

**ARBA MINCH UNIVERESITY COLLAGE OF
BUSINESS AND ECONMICS DEPARTMENT OF
ECONMICS**



**DEVELOPMENT ECONOMICS- II
READING MATERIAL**

COURSE CODE: Econ. 3072

CREDIT HOUR: 3

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Feb, 2023

Arbaminch, Ethiopia

General Introduction to the reading material

This reading material explores the application of economic principles and reasoning to a variety of applied and topical aspects of economic development problems and policy. Specifically, we deal about the role of government in the regulation of the economy in development context and the role of international bodies in regulating the third world economies. Recognize application of economic principles to design, guide and interpret various aspects of interrelated domestic development policy (Integrated Rural Development Policy)

Furthermore, it will address the main challenges developing world faces and consider alternative policies and modern approaches that may contribute to stimulating growth and speeding economic development in less developed countries. Moreover, it introduced the students to some of the main development issues that have contributed to the development paths pursued by developing countries like Ethiopia.

Course Objective

After completing the course, students will be able to:

- Describe the relationship between population growth and economic development
- Discuss the relationship between education and economic development and review the past and current trends and implications of investment in education and economic development in developing countries. As usual we conclude the chapter by policy recommendations.
- Discuss economic models of Rural- Urban migration, migration and urbanization dilemma, urban informal sector and urban unemployment, and policy interventions for employment and migration.
- Discuss agricultural transformation and rural development in developing countries.
- Understand international trade policy issues by examining a wide range of LDC commercial policies.
- Finally Know source for finance for national and local development as well as setting possible policy direction for developing countries.

CHAPTER ONE

Conceptual Focus: Population Growth and Economic Development

1. Introduction

Every year, more than 75 million people are being added to the world's population. Almost all of this net population increase, around 97%, is in developing countries. Increases of such magnitude are unprecedented. But the problem of population growth is not simply a problem of numbers. It is a problem of human welfare and of development. Rapid population growth can have serious consequences for the well-being of all of humanity. If development entails the improvement in people's levels of living—their incomes, health, education, and general well-being—and if it also encompasses their capabilities, self-esteem, respect, dignity, and freedom to choose, then the really important question about population growth.

Objective of the Chapter

Dear learners at the end of the chapter you should be able to:

- ❖ Cause, consequence and impact of high population growth on natural resources and economic development
- ❖ Know different state of demographic transition
- ❖ To understand the relationship between poverty and family size;
- ❖ Examine the concept of fertility and mortality;
- ❖ Understand issues regarding gender and economic developments.

1.1.The Basic Issue: Population Growth and the Quality of Life

The world's population is expected to increase by 2 billion persons in the next 30 years, from 7.7 billion currently to 9.7 billion in 2050, according to a new United Nations report launched in 2019. The overwhelming majority of that population will inhabit the developing world.

Brain Storming: What will be the economic and social implications for development if such projections are realized?

1.2.Trends of population growth and age structure

According to the recent press reports the world population approaches to nine billion. For most of human existence on earth, humanity's numbers have been few. When people first started to cultivate food through agriculture some 12,000 years ago, the estimated world population was no more than 5 million. Two thousand years ago, world population had grown to nearly 250 million, less than a fifth of the population of China today.

During the period from year 1750–1950, an additional 1.7 billion people were added to the planet's numbers. But in just four decades thereafter (1950–1990), the earth's human population more than doubled again, bringing the total figure to around 5.3 billion. The world entered the twenty first century with over 6 billion people. It explicitly shows the magnitude of population growth, most of which has been in developing countries, both as a percentage of the total and in terms of absolute numbers. Finally, it provides projections to 2050, when world population is expected to reach 9.2 billion.

By 1750, the population growth rate had accelerated to 0.3% per year. By the 1950s, the rate had again accelerated, tripling to about 1.0% per year. It continued to accelerate until around 1970, when it peaked at 2.35%.

Today the world's population growth rate remains at a historically high rate of about 1.1% per year, but the rate of increase is slowing. However, the population growth rate in Africa is still an extremely high 2.3% per year.

CHECK YOUR PROGRESS

Dear learner can you discuss the implication of such overwhelming populating growth for developing countries?

(Use the space given below)

Structure of the World's Population: The world's population is very unevenly distributed by:

- Geographic region,

- Fertility and mortality levels,
- Age structures.
- **Geographic Region:** More than three-quarters of the world's people live in developing countries; fewer than one person in four lives in an economically developed nation.
- **Fertility and Mortality Trends:** The rate of population increase is quantitatively measured as the percentage yearly net relative increase (or decrease, in which case it is negative) in population size due to **natural increase** and net **international migration**. Natural increase simply measures the excess of births over deaths or, in more technical terms, the difference between fertility and mortality. Net international migration is of very limited, though growing, importance today (although in the nineteenth and early twentieth centuries it was an extremely important source of population increase in North America, Australia, and New Zealand and corresponding relative decrease in western Europe). Population increases in developing countries therefore depend almost entirely on the difference between their crude birth rates (or simply birth rates) and death rates. Finally, note that there remains a biological susceptibility for old people to die at higher rates than young people due to aging. Although death rates of children and younger people are higher on average in a developing country with rapid population growth, the fact that their populations are so youthful on average explains why they may have an overall population-average death rate that is lower than that of a developed country with a much older average population. You may notice this possibly unexpected relationship when you look at demographic statistics.
- **Age Structure and Dependency Burdens:** Population is relatively youthful in the developing world. Children under the age of 15 constitute more than 30% of the total population of developing countries but just 17% of developed nations. In fact, at least 10 developing nations have over 44% of their population under the age of 15; as of 2009, 43% of Ethiopia's population, 45% of Nigeria's, and 38% of Pakistan's was under 15; for both India and Mexico, the comparable figure is 32%. In countries with such an age structure, the youth dependency ratio—the proportion of youths (under age 15) to economically active adults (ages 15 to 64)—is very high. Thus the workforce in developing countries must support almost twice as many children as it does in the wealthier countries. In general, the more rapid the population growth rate, the greater the proportion of dependent children in the total population and the more difficult it is for people who are working to support those

who are not. This phenomenon of youth dependency also leads to an important concept, the hidden momentum of population growth.

CHECK YOUR PROGRESS

Dear learner can you explain the relationship between the age structure of a population and its dependency burden? Is the dependency burden higher or lower in developing countries? Why?

1.3.The Hidden Momentum of Population Growth

- ❖ Population growth is its tendency to continue even after birth rates have declined substantially.
- ❖ Population growth has a built-in tendency to continue, a powerful momentum that, like a **speeding automobile** when the brakes are applied, tends to keep going for some time before coming to a stop.
- ❖ In the case of population growth, this momentum can **persist for decades** after birth rates drop. There are two basic reasons for this:

First, high birth rates cannot be altered substantially overnight. The social, economic, and institutional forces that have influenced fertility rates over the course of centuries do not simply evaporate at the urging of national leaders. We know from the experience of European nations that such reductions in birth rates can take many decades. Consequently, even if developing countries assign top priority to the limitation of population growth, it will still take many years to lower national fertility to desired levels.

The second and less obvious reason for the hidden momentum of population growth relates to the age structure of many developing countries' populations. There is a great difference between age structures in less developed and more developed countries. Different international organization report reveals that most future population growth will take place in the developing world. For developed countries, in the contemporary period the population in middle cohorts is typically greater than that of young cohorts; this is partly but certainly not exclusively viewed as a transitional feature of a period in which women have been delaying births until later in life.

CHECK YOUR PROGRESS

Dear learner can you explain hidden momentum of population growth?

(Use the space given below)

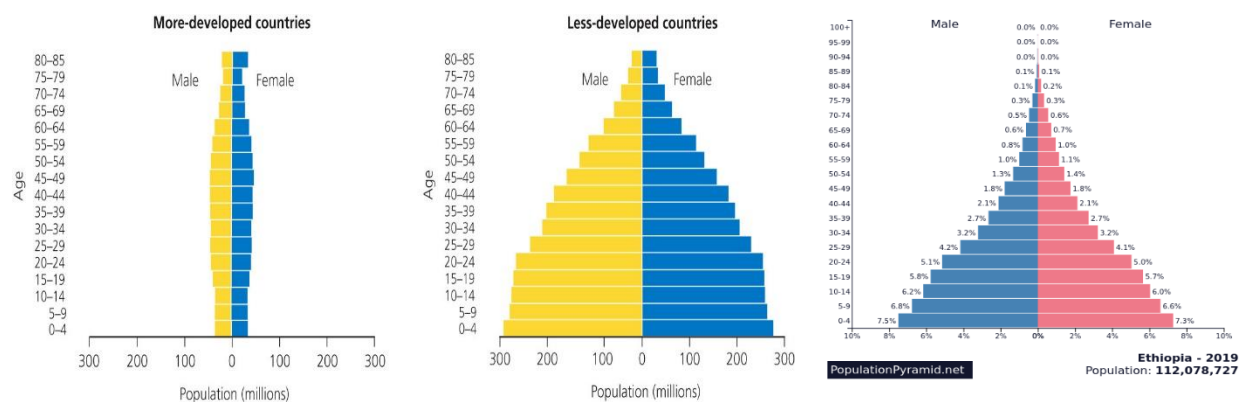
CHECK YOUR PROGRESS

Dear learner can you discuss the reason for the hidden momentum of population growth?

(Use the space given below)

From the Ethiopia demographics data, young people greatly outnumber their parents. When their generation reaches adulthood, the number of potential parents will inevitably be much larger than at present. It follows that even if these new parents have only enough children to replace themselves (two per couple, as compared with their parents, who may have had four or more children), the fact that the total number of couples having two children is much greater than the number of couples who previously had more children means that the total population will still increase substantially before leveling off.

Figure 1.2: Population Pyramid of more and less developed countries and Ethiopia.



CHECK YOUR PROGRESS

Dear learner can you compare population pyramid of more and less developed countries?

(Use the space given below)

1.4.The Demographic Transition

It is the process by which fertility rates eventually decline to replacement levels. The demographic transition has three stage and all contemporary developed nations have more or less passed through the same three stages of modern population history.

Stage I: High Fertility and Mortality

Before their economic modernization, developed countries for centuries had stable or very slow-growing populations as a result of a combination of high birth rates and almost equally high death rates.

Stage II: Declining Mortality

Stage II began when modernization, associated with better public health methods, healthier diets, higher incomes, and other improvements, led to a marked reduction in mortality that gradually raised life expectancy from under 40 years to over 60 years. However, the decline in death rates was not immediately accompanied by a decline in fertility. As a result, the growing divergence between high birth rates and falling death rates led to sharp increases in population growth compared to past centuries. Stage 2 thus marks the beginning of the demographic transition (the transition from stable or slow-growing populations first to rapidly increasing numbers and then to declining rates).

Stage III: Declining Fertility

Finally, stage 3 was entered when the forces and influences of modernization and development caused the beginning of a decline in fertility; eventually, falling birth rates converged with lower death rates, leaving little or no population growth. Figure 1.3 depicts the three historical stages of the demographic transition in Western Europe.

Figure 1.3: Demographic Transition in Developed Countries

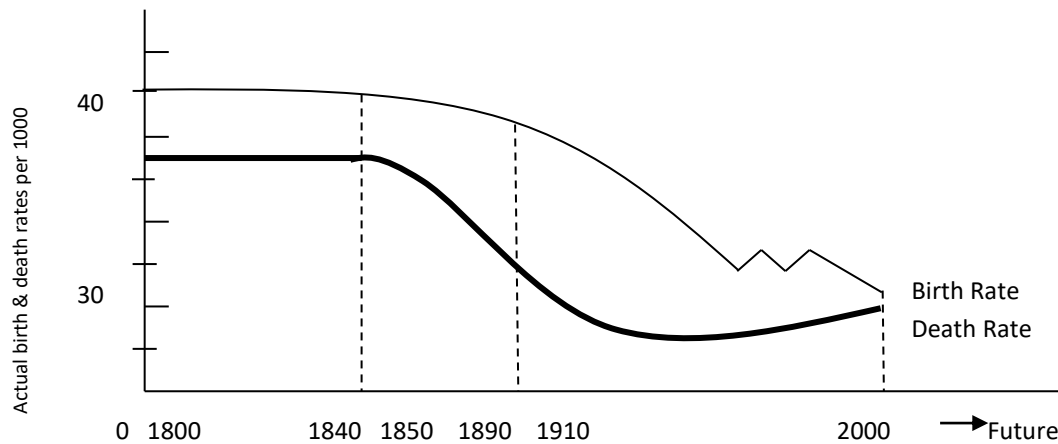
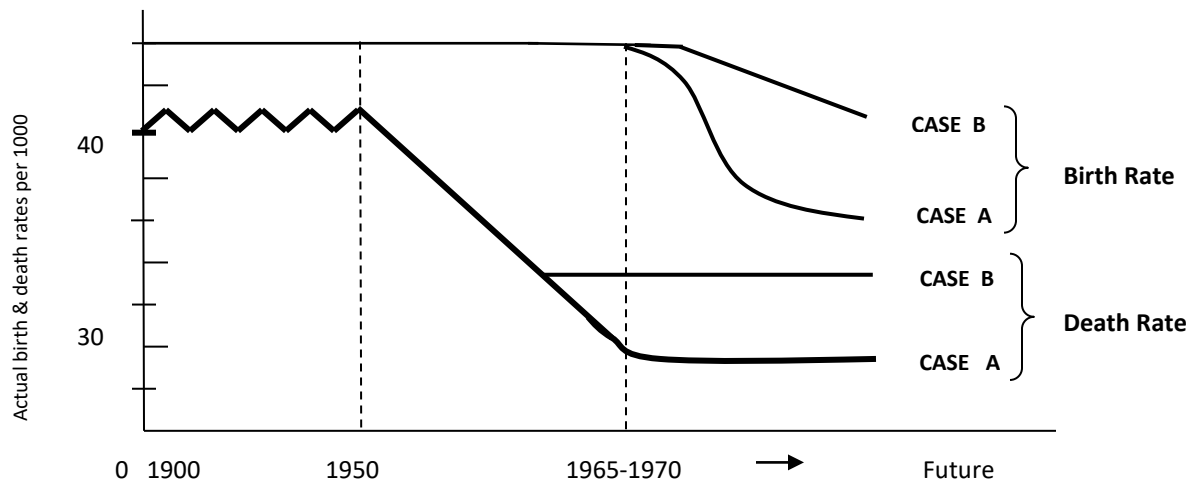


Figure 1.3 shows the population histories of contemporary developing countries, which contrast with those of Western Europe and fall into two patterns. Birth rates in many developing countries today are considerably higher than they were in preindustrial Western Europe. This is because women tend to marry at an earlier age. As a result, there are both more families for a given population size and more years in which to have children. In the 1950s and 1960s, stage 2 of the demographic transition occurred throughout most of the developing world. The application of highly effective imported modern medical and public health technologies caused death rates in developing countries to fall much more rapidly than in nineteenth-century Europe. Given their historically high birth rates (over 40 per 1,000 in many countries), this has meant that stage 2 of the demographic transition has been characterized by population growth rates well in excess of 2.0% per annum in most developing countries.

CHECK YOUR PROGRESS

Describe briefly the theory of the demographic transition.

Figure 1.4: Demographic Transition in Developing Countries



Source: Todaro 11th edition (Figure 6.6 pp. 280) Development Economics

With regard to stage 3, we can distinguish between two broad classes of developing countries. In case A in Figure 1.4, modern methods of death control combined with rapid and widely distributed rises in levels of living have resulted in death rates falling as low as 10 per 1,000 and birth rates also falling rapidly, to levels between 12 and 25 per 1,000. These countries, including Taiwan, South Korea, Costa Rica, China, Cuba, Chile, and Sri Lanka, have thus entered stage 3 of their demographic transition and have experienced rapidly falling rates of overall population growth.

But some developing countries fall into case B of Figure 1.4. After an initial period of rapid decline, death rates have failed to drop further, largely because of the persistence of widespread absolute poverty and low levels of living and more recently because of the AIDS epidemic. Moreover, the continuance of still quite high birth rates as a result of these low levels of living causes overall population growth rates to remain relatively high. These countries, including many of those in sub-Saharan Africa and the Middle East, are still in stage 2 of their demographic transition. Though fertility is declining, it remains very high in these parts of the world.

The important question, therefore, is this: When and under what conditions are developing nations likely to experience falling birth rates and a slower expansion of population? To answer this question, we need to ask a prior one.

CHECK YOUR PROGRESS

At what stage in this transition do most developing countries seem to be? How about countries Ethiopia? Explain your answer.

What are the principal determinants or causes of high fertility rates in developing countries, and can these determinants of the “demand” for children be influenced by government policy? To try to answer this critical question, we turn to a very old and famous classical macroeconomic and demographic model, the Malthusian “population trap,” and a contemporary and highly influential neoclassical microeconomic model, the household theory of fertility.

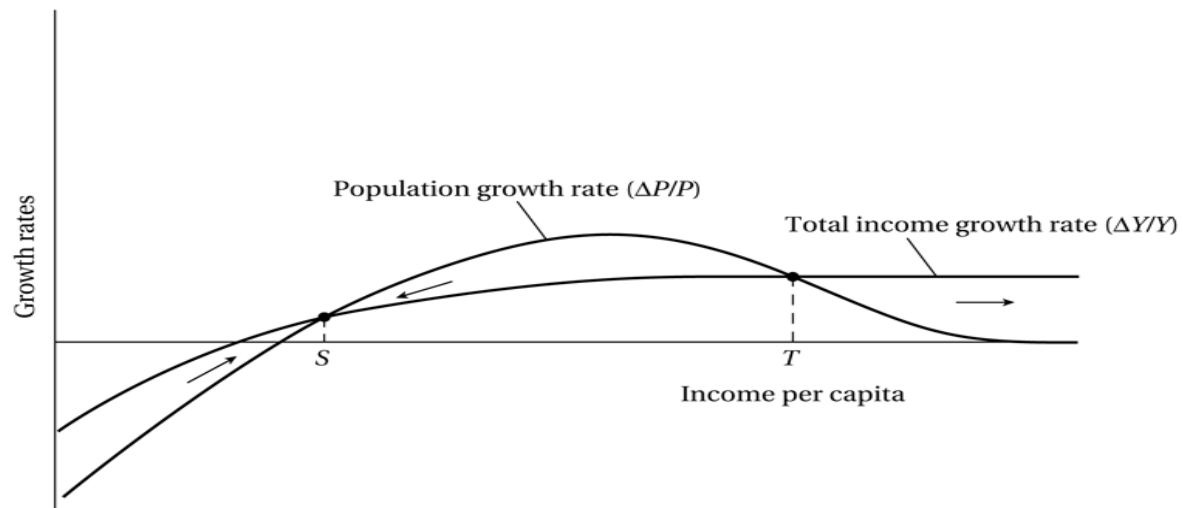
1.5.The Causes of High Fertility in Developing Countries: The Malthusian and Household Models

1.5.1. The Malthusian Population Trap

More than two centuries ago, the Reverend Thomas Malthus put forward a theory of the relationship between population growth and economic development that is influential today. Writing in his 1798 Essay on the Principle of Population and drawing on the concept of diminishing returns, Malthus postulated a universal tendency for the population of a country, population to grow at a geometric rate, doubling every 30 to 40 years. At the same time, because of diminishing returns to the fixed factor, land, food supplies could expand only at a roughly arithmetic rate. In fact, as each member of the population would have less land to work, his or her marginal contribution to food production would actually start to decline.

Because the growth in food supplies could not keep pace with the growing population, per capita incomes would have a tendency to fall so low as to lead to a stable population existing barely at or slightly above the subsistence level. Malthus therefore contended that the only way to avoid this condition of chronic low levels of living or absolute poverty was for people to engage in “moral restraint” and limit the number of their children.

Figure 1.5: The Malthusian Population Trap



Hence we might regard Malthus, indirectly and inadvertently, as the father of the modern birth control movement. Modern economists have given a name to the Malthusian idea of a population inevitably forced to live at subsistence levels of income. They have called it the low-level equilibrium population- trap or, more simply, the Malthusian population trap. According to modern-day neo-Malthusians, poor nations will never be able to rise much above their subsistence levels of per capita income unless they initiate preventive checks (birth control) on their population growth. In the absence of such preventive checks, Malthusian positive checks (starvation, disease, wars) on population growth will inevitably provide the restraining force.

Countries or regions in such a population trap can also escape it by achieving technological progress that shifts the income growth rate curve up at any level of per capita income. And it may be able to achieve changes in economic institutions and culture (“social progress”) that shifts the population growth curve down. In this way, the population trap equilibrium is eliminated altogether, and the economy is able to proceed with self-sustaining growth. In other hand, total income growth is greater than population growth at each level of per capita income. As a result, income per capita now grows steadily.

1.5.1.1.Criticisms of the Malthusian Model

The Malthusian population trap provides a theory of the relationship between population growth and economic development. Unfortunately, it is based on a number of simplistic assumptions and hypotheses that do not stand the test of empirical verification. We can criticize the population trap on two major grounds.

First: the model ignores the enormous impact of technological progress in offsetting the growth-inhibiting forces of rapid population increases. It’s obvious that the history of modern economic growth has been closely associated with rapid technological progress in the form of a continuous series of scientific, technological, and social inventions and innovations. Increasing rather than decreasing returns to scale have been a distinguishing feature of the modern growth epoch. While Malthus was basically correct in assuming a limited supply of land, he did not—and in fairness could not at that time— anticipate the manner in which technological progress could augment the availability of land by raising its quality (its productivity) even though its quantity might remain roughly the same.

In terms of the population trap, rapid and continuing technological progress can be represented by an upward shift of the income growth (total product) curve so that at all levels of per capita income it is vertically higher than the population growth curve. All countries therefore have the potential of escaping the Malthusian population trap.

