedness, some argue that focusing solely on debt reduction oversimplifies the issue of external debt sustainability. The goal of the policies would not be to reduce debt, but to give lessons to countries how not to create debt. The chapter summarises the complicated connections between foreign aid, foreign direct investment external debt and development.

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# CHAPTER 12: DEVELOPMENT STRATEGIES AND POLICY MAKING

Although policies in each area of each country have different content and details, But the effectiveness of the policies is not much different. Therefore, the problem above may lie in the policy making process. In other words, the mould for designing, selecting, and implementing policies in each country is a process that is not very conducive to the development of policy effectiveness. Important problems in some country policies are choosing policies based on preferences. Many policies are a response to traditional beliefs and cultures, which is an overlay on top of what society has practiced, such as Thailand's image of being an agricultural country. As a result, most Thai agricultural policies focus on protection and assistance. But it did not focus much on solving the root of the problem. Policies like this are forcing one-third of the country's people to continue farming. Even though agricultural products have not much added value from intense competition in the world market It is also a career with unstable income and facing various risks. Especially natural disasters which is a factor that cannot be controlled. These strategies are informed by a nation's unique circumstances, challenges, and opportunities. Importantly, they go beyond mere economic growth, encompassing dimensions such as poverty reduction, social equity, environmental sustainability, and institutional strengthening (North, Wallis & Weingast, 2009). Policies are the tools wielded by governments to influence economic activities, social dynamics, and institutional frameworks (Przeworski & Limongi, 1993). Furthermore, policy making is a collaborative endeavour that engages various stakeholders, including government agencies, civil society, the private sector, and international partners (Ostrom, 1990). In the past, policy evaluation in the public sector has often been based on the ability to disburse the budget and making documents complete. If any one item is missing the budget that will be received in the following year may shrink. Or if it is serious, it may become a disciplinary offense. 'Success' in making policy is therefore a matter on paper without the government needing to know whether the policies that have already been issued solve the problems. Or if the policy is not followed as has been done in the past, how will the country proceed? Moreover, sustainable development has gained prominence, emphasizing the need to balance economic growth with environmental stewardship. Policies promoting renewable energy, conservation, and circular economies are becoming integral components of forward-thinking development strategies (Levy, 2008).

## 12.1.Development strategies and policy making

One of the most accurate changes is to adjust the skills of policy planners throughout the country who determine and plan policies. Because the policies affect the lives of everyone from the local to the national level. Therefore, organized the Policy Innovation (PIX) is by bringing policy designers from operational levels to executive levels to learn and exchange new skills with labs around the world in the field of policy design and innovation with people at the centre to create ripples and change the entire policy making process. When hearing the word “policy,” many people probably feel like it is a distant matter. It is a matter of politicians. And it is a dream that cannot come true. That may be because civil society has not had much opportunity to play a role or participate in policy design in the past. These twin pillars serve as the compass for nations, directing their efforts towards sustainable growth, poverty alleviation, and the improvement of living standards. In this exploration, one searches into the essence of development strategies, the complexity of policy making, and the challenges and opportunities inherent in steering the course of progress (Krueger, 1993; Przeworski & Limongi, 1993).

### 12.1.1. Development Strategies: Crafting the Vision

Strategy is the most important starting point in doing business so that the organization can drive according to the goals and time frame set. Which can be divided into 3 levels of strategy design: corporate strategy, business level strategy and operational strategies. Each level is used for individual planning to cover the work of the entire organization. Strategic Development or Develop the Strategy has many meanings, as shown in the following examples.

1. Scenario modelling of future strategies: Based on the analysis of the environment and analysis of organizational performance.

2. Strategy development: It is one of the six stages of strategy implementation. Tools used to develop effective strategies include:

2.1 Develop or review organizational direction (mission, values, and vision) using the Mission, Value, Vision tool.

2.2 Strategic analysis: Issues, problems, and opportunities that challenge the organization uses the tool SWOT analysis, Strategic Change agenda.

2.3 Set competitive strategies (Strategy Formulation): Using Strategy approaches such as Resource-based view, Core Competencies, Value-based management, Profit from the Core, Blue-Ocean, Emergent strategy, Experience Cocreation, and Disruptive Innovation tools to improve organizational efficiency (Operational Approaches) such as TQM, Six sigma, ISO, Lean manufacturing, Learning Organization, and/or risk reduction methods. (Methodologies) such as ERM, Internal control, COSO.

3. Strategic direction planning: Putting strategy into practice leads to change and develop the culture and competency or knowledge and ability of the organization.

4. Planning of the organization that wants to achieve its mission: It is the objective of founding the organization. The strategy development process involves three concepts: differentiation; competition through lower costs and responsiveness to customers. Developing an effective strategy requires a SWOT analysis process.

John P. Kotter proposes 8 stages of organizational change (Transformation) as follows:

1) Create awareness of the urgency of change or establishing a greater sense of urgency
2) Creating a team to lead change or creating the guiding coalition
3) Developing a clear vision and strategy or developing a vision and strategy
4) Communicating the vision for change to employees to understand and participate or communicating the change vision
5) Empowering others to act
6) Creating short-term wins
7) Creating continuous change or consolidating gains and producing even more change
8) Create change into organizational culture. Institutionalizing changes in the culture.

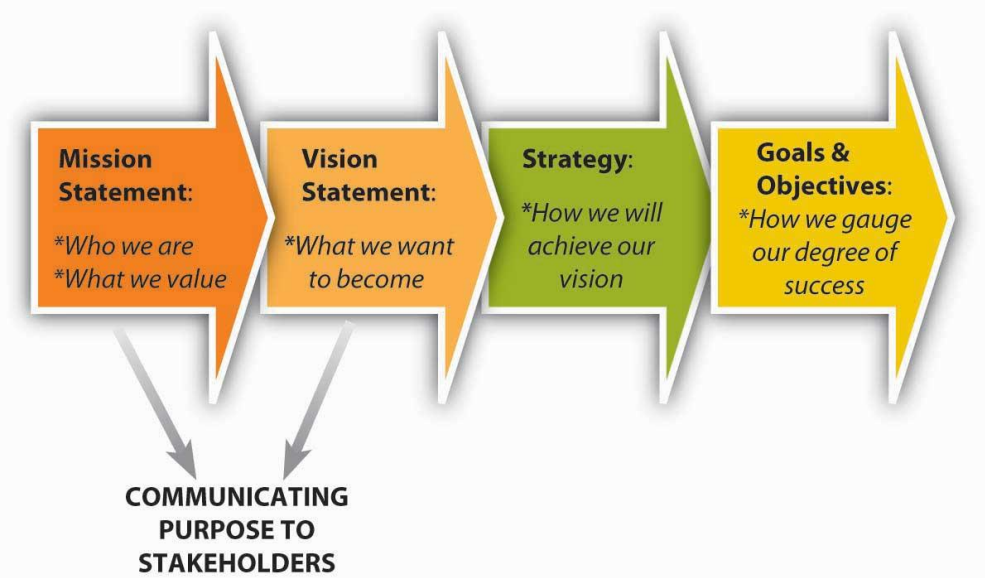


Figure 12.1 Roles of Mission Vision and Values
Source: https://open.lib.umn.edu/principlesmanagement/chapter/4-3-the-roles-of-mission-vision-and-values/