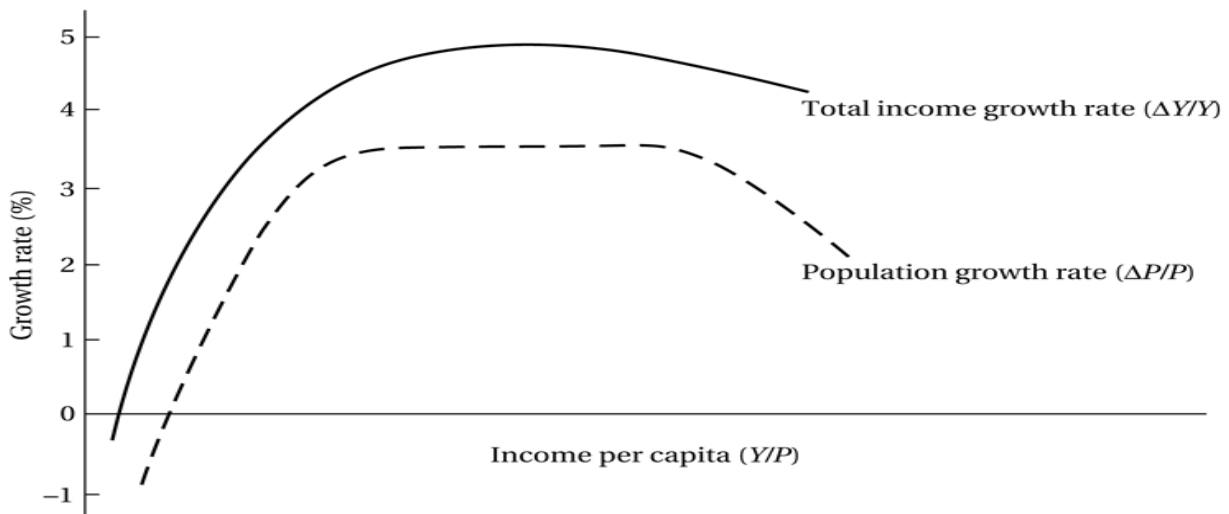
Second: national rates of population increase are directly (positively) related to the level of national per capita income. According to this assumption, at relatively low levels of per capita income, we should expect to find population growth rates increasing with increasing per capita income. But research indicates that there appears to be no clear correlation between population

growth rates and levels of per capita income. As a result of modern medicine and public health programs, death rates have fallen rapidly and have become less dependent on the level of per capita income.

CHECK YOUR PROGRESS

Discuss the Criticisms of the Malthusian Model

Figure 1.6: How Technological and Social Progress Allows Nations to Avoid the Population Trap



Moreover, birth rates seem to show no rigid relationship with per capita income levels. Fertility rates vary widely for countries with the same per capita income, especially below \$1,000. It is not so much the aggregate level of per capita income that matters for population growth but rather how that income is distributed. It is the level of household income, not the level of per capita income that seems to matter most.

In sum, Malthusian and neo-Malthusian theories as applied to contemporary developing nations have severely limited relevance for the following reasons:

1. They do not take adequate account of the role and impact of technological progress.

2. They are based on a hypothesis about a macro relationship between population growth and levels of per capita income that does not stand up to empirical testing of the modern period.
3. They focus on the wrong variable, per capita income, as the principal determinant of population growth rates. A much better and more valid approach to the question of population and development centres on the microeconomics of family size decision making in which individual, and not aggregate, levels of living become the principal determinant of a family's decision to have more or fewer children.

1.5.2. The Microeconomic Household Theory of Fertility

In recent years, economists have begun to look more closely at the microeconomic determinants of family fertility in an attempt to provide a better theoretical and empirical explanation for the observed falling birth rates associated with stage 3 of the demographic transition. In doing this, they have drawn on the traditional neoclassical theory of household and consumer behavior for their basic analytical model and have used the principles of economics and optimization to explain family size decisions.

The conventional theory of consumer behavior assumes that an individual with a given set of tastes or preferences for a range of goods tries to maximize the satisfaction derived from consuming these goods subject to his or her own income constraint and the relative prices of all goods. In the application of this theory to fertility analysis, children are considered as a special kind of consumption (and in developing countries, particularly low income countries, investment) good so that fertility becomes a rational economic response to the consumer's (family's) demand for children relative to other goods. The usual income and substitution effects are assumed to apply.

That is, if other factors are held constant, the desired number of children can be expected to vary directly with household income (this direct relationship may not hold for poor societies; it

depends on the strength of demand for children where C_d , the demand for surviving children (an important consideration in low-income societies where infant mortality rates are high), is a function of the given level of household income (Y), the “net” price of children (the difference between anticipated costs, mostly the opportunity cost of a mother’s time, and benefits, potential child income and old-age support, P_c), the prices of all other goods (P_x), and the tastes for goods relative to children (t_x). Under standard neoclassical conditions, we would expect the following (expressed both mathematically and in words): relative to other consumer goods and to the sources of increased income, such as female employment), inversely with the price (cost) of children, and inversely with the strength of tastes for other goods relative to children.

Mathematically, these relationships can be expressed as follows:

This relationship can be expressed as follows:

$$C_d = f(Y, P_c, P_x, t_x) \quad x = 1, 2, 3, \dots n$$

Where

C_d is the demand for surviving children

Y is the level of household income

P_c is the “net” price of children

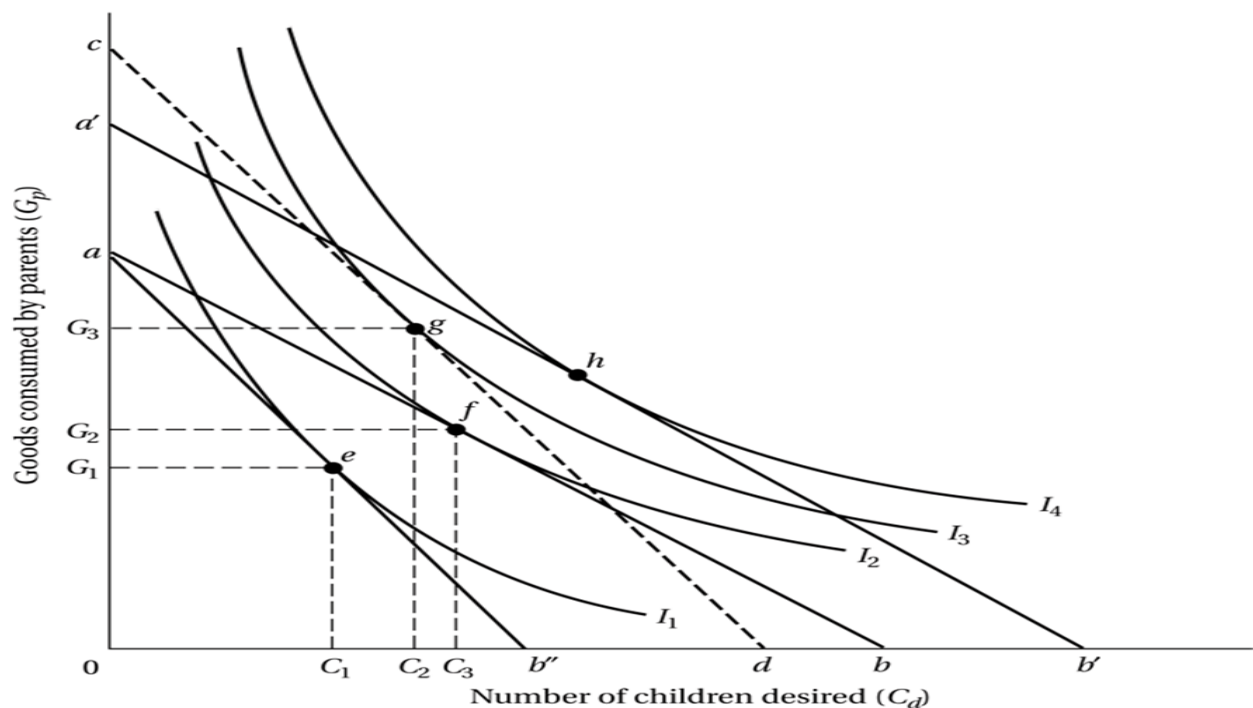
P_x is price of all other goods

t_x is the tastes for goods relative to children

Normal neoclassical theory of fertility has been developing on the following basic prepositions:

- $\frac{\partial C_d}{\partial Y} > 0$ The higher the household income, the greater the demand for children.
- $\frac{\partial C_d}{\partial P_c} < 0$ The higher the net price of children, the lower the quantity demanded.
- $\frac{\partial C_d}{\partial P_x} > 0$ The higher the price of all other goods relative to children, the greater the quantity of children demanded.
- $\frac{\partial C_d}{\partial t_x} < 0$ The greater the strength of tastes for goods relative to children, the fewer children demanded.

Figure 1.7: Microeconomic Theory of Fertility: An Illustration



In **figure 1.7**, only four indifference curves, I_1 to I_4 are shown, however there is an infinite set of such curves theoretically. The household's ability to purchase alternative combinations of goods and children is shown by the budget constraint line, ab . Thus, all combinations on or below line ab (within the triangular area of oab) are financially attainable by the household on the basis of its perceived income prospects and the relative prices of children and goods, as represented by the slope of the ab budget constraint. The steeper the slope of the budget line, the higher the price of children relative to goods.

According to the demand-based theory of fertility, the household chooses from among all attainable combinations the one combination of goods and children that maximizes family satisfaction on the basis of its subjectively determined preferences. Diagrammatically, this optimal combination is represented by point f . The tangency point between the budget constraint, ab , and indifference curve I_2 . Therefore, C_3 children and G_2 goods will be demanded. The rise in family income, represented in figure by the parallel outward shift of the

budget line from ab to a'b', enables the household to attain a higher level of satisfaction (point on curve I4) by consuming more of both commodities and children.

That is, if numbers of children, like most commodities are assumed to be normal goods, an important if in low income countries where children are often demanded primarily as a source of future financial security. Note that as income rises, parents may spend more on each child, preferring a smaller number of children, each of higher “quality” for example, healthier and better educated.

Similarly, an increase in the price of children relative (opportunity cost) to other goods will cause households to substitute commodities for children. Other factors (income and tastes) being constant, a rise in the relative price of children causes the household utility – maximizing consumption combination to occur on a lower indifference curve, shown by the movement of the equilibrium point from f to e when budget line rotates around point a to ab”.

Finally, if there is a simultaneous increase in household income and net child price as a result of expanding female employment opportunities and a rise in wages coupled with a tax on children beyond a certain number per family, there will be both an outward shift and downward rotation of the budget constraint line of figure 1.4 (dashed line – cd). The result is new utility-maximizing combination that includes fewer children per family (point g compared with point f).

1.5.2.1. The Demand for Children in Developing Countries

The economic theory of fertility assumes that the household demand for children is determined by family preferences for a certain number of surviving (usually male) children (i.e., in regions of high mortality, parents may produce more children than they actually desire in the expectation that some will not survive), by the price or “opportunity cost” of rearing these children, and by levels of family income. Children in poor societies are seen partly as economic investment goods in that there is an expected return in the form of both child labor and the provision of financial support for parents in old age. However, in many developing countries, there is a strong intrinsic psychological and cultural determinant of family size, so the first two or three children should be viewed as “consumer” goods for which demand may not be very responsive to relative price changes. The choice mechanism in the economic theory of fertility as applied to developing countries is assumed, therefore, to exist primarily with regard to the additional (“marginal”)

children who are considered as investments. In deciding whether or not to have additional children,

parents are assumed to weigh private economic benefits against private costs, where the principal benefits are the expected income from child labor, usually on the farm, and eventual financial support for elderly parents. Balanced against these benefits are the two principal elements of cost: the opportunity cost of the mother's time (the income she could earn if she were not at home caring for her children) and the cost of educating children—the financial trade-off between having fewer “high-quality,” high-cost, educated children with high income-earning potential versus more “low-quality,” low-cost, uneducated children with much lower earnings prospects.

Using the same thought processes as in the traditional theory of consumer behavior, the theory of family fertility concludes that when the price or cost of children rises as a result of, say, increased educational and employment opportunities for women or a rise in school fees or the establishment of minimum-age child labor laws or the provision of publicly financed old-age social security schemes, parents will demand fewer additional children, substituting, perhaps, quality for quantity or a mother's employment income for her child-rearing activities. It follows that one way to induce families to desire fewer children is to raise the price of child rearing by, say, providing greater educational opportunities and a wider range of higher paying jobs for young women.

Recent research on household behavior has led to a major improvement of this theory. Households in developing countries generally do not act in a “unitary” manner depicted with this traditional model. Instead, men and women have different objective functions; for example, husbands may prefer to have more children than wives. Household behavior is then explained as a result of bargaining between husbands and wives. Although the broad impacts we have just described continue to hold, the process includes increased bargaining power of women. Non unitary, bargaining-based models of household behavior also improve our understanding of otherwise puzzlingly inefficient household behaviors, such as higher investment in husbands' farm plots than wives' farm plots even when a more even investment could lead to higher family incomes.

Some Empirical Evidence in developing countries has been found that high female employment opportunities outside the home and greater female school attendance, especially at the primary and secondary levels, are associated with significantly lower levels of fertility. As women become better educated, they tend to earn a larger share of household income and to produce fewer children.

Moreover, these studies have confirmed the strong association between declines in child mortality and the subsequent decline in fertility. Assuming that households desire a target number of surviving children, increased female education and higher levels of income can decrease child mortality and therefore increase the chances that the firstborn will survive. As a result, fewer births may be necessary to attain the same number of surviving children. This fact alone underlines the importance of educating women and improving public health and child nutrition programs in reducing fertility levels.

1.5.2.2.Implications of Women’s Education for Development and Fertility

All of the foregoing can be summarized by saying that the effect of social and economic progress in lowering fertility in developing countries will be the greatest when the majority of the population and especially the very poor share in its benefits. Specifically, birth rates among the very poor are likely to fall where the following socioeconomic changes come to pass:

- i. An increase in the education of women and a consequent change in their role and status
- ii. An increase in female non-agricultural wage employment opportunities, which raises the price or cost of their traditional child-rearing activities.
- iii. A rise in family income levels through the increased direct employment and earnings of a husband and wife or through the redistribution of income and assets from rich to poor.
- iv. A reduction in infant mortality through expanded public health programs and better nutritional status for both mother and child and better medical care
- v. The development of old-age and other social security systems outside the extended family network to lessen the economic dependence of parents, especially women, on their offspring.
- vi. Expanded schooling opportunities so that parents can better substitute child “quality” for large numbers of children

In short, expanded efforts to make jobs, education, and health more broadly available to poverty groups in general and women in particular will not only contribute to their economic and psychic well-being (i.e., to their development) but also contribute substantially to their motivation for smaller families (i.e., their freedom to choose), which is vital to reducing population growth rates. Where such motivation exists, well-executed family-planning programs can then be an effective tool.

But before discussing policy issues and what government might or might not do, we should point out that while there seems to be considerable agreement regarding the determinants or causes of population growth, substantial disagreement and controversy remain regarding its consequences.

1.6. The Consequences of High fertility: Some Conflicting Opinions

For many years, development economists and other social scientists have debated the seriousness of the consequences of rapid population growth. In other hand, Population growth might be an asset or a burden for a country. It depends on the country's state of development. If a country is developing like Ethiopia, an increase in population may result in disproportionate growth of subsistence food & number of population. This means that an increase in population contributes more to consumption than production; as a result, an increase in population will be a burden. While for advanced country, having advanced technology and improved supply of food, increase in population contribute to production than consumption so population become an asset. On the one hand, we must recognize that population growth is not the only, or even the primary, source of low levels of living, eroding self-esteem, and limited freedom in developing nations. In contrary, it would be equally naïve to think that rapid population growth in many countries and regions is not a serious intensifier and multiplier of those integral components of underdevelopment, especially the first and third.

1.6.1. Population Growth is Not a Real Problem

We can identify three general lines of argument on the part of people who assert that population growth is not a cause for concern:

- The problem is not population growth but other issues.
- Population growth is a false issue deliberately created by dominant rich country agencies and institutions to keep developing countries in their dependent condition.

- For many developing countries and regions, population growth is in fact desirable.

Other Issues Many observers from both rich and poor nations argue that the real problem is not population growth per se but one or all of the following four issues.

1. **Underdevelopment:** If correct strategies are pursued and lead to higher levels of living, greater self-esteem, and expanded freedom, population will take care of itself. Eventually, it will disappear as a problem, as it has in all of the present economically advanced nations. According to this argument, underdevelopment is the real problem, and development should be the only goal. With development, economic progress and social mechanisms that will more or less automatically regulate population growth and distribution. As long as people in developing countries remain impoverished, uneducated, and unhealthy and the social safety net remains weak, the large family will constitute the only real source of social security (i.e., parents will continue to be denied the freedom to choose a small family if they so desire). Some proponents of the underdevelopment argument then conclude that birth control programs will surely fail, as they have in the past, when there is no motivation on the part of poor families to limit their size.
2. **World Resource Depletion and Environmental Destruction:** Population can only be an economic problem in relation to the availability and utilization of scarce natural and material resources. The fact is that developed countries, with less than one-quarter of the world's population, consume almost 80% of the world's resources. In terms of the depletion of the world's limited resources, therefore, the addition of another child in the developed countries is as significant as the birth of many times as many additional children in the underdeveloped countries. According to this argument, developed nations should limit their excessively high consumption standards instead of asking less developed nations to restrict their population growth. The latter's high fertility is really due to their low levels of living, which are in turn largely the result of the overconsumption of the world's scarce resources by rich nations. This combination of rising affluence and extravagant consumption habits in rich countries and among rich people in poor countries, and not population growth, should be the major world concern.
3. **Population Distribution:** According to this third argument, it is not the number of people per se that is causing population problems but their distribution in space. Many regions of the world (e.g., parts of sub-Saharan Africa) and many regions within countries (e.g., the north

eastern and Amazon regions of Brazil) are viewed as under populated in terms of available or potential resources. Others simply have too many people concentrated in too small an area (e.g., central Java or most urban concentrations). Governments should therefore strive not to moderate the rate of population growth but rather to bring about a more natural spatial distribution of the population in terms of available land and other productive resources.

4. **Subordination of Women:** Perhaps most important, as noted previously, women often bear the disproportionate burdens of poverty, poor education, and limited social mobility. In many cases, their inferior roles, low status, and restricted access to birth control are manifested in their high fertility. According to this argument, population growth is a natural outcome of women's lack of economic opportunity. If women's health, education, and economic well-being are improved along with their role and status in both the family and the community, this empowerment of women will inevitably lead to smaller families and lower population growth.

1.6.2. Population Growth is a Real Problem

Positions supporting the need to curtail population growth because of the negative economic, social, and environmental consequences are typically based on one of the following arguments.

The Extremist Argument: Population and Global Crisis

The extreme version of the population-as-problem position attempts to attribute almost all of the world's economic and social evils to excessive population growth. Unrestrained population increase is seen as the major crisis facing humankind today. It is regarded as the principal cause of poverty, low levels of living, malnutrition, ill health, environmental degradation, and a wide array of other social problems. Value-laden and incendiary terms such as "population bomb" and "population explosion" are tossed around. Indeed, disastrous predictions of world food catastrophes and ecological disaster are often attributed almost entirely to the growth in population numbers. Such an extreme position leads some of its advocates to assert that "world" (i.e., developing country) population stabilization or even decline is the most urgent contemporary task even if it requires severe and coercive measures such as compulsory sterilization to control family size in some of the most populated developing countries, such as India and Bangladesh.

The Theoretical Argument: Population-Poverty Cycles and the Need for Family-Planning Programs

The population-poverty cycle theory is the main argument advanced by economists who hold that too rapid population growth yields negative economic consequences and thus should be a real concern for developing countries. Advocates start from the basic proposition that population growth intensifies and exacerbates the economic, social, and psychological problems associated with the condition of underdevelopment.

Population growth is believed to retard the prospects for a better life for the already born by reducing savings rates at the household and national levels. It also severely draws down limited government revenues simply to provide the most rudimentary economic, health, and social services to the additional people. This in turn further reduces the prospects for any improvement in the levels of living of the existing generation and helps transmit poverty to future generations of low-income families.

Finally, if low incomes induce poor families to have more children as a source of cheap labor and old-age security, then we have another vicious circle in progress-poor people have large families partly to compensate for their poverty, but large families mean greater population growth, higher dependency burdens, lower savings, less investment, slower economic growth, and ultimately greater poverty. In an extreme case, a neo Malthusian population trap can emerge. Population growth is thus seen as both a cause and a consequence of underdevelopment!

Because widespread absolute poverty and low levels of living are thus seen as a major cause of large family size, and large families retard economic growth, it follows that economic and social development is a necessary condition for bringing about an eventual slowing or cessation of population growth at low levels of fertility and mortality. But according to this argument, it is not a sufficient condition-that is, development provides people with the incentives and motivations to limit their family size, but family-planning programs are needed to provide them with the technological means to avoid unwanted pregnancies. Even though countries such as France, Japan, the United States, Great Britain, and, more recently, Taiwan and South Korea were able to reduce their population growth rates without widespread family-planning clinics, it is argued that the provision of these services will enable other countries desiring to control excessive

population growth to do so more rapidly than if these family planning services were not available.

1.7. The Empirical Argument: Seven Negative Consequences of Population Growth

According to the latest empirical research, the potential negative consequences of population growth for economic development can be divided into seven categories: its impact on economic growth, poverty and inequality, education, health, food, the environment, and international migration:

1. **Economic Growth:** Evidence shows that although it is not the cause behind economic stagnation, rapid population growth lowers per capita income growth in most developing countries, especially those that are already poor, dependent on agriculture, and experiencing pressures on land and natural resources.
2. **Poverty and Inequality:** Even though aggregate statistical correlations between measures of poverty and population growth at the national level are often inconclusive, at the household level the evidence is strong and compelling. The negative consequences of rapid population growth fall most heavily on the poor because they are the ones who are made landless, suffer first from cuts in government health and education programs, and bear the brunt of environmental damage. Poor women once again bear the greatest burden of government austerity programs, and another vicious circle ensues. To the extent that large families perpetuate poverty, they also exacerbate inequality.
3. **Education:** Although the data are sometimes ambiguous on this point, it is generally agreed that large family size and low incomes restrict the opportunities of parents to educate all their children. At the national level, rapid population growth causes educational expenditures to be spread more thinly, lowering quality for the sake of quantity. This in turn feeds back on economic growth because the stock of human capital is reduced by rapid population growth.
4. **Health:** High fertility harms the health of mothers and children. It increases the health risks of pregnancy, and closely spaced births have been shown to reduce birth weight and increase child mortality rates.
5. **Food:** Feeding the world's population is made more difficult by rapid population growth—a large fraction of developing country food requirements are the result of population increases.

New technologies of production must be introduced more rapidly, as the best lands have already been cultivated. International food relief programs become more widespread.

6. **Environment:** Rapid population growth contributes to environmental degradation in the form of forest encroachment, deforestation, fuel wood depletion, soil erosion, declining fish and animal stocks, inadequate and unsafe water, air pollution, and urban congestion.
7. **International Migration:** Many observers consider the increase in international migration, both legal and illegal, to be one of the major consequences of developing countries' population growth. Though many factors spur migration, an excess of job seekers (caused by rapid population growth) over job opportunities is surely one of them. However, unlike the first six consequences listed here, some of the economic and social costs of international migration fall on recipient countries, increasingly in the developed world. It is not surprising, therefore, that this issue has recently taken on political importance in North America and Europe.

1.8. Some Policy Approaches

In view of these broad goals and objectives, what kinds of economic and social policies might be developing and developed-country governments and international assistance agencies consider to bring about long-term reductions in the overall rate of world population growth?

Three areas of policy can have important direct and indirect influences on the well-being of present and future world populations:

1. General and specific policies that developing country governments can initiate to influence and perhaps even control their population growth and distribution
2. General and specific policies that developed-country governments can initiate in their own countries to lessen their disproportionate consumption of limited world resources and promote a more equitable distribution of the benefits of global economic progress
3. General and specific policies that developed-country governments and international assistance agencies can initiate to help developing countries achieve their population objectives.

Chapter Summary

- ❖ In this unit we began with terminology -the concept of birth rate and death rates and took a look at data on these rates for various countries.
- ❖ In the poorest of countries, both birth and death rate appear to be relatively high. Then death rates fall, while birth rates still remain high. Finally, countries that have higher per capita income or have made systematic efforts to control population growth exhibit birth rates that are also low.
- ❖ With regarding to age distribution, fast growing societies are also young societies, and this feature both re-in forces a high birth rate (relatively large numbers of people are entering re-productive age) and keeps death rates somewhat lower than they really are in age specific terms (because most people are young).
- ❖ In demographic transition which is a description of three stages. In stage 1, both birth and death rates are high. In stage 2, death rates fall, because of improvements in hygiene, sanitation, and medicine, but birth rates remain high. In stage 3, birth rates follow the death rate on its down ward course.
- ❖ The Microeconomic Household Theory of Fertility indicates that household's decision to own a child depends on tastes or preferences of households for other goods other than child, income level of the household and the relative prices of all goods.
- ❖ Finally, we turned to an analysis of the effect of population growth on economic development. Many development economists and other social scientists have debated the seriousness of the consequences of rapid population growth. Accordingly, we must recognize that population growth is not the only, or even the primary, source of low levels of living, eroding self-esteem, and limited freedom in developing nations. In contrary, it would be equally naive to think that rapid population growth in many countries and regions is not a serious intensifier and multiplier of those integral components of underdevelopment. In addition, we have seen the seven negative consequences of population growth. At last but not least, we have also examined three areas of policy interventions for the effect of population growth on economic development.

Chapter Two

2. Human Capital: Education and Health in Economic Development

Dear learners, in the first chapter of this module we have tried to look the concepts of Population growth and the quality of life, the hidden momentum of population, the Malthusian population trap, the consequences of high fertility on economic growth, and policy implications regarding population growth. In this chapter, we explore the relationship between education and economic development and review the past and current trends and implications of investment in education and economic development in developing countries. As usual we conclude the chapter by policy recommendations.

Objective of the Chapter:

By the end of this chapter you should be able to:

- ❖ Understand the importance of education and Health
- ❖ Know the impact of health and education on economic development
- ❖ Understand the relationship of education to rural-urban migration and urban unemployment.
- ❖ Know some policies that helps us to improve the quality of health and education
- ❖ Vibrant about the contemporary formal educational systems tend to promote or retard agricultural and rural development.
- ❖ Know the role of good quality of health and education on economic development

- ❖ Differentiate the relationship among LDC educational systems, developed country educational systems, and the international migration of highly educated professional and technical workers from the less developed to the more developed nations

- ✚ “[Education] can add to the value of production in the economy and also to the income of the person who has been educated. But even with the same level of income, a person may benefit from education—in reading, communicating, arguing, in being able to choose in a more informed way, in being taken more seriously by others and so on.” –(Nobel laureate Amartya Sen, *Development as Freedom*, 1999)
- ✚ “The slow improvement in the health status of our people has been a matter of great concern. There is no denying the fact that we have not paid adequate attention to this dimension of development thus far.” (Manmohan Singh, prime minister of India, 2005)

2.1.Education and health in developing countries

Education and health are basic objectives of development; they are important ends in themselves. Health is central to well-being, and education is essential for a satisfying and rewarding life; both are fundamental to the broader notion of expanded human capabilities that lie at the heart of the meaning of development. At the same time, education plays a key role in the ability of a developing country to absorb modern technology and to develop the capacity for self-sustaining growth and development. Moreover, health is a prerequisite for increases in productivity, and successful education relies on adequate health as well. Thus both health and education can also be seen as vital components of growth and development as inputs to the aggregate production function. Their dual role as both inputs and outputs gives health and education their central importance in economic development.

It is hard to overstate how truly dramatic the improvements in world health and education have been. In 1950, some 280 of every 1,000 children in the developing world as a whole died before their fifth birthday. By 2008, that number had fallen to 118 per 1,000 in low-income countries and 57 per 1,000 in middle-income countries (though now compared with 7 per 1,000 in high-income countries and just 4 in many European countries). Some important killers have been

completely or nearly eradicated. Recent decades have witnessed a historically unprecedented extension of literacy and other basic education to a majority of people in the developing world. The United Nations reports that although there were still a staggering 780 million illiterate people aged 15 or older in the world in 2004, the good news is that 82% of all people are literate today, compared to just 63% as recently as 1970.² But almost two-thirds of the world's illiterate people are women.

Despite such outstanding achievements, developing countries continue to face great challenges as they seek to continue to improve the health and education of their people. The distribution of health and education within countries is as important as income distribution; life expectancy may be quite high for better-off people in developing countries but far lower for the poor.

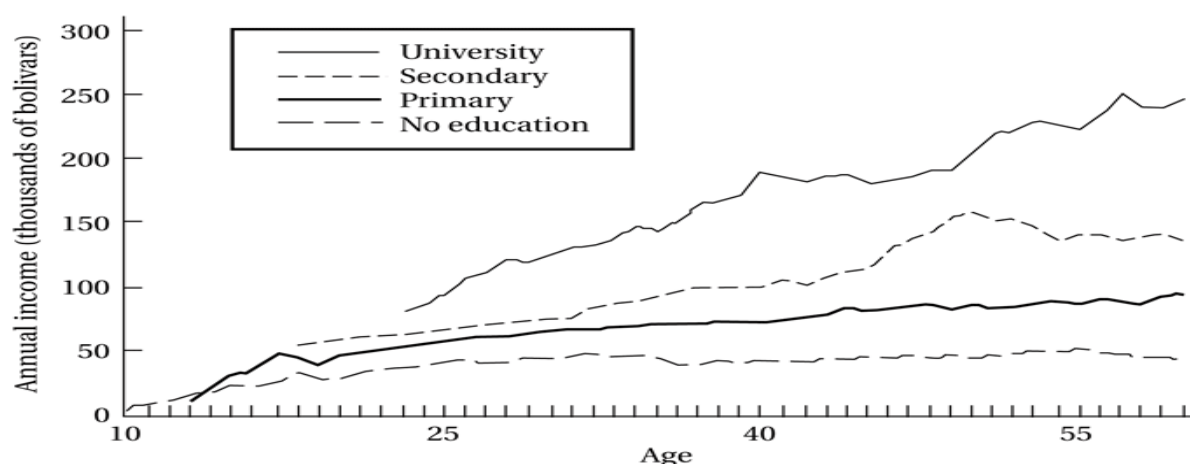
Child mortality rates in developing countries remain more than ten times higher than those found in the rich countries. These deaths generally result from conditions that are easily treatable, including millions who continue to die needlessly each year from dehydration caused by diarrhea. If child death rates in developing countries fell to those prevailing in the developed countries, the lives of more than 8 million children would be saved each year. Whereas a child in Europe, North America, or Japan can expect to receive more than 12 years of schooling, the average child in sub-Saharan Africa and South Asia can expect to spend less than five years in school—before taking account of teacher absenteeism and making no adjustment for the lack of schoolbooks and other resources even when a teacher is present.

2.2. Investing in Education and Health: The Human Capital Approach

The analysis of investments in health and education is unified in the human capital approach. Human capital is the term economists often use for education, health, and other human capacities that can raise productivity when increased. An analogy is made to conventional investments in physical capital: After an initial investment is made, a stream of higher future income can be generated from both expansions of education and improvements in health. As a result, a rate of return can be deduced and compared with returns to other investments. This is done by estimating the present discounted value of the increased income stream made possible by these investments and then comparing it with their direct and indirect costs.

Of course, health and education also contribute directly to well-being. For example, education increases empowerment and autonomy in major matters in life, such as capacity for civic engagement, making decisions concerning one's own health care, and freedom to choose one's own spouse over arranged marriage. But the basic human capital approach focuses on their indirect ability to increase well-being by increasing incomes. In this section, we will generally illustrate points with educational investments, but the same principles apply to health investments.

Figure 2.1: Age-Earnings Profiles by Level of Education: Venezuela



Source: International Bank for Reconstruction and Development / The World Bank: *The Profitability of Investment in Education: Concepts & Methods* by George Psacharopoulos, 1995. Reprinted with permission.

The impact of human capital investments in developing countries can be quite substantial. Figure 2.1 shows the age-earnings profiles by levels of education in Venezuela. The chart shows how incomes vary over the life cycle for people with various levels of education. Note that those with higher levels of education start full-time work at a later age, but as the graph shows, their incomes quickly outpace those who started working earlier. But such future income gains from education must be compared with the total costs incurred to understand the value of human

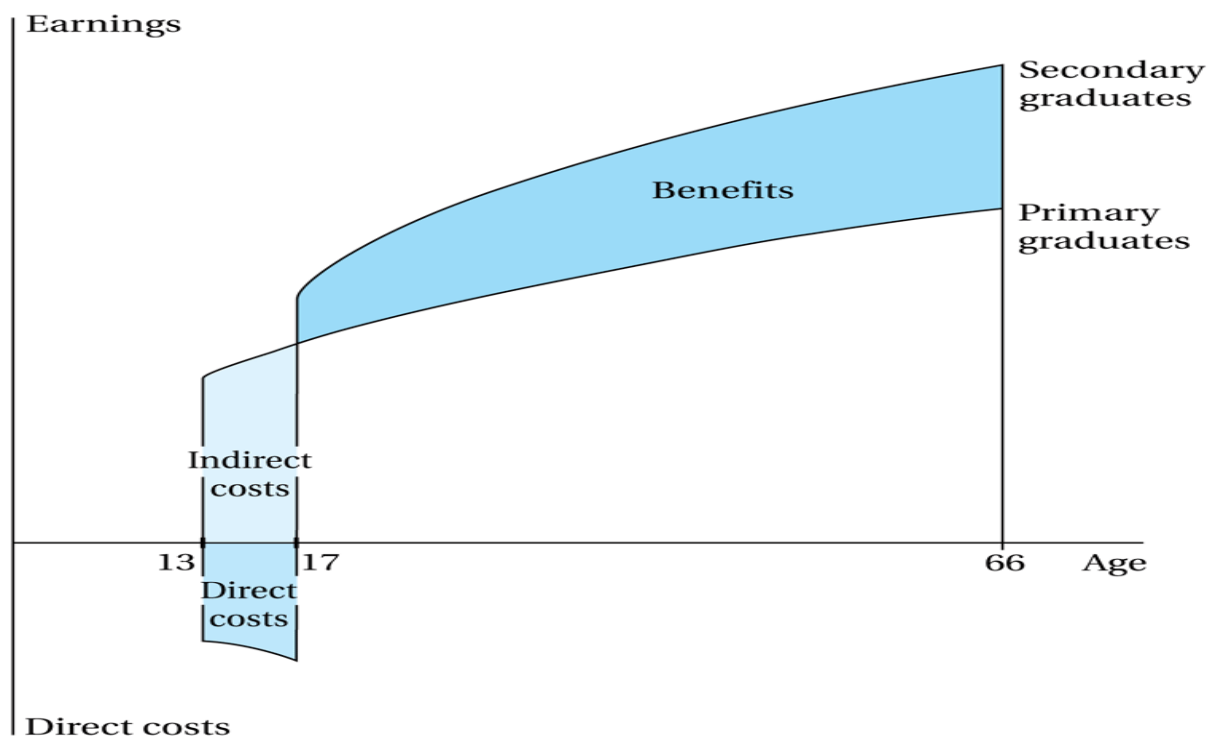
capital as an investment. Education costs include any direct tuition or other expenditures specifically related to education, such as books and required school uniforms, and indirect costs, primarily income forgone because the student could not work while in school.

Formally, the income gains can be written as follows, where E is income with extra education, N is income without extra education, t is year, i is the discount rate, and the summation is over expected years of working life:

$$\sum \frac{E_t - N_t}{(1+i)^t} \text{-----(Equation 2.1)}$$

An analogous formula applies to health (such as improved nutritional status), with the direct and indirect cost of resources devoted to health compared with the extra income gained in the future as a result of higher health status.

Figure 2.2: Financial Trade-Offs in the Decision to Continue in School



The above Figure 2.2 provides a typical schematic representation of the trade-offs involved in the decision to continue in school. It is assumed that the individual works from the time he or she finishes school until he or she is unable to work, retires, or dies. This is taken to be 66 years.

Two earnings profiles are presented— for workers with primary school but no secondary education and for those with a full secondary (but no higher) education. Primary graduates are assumed to begin work at age 13, secondary graduates at age 17. For an individual in a developing country deciding whether to go on from primary to secondary education, four years of income are forgone. This is the indirect cost, as labelled in the diagram. The child may work part time, a possibility ignored here for simplicity, but if so, only part of the indirect-cost area applies.

There is also a direct cost, such as fees, school uniforms, books, and other expenditures that would not have been made if the individual had left school at the end of the primary grades. Over the rest of the person’s life, he or she makes more money each year than would have been earned with only a primary education. This differential is labelled “Benefits” in the diagram. Before comparing costs with benefits, note that a dollar today is worth more to an individual than a dollar in the future, so those future income gains must be discounted accordingly, as is done in (Equation 2.1.) The rate of return will be higher whenever the discount rate is lower, the direct or indirect costs are lower, or the benefits are higher.

Table 2.1 Sample Rates of Return to Investment in Education by Level of Education, Country, Type, and Region

Country Type and Region	Social Rate of Return (%)			Private Rate of Return (%)		
	Primary	Secondary	Higher	Primary	Secondary	Higher
Developing						
Sub-Saharan Africa	24	18	11	41	27	28
Asia	20	13	12	39	19	20
Latin America	18	13	12	26	17	20
Developed	14	10	9	22	12	12

Source: “Returns to Investment in Education: A Global Update” by George Psacharopoulos. *World Development*, Vol. 22, Sept 1994. Reprinted with permission.
Note: How these rates of return were calculated is explained in detail note 20 at the end of this chapter.

This analysis was performed from the individual’s point of view in the three right-hand columns of Table 2.1. Notice that in sub-Saharan Africa and Asia, the private rate of return to primary education is about 40%! Despite this extraordinary return, many families do not make this investment because they have no ability to borrow even the meagre amount of money that a working child can bring into the family the topic of the next section. Note that the higher rates of

return for developing countries reflect that the income differential between those with more and less schooling is greater on average than for the developed countries.

The first three columns of Table 2.1 indicate the social rate of return. This is found by including the amount of public subsidy for the individual's education as part of the direct costs, because this is part of the investment from the social point of view (and also by considering pre-tax rather than after-tax incomes). It should be noted that these social returns are probably understated because they do not take into account the externality that educated people confer on others (e.g., being able to read for other family members), not to mention other individual and social benefits such as increased autonomy and civic participation, as reflected in this chapter's opening quote from Amartya Sen.

2.3.Improving Health and Education: Why Increasing Income Is Not Sufficient?

Health and education levels are much higher in high-income countries. There are good reasons to believe that the causality runs in both directions:

With higher income, people and governments can afford to spend more on education and health, and with greater health and education, higher productivity and incomes are possible. Because of these relationships, development policy needs to focus on income, health, and education simultaneously. People will spend more on human capital when income is higher. But the evidence shows clearly that even if we were able to raise incomes without a large improvement in health and education, we could not count on that income increase being used to adequately invest in children's education and health.

The market will not solve this problem automatically, and in many cases, household consumption choices themselves may lead to a surprisingly small link between income and nutrition, especially for children. The income elasticity of the demand for calories (that is, the percentage change in calories consumed for a percentage change in family incomes) among low-income people range from near zero to about 0.5, depending on the region and the statistical strategy used by the researchers. This less than proportional response is due to two factors: Income is spent on other goods besides food, and part of the increased food expenditures is used to increase food variety without necessarily increasing the consumption of calories.

If the relationship between income and nutrition is indeed quite low, as some studies suggest, then development policies that emphasize increasing incomes of the poor without attention to the way these additional resources are expended within the family may not lead to improved health, and successful development more generally, at least not very quickly. Giving credit for microenterprises has been one of the most popular poverty alleviation strategies in recent years. In this case, credit may help the poor improve their nutrition, for example, because seasonal price fluctuations are also shown to be an important determinant of calorie consumption along with average income among the very poor, but credit will not be sufficient if nutrition remains inadequate and does not improve automatically with higher income.

Note that even if income elasticities for calories are higher than the traditional very low estimates imply—say, on the order of 0.3 to 0.58—calories are not the same as nutrition, and the nutrition of earners is not the same as the nutrition of their children. The income elasticity of “convenience” foods is greater than unity.

An increase in income frequently allows families in developing countries to switch consumption from nutritious foods such as beans and rice to innutritious “empty calories” such as candy and soda, which may be perceived as modern and symbolic of economic success. Parents may then fail to place restrictions on children’s consumption of such items or to place positive restrictions on consumption of nutritious foods. Howarth Bouis found that intake of vitamins A and C is not positively associated with income in the Philippines and argued that consumer education was important. Moreover, morbidity (incidence of sickness) did not necessarily decrease significantly with income in that country. A major problem is that poor health (e.g., diarrheal diseases) can negate the health advantages of better nutrition. A study of the Gambia found that diarrhoea is associated with reduced nutritional status even after calorie intake is controlled for. There is considerable evidence that the better the education of the mother, the better the health of her children.

Usually, formal education is needed in complementary relationship with ongoing access to current information. Paul Glewwe found in an analysis of data from Morocco that a mother’s basic health knowledge had a positive effect on her children’s health. Several mechanisms were possible, such as that “formal education directly teaches health knowledge to future mothers;

literacy and numeracy skills acquired in school assist future mothers in diagnosing and treating child health problems; and exposure to modern society from formal schooling makes women more receptive to modern medical treatments.”

But, Glewwe concludes, “Mother’s health knowledge alone appears to be the crucial skill for raising child health. In Morocco, such knowledge is primarily obtained outside the classroom, although it is obtained using literacy and numeracy skills learned in school. Teaching of health knowledge skills in Moroccan schools could substantially raise child health and nutrition in Morocco.” There are still opportunities for improving health through simple activities in school that have not been utilized.

Health status, once attained, also affects school performance, as has been shown in studies of many developing countries. Better health and nutrition leads to earlier and longer school enrolment, better school attendance, and more effective learning.

For example, it has been found that the probability of attending school among nutritionally stunted children in Nepal is far lower than for non-stunted students. Undernourished children were found to lag 20% in test score gains in northeast Brazil, one of the worst pockets of poverty in Latin America. Children with low height for their age, an indicator of undernutrition, have been found to lag in school grade attainment in many parts of the world, including rural China and Thailand.

Thus, to improve the effectiveness of schooling, we must improve the health of children in developing countries. Indeed, advances in statistical methods are showing that the links from health to educational attainment in developing countries are stronger than had been believed. These effects are large for both boys and especially for girls.

Finally, there are other important spill over benefits to investment in one’s health or education. An educated person provides benefits to people around him or her, such as reading for them or coming up with innovations that benefit the community. As a result, there are significant market failures in education. Moreover, a healthy person is not only less contagious but can also benefit the community in many ways that a sick person cannot. Because of such spill over effects, the market cannot be counted on to deliver the socially efficient levels of health and education. Thus,

as the World Health Organization (WHO) concluded, “Ultimate responsibility for the performance of a country’s health system lies with government.” Developing-country officials are drawing lessons from the many studies showing the interrelationships among health, education, and incomes and are devising integrated strategies.

2.4.Educational Systems and Development

Much of the literature and public discussion about education and economic development in general, and education and employment in particular, revolves around two fundamental economic processes:

- 1) the interaction between economically motivated demands and politically responsive supplies in determining how many quality school places are provided, who gets access to these places, and what kind of instruction they receive and;
- 2) the important distinction between social and private benefits and costs of different levels of education and the implications of these differentials for educational investment strategy.