According to Figure 12.1, every organization is the most successful begins with good and effective strategic planning. Therefore, planning in such areas is considered a guideline in creating a vision and determines the direction of every organization in the future, both in the short and long term. It is very important to help indicate future results that may occur. If any organization lacks a strategic plan, in addition to not having clear guidelines for work and management, it also has a negative effect on the business in the long run. Important factors in strategic planning must be based on actual conditions. Whether it is economic conditions, politics, epidemics, society, the environment, etc., It is not a hypothetical plan but cannot be done. Because doing that is equivalent to not getting any results. It can be briefly summarized that the importance of having a strategic plan that is appropriate for the organization. It will help develop potential and create growth step by step and have a clear concrete. It requires identifying key sectors that can serve as engines of growth, understanding the demographic landscape, and recognizing the role of innovation and technology in driving progress (Lipton & Sachs, 1990). These global benchmarks provide a shared language for nations to articulate their aspirations and commitments. Development strategies, when informed by the SDGs, contribute not only to national progress but also to the global agenda of eradicating poverty, ensuring quality education, and fostering environmental sustainability (Qureshi, Ahsan, Gull & Umar, 2023; Stiglitz, 1999). Having a strategic plan will help everyone in the organization to achieve the goals that have been laid out clearly, accurately, and understand what should be done so that the results meet expectations. This will inevitably affect growth and reach success as intended.

### 12.1.2. Policy Making: Translating Vision into Action

Policy formulation has three main steps: problem identification, proposal preparation, and policy announcement. Policies crafted through an inclusive and participatory approach not only consider diverse perspectives but also garner support from the broader population. Engaging stakeholders, including government agencies, civil society, the private sector, and international partners, ensures that policies are contextually relevant and enjoy broad legitimacy (Majone, 1997). Multilateral agreements, international partnerships, and cooperation frameworks are essential

components of effective policy making in the interconnected world of the 21st century (King & Roberts, 2015). The modern world is constantly changing. Therefore, if there is good strategic planning, it will help the organization to be aware of what is going to happen which has important consequences for making changes in a timely manner. Management is easier. A simple example of adjustment is changing from selling only in stores to focusing more on selling through online channels. If any organization had this plan from the beginning by setting up the system clearly, the work of employees will be easier and adapt to the times. So, the sales are not falling.

In Figure 12.2, the good vision must comprise with these elements, abbreviated to the word AIM-AT as follows:

1. A - Aspirational: indicates desire, wants, wants to be, wants to have
2. I - Inspirational: It creates inspiration and inspiration. When you listen, you feel excited.
3. M – Measurable: Able to measure concrete results.

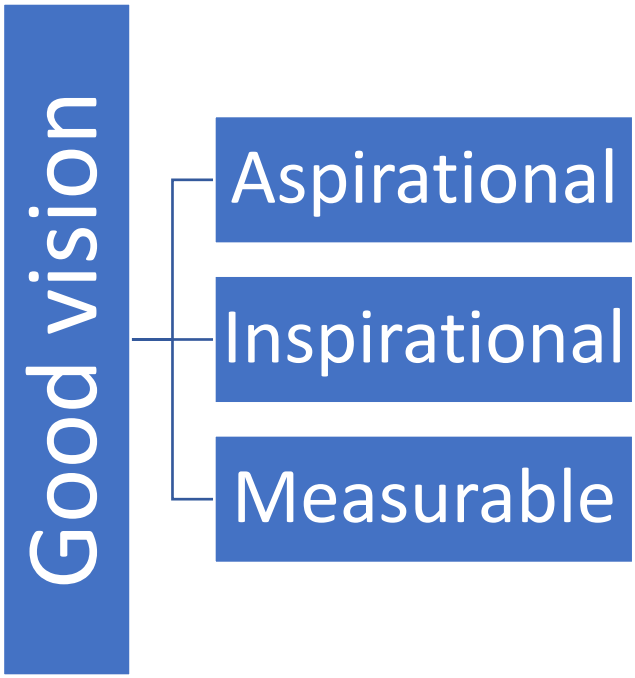


Figure 12.2 Good Vision

Vision is the direction that the organization plans to go in the future. It is the inspiration or motivation that organizational leaders use to motivate and move all employees in the same direction. It expresses the organization's goals as communicated to stakeholders whether customers, business partners or shareholders are aware creating a corporate vision

### 12.1.3. Challenges and Dilemmas in Development Strategies and Policy Making

If speaking at the level of theoretical concepts, policy implementation is a topic that has struggled to gain attention in studies. Although there are many public administration scholars who have defined the meaning of public policy implementation, such as Mazmanian and Sabatier (1989), who studied the relationship between policy implementation and public policy. It points out that policy implementation is an important step in the public policy process. The meaning of policy implementation therefore means successful and collaborative implementation of policy decisions

made under the legislation approved by the legislature. Executive orders or the judgment of the Supreme Court or the Supreme Court Ideally, policy decisions are problem identification, setting objectives and determining the structure of the policy implementation process.

Having a good strategic plan also helps each department's work create the efficiency that the organization needs. Because everyone knows what their own goals are. What should they do to get the best out of the work? This planning is also considered a way to connect and create a correct understanding of the work of each department to reduce internal problems. Create good relationships with everyone in the organization is creating love and unity. Unbridled growth may lead to income disparities and social exclusion, undermining the very essence of development (Bardhan, 2016). Crafting policies that promote both economic dynamism and social inclusion requires a nuanced understanding of the intricate dynamics within a society. Globalization adds a layer of complexity to the challenges faced by nations. While interconnectedness provides opportunities for trade, investment, and knowledge exchange, it also exposes nations to external shocks (Bhayani, 2023). Policymakers must proactively address these challenges through regulations, investment in education and retraining, and fostering an environment conducive to innovation (Acemoglu & Robinson, 2015). Once the various steps have been planned, it will enter the action step and measure including evaluate how well the results meet the standards. This is another reason that will help the organization move forward steadily. If the results are still not as desired, the real cause must be found to determine what is causing them, how to fix them, and what characteristics to improve to become the results as intended. It is said that the organization's shortcomings can be seen and corrected at the most precise point.

### 12.1.4. Emerging Trends and Opportunities

Since the founding of ASEAN in 1967 until the present is an example of emerging trends and opportunities. It can be said that ASEAN has succeeded in achieving important goals and the intentions set out in the Bangkok Declaration satisfactorily, both in terms of politics and security, economics, society, and development of relations with the outside world. One such success is likely to be to bring all Southeast Asian countries closer together and cooperate as ASEAN member states. The integration of Southeast Asian countries under the ASEAN cooperation framework is continuously developing and taking shape. However, 33-year-old ASEAN is experiencing new conditions. Many factors, both internal and external to the region, challenge the process of integration and solidarity of member countries and undermines the credibility and role of ASEAN organizations as well. Therefore, it is necessary for member countries to be alert and interested in jointly finding ways to face these various challenges, political stability in the region. After the Cold War ended and solving Cambodian problems economic security situation Politics in the region has begun to improve and continues to trend positively by countries in Indochina. All countries have joined ASEAN, Cambodia joining as the 10th member country in 1999. The situation in East Timor is developing in a better direction. At the same time, ASEAN has pushed for the preparation of a Regional Code of Conduct on the South China Sea between ASEAN and China, which will help build trust between the parties involved and build confidence among countries outside the region. Besides ASEAN still pays attention to the situation on the Korean Peninsula, most recently, His Excellency the Minister invited the North Korean Minister to visit Thailand during the 33rd AMM meeting in July 2000 to have the opportunity an experience the atmosphere of the conference and the regional cooperation process including can meet with other countries. The countries that play a role in issues on the Korean Peninsula. ASEAN continues play a leading role in the ASEAN Forum on Political Cooperation and Security in the Asia-Pacific (ARF), with the aim hoping to develop it into a mechanism for creating stability, trust and prevent conflicts in region. It has also taken steps to promote the Treaty of Amity and Cooperation in Southeast Asia (TAC) as the cornerstone of relations