❖ Educational Supply and Demand: The Relationship between Employment Opportunities and Educational Demands

The amount of schooling received by an individual, although affected by many non-market factors, can be regarded as largely determined by demand and supply, like any other commodity or service. However, because most education is publicly provided in less developed countries, the determinants of the amount demanded turn out to be much more important than the determinants of supply.

On the demand side: the two principal influences on the amount of schooling desired are

- i. a more educated student's prospects of earning considerably more income through future modern-sector employment (the family's private benefits of education) and
- ii. the educational costs, both direct and indirect, that a student or family must bear. The amount of education demanded is thus in reality a derived demand for high-wage employment opportunities in the modern sector.

On the supply side: the quantity of school places at the primary, secondary, and university levels is determined largely by political processes, often unrelated to economic criteria. Given

mounting political pressure throughout the Third World for greater numbers of school places, public supply of these places is fixed by the level of government educational expenditures.

These are in turn influenced by the level of aggregate private demand for education. Because it is the amount of education that is demanded that largely determines the supply (within the limits of government financial feasibility), let us look more closely at the economic (employment-oriented) determinants of this derived demand. The amount of schooling demanded sufficient to qualify an individual for modern sector jobs appears to be determined by the combined influence of the following four variables:

1. The wage or income differential. This is the wage differential between jobs in the modern sector and those outside it (family farming, rural and urban self-employment, etc.), which for simplicity we can call the traditional sector. The greater the income differential between the modern and traditional sectors, the greater the quantity of education demanded.
2. The probability of success in finding modern-sector employment. An individual who successfully completes the necessary schooling for entry into the modern-sector labour market has a higher probability of getting that well-paid urban job than someone who does not.
3. The direct private costs of education. We refer here to the current out of pocket expenses of financing a child's education. These expenses include school fees, books, clothing, and related costs.
4. The indirect or opportunity costs of education. An investment in a child's education involves more than just the direct out-of-pocket costs of that education, especially when the child reaches the age at which he can make a productive contribution to family income. At this point, for each year the child continues his education, he in effect foregoes the money income he could expect to earn or the output he could produce for the family farm. This opportunity cost of education must also be included as a variable affecting its demand.

Although several other important variables, many of them non-economic (e.g., cultural traditions, gender, social status, education of parents, and size of family), certainly influence the

amount of education demanded, concentrating on the four variables just described can give important insights into the relationship between the quantity of education demanded and the supply of employment opportunities. Under the conditions where the modern-traditional or urban-rural wage gap is high, employers choose candidates with high educational level even though satisfactory job performance may require no more than a primary education.

Governments supported by the political pressure of the educated, tend to bind the going wage to the level of educational attainment of jobholders, and school fees at the early and education level are often nominal or even nonexistent which conform closely to the realities of in many developing nations, we would expect the quantity of education demanded to be substantial. This is because the anticipated private benefits of more schooling would be large compared to the alternative of little or no schooling, while the direct and indirect private educational costs are relatively low. And the demand spirals upward over time. As job opportunities for the uneducated diminish, individuals must safeguard their position by acquiring a complete primary education.

This may suffice for a while, but the internal dynamics of the employment demand-supply process eventually lead to a situation in which job prospects for those with only primary education begin to decline. This in turn increases the demand for secondary education. But the amount of primary education must increase concurrently, as some people who were previously content with no education are now being squeezed out of the labor market.

The upshot of all this is the chronic tendency for developing nations to expand their educational facilities at a rate that is extremely difficult to justify either socially or financially in terms of optimal resource allocations. Supply and amount demanded are equated not by a price-adjusting market mechanism but rather institutionally, largely by the state. The social benefits of education (the payoff to society as a whole) for all levels of schooling fall far short of the private benefits. At first, it is primarily the uneducated who are found among the ranks of the unemployed.

However, over time, there is an inexorable tendency for the average educational level of the unemployed to rise as the supply of school graduates continues to exceed the demand for middle and high-level workers. The diploma and degree thus become basic requirements for

employment; they no longer provide entree into a high-paid job, nor do they provide the education they were intended to signify.

Governments and private employers in many LDCs tend to reinforce this trend by continuously upgrading formal educational entry requirements for jobs previously filled by less educated workers. Excess educational qualification becomes formalized and may resist downward adjustment. Moreover, to the extent that trade unions succeed in binding going wages to the educational attainments of jobholders, the going wage for each job will tend to rise (even though worker productivity in that job does not significantly increase). Existing distortions in wage differentials will be magnified, thus stimulating the amount of education demanded even further.

❖ **Social versus Private Benefits and Costs**

Typically, in developing countries, the social costs of education (the opportunity cost to society as a whole resulting from the need to finance costly educational expansion at higher levels when these limited funds might be more productively used in other sectors of the economy) increase rapidly as students climb the educational ladder. The private costs of education (those borne by students themselves) increase more slowly or may even decline.

This widening gap between social and private costs provides an even greater stimulus to the demand for higher education than it does for education at lower levels. But educational opportunities can be accommodated to these distorted demands only at full social cost.

Figure 2.3: Private versus Social Benefits and Costs of Education: An Illustration

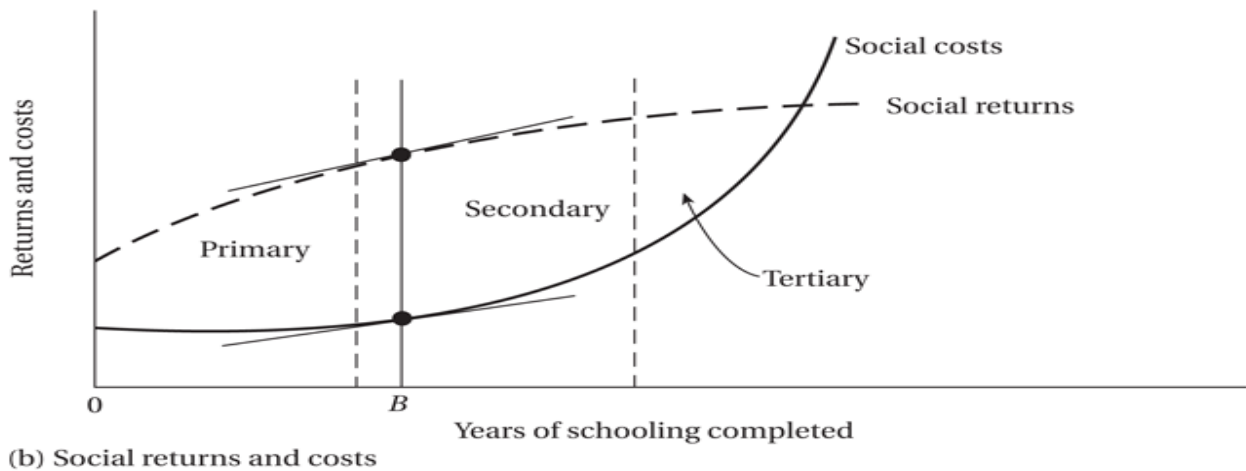
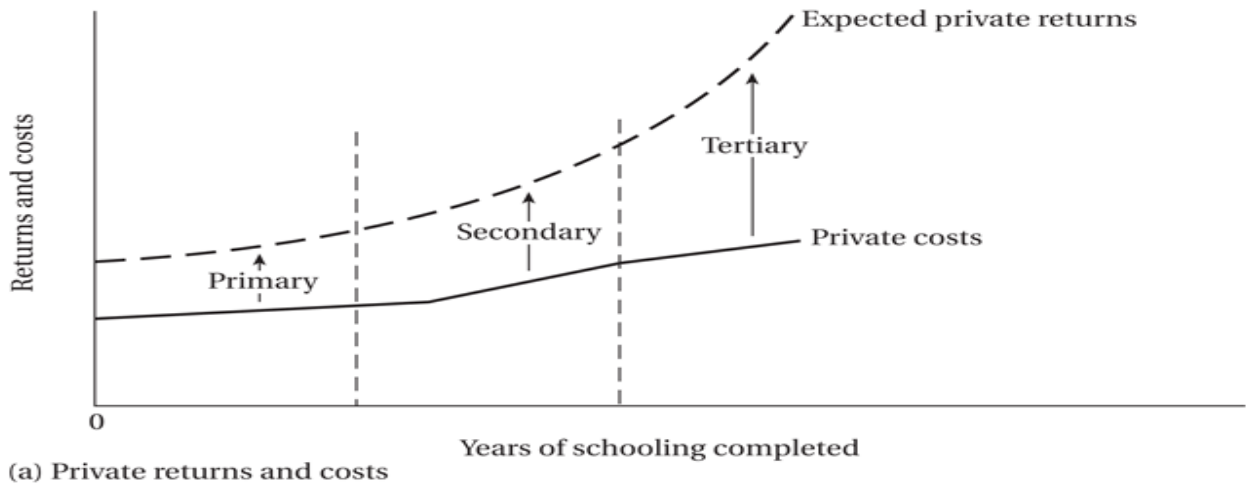


Figure 2.3 provides an illustration of this divergence between private and social benefits and costs. It also demonstrates how this divergence can lead to a misallocation of resources when private interests supersede social investment criteria. In Figure 2.3a, expected private returns and actual private costs are plotted against years of completed schooling. As a student completes more and more years of schooling, expected private returns grow at a much faster rate than private costs, for reasons explained earlier.

To maximize the difference between expected benefits and costs (and thereby the private rate of return to investment in education), the optimal strategy for a student would be to secure as much schooling as possible. Now consider Figure 2.3b, where social returns and social costs are plotted against years of schooling. The social benefits curve rises sharply at first, reflecting the improved levels of productivity of, say, small farmers and the self-employed that result from

receipt of a basic education and the attainment of literacy, arithmetic skills, and elementary vocational skills.

Thereafter, the marginal social benefit of additional years of schooling rises more slowly, and the social returns curve begins to level off. By contrast, the social cost curve shows a slow rate of growth for early years of schooling (basic education) and then a much more rapid growth for higher levels of education. This rapid increase in the marginal social costs of post primary education is the result both of the much more expensive capital and recurrent costs of higher education (buildings and equipment) and the fact that much post primary education in developing countries is heavily subsidized.

It follows from Figure 2.3b that the optimal strategy from a social viewpoint, the one that maximizes the net social rate of return to educational investment, would be one that focuses on providing all students with at least B years of schooling. Beyond B years, marginal social costs exceed marginal social benefits, so additional public educational investment in new, higher-level school places will yield a negative net social rate of return. The value of B, such as nine years of school, would vary according to economic conditions and will be controversial both because of difficulties in calculating earnings gains and debate over which types of social benefits should be considered.

Figure 2.3 also illustrates the inherent conflict between optimal private and social investment strategies a conflict that will continue to exist as long as private and social valuations of investment in education continue to diverge as students climb the educational ladder. To a large degree, the problem of divergent social versus private benefits and costs has been artificially created by inappropriate public and private policies with regard to wage differentials, educational selectivity, and the pricing of educational services. As a result, private calculations of the value of education exceed its social value, which must take account of unemployment.

As long as artificial and nonmarket incentives in the form of disproportionate expected benefits and subsidized costs continue to exist and place a premium on the number of years one spends getting an education, the individual will decide that it is in his or her best private interests to pursue a lengthy formal education process. Basic education, which has been steadily approaching the target of universal primary school enrollment, has made great contributions to development,

broadly conceived. Moreover, despite the substantial distortions just reviewed, it seems clear that the expansion of educational opportunities has contributed to aggregate economic growth by

- ☛ creating a more productive labour force and endowing it with increased knowledge and skills;
- ☛ providing widespread employment and income-earning opportunities for teachers, school and construction workers, textbook and paper printers, school uniform manufacturers, and related workers;
- ☛ creating a class of educated leaders to fill vacancies left by departing expatriates or otherwise vacant or prospective positions in governmental services, public corporations, private domestic and foreign businesses, and professions; and
- ☛ Providing the kind of training and education that would promote literacy and basic skills while encouraging “modern” attitudes on the part of diverse segments of the population.

❖ **Education, Inequality, and Poverty**

Studies have also demonstrated that contrary to what might have been assumed, the educational systems of many developing nations sometimes act to increase rather than to decrease income inequalities. In other hand, if for financial or other reasons the poor are effectively denied access to secondary and higher educational opportunities, the educational system can actually perpetuate and even increase inequality across as well as within generations in developing countries.

The private costs of primary education (especially in view of the opportunity cost of a child's labour to poor families) are higher for poor students than for more affluent students, and the expected benefits of (lower-quality) primary education are lower for poor students.

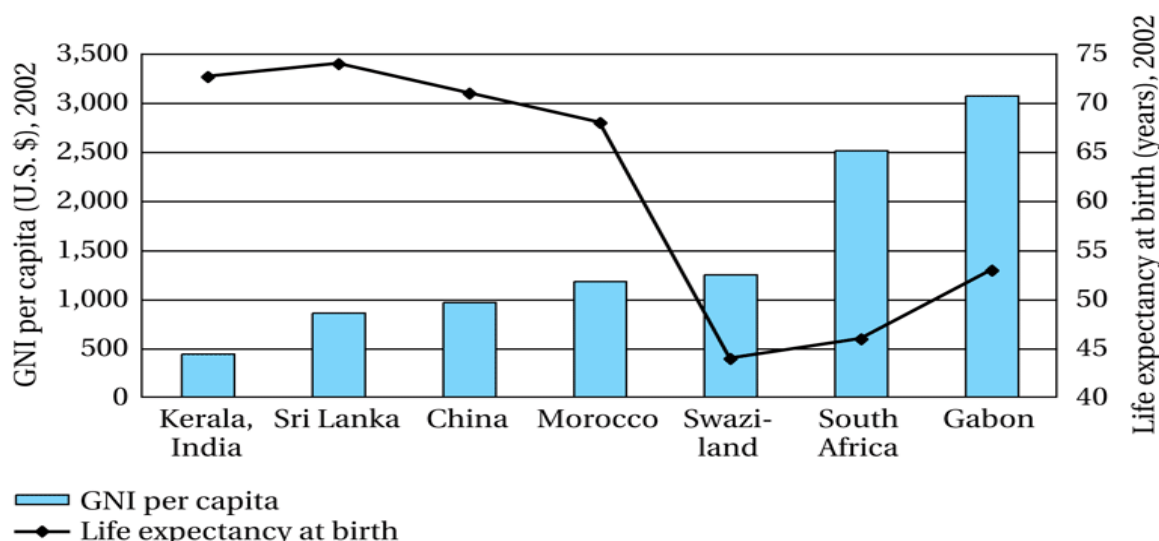
Together, the higher costs and lower expected benefits of education mean that a poor family's rate of return from investment in a child's education is lower than it is for other families. The poor are therefore more likely to drop out during the early years of schooling. As a result of these higher opportunity costs, school attendance, and therefore school performance, tends to be much lower for children of poor families than for those from higher income backgrounds. This is greatly compounded by the lower quality of schools attended by the poor, plagued by poor teaching and teacher truancy and inadequate facilities. Thus in spite of the (often very recent) existence of free and universal primary education in many developing countries, children of the

poor, especially in rural areas, are often unable to proceed beyond the first few years of schooling.

2.5. Health Systems and Development

In the WHO's definition, a health system is "all the activities whose primary purpose is to promote, restore, or maintain health." Health systems include the components of public health departments, hospitals and clinics, and offices of doctors and paramedics. It has long been understood that some developing countries' health systems were far more effective than others in achieving health goals.

Figure 2.4: GNI Per Capita and Life Expectancy at Birth, 2002



Source: International Bank for Reconstruction and Development/The World Bank, *World Development Indicators*, 2004. Reprinted with permission.

Figure 2.4 shows that some countries, such as China and Sri Lanka, and some regions, such as Kerala state in India, have achieved life expectancies of more than 70 years despite their low-income status. At the same time, some middle-income countries, such as Brazil, South Africa, and Gabon, have only been able to achieve significantly lower life expectancies despite their much greater resources. The latter countries all have far more inequitable access to health care than China, Sri Lanka, and Kerala.

An effective government role in health systems is crucial for at least four important reasons.

- ☛ *First*, health is central to poverty alleviation, because people are often uninformed about health, a situation compounded by poverty.
- ☛ *Second*, households spend too little on health because they may neglect externalities (such as, literally, contagion problems).
- ☛ *Third*, the market would invest too little in health infrastructure and research and development and technology transfer to developing countries due to market failures.
- ☛ *Fourth*, public health programs in developing countries have many proven successes. Government has different roles in different countries, but as the WHO concluded, “The careful and responsible management of the well-being of the population Stewardship is the very essence of good government. The health of people is always a national priority: government responsibility for it is continuous and permanent.

2.6.The Gender Gap: Women and Education

Young females receive considerably less education than young males in almost every developing country. In 66 out of 108 countries, women's enrolment in primary and secondary education is lower than that of men by at least 10 percentage points. This educational gender gap is the greatest in the poorest countries and regionally in the Middle East and North Africa. The educational gender gap is especially great in the least developed countries in Africa, where female literacy rates can be less than half that of men in countries such as Niger, Mali, Guinea, and Benin. The gap is also relatively large in South Asia; in India, the adult female literacy rate is just 47.8, which is just 65% of the male rate (the female youth literacy rate is 67.7, 80% of the male youth literacy rate).

In Pakistan, the adult female literacy rate is just 36%, only 57% of the male rate (in this case, the female youth literacy rate is 54.7%, some 72% of the male rate). For all developing countries taken together, the female literacy rate was 29% lower than male literacy, women's mean years of schooling were 45% lower than men's, and females' enrolment rates in primary, secondary, and postsecondary schools were 9%, 28%, and 49% lower, respectively, than the corresponding male rate.

Brain storming: Why is female education important? Is it simply a matter of equity?

2.7. Consequences of Gender Bias in Health and Education

Studies from around the developing world consistently show that expansion of basic education of girls earns among the very highest rates of return of any investment much larger, for example, than most public infrastructure projects. One estimate is that the global cost of failing to educate girls is about \$92 billion a year. This is one reason why discrimination against girls in education is not just inequitable but very costly from the standpoint of achieving development goals. Education of girls has also been shown to be one of the most cost-effective means of improving local health standards.

Studies by the United Nations, the World Bank, and other agencies have concluded that the social benefits alone of increased education of girls is more than sufficient to cover its costs even before considering the added earning power this education would bring. However, evidence from Pakistan, Bangladesh, and other countries shows that we cannot assume that education of girls will increase automatically with increases in family income. Inferior education and health care access for girls shows the interlinked nature of economic incentives and the cultural setting.

In many parts of Asia, a boy provides future economic benefits, such as support of parents in their old age and possible receipt of a dowry upon marriage, and often continues to work on the farm into adulthood. A girl, in contrast, may require a dowry upon marriage, often at a young age, and will then move to the village of her husband's family, becoming responsible for the welfare of her husband's parents rather than her own.

A girl from a poor rural family in South Asia will in many cases perceive no suitable alternatives in life than serving a husband and his family; indeed, a more educated girl may be considered "less marriageable." For the parents, treatment of disease may be expensive and may require several days lost from work to go into town for medical attention. Empirical studies demonstrate what we might guess from these perverse incentives: Often more strenuous efforts are made to save the life of a son than a daughter, and girls generally receive less schooling than boys.

The bias toward boys helps explain the “missing women” mystery. In Asia, the United Nations has found that there are far fewer females as a share of the population than would be predicted by demographic norms. Estimating from developed-country gender ratios, Nobel laureate Amartya Sen concluded that worldwide “many more than” 100 million women are “missing.” Evidence shows that these conditions are continuing to worsen in China and India, implying that tens of millions of young males will be unable to marry, increasing the chances of future social instability. As Sen notes, that dearth of women is not just a matter of poverty per se because in Africa, where poverty is most severe, there are actually about 2% more women than men. Although this number is not as high as in Western Europe and North America, it is still much higher than in Asia, which has higher income on average.

Greater mothers’ education, however, generally improves prospects for both her sons’ and daughters’ health and education. Studies show that mothers’ education plays a decisive role in raising nutritional levels in rural areas. The level of child stunting, a valid indicator of child under-nutrition, is much lower with higher education attainment of the mother at every income level. Harold Alderman and Marito Garcia report that the incidence of child stunting would be reduced by a quarter of current levels (from 63.6% to 47.1% in their sample in Pakistan) if women were to obtain a primary-level education. They note that this is almost ten times the projected impact of a 10% increase in per capita income. Coupled with the result that in many countries, mothers’ education tends to make a disproportionately larger health difference toward daughters than sons, as Duncan Thomas has reported, we can expect major benefits for girls.

Taken together, the evidence shows that increases in family income do not automatically result in improved health status or educational attainment. If higher income cannot be expected to necessarily lead to higher health and education, as we will show in subsequent sections, there are no guarantees that higher health or education will lead to higher productivities and incomes. Much depends on the context, on whether gains from income growth and also the benefits of public investments in health and education and other infrastructure are shared equitably.

2.8.Policies for Health, Education, and Income Generation

Dear learners, we have discussed a wide array of issues concerning education and socio-economic progress in developing countries and tried to look into the realities from wider

perspective. Now let us conclude our discussion with important policy implications. Developing nations are confronted with two basic alternatives in their policy approaches to problems of education. They can continue automatically to expand formal systems at the fastest possible pace with perhaps some minor modifications in curricula, teaching methods, and examinations, while retaining the same institutional labour market structures and educational costing policies.

Or they can attempt to reform the overall educational system by modifying the conditions of demand for and the supply of educational opportunities and by reorienting curricula in accordance with the real resource needs of the nation. Evidences leads to the conclusion that the first alternative is likely to exacerbate the problems of unemployment, poverty, inequality, rural stagnation, and international intellectual dominance that now define the conditions of underdevelopment in much of Africa, Asia, and Latin America and that the second alternative should therefore be pursued. Because educational systems largely reflect and reproduce rather than alter the economic and social structures of the societies in which they exist, any program or set of policies designed to make education more relevant for development needs must operate simultaneously on two levels:

1. Modifying the economic and social signals and incentives outside the educational system that largely determine the magnitude, structure, and orientation of the aggregate private demand for education and consequently the political response in the form of the public supply of school places.
2. Modifying the internal effectiveness and equity of educational systems through appropriate changes in course content (especially for rural areas), structures of public versus private financing, methods of selection and promotion, and procedures for occupational certification by educational level.