in the region. It has also made efforts to accelerate the implementation of the Southeast Asia nuclear weapon Free Zone (SEANWFZ) treaty and persuade nuclear-armed countries to join the treaty. ASEAN economic cooperation has begun to have a clear goal of leading to economic integration of countries in the region. Since the 4th ASEAN Summit in Singapore in 1992, the idea was to establish the ASEAN Free Trade Area (AFTA). Since then, ASEAN activities have expanded to cover all major economic sectors including trade in goods and services, investment, industrial and agricultural standards. Intellectual property, transportation, energy, and finance, etc., with directions set cooperation outlines and plans as well as a clear timeline for achieving results under the ASEAN Vision 2020. And the Hanoi Plan of Action, which sets the goal of making ASEAN an economic zone with a free flow of goods, services, and investment with freely important developments are as follows: Under AFTA, the tariff reduction period for six original member countries has been shortened. For industrial products, the rate will be 0-5% by 2002 and 0% by 2010, and for agricultural products, it will be 0-5% by 2010. There are negotiations to liberalize trade of services in 7 sectors such as maritime transport, air transport, finance business professions, construction, telecommunications, and tourism for member countries to open more liberalization in services than is bound in the WTO framework. Currently, ASEAN has begun a new round of negotiations with the goal is for liberalization to cover all service branches in total 12 branches by 2020. The time for establishing the ASEAN Investment Area (AIA) has been shortened from 2010 to 2003, which aims to establish an ASEAN investment area that has advantages and attracts investment from inside and outside the region. It covers all direct investments except securities investments.

ASEAN's current social cooperation is very diverse including social development, culture, education, public health, science and technology and anti-drug campaigns, etc. However, during rapid social change due to globalization, this is combined with the values of people across the region who are starting to have more expectations for democracy and other basic rights, as well as the impact of the economic crisis that has created unemployment and poverty problems. They have widened the gap between the rich with even more poor people. The ASEAN has therefore begun to give top priority to cooperation to enhance social stability and human resource development in the future direction.
So that ASEAN can face various challenges. As mentioned above and at the same time to strengthen the foundation of cooperation among countries in the region within the ASEAN framework. ASEAN needs to promote cooperation in various fields. To make progress and respond to the real needs of the people. Therefore, the importance has been given to various matters as follows: Strengthen the role of the ASEAN Forum on Political and Security Cooperation in the Asia-Pacific Region as a mechanism for preventing and resolving conflicts in the region As well as developing the role and participation of ASEAN in resolving and preventing problems or situations in the region in a timely manner. In this matter, Thailand has proposed the establishment of an ASEAN Troika to take the lead in promoting ASEAN's ability to face various challenges in a timely manner. Promote economic integration of ASEAN member countries to expand internal trade region and attracting foreign investment. This means that obligations under the ASEAN Economic Agreement must be continuously met and new forms of cooperation must be considered. That will serve as the basis for continued ASEAN cooperation after the establishment of AFTA and AIA in the next 2-3 years. In this matter, this may include full liberalization of certain products for which ASEAN has high global competitiveness (ASEAN Product Community) and liberalization of electronic commerce within ASEAN, etc.

In 2021 was also the year that business grew exponentially during the economic crisis, not all the world but in Thailand, that is, the E-Commerce business, which grew up to 58% due to changes in consumer behaviour. A home-based lifestyle, from waking up, eating, working, until going to bed, most of the time is spent using online media. While neighbouring countries in Southeast Asia such as Singapore, the online media is growing as well followed by 47% and Indonesia 15%, which from research found that products that are often traded online include household items, furniture, clothing, electronic equipment, and home entertainment media. Later, the educational business followed a

similar trend. Many schools and universities both in Asia and Europe changing the way of teaching and learning primarily through online media, study from home, causing students must adapt more. Teachers must also adapt to the changes as well. Besides within the school fence, there are also survey results found that the employees' working habits began to change. Many companies have measures in place to support working from home and work from anywhere in the long term. For example: The Builk has a policy that allows employees to work in coworking spaces anywhere without having to enter the company or even regional technology giants that relies on the speed of information and safety must be the highest priority, for example, Kasikorn Business Technology Group Company or KBTG has adopted a 3-2-day policy, that is, employees are allowed to go to the office 3 days and work from home 2 days, etc. From economic problems in 2022, it affects the challenges that will occur coming year. Whether it is a conflict with the geopolitics, trade wars, inflation, and economic recession. But after analysing economic conditions from around the world, during these atmospheres, Southeast Asia was less affected than other regions in the world, whether it was recovering with its existing potential or not. It can predict the situation and opportunities that will occur in 2023 to the industrial sector from many perspectives. The Fourth Industrial Revolution, characterized by technological advancements such as artificial intelligence, blockchain, and the Internet of Things, presents both Policies that address income inequality, empower marginalized communities, and promote social cohesion are becoming central to development strategies (Birdsall, Ross & Sabot, 1995). Strengthen economic links with countries/groups of countries outside the region in addition to the APEC framework and with the European Union in the ASEM framework, especially with countries in East Asia in the ASEAN+3: East Asia Cooperation framework, which was initiated from the summit between ASEAN leaders and Chinese leaders Japan and South Korea in November this year and developing cooperation with other economic zones such as the Australia-New Zealand Economic Zone (CER) and Latin American countries, etc.

Accelerate cooperation in economic development of the Mekong Basin countries by campaigning for the period between B.E. 2000-2010 was a decade of cooperation for economic development in the Mekong Basin countries. To improve the quality of life of people in the new member countries and support the economic integration of these countries in line with the ASEAN market, by mobilizing cooperation from countries outside the region. international organizations and the private sector as well. Jointly strengthen social safety nets as a measure to enhance economic development. The mosquito net focuses on eliminating poverty, increasing employment with higher productivity and protection of disadvantaged groups in society by mobilizing cooperation and support from abroad, international organization and non-government organizations as well.

### 12.1.5. Conclusion: Steering the Course of Progress

From the above mentioned, it may not be all smooth. Because there is still a challenge that one cannot avoid, that is, managing employee stress. This may come from online meetings, time management at work, resting at home. Maintaining the level of relationship among employees in the organization to always remain strong including giving empathy to co-workers, which is another important thing that cannot be overlooked. Development strategies and policy making stand as the twin pillars guiding nations on their journey towards progress. In this complex endeavour, the pursuit of development remains a shared global aspiration, transcending borders and fostering a collective vision for a better, more inclusive future (Rodrik, 2004).

## 12.2. Stabilization, Adjustment, Reform, and Privatization

This exploration delves into each of these concepts, providing a nuanced understanding of their meanings, purposes, and implications in the context of economic management (Ahsan, Mirza, Al-Gamrh, Bin-Feng & Rao, 2020; Wade, 1990).

### 12.2.1 Stabilization

Stabilization covers on Security. It covers ten main areas: political stability, homeland security, military security, economic stability, cultural stability, social stability, science and technology security, cyber security, ecological security, resource security, and nuclear security. 'Security' is an important component of a state. Citizens lose some of their freedom to live under the state. This is because they expect the state to protect and maintain peace for themselves. However, when talking about 'security', the state tends to generalize. 'Security of the state' is synonymous with 'security' of the people. In the past, the word 'security' was associated with state power and the military. Because the main challenge is to create peace between territories. But when conflict between states is not the main problem, in addition, humans encounter more and more new problems, including the environment, food, disease, population, economy, and many others, making it impossible to tie security to the military alone to solve these problems any longer.