Only by policies designed simultaneously to achieve these two objectives can the real positive links between education and development be successfully forged. Let us conclude, therefore, with a brief review of what these external and internal policies might specifically encompass.

Policies Largely External to Educational Systems

A. Adjusting Imbalances, Signals, and Incentives

Policies that tend to remedy major economic imbalances and incentive distortions (e.g., in income and wage differentials) and alleviate social and political constraints on upward mobility

can have the multiple beneficial effects of increasing job opportunities, slowing the rate of rural-urban migration, and facilitating development-related modifications of educational systems.

B. Modifying Job Rationing by Educational Certification

To break the vicious cycle in which overstated job specifications make over-education necessary for employment, policies are needed that will induce or require public and private employers to seek realistic qualifications. Basic to this procedure would be the elimination of school certificates for many jobs, especially in the public sector (janitors, messengers, file clerks, etc.), which tends to set the pattern for the private sector.

C. Curbing the Brain Drain

Controlling or taxing the international migration of indigenously trained high-level a professional is a very sensitive area. When a nation invests scarce public financial resources in the education and training of its people only then to forgo the social returns on that investment as a result of international migration, it seems both economically and morally justifiable to seek either temporarily to restrict that movement in the national interest or, better, to tax the overseas earnings of professional migrants and reinvest those revenues in programs of national development. Such a tax on overseas earnings would act as a financial disincentive to migrate.

Policies Internal to Educational Systems

A. Educational Budgets

Where politically feasible public educational budgets should grow more slowly than in the past to permit more revenue to be used for the creation of rural and urban employment opportunities. Moreover, a larger share of educational budgets should be allocated to the development of primary as opposed to secondary and higher education in order to promote self-education and rural work related learning experiences in later life.

B. Subsidies

Subsidies for the higher levels of education should be reduced as a means of overcoming distortions in the aggregate private demand for education. Policies should be promoted by which the beneficiary of education would bear a larger proportion of educational costs as the student proceeds through the system. This should be done either directly, through loan repayments, or by service in rural areas. At the same time, low income groups should be provided with sufficient

subsidies to permit them to overcome the sizable private costs (including opportunity costs) of schooling.

C. Primary School Curricula in Relation to Rural Needs

To maximize the productivity of rural human resources, primary school curricula and non-formal educational opportunities for school dropouts and adults should be directed more toward the occupational requirements of rural inhabitants, whether in small-farm agriculture, non-farm artisan and entrepreneurial activities, or public and commercial services. Such curricula and task-related reorientations of rural learning systems, however, will not be effective in eliciting popular support unless rural economic opportunities are created so that small farmers, artisans, and entrepreneurs can make use of their vocational knowledge and training. Without these incentives, people will justifiably view such formal and non-formal occupational training programs with considerable skepticism. They would probably rather pursue the formal school certificate and take their chances in the urban job lottery.

D. Quotas

To compensate for the inequality effects of most existing formal school systems, some form of quotas may be required to ensure that the proportion of low – income students at secondary and higher educational levels at least bears some relationship to their proportion in the overall population. Under present systems, implicit quotas by income status often determine which students precede through the educational system. Replacing this de facto quota system with an alternative that ensures that capable low-income students will be able to improve their own and their family's well-being by overcoming the financial barriers to educational advancement through loans and subsidies would go a long way toward making educational systems true vehicles of economic and social equality.

CHAPTER THREE

3. Rural-Urban Interaction, Migration, and Unemployment

Dear learners in the first two chapters we have discussed some basic concepts of the theory of population growth, the role of education and health in economic development and then systematically analysed the policy issues related with population as well as investment in human capital. In this chapter we will discuss why many countries of the world, especially developing countries, are witnessing a new phenomenon of jobless growth (unemployment) even when output increases. The chapter begins with concepts related with the interaction of agricultural sector and other sectors of the economy. It then focuses on the economic models of Rural- Urban migration, migration and urbanization dilemma, urban informal sector and urban unemployment, and policy interventions for employment and migration.

Brain storming: before dealing about Rural-urban interaction, migration, and unemployment you should brain storming this question, why do great numbers of people continue to migrate from rural areas into cities despite high and rising levels of urban unemployment?

Learning objectives

Dear learners after studying this chapter, you will be able to:

- ❖ Analyse why unemployment is growing and common phenomena in developing countries.
- ❖ understand the trends and dimensions of unemployment in developing countries interpret the casual relationship between economic growth, unemployment and poverty.
- ❖ Answer why people migrate from rural to urban areas despite the growth of unemployment in cities, and what strategic options they adopt in the face of unemployment.
- ❖ Develop policy options to curb the unemployment problem and rural to urban migration.

Not surprisingly agriculture often accounts for a large share of national output. Quite apart from these features intrinsic to agriculture there is another worth emphasizing: the interaction between agriculture and the rest of the economy, notably the industrial sector: As economic development proceeds, individuals move from rural to urban areas. Internal migration was thought to be a

natural process in which surplus labour was gradually withdrawn from the rural sector to provide needed manpower for urban industrial growth.

The process was deemed socially beneficial because human resources were being shifted from locations where their social marginal product was often assumed to be zero to places where marginal product was not only positive but also rapidly growing as a result of capital accumulation and the technological progress.

In contrast to this viewpoint, it is now abundantly clear from recent LDC experience that rates of Rural-Urban migration continue to exceed rates of urban job creation and to surpass greatly the absorption capacity of both industry and urban social services. No longer is migration viewed by economists as a beneficent process necessary to solve problems of growing urban labour demand. On the contrary, migration today, particularly at the largest LDC cities, must be seen as the major factors contributing to the pervasive phenomenon of urban surplus labour, as a force that continues to exacerbate already serious urban unemployment problems caused by economic and structural imbalances between urban and rural areas.

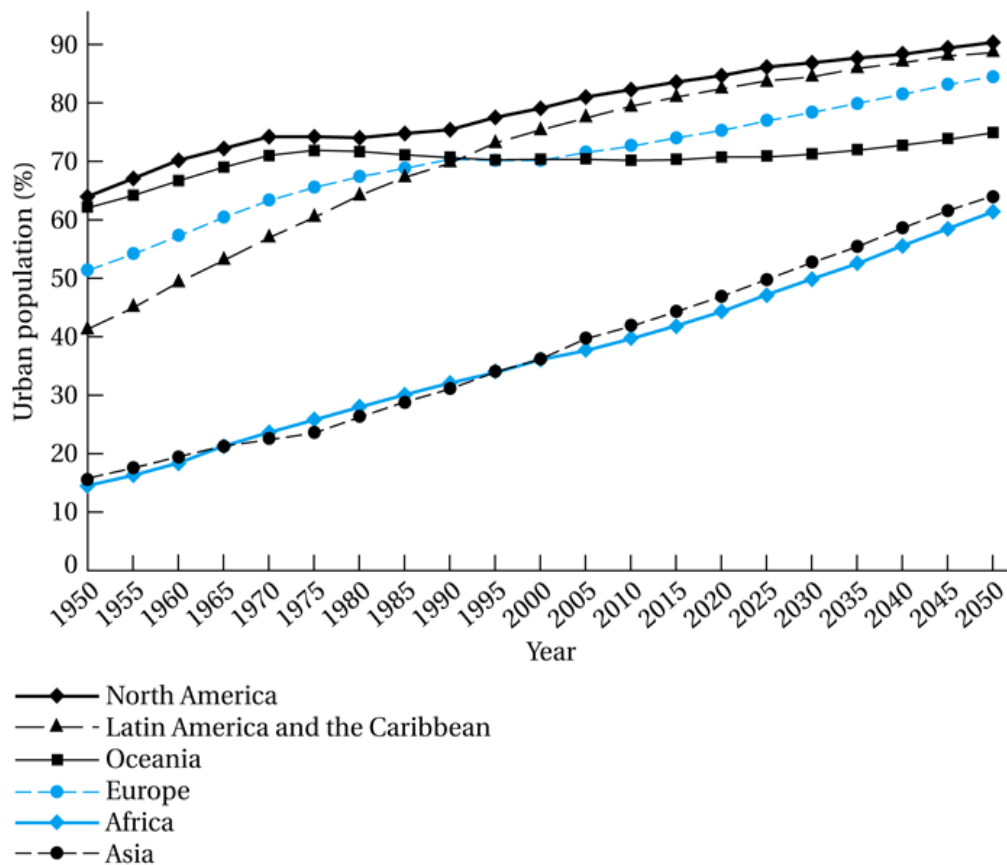
3.1 Migration and urbanization dilemma

Dear learners in this part we focus on one of the most perplexing dilemmas of the development process: the phenomenon of massive and historically unprecedented movements of people from the rural countryside to the cities of Africa, Asia, and Latin America. By 2050, world population could reach 9.4 billion people, and nowhere will population growth be more dramatic than in the major cities of the developing world. After reviewing trends and prospects for overall urban population growth, we examine the growth of the urban informal economy and try to ascertain its potential role and functions. We then turn to a well-known theoretical model of rural-urban labor transfer in the context of rapid growth and high urban unemployment.

In the final section we evaluate various policy options that LDC governments may wish to pursue in their attempts to curtail the heavy flow of rural-to-urban migration and to ameliorate the serious unemployment problems that continue to plague their crowded cities. One of the most significant of all postwar demographic phenomena and the one that promises to loom even larger in the future is the rapid growth of cities in developing countries. In 1950, some 275 million

people were living in Third World cities, 38% of world urban population. According to U.N. estimates, the world's urban population had reached 2.6 billion by 1995, with 66% (1.7 billion) living in metropolitan areas of developing countries. The United Nations projects that in 2025, over 4.1 billion, or 80%, of the urban dwellers of the world will reside in less developed regions. **Figure 3.1** presents data on this growth of urban populations by major world regions from 1950 to 1995 with projections to the year 2050.

Figure 3.1: Proportion of Urban Population by Region, 1950-2050



Source: The United Nations is the author of the original material. *World Urbanization Prospects: The 2009 Revision*. © 2009 United Nations. Reproduced with permission.

3.2 The Role of Cities and urban Giantism

What explains the strong association between urbanization and development? To a large degree, cities are formed because they provide cost advantages to producers and consumers through what are called agglomeration economies. As noted by Walter Isard, these agglomeration economies come in two forms.

- ❖ *Urbanization economies* are effects associated with the general growth of a concentrated geographic region.
- ❖ *Localization economies* are effects captured by particular sectors of the economy, such as finance or automobiles, as they grow within an area.

An economic definition of a city is “an area with relatively high population density that contains a set of closely related activities.” Firms often also prefer to be located where they can learn from other firms doing similar work. Learning takes place in both formal relationships, such as joint ventures, and informal ones, such as from tips learned in evening social clubs or over lunch.

Statistical estimates show that benefits of agglomeration can be quite substantial in practice. For example, studies have demonstrated that “if a plant moves from a location shared by 1,000 workers employed by firms in the same industry to one with 10,000 such workers, output will increase an average of 15%, largely because the pool of specialized workers and inputs deepens.” Moreover, “productivity rises with city size, so much so that a typical firm will see its productivity climb 5% to 10% if city size and the scale of local industry double.” Localization economies do not imply that it would be efficient for all of a country’s industries to be located together in a single city. These economies extend across closely related industries, such as those with strong backward and forward linkages, but there are fewer productivity benefits for unrelated industries to locate together.

The causes of Urban Giantism:

- Import substitution industrialization: less trade, incentive to concentrate in a single city largely to avoid transportation costs
- “Bread and circuses” to prevent unrest (evidence: stable democracies vs unstable dictatorships).
- Hub and spoke transportation system (rather than web) make transport costs high for small cities.
- Compounding effect of locating the national capital in the largest city.

In developing countries, however, governments are less involved in the dispersal of economic activity to more manageable sizes or, if they are involved, are often less effective. For example, government may seek to disperse industry without regard to the nature of agglomeration

economies, giving incentives for dispersal but no attention to clustering relevant industries together, a problem seen in industrial parks in Pakistan.

And all too often, the incentives are for firms to concentrate in the capital city or other “urban giants.” A key problem of countries such as Peru and Argentina is that their giant capitals suffer from enormous levels of congestion, but adequate midsize cities that might provide alternative locations for growth are lacking. A well designed infrastructure development program, including more efficient links between medium-size cities and better roads, utilities, and telecommunications within these cities, can help alleviate this problem.

Table 3.1: Population of the Largest and Second-Largest Cities in Selected Countries (millions)

Country	Largest-City Population	Second-Largest-City Population	Ratio
Canada	Toronto, 5.035	Montreal, 3.603	1.40
United States	New York, 18.727	Los Angeles, 12.303	1.52
Argentina	Buenos Aires, 12.551	Cordoba, 1.423	8.82
Brazil	São Paulo, 18.647	Rio de Janeiro, 11.368	1.64
Chile	Santiago, 5.605	Valparaiso, 0.837	6.70
Mexico	Mexico City, 18.735	Guadalajara, 4.057	4.62
Peru	Lima, 8.081	Arequipa, 0.732	11.04

Source: From UN World Urbanization Prospects 2009 Revision, 2005 data (most recent non-projected year).

Note: Definitions of city size differ across studies.

In general, urban Giantism problems are:

- There may be general urban bias.
- Cities are capital intensive so may expect large cities commonly located in developed countries.
- But urbanization in developing countries has taken place at unexpectedly rapid pace.
- Huge informal sectors in shantytowns, favelas.
- Large fraction of workers outside formal sector.
- Much urban growth is in mid-size cities, but urban bias remains a serious issue in many developing countries

3.3 Urban informal sector and urban unemployment

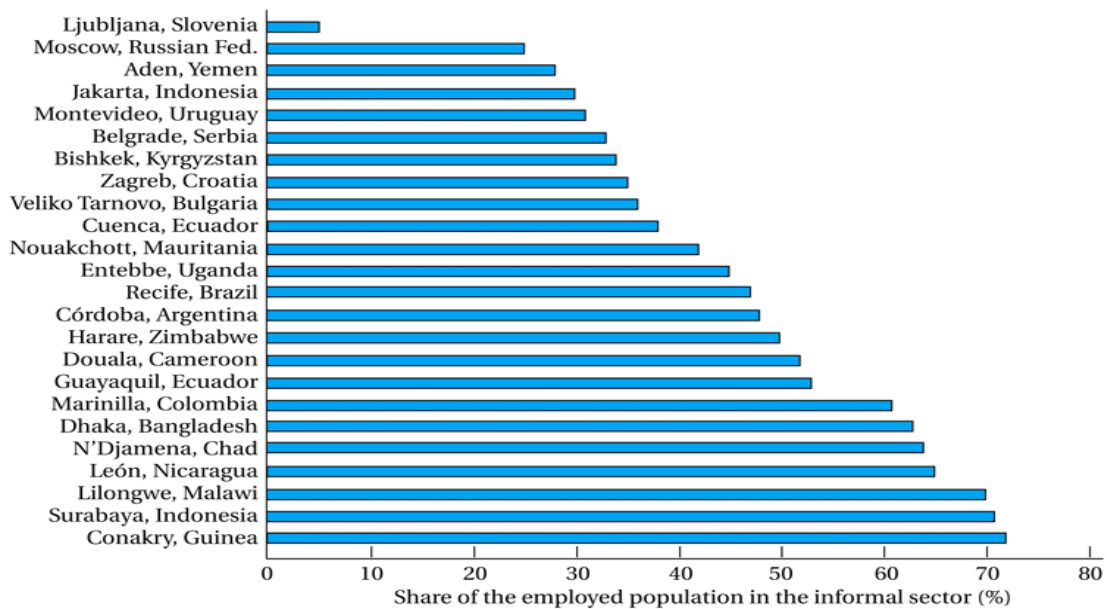
One of the major focuses of development theory has been on the dualistic nature of developing countries' national economies – the existence of a modern urban capitalist sector geared toward

capital-intensive, large-scale production and traditional rural subsistence sector geared toward labor-intensive, small-scale production. In recent years, this dualistic analysis has also been applied specifically to the urban economy, which has been decomposed into a formal and an informal sector.

The existence of an unorganized, unregulated, and mostly legal but unregistered informal sector was-recognized in the early 1970s, following observations in several developing countries that massive additions to the urban labor force failed to show up in formal modern sector employment statistics. The bulk of new entrants to the urban labor force seemed to create their own employment or to work for small-scale family-owned enterprises. The self-employed were engaged in a remarkable array of activities, ranging from hawking, street vending, letter writing, and junk collecting, prostitution, drug peddling, and snake charming.

Others found jobs as mechanics, carpenters, small artisans, barbers, and personal servants. Studies reveal that the share of the urban labor force engaged in informal-sector activities is growing and now ranges from 30% to 70%, the average being around 50%. With the unprecedented rate of growth of the urban population in developing countries expected to continue and with the increasing failure of the rural and urban formal sectors to absorb additions to the labor force, more attention is being devoted to the role of the informal sector in serving as a panacea for the growing unemployment problem.

Figure 3.2: Importance of Informal Employment in Selected Cities



Source: UN-Habitat, "State of the World's Cities, 2001," <http://www.unchs.org/Istanbul+5/statereport.htm>. Reprinted with permission.

The informal sector is characterized by a large number of small-scale production and service activities that are individually or family owned and uses labour intensive and simple technology. The usually self-employed workers in this sector have little formal education, are generally unskilled, and lack access to financial capital. As a result, worker productivity and income tend to be lower in the informal sector than in the formal sector.

Moreover, workers in the informal sector do not enjoy the measures of protection afforded by the formal modern sector in terms of job security, decent working conditions, and old-age pensions. Most workers entering this sector are recent migrants from rural areas unable to find employment in the formal sector. Their motivation is usually to obtain sufficient income for survival, relying on their own indigenous resources to create work. Most inhabit shacks that they themselves have built in slums and squatter settlements, which generally lack minimal public services.

In terms of its relationship with other sectors, the informal sector is linked with the rural sector in that it allows excess labour to escape from rural poverty and underemployment. The formal sector depends on the informal sector for cheap inputs and wage goods for its workers, and the informal sector in turn depends on the growth of the formal sector for a good portion of its income and clientele. The informal sector also often subsidizes the formal sector by providing

raw materials and basic commodities for its workers at artificially low prices maintained through the formal sector's economic power and legitimacy granted by the government.

The important role that the informal sector plays in providing income opportunities for the poor is open to debate. There is some question as to whether the informal sector is merely a holding ground for people awaiting entry into the formal sector - transitional phase until it is itself absorbed by the formal sector or whether it is here to stay and should in fact be promoted as a major source of employment and income for the urban labour force. There seems to be a good argument in support of the latter view. The formal sector in developing countries has a small base in terms of output and employment. In order to absorb future additions to the urban labour force, the formal sector must be able to generate employment at a very high rate of at least 10% per annum. But this much growth seems highly unlikely in view of current trends. Thus the burden on the informal sector to absorb more labour will continue to grow unless other solutions to the urban unemployment problem are provided.

Moreover, the informal sector has demonstrated its ability to generate employment and income for the urban labour force. As pointed out earlier, it is already absorbing an average of 50% of the urban labour force. Some studies have shown the informal sector generating almost one-third of urban income. Other evidences indicate that the informal sector generates surplus even under the currently hostile policy environment. Thus the informal sector's surplus could provide an impetus to growth in the urban economy.

Besides, as a result of its low capital intensity, only a fraction of the capital needed in the formal sector is required to employ a worker in the informal sector, offering considerable savings to developing countries so often plagued with capital shortages. Others argue referring to its contribution to entrepreneurship. By providing access to training and apprenticeships at substantially lower costs the informal sector can play an important role in the formation of human capital. From resource abundance perspective the informal sector is more likely to adopt appropriate technologies and make use of local resources, allowing for a more efficient allocation of resources.

Promotion of the informal sector is not, however, without its disadvantages. One of the major disadvantages in promoting the informal sector lies in the strong relationship between rural-

urban migration and labour absorption in the informal sector. Promoting income and employment opportunities in the informal sector could aggravate the urban unemployment problem by attracting more labour than either the informal or the formal sector could absorb.

Furthermore, there is concern over the environmental consequences of a highly concentrated informal sector in the urban areas. Many informal-sector activities cause pollution and congestion and inconvenience to pedestrians. Moreover, increased densities in slums and low-income neighbourhoods, coupled with poor urban services, could cause enormous problems for urban areas. Any policy measures designed to promote the informal sector must be able to cope with these various problems.

3.4.Economic model of Rural- Urban Migration

Dear Learner! The Economic development of Western Europe and the United States was closely associated with and in fact defined in terms of the movement of labor from rural to urban areas.

For the most part, with a rural sector dominated by agricultural activities and an urban sector focusing on industrialization overall economic development in these countries was characterized by the gradual reallocation of labor out of agriculture and into industry through rural-urban migration, both internal and international. Urbanization and industrialization were in essence synonymous.

This historical model served as a blue print for the development of LDCs as evidenced for example by the original Lewis theory of labor transfer, which we will discuss later. But the overwhelming evidence of the past several decades, when developing nations witnessed a massive migration of their rural populations into urban areas despite rising levels of urban unemployment and underemployment lessens the validity of the Lewis two sector model of development. An explanation of the phenomenon, as well as policies to address the resulting problems must be sought elsewhere.

A model of rural – urban migration to explain the apparently paradoxical relationship of accelerated rural – urban migration in the context of rising urban unemployment has been developed. This model has come to be identified in the literature as the Todaro migration model and in its equilibrium form as the Harris – Todaro model.

3.4.1 The Lewis model

The most important of many rural – Urban interactions is the synergetic role that agriculture plays in the development of the non-agricultural sector. Agriculture sector provides the supply of labor to industry and the surplus of food that allows a non-agricultural labor force to survive. These are the two fundamental resource flows from agriculture, and they lay at the heart of the structural transformation that occurs in most developing counters.