Stabilization, in economic terms, refers to the actions taken by governments or central banks to mitigate fluctuations and instabilities in key economic indicators, such as inflation, unemployment, and the overall level of economic output. At present unprecedented changes are accelerating and the process of economic globalization and regional integration is facing challenges such as protectionism, unilateralism, and other challenges by, the direction of China - US relations and cooperation in the Asia-Pacific region have become the focus of all parties at this historical juncture. President Xi Jinping of the People's Republic of China was invited to attend the China - US Presidential Meeting in San Francisco United States. which was participation in the 30th Asia-Pacific Economic Cooperation (APEC) informal meeting of leaders.

### 12.2.2 Adjustment

Economic adjustment involves making structural changes to correct imbalances and enhance the overall efficiency and competitiveness of an economy. In 2024 – 2025, the world will have a new trend from a newly adjusted business. Businesses that can adapt quickly will be able to generate profits and grow over the next 2 - 3 years, starting with VR or Virtual Reality and AR or Augmented Reality. Markets will come back to create a trend and better response than before. This can be seen from the news about Apple Glass, which is expected to be released into the market in 2025 and have revenue growth of 59%* from the growth rate in the next 5 years. With AR technology, you can see virtual images from outside through your eyes. This is an innovation that is very useful if applied in real life. For example, Apple Glass is expected to be used in medicine. To view the internal organs of the body with greater accuracy and help increase efficiency in treating patients, manufacturing industries to see the process and production steps in a clear picture. This makes production and product creation faster and more accurate than before. In addition, other major companies such as Facebook and Snapchat are starting to invest more in developing AR technology within their organizations. In the future, one may have to start adjusting to wearing “Glasses that increase vision and see digital landscapes” as well. In addition, the VR games market in the next 5 years is likely to grow up to 59 % by 2025 due to the growth of technology and the games market, which has grown up to 16 % in line with the growth of smartphone technology. There are more and more. one will see the development of the gaming

industry with images are clearer than human imagination and graphics that are more beautiful and realistic than what the eye can see. Entering the Silver Economy era fully now, an era in which the elderly aged 60 years and over will be the main population of the country. Therefore, innovation must be prepared to be able to better meet the needs of the elderly which is in line with the current aging society trend. The Purchasing power and consumption behaviour Including the lifestyle, thoughts and work of seniors aged 60 years and over are more likely to read reviews. Or study the details carefully before choosing to buy a product and are ready to spend on products and services that are good for them. Examples of innovations that have begun to adapt to the "Silver Economy" is to increase safety in life include slip and fall detection services for the elderly. If you are alone in the house, the smart censor detects movement and falls in the bathroom. If an elderly person slips and falls in the bathroom, there will be an immediate notification.

### 12.2.3 Reform

Economic reform involves systematic and often radical changes to economic structures, institutions, and policies to address inefficiencies, encourage innovation, and promote overall economic development. Reforms are typically aimed at creating a more competitive and dynamic economic environment (Williamson, 1990; Young, 1992). Successful reform requires careful planning, effective communication, and a commitment to long-term goals (Sachs & Warner, 1995). The example of the "Reform" is "Automotive Innovation". One will start to see electric cars proliferate by 2024 - 2025, replacing gas and oil-powered cars. In addition, the electric cars will be available for purchase at a lower price and will clearly reduce the cost per mile on the road. In the future, one will see more and more electric cars being reserved. Meanwhile it will reduce gas emissions. carbon dioxide or making it to be called "zero carbon waste" which results from the use of renewable electricity. For example, Apple Car is rumoured to produce self-driving electric cars in 2024 - 2025. Of course, one may have to prepare. Dealing with drivers who are no longer human and studying the manual for using electric cars Include the maintaining and charging electrical energy for the cars. Social development for most people to have a happy and satisfied quality of life is a matter of clearly understanding the causes of problems at the roots, and the people. They must have specific ideas and solutions to social problems. It is not just a simple thought that when the economy grows, the public sector and the public sector will naturally develop education and society for the better.

Part of the social problem comes from the way in which Thailand's economic development approaches distribute assets, income, knowledge, and appropriate jobs to the people in an unfair manner. A few people get richer, but the majority have low incomes/ poor. Therefore, we must reform both economic and political matters along with educational reform, health reform and other social reforms to make all citizens with good physical and mental health. They should have usable knowledge and skills Intelligent and socially conscious increased social status and bargaining power to bring society into balance and better sustainable development. Important social reforms are reforming parenting and reforming education to make children smart intellectually, emotionally, and consciously. Know how to take care of and develop yourself in terms of physical and mental health, have democratic values and a way of life. Both in the family, school and in the community, for example being aware of your own rights and freedoms by respecting and not violating the rights of others. To know how to listen to most voices, developing the conscience of good, responsible citizens in terms of being aware, understand the necessity/benefit of collaboration that working for the common good. The community or country is doing it for oneself and everyone smarter than competing with one another.

### 12.2.4 Privatization

Privatization involves the transfer of ownership and control of state-owned enterprises or public assets to private entities. Successful privatization requires careful planning, transparent processes, and mechanisms to address potential negative consequences (Easterly, 2006). The word "privatization" or privatisation has the meaning of changing the ownership of state enterprises from the state to private ownership. In the past, Thailand "There has never been a privatization of state enterprises" in that sense. There will only be "Increasing the role of the private sector in state enterprises" in various forms, such as private contracting. The long history of privatization dates to ancient Greece in which the government contracts everything out to the private sector(Parker & Saal, 2003) in the Roman Republic Individuals and private companies perform most of the services. This included taxation, military supplies, sacrifice, and religious construction. However, the Roman Empire also established state-owned enterprises, such that most seeds were eventually produced on land owned by the emperor. Some scholars have suggested that the price of bureaucracy was one of the causes of the fall of the Roman Empire.

## 12.3. Sustainable Development Policy Approaches

This exploration delves into key sustainable development policy approaches, examining their principles, challenges, and potential for creating resilient, equitable, and environmentally responsible societies (Collier & Hoeffler, 2004; Grindle & Hilderbrand, 1995). One of the foundational principles of sustainable development policy is the integration of economic, social, and environmental considerations. Policymakers recognize that these dimensions are interconnected, and a singular focus on economic growth without consideration for social equity and environmental stewardship is unsustainable. Integrated policy frameworks aim to balance economic development with social well-being and environmental preservation (Ahsan, Al-Gamrh & Mirza, 2022; Pierson, 2004). Conduct business honestly and fairly Adhere to compliance with the law and trade terms. Promote clarity and transparency in organizational management is in accordance with international principles including supporting the fight against corruption, preventing exploitation. and the abuse of power to create maximum and fair benefits to stakeholders.

### 12.3.1. Circular Economy Approaches

Circular economy approaches emphasize minimizing waste and maximizing the longevity of resources by promoting reuse, recycling, and sustainable production processes. Current economic growth rate includes a population that has a higher growth rate. This results in limited utilization of natural resources. To drive the economic system to grow continuously, Extravagant use of resources There is a competition for resources that tends to be in short supply in terms of both raw materials and energy. Lack of resource stability and resulting are in increased waste volumes as well as affecting global temperature changes. There is a climate crisis (Climate Change), Circular economy. Therefore, it is a balancing act between humans and resources. Change the cycle of resource uses to be as renewable as possible. By changing from using limited resources to using resources that can be recycled (Renewable Resources), reducing greenhouse gas emissions. The circular economy is therefore a solution that will revolutionize the efficient use of energy and raw materials. Circular Economy or circular economy system If translated directly and easily understood, it is an economic system that requires us to use resources as efficiently as possible in every process. Almost every step should not have a high rate of waste. Or there can be, but it should be minimal. to make the entire process most efficient. Circular Economy refers to an industrial system that is planned and designed to restore or give new life to materials throughout the product lifecycle. Instead of throwing it away as garbage at the end of consumption. In Figure 12.3, the circular economy brings back the materials that make up those

products to create new value. Circulates in a continuous cycle without waste. It also focuses on conserving natural resources and creating a balance in extracting natural resources for new use. Along with creating effective systems and designs to reduce external impacts. (Negative externalities). Therefore, one often sees a circular economy using renewable energy or eliminate the use of toxic chemicals that are an obstacle to the reuse of various materials. If the substance is to be returned to nature, what is inevitable in creating this type of economic system? It is the design of new materials, products, systems, and business models that require 'thinking' differently to create innovation. At the heart of the Circular Economy is a return to understanding nature's design and workings. This is the most efficient circular production system and there is never any waste. Because there is a mechanism for completely reusing resources, minerals, and energy. As the saying goes, all matter will never disappear from the world.

Example of BCG Mode, the BCG Model is holistic economic development that will develop the 3D economy at the same time, namely the bioeconomy. The bioeconomy system focuses on using biological resources to create added value. Emphasis is placed on developing high-value products linked to the circular economy, considering the reuse of various materials as much as possible, and both of these economies are under the Green Economy, which is economic development that the focus is not only on economic development. But it must be developed in tandem with social development and environmental protection in a balanced manner to achieve stability and sustainability at the same time. By changing the advantages that Thailand has from biological and cultural diversity to be able to compete with innovation, to create a BCG economy that grows and competes on a global level. There is a distribution of income to the community, reduce inequality strong community. There is environmental friendliness and sustainable development. The relationship between the bioeconomy Circular economy and green economy. The BCG Model will be a mechanism with high potential to thoroughly improve the quality of life of people in the country, able to distribute opportunities and reduce inequality effectively. At the same time, it can make Thailand become a world leader in some fields where Thailand has potential. Therefore, the country's strategic goals have been set for use in driving the BCG Model as follows:

- Economic value added of BCG target industries
- Reduce inequality by increasing farmers' and communities' incomes.
- Elevate Thai food industry operators to be among the world's top 5 producers of healthy foods and high-value food ingredients.
- The biological industry, production of drugs, medical devices, and biological materials, is strong. It has export potential as a source of high-skilled and high-income employment.

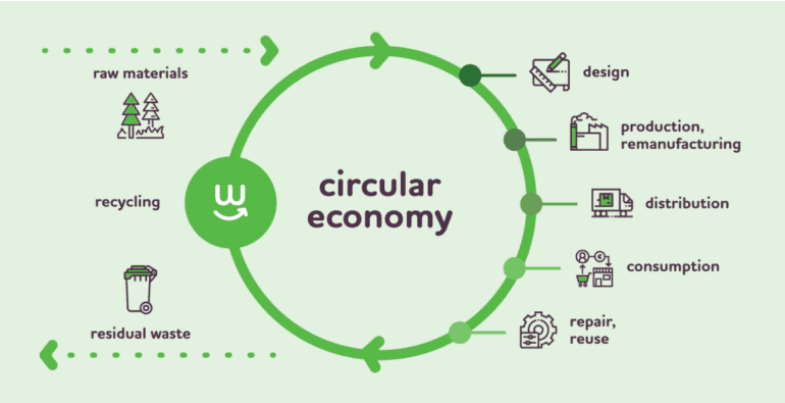


Figure 12.3 Circular Economy
Source: https://www.fintechnexus.com/climate-change-agenda-circular-economy/

Principles for joint operations between many sectors to be unity and power. Each sector will focus on both being globally competitive and delivering benefits to communities and driven by a Quadruple Helix mechanism through the integration of the private sector, government sector, universities, and communities, as well as taking advantage of global cooperation partners. The Ministry of Natural Resources and Environment should drive the potential of agencies under the Ministry both in terms of researchers, knowledge, and research infrastructure. National Quality Infrastructure (NQI) and promoting innovative businesses to be used to jointly drive work in a quadruple format with the private sector, government sector, educational sector, and community. Economic growth that places importance on the distribution of opportunities, income, and prosperity to the people of the country thoroughly without leaving anyone behind. Under conditions of serious care for resources and the environment which requires science, technology, and Innovation. Technology has raised the productivity level of most manufacturers at the base of the pyramid. By applying complex technology and innovative management, it will reduce costs, increase productivity, and create product diversity. Meanwhile we must promote innovative entrepreneurs or Innovation Driven Enterprise who are ready at the top of the pyramid to produce high-value products using advanced technology, aiming to ultimately become a country that is a creator of technology and innovation. The most reduce dependency on foreign technology increases opportunities to become a technology exporter

### 12.3.2. Sustainable Urbanization Policies

Given the global trend toward urbanization, policies addressing sustainable development often center around creating livable, efficient, and environmentally responsible cities. Sustainable urbanization policies aim to balance economic opportunities with social inclusion, infrastructure development, and environmental sustainability (World Economic Forum, 2020). Urbanization is the economic and social process that transforms rural areas into cities. At the same time, the spatial distribution of population patterns has changed to more urban areas. It also includes changes in occupations, lifestyles, cultures, and behaviours. As a result, the social and demographic structure of urban and rural areas has changed. An important consequence of urbanization is an increase in the area and size of urban settlements and the proportion between urban and rural people. Urbanization is determined by urban planning and spatial planning, as well as public and private investments in infrastructure and buildings. Developing the area into a hub for transportation, trade, and information, increasing economic activity and innovation concentrated in the city. As a result, the city has become a place with better quality services from both the public and private sectors and are easier to access in rural areas. In practice, urbanization refers to both an increase in the proportion of the population living in urban areas and other growth related to the number of residents in the city size of urban area and all areas used for urban settlements. The urbanization is determined by urban planning and spatial planning, as well as public and private investments in infrastructure and buildings. Developing the area into a hub for transportation, trade, and information, increasing economic activity and innovation concentrated in the city. As a result, the city has become a place with better quality services from both the public and private sectors and are easier to access in rural areas. In practice, urbanization It refers to both an increase in the proportion of the population living in urban areas and other growth. related to the number of residents in the city size of urban area and all areas used for urban settlements.

The Global Sustainable Development Goals build on the success of the previous Millennium Development Goals coordinated by the United Nations and member countries. The campaign to achieve the Millennium Development Goals began in 2008 and ended in B.E. 2015 Millennium Development Goals are mainly related to social development, with a focus on eliminating hunger, poverty and inequality illiteracy, Illness, and environmental degradation. For example, Thailand has largely achieved its Millennium Development Goals. Thailand has used the Sufficiency Economy Philosophy that emphasizes people at the center of development increasing the potential of people

and communities. Thailand continues to contribute to the global development process by helping to strengthen the ability of our neighbors to achieve the mission of the Millennium Development Goals and future development efforts. Thailand has shared the expertise gained from achieving the Millennium Development Goals with other countries directly as well as through regional forums such as ASEAN. These capacity-building efforts have been undertaken through a variety of channels, including cooperation, Bilateral/trilateral cooperation, South-South cooperation, and multilateral frameworks. For example, Thailand has been actively involved in sharing the Sufficiency Economy Philosophy as a development model with the international community, especially when it chaired the G-77 in 2017. This has helped to establish Sufficiency Economy Philosophy Projects in many countries such as Cambodia, Indonesia, Laos, Lesotho, Myanmar, East Timor and Tonga. Since the beginning, the sustainable development is at the heart of the Sufficiency Economy Philosophy. The principles underpinning the Sufficiency Economy Philosophy are relevant to efforts to address sustainability in Thailand to balance economic progress, protecting the environment and human needs. The Sufficiency Economy Philosophy is also in line with the key principles of the 2030 Agenda and can be used as a guideline to support the attainment of the Sustainable Development Goals in a global context.