There are other connections as well. Industry supplies input to agriculture; tractors, pump sets chemicals of various kinds and so on. With a large population in the rural sector agriculture is often a major source of demand for the products of industry, which include not just durable but final consumption goods as well. Agrarian exports can serve as the source of vital foreign exchange which permits the import of inputs to industrial production while these links are important, the flow of labor from agriculture to industry and the parallel flow of agricultural surplus to nurture workers in industry are often basic to the development process. Lewis out lined a view of development that was based on the forgoing fundamental resource flows. This approach which views economic development as the progressive transformation of a “Traditional” sector in to “Modern” sector goes, beyond the narrower picture of agriculture –to-industry transformation but essentially builds on it.

The starting point of the Lewis model is the idea of a dual economy. In a sentence dualism is the co-existence of “traditional” and “modern” where the words in quotes can have several shades of meaning. The traditional sector is often equated to the agriculture sector which after all produces the traditional output of all societies. In contrast, the modern sector is the industrial sector which produces manufactured commodities. At the same time “traditional” can mean the use of older techniques of production that are labor intensive and employ simple instruments.

In contrast “Modern” might refer to the use of new technology which is intensive in the use of capital finally and perhaps most important as a conceptual level “traditional” refers to traditional forms of economic organization based on family as opposed to wage labor with overall output distributed not in the form of wages and profits but in the form of shares that accrue to each family member & a contrast “modern” describes production organization on capitalist principles which relies on the use of wage labor and is carried out for economic profits. The traditional

sector in this model is viewed as a supplier of labor whereas the role of modern sector is to soak up this supply. Thus capital accumulation in the modern sector becomes the engine of development.

The fundamental assumption then is that labor is virtually unlimited in supply being drawn from a vast traditional sector where as the rate of savings and investment limits the pace of development. In this latter sense Lewis is in agreement with the Harrod Domar – view of economic growth that you will observe the theory subsequently. The main idea of Lewis model is that there is a large surplus of labor in the traditional sector of the economy that can be removed at little or no potential cost: by cost we refer to opportunity cost: the loss of traditional sector output as labor supply is reduced.

In the Lewis model, capital is created by using surplus labor (with little social cost). Capital goods are created without giving up the production of consumer goods. However, to finance surplus labor, additional credit may sometimes be needed. The significance of Lewis's model is that growth takes place as a result of structural change? An economy consisting primarily of a subsistence agricultural sector (which does not save) is transformed into one predominantly in the modern capitalist sector (which does save). As the relative size of the capitalist sector grows, the ratio of profits and other surplus to national income grows.

➤ *Critics of the Lewis Model*

Critics question the theoretical underpinning of the Lewis model, the assumption of an unlimited labor supply. They believe the capitalist wage rate may rise before all surplus rural labor is absorbed. As workers with zero marginal productivity migrate from the subsistence agricultural sector, those workers remaining in this sector will then divide constant output among fewer persons resulting in a higher wage. Industrial wages, then, must increase to motivate rural workers to migrate. Lewis's critics argue that the larger industrial labor force contributes to greater food demand, but the capacity to produce food is unchanged. Thus, food prices rise. Accordingly, the industrial sector must increase wages to pay for the increased price of food. Lewis overestimates the extent that the availability of cheap rural migrant labor can stimulate industrial growth.

3.4.2 The Harris-Todaro model of Migration

Dear Learner! We begin by assuming that there are only two sectors in the economy: a rural sector and a formal urban sector. Solely for the purpose of setting a bench mark, we assume that wages in both sectors are fully flexible. Later, we introduce rigidity in the urban formal wage.

A Verbal Description of the Todaro Model

Starting from the assumption that migration is primarily an economic phenomenon, which for the individual migrant can be a quite rational decision despite the existence of urban unemployment, the Todaro model postulates that migration proceeds in response to urban rural differences in expected income rather than actual earnings. The fundamental premise is that migrants consider the various labor market opportunities available to them in the rural and urban sectors and choose the one that maximizes their expected gains from migration. Expected gains are measured by the difference in real incomes between rural and urban work and the probability of a new migrant's obtaining an urban job.

In essence, the theory assumes that members of the labor force compare their expected incomes for a given time horizon in the urban sector (the difference between returns and costs of migration) with prevailing average rural incomes and migrate if the former exceeds the latter.

Consider the following illustration. Suppose that the average unskilled or semiskilled rural worker has a choice between being a farm laborer (or working his own land) for an annual average real income of, say, 50 units or migrating to the city, where a worker with his skill or educational background can obtain wage employment yielding an annual real income of 100 units. The more commonly used economic models of migration, which place exclusive emphasis on the income differential factor as the determinant of the decision to migrate, would indicate a clear choice in this situation. The worker should seek the higher-paying urban job.

It is important to recognize, however, that these migration models were developed largely in the context of advanced industrial economies and hence implicitly assume the existence of full or near-full employment. In a full-employment environment, the decision to migrate can be based solely on the desire to secure the highest-paid job wherever it becomes available. Simple economic theory would then indicate that such migration should lead to a reduction in wage

differentials through the interaction of the forces of supply and demand, in areas of both emigration and immigration.

Unfortunately, such an analysis is not realistic in the context of the institutional and economic framework of most developing nations. First, these countries are beset by a chronic unemployment problem that a typical migrant cannot expect to secure a high - paying urban job immediately. In fact, it is much more likely that on entering the urban labor market, many uneducated, unskilled migrants will either become totally unemployed or will seek casual and part-time employment as vendors, hawkers, repairmen, and itinerant day laborers in the urban traditional or informal sector, where ease of entry, small scale of operation, and relatively competitive wage determination prevail.

Consequently, in deciding to migrate, the individual must balance the probabilities and risks of being unemployed or underemployed for a considerable period of time against the positive urban-rural real income differential. Thus if the actual probability of his being successful in securing the higher-paying urban job is 20%, and therefore his expected urban income for the one-year period is in fact 20 units and not the 100 units that an urban worker in a full-employment environment would expect to receive. So with a one-period time horizon and a probability of success of 20%, it would be irrational for this migrant to seek an urban job, even though the differential between urban and rural earnings capacity is 100%. However, if the probability of success were 60% and the expected urban income therefore 60 units, it would be entirely rational for our migrant with his one period time horizon to try his luck in the urban area, even though urban unemployment may be extremely high.

If we now approach the situation by assuming a considerably longer time horizon-a more realistic assumption, the decision to migrate should be represented on the basis of a longer-term, more permanent income calculation. If the migrant anticipates a relatively low probability of finding regular wage employment in the initial period but expects this probability to increase over time as he is able to broaden his urban contacts, it would still be rational for him to migrate, even though expected urban income during the initial period or periods might be lower than expected rural income.

A Diagrammatic Presentation

Now let us look into the real situation and the process of achieving unemployment equilibrium between urban expected wages and average rural income in developing countries using diagrammatic portrayal of the basic Todaro model. This is done in Figure 2.1 Assume only two sectors, rural agriculture and urban manufacturing. The demand for labor (the marginal product of labor curve) in agriculture is given by the negatively sloped line AA'. Labor demand in manufacturing is given by MM' (reading from right to left). The total labor force is given by line OAOM. In a neoclassical, flexible-wage, full-employment market economy, the equilibrium wage would be established at $WA^* = WM^*$, with $OALA^*$ workers in agriculture and $OMLM^*$ workers employed in urban manufacturing. All available workers are therefore employed (Efficient Equilibrium).

But what if urban wages are institutionally determined (inflexible downward) as assumed by Todaro at a level $\bar{W}_M$, which is at a considerable distance above WA ? **Crucial assumption:** - urban formal wages are fixed and higher than agricultural wage for the same type of worker. Why? The reasons were: - formal jobs as government showcase, efficiency wages, union bargaining power, and labour market regulation. If for the moment we continue to assume that there is no unemployment, OMLM workers would get urban jobs, and the rest, OALM, would have to settle for rural employment at $OAWA'$ wages (below the free market level of $OAWA$). So now we have an urban-rural real wage gap of $\bar{W}_M - WA'$, with $\bar{W}_M$ institutionally fixed. If rural workers were free to migrate, then despite the availability of only OMLM jobs, they are willing to take their chances in the urban job lottery. If their chance (probability) of securing one of these favored jobs is expressed by the ratio of employment in manufacturing, LM, to the total urban labor pool, LUS, then the expression shows the probability of urban job success necessary to equate agricultural income WA with urban expected income $(LM / LUS)(WM)$, thus causing a potential migrant to be indifferent between job locations. If agricultural income **WA less than** urban expected income $(LM / LUS)(WM)$, thus causing a potential migrant to be **migrate from rural to urban**.

Most Basic Algebraic Model Presentation

$$W_A = \frac{L_M}{L_{US}}(\bar{W}_M)$$

$$E(Y_{\text{urban}}) = \frac{L_M}{L_{US}} (\bar{W}_M) = 0.5 * 3 = \$1.5 \text{ per day (migrant to be indifferent between two sector job)}$$

Suppose if the probability of getting a modern job is 0.7

$$E(Y_{\text{urban}}) = \frac{L_M}{L_{US}} (\bar{W}_M) = 0.7 * 3 = \$2.1 \text{ per day (the decision is migration from rural to urban)}$$

To sum up, the Todaro migration model has four basic characteristics:

1. Migration is stimulated primarily by rational economic considerations of relative benefits and costs, mostly financial but also psychological.
2. The decision to migrate depends on expected rather than actual urban-rural real wage differentials where the expected differential is determined by the interaction of two variables, the actual urban-rural wage differential and the probability of successfully obtaining employment in the urban sector.
3. The probability of obtaining an urban job is directly related to the urban employment rate and thus inversely related to the urban unemployment rate.
4. Migration rates in excess of urban job opportunity growth rates are not only possible but also rational and even likely in the face of wide urban-rural expected income differentials. High rates of urban unemployment are therefore inevitable outcomes of the serious imbalance of economic opportunities between urban and rural areas in most underdeveloped countries.

3.5.Comprehensive strategies for employment and migration

Dear learners, at various points throughout this chapter, we have looked at possible policy approaches designed to improve the very serious migration and employment situation in developing countries. We now conclude with the shape of a comprehensive migration and employment strategy. This would appear to have six key elements:

1. *Creating an appropriate rural-urban economic balance.* A more appropriate balance between rural and urban economic opportunities appears to be indispensable to ameliorating both urban and rural unemployment problems and to slowing the pace of rural-urban migration. The main thrust of this activity should be in the integrated development of the rural sector, the spread of small-scale industries throughout the countryside, and the reorientation of economic activity and social investments toward the rural areas.

2. *Expansion of small-scale, labour-intensive industries.* The composition or "product mix" of output has obvious effects on the magnitude of employment opportunities because some products require more labour per unit of output and per unit of capital than others. Expansion of these mostly small-scale and labour-intensive industries in both urban and rural areas can be accomplished in two ways: directly, through government investment and incentives, particularly for activities in the urban informal sector, and indirectly through income redistribution to the rural poor, whose structure of consumer demand is both less import-intensive and more labour-intensive than that of the rich.
3. *Elimination of factor-price distortions.* There is ample evidence to demonstrate that correcting factor-price distortions primarily by eliminating various capital subsidies and curtailing the growth of urban wages through market-based pricing would increase employment opportunities and make better use of scarce capital resources.
4. *Choosing appropriate labour-intensive technologies of production.* One of the principal factors inhibiting the success of any long-run program of employment creation both in urban industry and rural agriculture is the almost complete technological dependence of developing nations on imported (typically labour-saving) machinery and equipment from the developed countries. Both domestic and international efforts must be made to reduce this dependence by developing technological research and adaptation capacities in the developing countries themselves. Such efforts might first be linked to the development of small-scale, labour-intensive rural and urban enterprises; and to the development of low cost, labour-intensive methods of meeting rural infrastructure needs, including roads, irrigation and drainage systems, and essential health and educational services.
5. *Modifying the direct linkage between education and employment.* The emergence of the phenomenon of the educated unemployed is calling into question the appropriateness of the massive quantitative expansion of educational systems, especially at the higher levels. As modern-sector jobs multiply more slowly than the numbers of persons leaving the educational tunnel, it becomes necessary to extend the length of the tunnel and to narrow its exit. Although a full discussion of educational problems and policies must await the next chapter, one way to moderate the excessive demand for additional years of schooling (which in reality is a demand for modern-sector jobs) would be for governments, often the largest employers, to base their hiring practices and their wage structures on other criteria.

Moreover, the creation of attractive economic opportunities in rural areas would make it easier to redirect educational systems toward the needs of rural development.

6. *Reducing population growth through reductions in absolute poverty and inequality, particularly for women, along with the expanded provision of family planning and rural health services.* Clearly, any long-run solution to LDC employment and urbanization problems must involve a lowering of current high rates of population growth. Even though the labour force size for the next two decades is already determined by today's birth-rates, the hidden momentum of population growth applies equally as well to labour force growth. Together with the demand policies identified in points 1 through 5, population and labour supply reduction policies provide an essential ingredient in any strategy to combat the severe employment problems that developing countries face now and in future years.
7. Decentralizing authority to cities and neighbourhoods. Experience shows that decentralization of authority to municipalities is an essential step in the improvement of urban policies and the quality of public services. Local conditions vary greatly among small and large cities, as well as across different national regions, and policies need to be designed to reflect these differences. Local officials have greater information about evolving local conditions; and when officials are held accountable for local fiscal performance and know they must answer to recipients of the services they provide; they also have greater incentives to carry out their responsibilities effectively. Decentralization, with increased authority of cities and regions, has been a major international trend in the organization of government.

Chapter Summary

We conclude by noting that while a much higher urban share of population is inevitable, the tempo and pattern of urbanization will be key determinants of whether the deeper objectives of economic development are achieved. China and India, which together account for over one-third of the world's population, are entering their most rapid migration and urbanization period. Several African and other Asian countries are at a similar point. Because of fixed costs including infrastructure and land use patterns, the quality of policies toward urbanization and migration that are implemented now are thus of momentous importance for the character of economic development for many decades to come.

CHAPTER FOUR

4. Agriculture and Economic Development

Dear learner in the previous chapter we were dealing about concepts related with the interaction of agricultural sector and other sectors of the economy. It then focuses on the economic models of Rural- Urban migration, migration and urbanization dilemma, urban informal sector and urban unemployment, and policy interventions for employment and migration. In this chapter we will discussed on the interaction between agriculture and economic development.

Learning objective

Dear learner: at the end of this chapter you are expected to be able to know:

- Factual account of growth and stagnation of the agricultural sector over the past half century.

- Understand the description and analysis of the basic characteristics of agrarian systems in developing countries and identify some important similarities and differences.
- Describe the economics of peasant subsistence agriculture and discuss the stages of transition from subsistence to commercial farming in developing nations.
- Moreover, they will be able the importance of not only economic factors but also the social, institutional, and structural requirements of small-farm modernization.
- Explore the meaning of rural development and review alternative policies designed to raise levels of living in Third World rural areas.

4.1.Agricultural Progress and Rural Development

If the migration of people with and without school certificates to the cities of Africa, Asia, and Latin America is happening at historically unprecedented rates, a large part of the explanation can be found in the economic stagnation of the outlying rural areas. That is where the people are. Over 2.5 billion people in the Third World grind out a meager and often inadequate existence in agricultural pursuits. Over 3 billion people were living in rural areas in 1997. This figure raised to almost 3.3 billion by the year 2010. People living in the countryside comprise considerably more than half the population of such diverse Latin American and Asian nations as Bolivia, Guatemala, India, Indonesia, Myanmar, Ecuador, Sri Lanka, Pakistan, the Philippines, and China.

In Africa, the ratios are much higher, with almost every country having rural dwellers in excess of three-quarters of the total population. In spite of the massive migration to the cities, the absolute population increase in rural areas of most Third World nations will continue to be greater than that of urban areas for at least the next decade.

Of greater importance than sheer numbers are the fact that the vast majority (almost 70%) of the world's poorest people are also located in rural areas and engaged primarily in subsistence agriculture. Their basic concern is survival. Many hundreds of millions of people have been bypassed by whatever economic progress has been attained. It is estimated that more than 800 million of these people do not have enough food to meet their basic nutritional needs. In their daily struggle to subsist, their behavior may have often seem irrational to many Western

economists who, until recently, had little understanding of the insecure nature of subsistence living and the importance of avoiding risks. *If development is to take place and become self-sustaining, it will have to start in the rural areas in general and the agricultural sector in particular.* The core problems of widespread poverty, growing inequality, rapid population growth, and rising unemployment all find their origins in the stagnation and often retrogression of economic life in rural areas.

Traditionally, the role of agriculture in economic development has been viewed as passive and supportive. Based on the historical experience of Western countries, economic development was seen as requiring a rapid structural transformation of the economy from one mainly focused on agricultural activities to a more complex modern industrial and service society. Agriculture provides sufficient low priced food and manpower for the expanding industrial and service sectors. As agriculture-based settlement in rural areas accounts the majority of the society in any country it is important to make transformation of the economy from highly traditionally agriculture based to industrial and modern economic activities through improved and mechanized agricultural transformation, which was thought to be dynamic leading sector in any overall strategy of economic development.

Lewis's two-sector model is an outstanding example of a theory of development that places heavy emphasis on rapid industrial growth with an agricultural sector fueling this industrial expansion by means of its *cheap food and surplus labor*.

Now development economists are less optimistic about the desirability of placing such heavy emphasis on rapid industrialization. They have come to understand that far from playing a passive, supporting role in the process of economic development, the agricultural sector in particular and the rural economy in general must play an indispensable part in any overall strategy of economic progress, especially in low-income developing countries.

An agriculture and employment-based strategy of economic development requires at a minimum three basic harmonizing elements:

1. Accelerated output growth through technological, institutional, and price incentive changes designed to raise the productivity of small farmers;

2. Rising domestic demand for agricultural output derived from an employment-oriented urban development strategy; and
3. Diversified, non-agricultural, labour-intensive rural development activities that directly and indirectly support and are supported by the farming community.

For these reasons to a large extent, agricultural and rural development has come to be perceived as a necessary condition of national development. Without such **integrated rural development**, industrial growth either would prove useless or, if it succeeded, would create such severe internal imbalances in the economy that the problems of widespread poverty, inequality and unemployment would even become more maintained.

In this chapter we would analyze the basic characteristics of agrarian systems in Latin America, Asia, and Africa to identify some important similarities and differences. Then we study the economics of peasant subsistence agriculture and discuss the stages of transition from subsistence to commercial farming in developing nations. Finally, we try to explain the meaning of rural development and review alternative policies designed to raise levels of living in rural areas.

Six main questions, therefore, need to be asked about agricultural and rural development as it relates to overall national development:

1. How can total agricultural output and productivity per capita be substantially increased in a manner that will directly benefits the average small farmer and the land less rural dwellers while providing a sufficient food and cheap labour to support the growing labour demand in the industrial sector?
2. What is the process by which traditional low productive peasant farms are transformed into high productive commercial enterprises?
3. When traditional family farmers and peasant cultivators resist changes, is their behaviour inflexible and irrational, or are they acting rationally within the context of their particular economic environment?
4. What are the effects of the high risks faced by farmers in low-income countries, how do farm families cope with these risks, and what policies are appropriate to lessen risk?

5. Are economic and price incentives sufficient to elicit output increases among peasant agriculturalists, or are institutional and structural changes in rural farming system also required?
6. Is raising agricultural productivity sufficient to improve rural life, or must there be concomitant off-farm employment creation along with improvement with educational, medical, and other social services? In other words, what do we mean by rural development, and how can it be achieved?

4.2. The Structure of Agrarian systems in the Developing World

i. *Three Systems of Agriculture*

One helpful way to categorize world agriculture, proposed by the agricultural development economist Alain de Janvry and his colleagues in the World Bank's 2008 *World Development Report* is to see that next to advanced agricultural systems in developed countries, three quite different situations are found among developing countries.

- ★ *First*, in what the report terms **agriculture-based countries**, agriculture is still a major source of economic growth—although mainly because agriculture makes up such a large share of GDP. The World Bank estimates that agriculture accounts for some 32% of GDP growth on average in these countries, in which 417 million people live. More than two-thirds of the poor of these countries live in rural areas. Some 82% of the rural population of sub-Saharan Africa lives in these countries. It also includes a few countries outside the region, such as Laos. And a few African countries, such as Senegal, are undergoing transformation.
- ★ *Second*, most of the world's rural people—some 2.2 billion—live in what the report categorizes as **transforming countries**, in which the share of the poor who are rural is very high (almost 80% on average) but agriculture now contributes only a small share to GDP growth (7% on average). Most of the population of South and East Asia, North Africa, and the Middle East lives in these countries, along with some outliers such as Guatemala.
- ★ *Third*, in what the report calls **urbanized countries**, rural-urban migration has reached the point at which nearly half, or more, of the poor are found in the cities, and agriculture

tends to contribute even less to output growth. The urbanized countries are largely found in Latin America and the Caribbean, along with developing Eastern Europe and Central Asia, and contain about 255 million rural dwellers.

In many cases, the position of countries within these groups is not stagnant. Many countries that were in the agriculture-based category moved to the transforming category in recent decades, most prominently India and China.

ii. Peasant Agriculture in Latin America, Asia, and Africa

In many developing countries, various historical circumstances have led to a concentration of large areas of land in the hands of a small class of powerful landowners. This is especially true in Latin America and parts of the Asian subcontinent. In Africa, both historical circumstances and the availability of relatively more unused land have resulted in a different pattern and structure of agricultural activity.

As Table 4.1 shows, the average farm size in Latin America is far larger than in Asia; in all the Asian countries surveyed, average-operation farm size was under 4 hectares, with farm size in Indonesia just 1.1 hectares. In contrast, average-operation farm size ranged from 16.9 to 214.1 hectares in the Latin American countries surveyed. Nevertheless, a substantial number of farms in Latin America consisted of less than 5 hectares, including 36.8% of farms in Brazil and 78.0% of farms in Peru.