Climate change is a major global problem that affects the environment, economy, society, and especially health effects from climate change both directly and indirectly. The World Health Organization (WHO) have stated that climate change has affected various systems of the world. It poses risks to human health and well-being, and it is necessary to prepare to prevent and reduce the risks. Potential health as climate change poses a significant threat to sustainable development, policies addressing both mitigation reducing greenhouse gas emissions and adaptation building resilience to climate impacts are imperative. Adapting to climate change aaccording to the Intergovernmental Panel on Climate Change (IPCC), it is defined as “modification of natural or human systems in response to existing or anticipated climatic stimuli”. in the future, including responding to the effects of that stimulus Such adjustments help reduce danger or damage that may occur. Or it may be taking advantage of opportunities arising from climate stimuli or their effects.” While the United Nations Framework Convention on Climate Change (UNFCCC) defines adaptation to change. The climate states that “It is a response to climate change. It is an attempt to reduce the vulnerability of biological and social systems to relatively sudden changes and compensate for the effects of global warming” (Ministry of Natural Resources and Environment, 2016). The 21st Meeting of the Parties to the United Nations Framework Convention on Climate Change held in Paris France in 2015 passed a resolution approving the "Paris Agreement" which is an agreement in which signatory countries must help including find the ways to keep the world's average temperature level from increasing more than 2 degrees Celsius and increase Potential for adapting to the impacts of climate change Under the creation of a revolving capital system to support continuous operations.

The marine ecosystem is changing due to migration of aquatic animals due to global warming. This causes expansion, contraction, or fragmentation of fishing zones as shown in Figure 12.4, and this trend is expected to intensify further in the future.

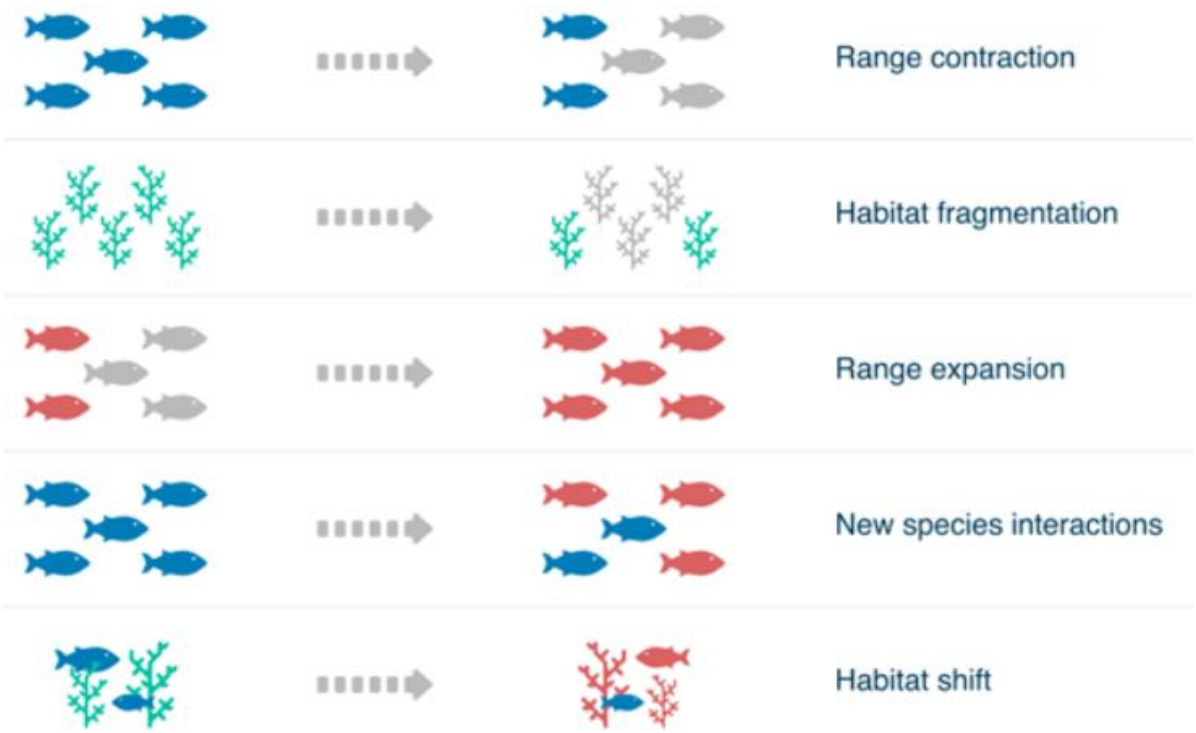


Figure 12.4 Types of Ecological Change

Many research studies focus on the adaptation of various aquatic animals to rising water temperatures. Although these changes have had some positive effects on the diversity of aquatic species, such as pH, sea level, salinity, and oxygen levels. McHenry, for example, compared 125 species of aquatic animals. In the North Atlantic, in an environment where temperature changes are the same as an environment affected by many factors, it was found that models using common factors showed more worrying results. That is, it causes more aquatic animals to migrate and the fishing zone to shrink. Migration may occur depending on water temperature and winds or ocean currents. Some areas of the marine ecosystem may be at a tipping point. This will cause changes in the function of each species in that system. In addition, marine ecosystems in the ocean near the equator may experience rapid deterioration and aquatic animals become extinct or migrate to only remaining species. Withstands heat well and survives predicting the adaptation of aquatic species to new environments is complex because of evolving climate models, biological data, and computational approaches makes the accuracy of the prediction higher and better planning for adaptation as well. As the target species undergo changes in both habitat and abundance due to global warming. Fisheries will be affected. Therefore, we must understand the chain of impacts starting from the ecosystem, fisheries, businesses in the supply chain and finally, the social and cultural values and resources of fishing communities. For example, changing fishing gear and methods has had an impact on the marine ecosystem by over-fishing of aquatic animals. Aquatic habitats are destroyed and makes communities vulnerable. If we want to avoid actions that will lead to more severe consequences. The economic impacts on fisheries from the migration of aquatic animals due to global warming include reduced catch and higher costs. It also affects the entire seafood industry chain. The severity of the impact will depend on market flexibility and customer tastes. For example, the market will adjust by importing fish to compensate for the decline in local fish. But in Uruguay this adjustment led to an economic crisis as the value of imports skyrocketed causing a trade deficit. In some cases, adjustment may be made by moving factories, markets, or fishing ports. International fish markets are considered a reserve fish source for local fishing

communities. But relying solely on international markets can have negative consequences, such as loss of jobs and income for local people. Products are more expensive. The local products are lost. In addition, international markets often only sell high-priced products such as shark fins and sea cucumbers lead to illegal fishing and black markets. Finally, if fishermen do not reduce the size and number of boats, there is a risk of overfishing and the extinction of both desired and unwanted aquatic species. Fisheries are, of course, a long-standing interaction between marine ecosystems, fishing community and consumer society. The impact of migration has reduced fish catches, especially for local fishermen and seafood workers, many of whom are migrants and women, who do not have any rights to access the resource. Changes in fishing areas, technology, and fishing behaviour may cause fishermen to stop relying on traditional knowledge. This will intensify the economic and environmental impacts. Effects like this change the way people interact with each other. Change in social costs and pose a risk to local fishing culture. For example, in the Arctic, global warming has caused the structure of indigenous communities, that is, the demographics and roles of men and women to change. This has changed the way of life and local traditions as well. Young women must move to the city to find work and traditional wisdom has been lost among the new generation. Such social changes will create distance among members and poverty when fishermen must find various methods to protect local resources which may be ineffective and cause even more severe poverty.

Going back to the 1960s to the late 1970s, most migrants only completed primary school and the migration pattern is seasonal migration. Those immigrants' main occupation was farmers. But working in the city also allows immigrants to learn new skills, such as construction skills, tailoring, beauty, transportation, car repair, trading, restaurants, or even gem cutting. Some of these workers bring their skills back to run businesses within the village. But those activities are only jobs that do not provide much extra income. Because it is an activity that anyone can come and do. Therefore, there is high competition. But the important point is that most immigrants still want to return home and do the familiar agricultural work. Next generation of immigrants those born between the early 1980s and 1997-98 had a high percentage of secondary school education. Because the government has started a policy to expand secondary school opportunities since 1987. Most of these people have little background in agriculture. Most jobs aside from jobs in labour-intensive factories producing export products moved from Japan e.g., textile factories, automobile assembly plants Electronics. It is also a service job. As for people who have completed higher education, there are still a small number. Popular career is government service working for a company or practice a profession such as a doctor, and a large portion of the workforce works in small businesses. Most forms of employment are in the informal sector with no stability. Therefore, when the Tom Yum Kung crisis occurs or there will be major flooding in the central region and Bangkok. Therefore, many of these people are unemployed and must go home because there is no other choice. Living in the countryside will not only prevent you from starvation. There is still a familiar society and culture. Since the 1997/98 economic crisis, many third-generation immigrants have been educated beyond high school to university. These people never had agricultural skills because he left home to study in high school and university in the city. Unfortunately, Thailand's economic growth rate has begun to slow since the 2007s due to a decrease in the investment-to-GDP ratio from 40 - 45% of GDP in the 1990s to 23%-25% since the 2007s, especially the decrease in foreign investment. There are also problems with the quality of education and the problem of knowledge and skills not matching the needs of employers (mismatching) causes many university-educated people to compete for the jobs of high school graduates and vocational education. The real wages of the highly educated have thus stabilized (Dilaka & Thitima 2013; Dilaka 2023).

In addition, there are other concerns: even though there is a policy to diversify the industry into the region but most industries In particular, industries that use high technology are still concentrated in central city. Most industrial factories located in ruler area use low skills and low wages, such as clothing and shoe factories, agricultural product, processing factory, processed food factories, etc. If highly skilled immigrant workers want to build a middle-class family or want their children to

have a high and quality education, it is necessary to spend most of the life in the capital, far from home and reducing ties with family and village. But the problem is that work in the city is very risky. For example, when the Tom Yum Kung crisis in Thailand occurred, many workers were laid off from their jobs. At that time, the Social Security law did not include unemployment or old-age insurance. Moreover, most workers in particular, immigrant workers working in the informal sector lack employment security. For example, when there was a major flood in 2011, many factories in the central region and Bangkok had to close, causing workers to immediately lose their jobs without compensation. For this reason, most of the migrant workers had to migrate back home. The countryside is also the last resort (safety net) that one can always rely on in times of distress. Including during the COVID-19 outbreak, the city is closed. Therefore, an important survival strategy for immigrants is maintaining relationships with family and village. In addition to having food to eat, no more starvation, life in the countryside (livelihoods) also have social and cultural attractions including the influence of the concept of sufficiency economy makes most immigrants want to return home. The villages are places to return, not places to leave behind because if they leave permanently, it must have high enough skills and have the confidence to dare to live elsewhere except for married people and set a new foundation. For this reason, Rigg, Salamanca, Phongsiri & Sripun (2018) concluded that “The Thai agricultural sector is undergoing a truncated agrarian transition, that is, the number of small farmers with little land holdings remains stable to make the farm size smaller. The economic and social structure of rural people has changed in a half-hearted way, not as completely as scholars had predicted.

Since 2015, Europe is experiencing the most intense migration flows in decades which causes instability, more chaos and loss of image. These are the opinions that emerge. However, Economic analysts have taken the opposite view, stating that to the challenge immigrants also make a strong contribution to the economic development of the receiving country, especially helping to solve the problem of personnel resources for Europe. From the beginning of this year until now according to estimates from the United Nations Refugee Agency (UNHCR), more than half a million refugees have made their way to Europe, including nearly 350,000 Syrians out of a total of more than 4 million Syrians who have fled to Europe. A new life abroad because of war and poverty. Today, thousands of migrants continue to flock to European countries every day despite the dangers they face while traveling because they have high expectations to escape from war. According to the statistical report the number of immigrants entering the EU has tripled this year. It is expected to reach 2 million by the end of this year, which will increase demand in the region. Therefore, the EU's GDP will increase, which will have an impact in a positive way both in the short term and in the long term. Immigrants can contribute greatly to the economy of the countries that receive them. Experts have expressed their opinion that this is because birth rates in Europe have been low in recent decade. The region lacks a flexible workforce of young people, so immigrants from poor and war-torn countries will help compensate for Europe's labour shortage. Immigrant participation in the workforce increases GDP, and the taxes they pay help balance the budget. In the past, everyone used to think most immigrants are poor and dependent on the taxes of the rich in society. But most immigrant groups work hard but earn lower salaries than locals. Therefore, economically, immigrants should not be considered a hindrance to the economy of countries that welcome them.

In addition to the positive aspects mentioned above, on the other hand, increasing immigration intake also means that country faces more instability. The first is the problem of adapting to a new society. Immigrants who previously lived in dangerous and impoverished areas how can they adapt to the local people who live in this safe and wealthy area? This is the question so far. Economists still do not have a clear answer. If unable to adapt to a new society, there will be discrimination in society, which is what causes instability. There is a high possibility of this anxiety occurring. Because in reality in the past several months, protests against migrants have taken place in many European countries. Especially after the region agreed on the allocation of immigrant quotas. As unemployment continues to rise, with the unemployment rate in France at 11 percent, compared to 22 percent and 25 percent

in Spain and Greece, respectively. Additional immigration will create barriers for society. Immigrant flows into Europe will free up social welfare funds, which are matched by residents for public health. Unemployment assistance pensions and education will also be affected.