Table 4.1 Distribution of Farms and Farmland by Operational Farm Size and Land Tenure Status in Selected Developing Countries in Asia and Latin America

		Percentage of Farms and Farmland				Gini Coefficient of Land Concentration	Percentage of Tenanted Area in Total Farmland		Percentage of Share Tenancy in Tenanted Land ^b
		Below 5 Hectares		Above 50 Hectares			Pure Tenancy	Total ^a	
		Farms	Area	Farms	Area				
Country	Average Operational Farm Size (hectares)								
Asia									
Bangladesh	1.6	90.6	67.6	N.A.	N.A.	0.42	N.A.	20.9	91.0
India	2.3	88.7	46.7	0.1	3.7	0.62	2.4	8.5	48.0
Indonesia	1.1	97.9	68.7	0.0 ^c	13.6	0.56	2.1	23.6	60.0
Nepal	1.0	97.2	72.1	0.0 ^c	0.8	0.56	1.5	13.2	48.3
Philippines	3.6	84.8	47.8	0.2	13.9	0.51	21.4	32.8	79.3
Thailand	3.7	72.3	39.4	0.0 ^c	0.9	0.45	6.0	15.5	29.0
Latin America									
Brazil	59.7	36.8	1.3	16.3	84.6	0.84	6.1	10.2	N.A.
Costa Rica	38.1	48.9	1.9	14.5	79.7	0.82	1.2	9.0	9.4
Colombia	26.3	59.6	3.7	8.4	77.7	0.86	5.3	11.5	49.4
Peru	16.9	78.0	8.9	1.9	79.1	0.91	4.5	13.6	0.0 ^c
Uruguay	214.1	14.3	0.2	37.6	95.8	0.82	19.1	46.3	4.7
Venezuela	91.9	43.8	0.9	13.6	92.5	0.91	4.5	2.4	N.A.

Source: "Land and labor contracts in agrarian economies: Theories and facts," by Keijiro Otsuka, Hiroyuki Chuma, and Yujiro Hayami, *Journal of Economic Literature* 30 (1992): 1972. Reprinted with permission from the American Economic Association.

^aArea in pure tenant farms plus area in owner-as-tenant farms.

^bPercent in area of pure tenant farms, except percent in total tenanted area for Bangladesh.

^cLess than 0.05%.

N.A. = not available.

This is possible because of the huge farmlands controlled by the largest farms in Latin America. Just as we can draw income Lorenz curves from data on the distribution of income, we can draw land Lorenz curves from data on the distribution of farm holdings among farmers.

In this case,

- The x-axis reports the proportion of total holdings, and
- The y-axis reports the proportion of total area.

A land Gini may be calculated in a manner analogous to that of the income Gini. Table 4.1 presents land Ginis for representative countries in Asia and Latin America. The number of farms, the farmed area, and inequality in the distribution of land is not completely rigid but changes over time. Several examples for various periods (depending on available data) are given in Table 4.2. One of the broadest trends is for farm sizes to become smaller over time in Asia as land is subdivided, and this trend is seen increasingly also in Africa.

Table 4.2 Changes in Farm Size and Land Distribution

		Land Distribution Gini (percent)		Average Farm Size (hectares)		Change (%)		Farm Size Definition Used
Country	Period	Start	End	Start	End	Total Number of Farms	Total Area	
Smaller farm size, more inequality								
Bangladesh	1977–1996	43.1	48.3	1.4	0.6	103	−13	Total land area
Pakistan	1990–2000	53.5	54.0	3.8	3.1	31	6	Total land area
Thailand	1978–1993	43.5	46.7	3.8	3.4	42	27	Total land area
Ecuador	1974–2000	69.3	71.2	15.4	14.7	63	56	Total land area
Smaller farm size, less inequality								
India	1990–1995	46.6	44.8	1.6	1.4	8	−5	Total land area
Egypt	1990–2000	46.5	37.8	1.0	0.8	31	5	Total land area
Malawi	1981–1993	34.4	33.2 ^a	1.2	0.8	37	−8	Cultivated crop area
Tanzania	1971–1996	40.5	37.6	1.3	1.0	64	26	Cultivated crop area
Chile	1975–1997	60.7	58.2	10.7	7.0	6	−31	Arable land area
Panama	1990–2001	77.1	74.5	13.8	11.7	11	−6	Total land area
Larger farm size, more inequality								
Botswana	1982–1993	39.3	40.5	3.3	4.8	−1	43	Cultivated crop area
Brazil	1985–1996	76.5	76.6	64.6	72.8	−16	−6	Total land area
Larger farm size, less inequality								
Togo	1983–1996	47.8	42.1	1.6	2.0	64	105	Cultivated crop area
Algeria	1973–2001	64.9	60.2	5.8	8.3	14	63	Arable land area

Source: World Development Report, 2008: Agriculture and Development by World Bank. Copyright © 2008 by World Bank. Reproduced with permission.

^aFigure for 2004–2005.

iii. Agrarian Patterns in Latin America: Progress and Remaining Poverty Challenges

In Latin America, as in Asia and Africa, agrarian structures are not only part of the production system but also a basic feature of the entire economic, social, and political organization of rural life. The agrarian structure that has existed in Latin America since colonial times and is still widespread in a substantial part of the region is a pattern of agricultural dualism known as **latifundio-minifundio**.

- ★ **Latifundios** are very large landholdings. They are usually defined as farms large enough to provide employment for more than 12 people, though some employ thousands.
- ★ **Minifundios** are the smallest farms. They are defined as farms too small to provide employment for a single family (two workers) with the typical incomes, markets, and levels of technology and capital prevailing in each country or region.

Using Gini coefficients to measure the degree of land concentration, as seen in Table 4.1, researchers report that the coefficient for Colombia is 0.86, for Costa Rica 0.82, for Uruguay

0.82, for Peru 0.91, and for Venezuela 0.91. Although estimates vary, changes in land inequality are limited in the case of Latin America (see Table 4.2). Other countries are even more unequal; the Gini for Paraguay is an almost perfectly unequal 0.94.

These are the highest regional Gini coefficients in the world, and they dramatically reflect the degree of land ownership inequality throughout Latin America. But *latifundios* and *minifundios* do not constitute the whole of Latin American agricultural holdings. A considerable amount of production ; occurs on ***family farms and medium-size farms***. The former provide work for two to four people (recall that the *minifundio* could provide work for fewer than two people), and the latter employ 4 to 12 workers (just below the *latifundio*).

In Venezuela, Brazil, and Uruguay, these intermediate farm organizations account for almost 50% of total agricultural output and employ similar proportions of agricultural labor. These farms use a more efficient balance between labor and land, and studies show that they have a much higher total factor productivity than either *latifundios* or *minifundios*, as the law of diminishing returns would suggest. Indeed, evidence from a wide range of developing countries, demonstrates that smaller farms are more efficient (lower-cost) producers of most agricultural commodities.

A major explanation for the relative economic inefficiency of farming the fertile land on the *latifundios* is simply that the wealthy landowners often value these holdings not for their potential contributions to national agricultural output but rather for the considerable power and prestige that they bring. Much of the land is left idle or farmed less intensively than on smaller farms. Also, *latifundio* transaction costs, especially the cost of supervising hired labor, are much higher than the low effective cost of using family labor on family farms or *minifundios*. It follows that raising agricultural production and improving the efficiency of Latin American agrarian systems in traditional areas will require much more than direct economic policies that lead to the provision of better seeds, more fertilizer, less distorted factor prices, higher output prices, and improved marketing facilities.

It will also require a reorganization of rural social and institutional structures to provide Latin American peasants, particularly indigenous people who find it more challenging to migrate, a

real opportunity to lift themselves out of their present state of economic subsistence and social subservience.

Despite the fact that many minifundio owners remain in poverty, especially among indigenous and mixed-race populations, and many latifundios continue to operate well below their productivity potential, a more dynamic sector including some larger farms, has emerged. Efficient family and medium-size farms are found throughout the region. At an aggregate level the agricultural sector in Latin America appears to be doing fairly well. Chile has led the way in “nontraditional exports,” notably fresh fruits for the northern hemisphere winter markets and also aquaculture, vegetables, and wines.

Diversification has reduced variance in export earnings. Productivity growth in cereals has been quite solid. Sugarcane-based bio fuels and soybeans have played important roles in agricultural growth in Brazil. And in traditional exports, particularly coffee, Latin America has led the way in taking advantage of position opportunities for higher-value-added activities such as organic and Fair Trade markets. Some Latin American countries, such as Guatemala and Honduras, are still in the mixed transition phase, and in such countries, the latifundio-minifundio pattern tends to remain particularly dominant.

Areas with less favorable agricultural conditions, often with a concentration of minority populations, such as northeast Brazil, the Andean region, and parts of Mexico and Central America, tend to have persistently high poverty levels. Extreme rural inequality inhibits progress in these areas both because of reduced access by the poor to credit and other inputs and because elites effectively continue to block political participation by the poor, who often receive low levels of government services. Moreover, rural-to-urban migration has been disproportionately among more educated people, and the result is that rural populations are becoming older, more female, and more indigenous. These are factors in poverty rates that remain high for middle-income countries and will require sustained action by government and civil society.

iv. Transforming Economies: Problems of Fragmentation and Subdivision of Peasant Land in Asia

If the major agrarian problem of Latin America, at least in traditional areas, can be identified as too much land under the control of too few people, the basic problem in Asia is one of too many people crowded onto too little land. Throughout much of the twentieth century, rural conditions in Asia typically deteriorated.

Nobel laureate Gunnar Myrdal identified three major interrelated forces that molded the traditional pattern of land ownership into its present fragmented condition:

1. The intervention of European rule,
2. The progressive introduction of monetized transactions and the rise in power of the moneylender, and
3. The rapid growth of Asian populations.

The traditional Asian agrarian structure before European colonization was organized around the village. Local chiefs and peasant families each provided goods and services—produce and labor from the peasants to the chief in return for protection, rights to use community land, and the provision of public services. The arrival of the Europeans (mainly the British, French, and Dutch) led to major changes in the traditional agrarian structure, some of which had already begun. As Myrdal points out, *“Colonial rule acted as an important catalyst to change, both directly through its effects on property rights and indirectly through its effects on the pace of monetization of the indigenous economy and on the growth of population.”*

Contemporary landlords in India and Pakistan are able to avoid much of the taxation on income derived from their ownership of land. There are variations, but landlords in South Asia are often absentee owners who live in the town and turn over the working of the land to sharecroppers and other tenant farmers. Sharecropping is widespread in both Asia and Latin America but more pervasive in Asia. It has been estimated that of all tenanted land, some 84.5% is sharecropped in Asia but only 16.1% in Latin America. The institution is almost unknown in Africa, where the typical arrangement continues to be farms operated under tribal or communal tenures.

Often moneylenders were more interested in acquiring peasant lands as a result of loan defaults than they were in extracting high rates of interest. By charging exorbitant interest rates or inducing peasants to secure larger credits than they could manage, moneylenders were often able

to drive the peasants off their land. They could then reap the profits of land speculation by selling this farmland to rich and acquisitive landlords. Largely as a consequence of the moneylenders' influence, Asian peasant cultivators saw their economic status deteriorate. And rapid population growth often led to fragmentation and impoverishment.

Thus many rural Asians are gradually being transformed from small proprietors to tenant farmers and sharecroppers, then landless rural laborers, then jobless vagrants, and finally migrant slum dwellers on the fringes of modern urban areas. And also colonial practices often had long-lasting influences. In the case of India, regions in which property rights to land were given to landlords had significantly lower productivity and agricultural investments and significantly lower investments in health and education in the post-independence period than regions in which property rights were given to cultivators.

v. *Subsistence Agriculture and Extensive Cultivation in Africa*

Subsistence farming on small plots of land is the way of life for the majority of African people living in agriculture-based economies. The great majority of farm families in tropical Africa still plan their output primarily for their own subsistence.

Since the basic variable input in African agriculture is farm family and village labor, African agriculture systems are dominated by three major characteristics:

1. the importance of subsistence farming in the village community;
2. the existence of some (though rapidly diminishing) land in excess of immediate requirements, which permits a general practice of shifting cultivation and reduces the value of land ownership as an instrument of economic and political power; and
3. the rights of each family (both nuclear and extended) in a village to have access to land and water in the immediate territorial vicinity, excluding from such access use by families that do not belong to the community even though they may be of the same tribe.

Where traditional systems are breaking down, inequality is often increasing further.

The low-productivity subsistence farming characteristic of most traditional African agriculture results from a combination of three historical forces restricting the growth of output:

1. In spite of the existence of some unused and potentially cultivable land, only small areas can be planted and weeded by the farm family when it uses only traditional tools such as the short-handled hoe, the axe, and the long-handled knife or panga. In some countries, use of

animals is impossible because of the tsetse fly or a lack of fodder in the long dry seasons, and traditional farming practices must rely primarily on the application of human labor to small parcels of land.

2. Given the limited amount of land that a farm family can cultivate in the context of a traditional technology, these small areas tend to be intensively cultivated. As a result, they are subject to rapidly diminishing returns to increased labor inputs. In such conditions, shifting cultivation is the most economic method of using limited supplies of labor on extensive tracts of land. Under shifting cultivation, once the minerals are drawn out of the soil as a result of numerous cropping, new lands is cleared, and the process of planting and weeding is repeated. In the meantime, formerly cropped land is allowed to recover fertility until it can be used again. Under such a process, manure and chemical fertilizers have been unnecessary, although in most African villages, some form of manure (mostly animal waste) is applied to nearby plots that are intensively cultivated in order to extend their period of fertility
3. Labor is scarce during the busiest part of the growing season, planting and weeding times. At other times, much of the labor is underemployed. Because the time of planting is determined by the onset of the rains and because much of Africa experiences only one extended rainy season, the demand for workers during the early weeks of this rainy season usually exceeds all available rural labor supplies.

The net result of these three forces had been slow growth in agricultural labor productivity throughout much of Africa. As long as population size remained relatively stable, this historical pattern of low productivity and shifting cultivation enabled most African tribes to meet their subsistence food requirements. But the feasibility of shifting cultivation has now broken down as population densities increase. It has largely been replaced by sedentary cultivation on small owner-occupied plots. As a result, the need for other nonhuman productive inputs and new technologies grows, especially in the more densely populated agricultural regions of Kenya, Nigeria, Ghana, and Uganda. Farm size has also fallen in countries such as Malawi and Tanzania, as seen in Table 4.2.

Moreover, with the growth of towns, the penetration of the monetary economy, soil erosion and deforestation of marginal lands, and the introduction of land taxes, pure subsistence-agricultural

practices are no longer viable. And as land becomes increasingly scarce, land degradation is increasing in scope. The 2008 World Development Report concluded:

‘Higher productivity is not possible without urgent attention to better soil and water management. Sub-Saharan Africa must replace the soil nutrients it has mined for decades. African farmers apply less than 10 kilograms of fertilizer per hectare, compared with more than 100 kilograms in South Asia. Programs to develop efficient fertilizer markets, and agro forestry systems to replenish soil fertility through legumes, need to be scaled up.’

Of all the major regions of the world, Africa has suffered the most from its inability to expand food production at a sufficient pace to keep up with its rapid population growth. As a result of declining production, African per capita food consumption fell dramatically during the 1980s and 1990s while dependence on imports particularly wheat and rice increased.

4.3.The Important Role of Women in Agriculture

A major and often overlooked feature of LDC agrarian systems, particularly in Africa and Asia, is the crucial role played by women in agricultural production. In Africa, where subsistence farming is predominant and shifting cultivation remains important, nearly all tasks associated with subsistence food production are performed by women. Although men who remain home generally perform the initial task of cutting trees and bushes on a potentially cultivable plot of land, women are responsible for all subsequent operations, including removing and burning felled trees, sowing or planting the plot, weeding, harvesting, and preparing the crop for storage or immediate consumption.

Women provide an important source of labour for cash crop production, cultivate food for household consumption, raise and market livestock, generate additional income through cottage industries, collect firewood and water, and perform household chores, including the processing and cooking of foods. Due to the time-consuming nature of their diverse responsibilities, women tend to work longer hours than their male counterparts.

Studies concerning the allocation of women’s time among different activities have greatly increased recognition of the importance of rural women’s economic contribution. It has become

clear that since women produce a large share of agricultural output, successful agricultural reform will require raising women's productivity.

When the structure of agriculture is becoming more commercialized, women's roles and thus their economic status are changing. In many developing regions, women are still unremunerated for the long hours they contribute to the tending of commercial crops. As revenue-generating cash cropping rises in importance, the proportion of resources controlled by women tends to diminish. This is largely due to the fact that household resources, such as land and inputs, are transferred away from women's crops in order to promote the production of cash crops.

Though efforts to increase the income of women by providing direct access to credit and inputs have experienced considerable success, programs that work indirectly with women have frequently fallen short of their stated goals. Studies have found that projects are most likely to elicit the cooperation of women when resources are placed directly under their control. Clearly, projects that depend on the unremunerated labour of women are likely to obtain only minimal support. Adoption of new crops and technologies will be more effective where patterns of production are consistent with the interests of female household members. Because the active participation of women is critical to agricultural prosperity, policy design should ensure that women benefit equally from development efforts.

4.4.The Economics of Agricultural Development

We can identify three broad stages in the evolution of agricultural production.

- ✚ The First and most primitive is the pure, low-productivity, mostly subsistence level, peasant farm.
- ✚ The second stage is diversified or mixed family agriculture, where part of the produce is grown for consumption and part for sale to the commercial sector.
- ✚ The third stage represents the modern farm, exclusively engaged in high-productivity specialized agriculture geared to the commercial market.

4.4.1. Special features of agriculture

There are various features of agriculture in developing countries. These are:

- **Source of livelihood:** Agriculture is the main occupation. It provides employment to most of persons of total population. It contributes as one of the major sources of national income.
- **Dependence on heavy rain:** Agriculture in most of developing countries mainly depends on heavy rain. If the rain is good, the production will be more and if the rain is less than average then the crops fail. Sometimes floods play havoc with our crops. As irrigation facilities are quite inadequate, the agriculture depends on heavy rain.
- **Labour intensive cultivation:** Due to increase in population, the pressure on land holding increased. Land holdings get fragmented and subdivided and become uneconomical. Machinery and equipment cannot be used on such farms.
- **Under employment:** Due to inadequate irrigation facilities and uncertain rainfall, the production of agriculture is less. Farmers find work a few months in the year. Their capacity of work cannot be properly utilised. In agriculture there is under employment as well as disguised unemployment.
- **Small size of holdings:** Due to large scale sub-division and fragmentation of holdings, land holding size is quite small. Average size of land holding in hectares differs from country to country.
- **Traditional methods of production:** In developing countries, methods of production of agriculture along with equipment are traditional. It is due to poverty and illiteracy of people. Traditional technology is the main cause of low production.
- **Low Agricultural production:** Agricultural production is low in developing countries.
- **Dominance of food crops:** Most of the cultivated area is under food crops like wheat, rice, barely, maize and others, while less of cultivated area is under commercial crops. This pattern is cause of backward agriculture.

4.4.2. The contribution of agriculture to development

The contribution of agriculture to economic development lies in the following:

I. Providing more food to the rapidly expanding population

In LDCs, food production dominates the agriculture sector. When output expands with increased productivity it increases the incomes of the farmers. Rise in per capita income leads to substantial rise in the demand for food. In such economies, the income elasticity of demand for food is very high. Moreover, the increase in the growth rate of population due to a rapid decline in the mortality rates and slow reduction in fertility rates tends to raise further the demand for food.

II. *Increasing the demand for industrial products and thus necessitating the expansion of the secondary and tertiary sectors.*

A rise in rural purchasing power, as a result of the increased agricultural surplus, is a great stimulus to industrial development. Moreover, the demand for such inputs as fertilizers, better tools, implements, tractors, irrigational facilities, etc. will lead to the greater expansion of the industrial sector. Besides, the means of transport and communications will expand when the agricultural surplus is to be transported to urban areas and manufactured goods to the rural areas. Prof. Simon Kuznets called it as ‘market contribution’ of agriculture.

III. *Providing additional foreign exchange earnings for the import of capital goods for development through increased agricultural exports.*

Under developed countries mostly specialize in the production of a few agricultural goods for exports. As output and productivity of the exportable goods expand, their exports increase and result in larger foreign exchange earnings. Foreign exchange earnings can be used to build the efficiency of other industries and help the establishment of new industries by importing scarce raw-materials, machines, etc. Kuznets called it the ‘product contribution’ of agriculture.

IV. *Increasing rural incomes to be mobilized by the State.*

When agriculture grows faster, in countries where agriculture dominates, the taxation of agriculture in one form or another is essential for mobilizing agricultural surplus in order to accelerate economic development. Kuznets called it as the ‘factor contribution’ of agriculture, where there is a transfer of resources to other sectors, these resources being productive factors.

V. *Providing productive employment*

As agricultural productivity and farm income increase, non-farm rural employment expands and diversifies. It includes textiles, furniture, tools, handicrafts, leather and metal working, transport, marketing, repair works, construction, etc.

VI. *Improving the welfare of the rural people*

Increase in rural incomes as result of the agricultural surplus tends to improve rural welfare. Peasants start consuming more food especially of a higher nutritional value and they build better houses fitted with modern amenities. They also set the services of schools, health centers, irrigation, banking, transport and communication, etc.

4.4.3. *Constraints of agricultural productivity*

Many programs to raise agricultural productivity among small farmers in Africa and elsewhere have suffered because of failure to provide adequate insurance (both financial credit and physical “buffer” stocks) against the risks of crop shortfalls, whether these risks are real or imagined. An understanding of the major role that risk and uncertainty play in the economics of subsistence agriculture would have prevented early and unfortunate characterizations of subsistence or traditional farmers as technologically backward, irrational producers with limited aspirations or just plain “lazy natives” as in the colonial stereotype.