### 12.1.1. Inclusive and Equitable Economic Policies

It is well known that inequality is the unequal access to or use of resources among people in society. Inequality may be caused by different "costs" such as income, education, culture, or even housing and workplaces. There can also be hidden inequalities. Therefore, inequalities can occur anywhere. However, economic development and government policy should play a role in reducing the inequality gap. To make people in society more equal both in terms of income, education, and well-being. Economic development requires resources and the use of resources or the implementation of projects for economic development that affects people differently. James Boyes once said in a report called “Inequality as a Cause of Environmental Degradation” in 1994 stated that all economic development has an impact on the environment. Those who must bear those impacts are not the "winners" who benefit from development to become influential and wealthy, but the "losers" who must bear the decline unwillingly because of being powerless and poor. Environmental inequality is disproportionately related to three dimensions: the social dimension; Spatial dimension and the environmental dimension, which all three dimensions cause people to face different environmental inequalities. Poor people bear the brunt of environmental problems more than others. The cause of environmental inequality is the result of economic development and government policies. The lack of consideration on negative impacts from development causes the pollution problems, social problems, and environmental problems, such as gaps in the law that allow private companies to operate factories without public hearings, health and environmental impact assessments. Policy of purchasing or importing waste from abroad without considering the negative effects on people and communities in areas affected by air pollution from imported waste, etc. Benefits are distributed unevenly among people. Some groups may benefit from development. But some groups may not benefit at all. Moreover, they may have to bear the impacts that may arise from that development as well, such as allowing private companies to legally operate oil recycling plants in community areas. Even though there is clearly oil contamination in the community's water sources, etc. People in society lack participation in decision making. As for the influential people who set development policy, they only look at the positive impacts that will happen to the country. Forgetting to consider the negative impacts that the community must bear.

The negative environmental impacts that occur are considered "costs" that loser must bear to protect their own health from air pollution, polluted water, and forest degradation or even climate change. From the study of inequality in Asia and the Pacific in the year 2030 for sustainable development (INEQUALITY IN ASIA AND THE PACIFIC IN THE ERA OF THE 2030 AGENDA FOR SUSTAINABLE DEVALOPMENT) by UNESCAP in 2018 points out the mechanisms that drive the poor to bear more costs than other groups. And inequality from environmental impacts will continue in an endless loop because

1) poor people are less able to cope with environmental impacts,
2) poor people may not have access to adequate infrastructure, and
3) poor people are less fortunate low level of protection against environmental impacts.

Therefore, the development focuses on enhancing the country's potential in many dimensions based on 3 concepts:

1. Build on the past by looking back at the roots of the economy, identity, culture, tradition, way of life and the strengths of various natural resources include the country's comparative

advantages in other areas. Applied and combined with technology and innovation is in line with the context of the modern world economy and society.

2. Adjust the present to pave the way for the future, through the development of the country's infrastructure in various dimensions both transportation and transportation networks, science, technology, and digital infrastructure and adapting the environment to facilitate the development of future industries and services.

3. Create new value in the future by increasing the potential of entrepreneurs, develop the new generation include adjusting business models to respond to market needs. It combined with strategies that support the future. Based on building on the past and adjusting the present, along with promotion and support from the government sector, Thailand can create a new income base and employment. Expanding trade and investment opportunities on the world stage along with raising income levels and living well Include the increasing the middle class and reducing inequality among people in the country at the same time.

There are development goals that emphasize drawing on the power of various sectors, including the private sector, civil society, and local communities. So that all parts can participate in the administration and have equal access to quality services and welfare. The policy of promoting acceptance of differences and living together equally is a practice to ensures that there will be no discrimination without justifiable reasons in the selection of persons for employment. Retaining employees with the organization, training, and developing employee potential without discrimination in terms of age, disability, gender include those who have undergone sex reassignment surgery, HIV/AIDS status, marital status, same-sex marriage, pregnancy and maternity leave political opinions, race/ethnicity, religion and beliefs, sexual orientation, socio-economic background offenses that have been committed membership or participation in trade union activities working style, having or not having a family and other issues not related to work. We are committed to promoting and strictly adhering to the rules of equality. We strive to avoid unreasonable discrimination and realizes that doing so is an obstacle in the implementation of the policy of equality for the opportunity participation and human rights. Sustainable development policies emphasize the importance of inclusive economic growth that benefits all segments of society. Inequality reduction, job creation, and social protection measures are central components of policies aiming to build equitable economies. Most of the public sector uses the budget allocated by the government to various agencies to support the “Sustainable Development Goals”. These funds are the foundation for the government's integrated implementation plan based on the 20-Year National Strategic Framework and the 12th National Economic and Social Development Plan. The government has created a structure for inter-agency coordination to achieve the Sustainable Development Goals. The sustainable development goals Targets and indicators must be coordinated between at least two agencies, and this work is considered an important issue according to key development policies, national security policy, other important government policies and the sufficiency economy philosophy agencies can request strategically integrated budgets from the central budget, which provides an opportunity for coordinated action. Coordinate and support in an effective manner. Worth it and not redundant However, evidence that this process is occurring on a regular basis is scant. These results remain robust when considering various proxies for policy uncertainty and accounting for potential endogeneity issues (Sen, 1997). The successful implementation of these policies requires collaboration, innovation, and a commitment to balancing the needs of the present and the aspirations of future generations (Evans, 1995).

. Focusing on development by taking advantage of nature is considered the root of the problem. However, we cannot stop past developments. But we can set development rules so that the same pattern is not repeated. In addition to limiting the size of the impact from development using remedial measures for those affected and decentralized decision-making power to officials at the local level and people in the community. We also need to consider the laws and regulations for project development. That is the key to solving the problem of inequality very well, such as requiring developers to have

measures to support and reduce the impacts that arise from development. Collection of taxes to compensate for negative impacts on the environment and people including requiring people in the area to participate in development, etc., to increase their power and ability to protect themselves from development that has a negative impact on the community. Policies focus on solving environmental and social problems. It will be a compass that sets the direction for solving problems and reducing inequality from environmental impacts, such as establishing an agency to specifically take care of environmental problems. Health and environmental development remedies for those affected and developing good infrastructure does not detract from the environment. Inequality in environmental impacts is not new. And it reinforces to us focusing on economic and social development alone that is not enough. But it is necessary to review environmental development as well. However, the author strongly believes that decentralization determination of law and policy making to reduce environmental inequality. It is not yet considered a strong medicine that will solve the problem. But cultivating awareness among people in society of being responsible for the environment will be an important medicine to solve the problem of environmental inequality in a sustainable way.

## Summary

Policy making is the process by which governments formulate, implement, and evaluate policies to address societal challenges and achieve specific goals. It involves a complex interplay of political, economic, social, and cultural factors, requiring careful analysis and stakeholder engagement (World Bank, 1997). Running a business faces many challenges brings risks and opportunities. Therefore, businesses must constantly adapt and develop themselves to survive and grow steadily and sustainably. Organizational development towards sustainability is therefore “Important Matters” that every business must integrate and drive concretely, which can be done in many forms according to the organizational context. So that the business can drive the organization according to sustainable development guidelines. It is integrated as part of normal business processes. Businesses need to first understand the context or "identity" of the organization. It can be studied and analysed from the vision, mission, and organizational culture. Besides the value chain, business strategy, business risks, and opportunities is as well as the direction and trends of the industry. This will help the organization to clearly see the organization's context and to lead to an analysis of stakeholders and sustainability issues that businesses should focus on and manage effectively to support businesses to grow strongly in the long term. When a business identifies stakeholder groups and assess which issues are the impacts between them, businesses should determine methods or formats for engaging with each stakeholder group to have guidelines for communicating and managing such issues effectively. Each stakeholder group may have different access channels or participation formats. Businesses should use the information obtained from analysis and evaluation to review what are the outstanding points that the company can perform well. Or what are the improvements that the company should make to improve its operations? As well as planning to continuously develop and enhance sustainability operations. Moreover, businesses should also monitor and review the content of the information disclosed. Important sustainability issues and sustainability information that is disclosed is always appropriate to the environment and business context including to reflect the potential and identity of the business appropriately and up to date.

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