Moreover, in parts of Asia and Latin America where agriculture has performed poorly, a closer examination of why peasant farmers have apparently not responded to an “obvious” economic opportunity will often reveal that

1. The landlord secured much if not all of the gain,
2. The moneylender captured the profits,
3. The government’s “guaranteed” price was never paid, or
4. Complementary inputs (fertilizers, pesticides, assured supplies of water, adequate credit, etc.) were never made available or their use was otherwise more problematic than outsiders understood.

In particular, when peasants have reason to be concerned about the risk of expulsion or expropriation whether by landlords or by the state incentives for those who work the land to invest in it will be proportionately reduced.

4.4.4. Agricultural strategies and the role of the government in the agricultural sector

There are basically four important strategies of rural development, which are most important for the developing countries. The strategies are the following.

i. Growth Oriented Strategy:

This is based on the philosophy that rural people, like any other people, are rational decision makers, who, when given adequate opportunity and a proper environment, will try to maximize their incomes. The role of the state in this strategy is to build infrastructure, and maintain a favorable climate to stimulate the growth of rural enterprises. The critical assumption of this strategy is that the benefits of increased production will gradually ‘trickle down’ to the poor. The regulation and coordination of the activities of private and public agencies is primarily through market mechanisms. This paradigm formed the basis of the predominant agricultural development strategies in developing countries.

ii. Welfare Oriented Strategy:

This seeks to promote the well-being of the rural population in general, and the rural poor in particular, through large-scale social programs like the minimum needs program, nutrition program, etc. The primary means used in this strategy are free provision/ distribution of goods, services and civic amenities in rural areas. The critical assumptions of this strategy are that people are not competent to identify and resolve their problems, and that government specialists can identify their needs and meet them with the financial and administrative resources available with the government. The role of villagers is that of passive receptors of services. This strategy has a paternalistic orientation. The performance of the program is judged by the quantity of goods, services, and civic facilities delivered.

iii. Responsive Strategy:

This is aimed at helping rural people help themselves through their own organizations and other support systems. Its concern is with responding to the felt needs of the rural people, as defined by them. The role of the government is to facilitate the self-help efforts of villagers by providing technologies and resources that are not locally available.

The critical assumption of this strategy is that the rural poor will identify and resolve their own problems if provided with minimal support and other wise left to their own devices and initiatives. Community participation in, and control of, project activities is the primary performance indicator of this strategy.

iv. *Integrated or Holistic Strategy:*

This combines all the positive features of the earlier three strategies, and is designed to simultaneously achieve the goals of growth, welfare, equity and community participation. This paradigm takes a very comprehensive but integrated view of the basic problem of poverty, unemployment and inequality, and seeks to address the physical, economic, technological, social, motivational, organizational and political bases of these problems. The multiple goals of this strategy are sought to be achieved by building the capacity of the community to involve itself in development in partnership with the government.

When we move from simple, small scale handicraft industry and self-contained and subsistence agriculture, a greater need develops for public policy in the economic field. The individual, as a producer and as a consumer, depends more and more upon the general conditions of the market, of employment, output and production efficiency of the nation as a whole, and upon the way income is distributed among the people; in short, upon the economic welfare of the country. Some of the specific reasons favoring government intervention in the rural sector are as follows.

I. *Achieving Socialist pattern of society:*

It means that the basic criterion for determining the lines of development must not be private profit, but social gain, and that the pattern of development and the structure of socio-economic relations should be so planned that they result not only in appreciable increase in national income and employment, but also in greater equality in incomes and wealth. However, the experience of developing countries so far has been that the benefits of development have not been equally shared by all. This has aggravated the problem of poverty, which has manifested itself in various forms, including rising unemployment, malnutrition, growth of slums, fall in real wages, and impoverishment of marginal and small farmers.

The growing poverty in rural and urban areas undermines the principal objective of planned development, which is improvement in the standard of living of the masses. It has been acknowledged that a high rate of growth is not a substitute for deliberate policies to ensure equitable distribution of the gains of development. Therefore, there is need for a public policy to ensure growth with social equity or social justice.

II. To stabilize agricultural production, prices and incomes:

Agricultural production, being biological in nature, is more vulnerable to the vagaries of nature than non-farm production, and hence fluctuates more violently than does industrial production in response to erratic rainfall or other natural phenomena. Fluctuations in agricultural output lead to still higher fluctuations in agricultural prices and hence agricultural incomes. This is because the demand for most agricultural produce is inelastic, or because of higher price flexibility of agricultural produce with respect to changes in the supply. Most farmers, being small-scale operators and poor, cannot bear the consequences of fluctuations in farm outputs, prices and incomes. They need some protection from the adverse effects of the free market and niggardly nature. Such protection can be provided only by the government in the form of price support, insurance and credit policies.

III. Eradication of rural poverty and equitable income distribution:

The average per capita income in rural areas is not only lower than in urban areas, but is also more unevenly distributed. The injustice of the plight of rural people is reason enough for government intervention to support rural income and improve its distribution through anti-poverty programmes.

IV. Strengthening rural enterprises:

Most rural enterprises are small, scattered and unorganized. Due to these characteristics, their owners have very low or practically no bargaining power vis-à-vis those to whom they sell their produce, and from whom they buy their supplies. This results in exploitation on both fronts – selling as well as supplies. This heightens the need for government policies aimed at equalizing opportunities, at strengthening the bargaining power of individuals and groups in rural areas, and restraining the powerful from exploiting the weak.

V. Development of basic infrastructure in rural areas:

Rural areas are at a great disadvantage in relation to urban areas, as far as provision of basic infrastructural facilities and services such as roads, drinking water, electricity, schools, hospitals, police protection, transport and communication, etc are concerned. Not only are these public facilities and amenities in rural areas inadequate, but they are also very poorly organized and undependable. As a result, poor villagers are damned, generation after generation, to poor education, poor health, unemployment and poverty. Improvement of their dilemma requires intensive government intervention.

Chapter Summary

We can draw three conclusions regarding the necessary conditions for the realization of a people-oriented agricultural and rural development strategy.

Land Reform: Farm structures and land tenure patterns must be adapted to the dual objectives of increasing food production and promoting a wider distribution of the benefits of agrarian progress, allowing further progress against poverty.

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

Integrated Development Objectives: Rural development, though dependent primarily on small-farmer agricultural progress, implies much more. It encompasses (a) efforts to raise both farm and nonfarm rural real incomes through job creation, rural industrialization, and other nonfarm opportunities and the increased provision of education, health and nutrition, housing, and a variety of related social and welfare services; (b) a decreasing inequality in the distribution of rural incomes and a lessening of urban rural imbalances in incomes and economic opportunities; (c) successful attention to the need for environmental sustainability—limiting the extension of farmland into remaining forests and other fragile areas, promoting conservation, and preventing the harmful misuse of agrochemicals and other inputs; and (d) the capacity of the rural sector to sustain and accelerate the pace of these improvements over time.

The achievement of these four objectives is vital to national development. More than half of the population of the developing world is still located in rural areas. By restoring a proper balance between urban and rural economic opportunities and by creating the conditions for broad popular participation in national development efforts and rewards, developing nations will have taken a giant step toward the realization of the true meaning of development.

CHAPTER FIVE

5. International Trade and Economic Development: The Trade Policy Debate and Industrialization

International trade has often played a central role in the historical experience of the developing world. In recent years, much of the attention to trade and development issues has been focused on understanding the spectacular export success of East Asia. Taiwan, South Korea, and other East Asian economies pioneered this strategy, which has been successfully followed by their much larger neighbour, China.

Dear learner in this chapter we move to international trade policy issues by examining a wide range of LDC commercial policies. These include import tariffs, physical quotas, export promotion versus import substitution, exchange-rate adjustments, international commodity agreements, and economic integration. Our objective is to ascertain the conditions under which these policies might help or harm developing countries in their dealings with the industrial world and with one another. We then summarize the various positions in the ongoing debate between the "trade optimists" (free traders) and "trade pessimists" (protectionists), between outward and inward-looking strategies of development. Finally, we look at the trade policies of developed countries to see in what ways they directly and indirectly affect the economies of the Third World.

Learning objective

Dear learners, after successfully completion of this chapter you will be able:

- Under what conditions can trade help a nation to achieve its development objectives
- Know international trade affect the rate, structure, and character of economic growth
- Discuss the arguments for and against export promotion vis-à-vis import substitution trade strategies of development.
- Explain the impacts of trade policies such as tariffs, foreign exchange rates, foreign exchange controls, and the devaluation.
- Explain why regional trade organizations are demanded in today's

Brain storming: Examine the experiences of Asian countries are an important plot in the
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INTRODUCTION

All over Africa, Asia, the Middle East, and Latin America, primary product exports have traditionally accounted for a sizable proportion of individual gross national products. In some of the smaller countries, from 25% to 40% of the monetary GNP is derived from the overseas sale of agricultural and other primary products or commodities such as coffee, cotton, cacao, sugar, palm oil, and copper. In the special circumstances of the oil-producing nations in the Persian Gulf and the sale of unrefined and refined petroleum products to countries throughout the world accounts for over 70% of their national incomes.

Unlike the oil producing nations and a few newly industrializing countries like South Korea, Taiwan, and Singapore, most developing countries must depend on non-mineral primary product exports for the vast majority of their foreign exchange earnings. Because the markets and prices for these exports are often unstable, primary-product export dependence carries with it a degree of risk and uncertainty that few nations desire. In addition to their export dependence, many developing countries rely, generally to an even greater extent, on the importation of raw materials, machinery capital goods, Intermediate producer goods, and consumer products to fuel their industrial expansion and satisfy the rising consumption aspirations of their people.

This has led to chronic deficits on their balance of payments position with the rest of the world. Whereas such deficits on the current account (an excess of import payments over export receipts for goods and services) were often compensated by a surplus on the capital account of their balance of payments table (a receipt of foreign private and public lending and investment in excess of repayment of principal and interest on former loans and investments) in recent years the debt burden of repaying earlier international loans; and investments has become increasingly acute. In a number of LDCs, severe deficits on current and capital accounts have therefore led to a rapid depletion of their international monetary reserves and a slowdown in economic growth. In the 1980s, this combination of rising trade deficits, growing foreign debts accelerated capital flight, and diminished international reserves led to the wide spread adoption of fiscal and monetary austerity measures (often at the instigation of the International Monetary Fund), which may have further exacerbated the slowdown in economic growth and the worsening of poverty and unemployment problems throughout the developing world.

The precise meaning of this is the kind of situation above described can also greatly limit a poor nation's ability to determine and pursue its most desirable economic strategies. But international trade and finance must be understood in a much broader perspective than simply the inter-country flow of commodities and financial resources. By opening their economies and societies to world trade and commerce and by looking outward to the rest of the world, Third World countries invite not only the international transfer of goods, services, and financial resources' but also the developmental or anti developmental influences of the transfer of production technologies; consumption patterns; institutional and organizational arrangements; educational, health, and social systems; and the more general values, ideals, and lifestyles of the developed nations of the world.

5.1 Role of foreign trade in development

The role of foreign trade can be judged by the following faces:

1. *Foreign trade and economic development:* All the countries export a lot of agricultural product to other countries and import capital goods. Hence, it the economic development of a country highly depends of foreign trade.
2. *Foreign exchange earnings:* Foreign trade provides foreign exchange that is used to remove the poverty and for other productive purposes.
3. *Market expansion:* International trade plays an important role in increasing the production of any country. The foreign trade is remarkable factor in expanding the market and encouraging the producers. In countries where home market is limited it is necessary to sell product in other countries.:
4. *Increase in investment:* Foreign trade encourages the businessmen to increase the investment to produce more goods. So the rate of investment increases.
5. *Foreign investment:* Foreign trade provides incentives for the foreign investors, besides local investment, to invest in those countries where there is a shortage of investment.

5.2.Terms of trade

The question of changing relative price levels for different commodities brings us to another important quantitative dimension of the trade problems historically faced by developing nations.

The total value of export earnings depends not only on the volume of these exports sold abroad but also on the price paid for them.

If export prices decline, a greater volume of exports will have to be sold merely to keep total earnings constant. Similarly, on the import side, the total foreign exchange expended depends on both the quantity and the price of imports. Economists have a special name for the relationship or ratio between the price of a typical unit of exports and the price of a typical unit of imports. This relationship is called the *commodity terms of trade*.

The main theory for the declining commodity terms of trade is known as the Prebisch-Singer hypothesis, after two famous development economists who explored its implications in the 1950s. They argued that there was and would continue to be a secular (long-term) decline in the terms of trade of primary- commodity exporters due to a combination of low income and price elasticities of demand. This decline would result in an ongoing transfer of income from poor to rich countries that could be combated only by efforts to protect domestic manufacturing industries through a process that has come to be known as import substitution.

Both because of this theory and because of the unfavorable terms-of-trade trends, developing countries have been doing their utmost over the past several decades to diversify into manufactures exports. After a slow and costly start, these efforts have resulted in a dramatic shift in the composition of developing-country exports, especially among middle-income countries. Led at first by the East Asian Tiger economies of South Korea, Taiwan, Hong Kong, and Singapore and now followed by many other countries, including China, the share of merchandise exports accounted for by manufactured goods has risen strongly in many developing countries. Unfortunately, this structural change has not brought as many benefits to most developing countries as they had hoped, because relative prices within manufactures have also diverged: Over the past few decades, the prices of the basic manufactured goods exported by poor countries fell relative to the advanced products exported by rich countries.

5.3.The Trade Policy Debate: Export promotion industrialization versus Import Substitution Industrialization

A convenient and instructive way to approach the complex issues of appropriate trade policies for development is to set these specific policies in the context of a broader LDC strategy of

looking outward or looking inward. In the words of Paul P. Streeten, **outward-looking development policies** "encourage not only free trade but also the free movement of capital, workers, enterprises and students, the multinational enterprise, and an open system of communications.

By contrast, **inward-looking development policies** stress the need for LDCs to evolve their own styles of development and to control their own destiny. This means policies to encourage indigenous "learning by doing" in manufacturing and the development of indigenous technologies appropriate to a country's resource endowments. According to proponents of inward-looking trade policies, greater self-reliance can be accomplished only if you restrict trade, the movement of people and communications, and if you keep out the multinational enterprise, with its wrong products and wrong want-stimulation and hence its wrong technology.

Within these two broad philosophical approaches to development, a lively debate has been carried on in the development literature since the early 1950s. This is the debate between the free traders, who advocate outward-looking export promotion strategies of industrialization, and the protectionists, who are proponents of inward-looking import substitution strategies. The balance of the debate has swung back and forth, with the import substitutes predominating in the 1950s and 1960s and the export promoters gaining the upper hand in the late 1970s and, especially among western and World Bank economists, in the 1980s and 1990s. Among many Third World economists and certain developed-country advocates of the "new" or "strategic" trade theories, however, the philosophical foundations of import substitution and collective self-reliance remained almost as strong in the 1990s as they were in prior decades.

Basically, the distinction between these two trade-related development strategies is that advocates of **import substitution** (IS) believe that LDCs should initially substitute domestic production of previously imported simple consumer goods (first-stage IS) and then substitute through domestic production for a wider range of more sophisticated manufactured items (second-stage IS)-all behind the protection of high tariffs and quotas on these imports. In the long run, IS advocates cite the benefits of greater domestic industrial diversification ("balanced growth") and the ultimate ability to export previously protected manufactured goods as economies of scale, low labor costs, and the positive externalities of learning by doing cause domestic prices to become more competitive with world prices. By contrast, advocates of **export**

promotion (EP) of both primary and manufactured goods cite the efficiency and growth benefits of free trade and competition, the importance of substituting large world markets for narrow domestic markets, the distorting price and cost effects of protection, and the tremendous successes of the East Asian export-oriented economies of South Korea, Taiwan, Singapore, and Hong Kong.

In practice, the distinction between IS and EP strategies is much less pronounced than many advocates would imply. Most LDCs have employed both strategies with different degrees of emphasis at one time or another. For example, in the 1950s and 1960s, the inward-looking industrialization strategies of the larger Latin American and Asian countries such as Chile, Peru, Argentina, India, Pakistan, the Philippines, and Bangladesh were heavily IS-oriented. By the end of the 1960s, some of the key sub-Saharan African countries like Nigeria, Ethiopia, Ghana, and Zambia began to pursue IS strategies, and some smaller Latin American and Asian countries also joined in.

However, since the mid-1970s, the EP strategy has been increasingly adopted by a growing number of countries. The early EP Adherents-South Korea, Taiwan, Singapore, and Hong Kong-were thus joined by the likes of Brazil, Chile, Thailand, and Turkey, which switched from an earlier IS strategy. It must be stressed, however, that even the four most successful East Asian export promoters have pursued protectionist IS strategies sequentially and simultaneously in certain industries. So it is inaccurate to call them free traders, although they are definitely outward-oriented. Against this background, we can now examine the issue of outward-looking export promotion versus inward-looking import substitution in more detail by applying the following fourfold categorization:

1. Primary outward-looking policies (encouragement of agricultural and raw material exports)
2. Secondary outward-looking policies (promotion of manufactured exports)
3. Primary inward-looking policies (mainly agricultural self-sufficiency)
4. Secondary inward-looking policies (manufactured commodity self-sufficiency through import substitution)

The promotion of LDC primary or secondary exports has long been considered a major ingredient in any viable long-run development strategy. The colonial territories of Africa and Asia, with their foreign-owned mines and plantations, were classic examples of primary outward-looking regions. It was partly in reaction to this enclave economic structure and partly as a consequence of the industrialization bias of the 1950s and 1960s that newly independent states, as well as older LDCs, put great emphasis on the production of manufactured goods initially for the home market (secondary inward) and then for export (secondary outward). Let us therefore look briefly at the scope and limitations of LDC export expansion, first with respect to primary products and then with respect to manufactured exports.

Primary-Commodity Export Expansion: Limited Demand, Shrinking Markets

Many low-income LDCs still rely on primary products for most of their export earnings. Nevertheless, with the notable exception of petroleum exports and a few needed minerals, primary-product exports have grown more slowly than total world trade. Moreover, the LDC share of these exports has been falling over the past few decades. Because food, nonfood agricultural products, and raw materials make up almost 40% of all LDC exports and for many Poor countries constitute their principal source of foreign-exchange earnings, we need to examine the factors affecting the demand for and supply of primary-product exports.

Demand Side

On the demand side, there appear to be at least five factors working against the rapid expansion of Third World primary-product and especially agricultural exports to the developed nations (their major markets).

- *First*, the income elasticity of demand for agricultural foodstuffs and raw materials are relatively low compared with those for fuels, certain minerals, and manufactures in DCs. For example, the income elasticity of demand for sugar, cacao, tea, coffee, and bananas have all been estimated at less than one, with most in the range of 0.30-0.56. This not only contributes to problems of export earnings instability but also means that only a sustained high rate of per capita income growth in the developed countries can lead to

even modest export expansion of these particular commodities from the LDCs. Such high growth rates prevailed in the 1960s but have not been matched since.

- *Second*, developed-country population growth rates are now at or near the replacement level. So, little expansion can be expected from this source. Third, the price elasticity of demand for most primary commodities is relatively low. When relative agricultural prices are falling, as they have been during most of the past three decades, such low elasticities mean less total revenue for exporting nations. For example, between June 1980 and June 1982, the price of sugar fell by 78%, rubber by 37%, and copper by 35%. Between 1989 and 1991, commodity prices fell by about 20%. Tin prices were so low that melting was no longer profitable. And the real prices of coffee and tea were lower than at any time since 1950. With the exception of the mid -1970s, non-oil real commodity prices fell by almost 40% between 1957 and 1998. Such a decline, especially in the 1980s and 1990s when prices fell by over 35% has hurt the least developed countries the most. They reached a 13-year low in 1999.

A device that is widely used to attempt to modify the tendency for primary product prices to decline relative to other traded goods is that of establishing International Commodity Agreements. Such agreements are intended to set overall output levels, to stabilize world prices, and to assign quota shares to various producing nations for such items as coffee, tea, copper, lead, and sugar. To work effectively, they require cooperation and compromise among participants. Commodity agreements can also provide greater protection to individual exporting nations against excessive competition and the overexpansion of world production. Such over-expansion of supply tends to drive down prices and curtail the growth of earnings for all countries.

In short, commodity agreements attempt to guarantee participating nations a relatively fixed share of world export earnings and a more stable world price for their commodity. It is for this reason that at its fourth world conference, held in Nairobi, Kenya, in May 1976, the United Nations Conference on Trade and Development (UNCTAD) advocated the establishment of an \$11 billion common fund to finance "buffer stocks" to support the prices of some 19 primary commodities (including sugar, coffee, tea, bauxite, jute, cotton, tin, and vegetable oil) produced by various Third World nations. Unfortunately for LDC exporters, there has been little progress

on the UNCTAD proposal, and most existing non-oil commodity agreements have either failed (tin) or been largely ignored by producers (coffee and sugar).

The fourth and fifth factors working against the long-run expansion of LDC primary-product export earnings - the development of synthetic substitutes and the growth of agricultural protection in the developed countries-are perhaps the most important. Synthetic substitutes for commodities like cotton, rubber, sisal, jute, hide, skins, and recently even copper (with glass fibers for communication networks) act both as a brake against higher commodity prices and as a direct source of competition in world export markets. The synthetic share of world market export earnings has steadily risen over time while the share of natural products has fallen.

In the case of agricultural protection, which usually takes the form of tariffs, quotas, and non-tariff barriers such as sanitary laws regulating food and fiber imports, the effects can be devastating to Third World export earnings. The common agricultural policy of the European Union, for example, is much more discriminatory against LDC food exports than the policies that had formerly prevailed in the individual member nations.

➤ ***Supply Side***

On the supply side, a number of factors also work against the rapid expansion of primary-product export earnings. The most important is the structural rigidity of many Third World rural production systems. These rigidities include limited resources; poor climate; bad soils; antiquated rural institutional, social, and economic structures; and nonproductive patterns of land tenure. Whatever the international demand situation for particular commodities (and these will certainly differ from commodity to commodity), little export expansion can be expected when rural economic and social structures militate against positive supply responses from peasant farmers who are averse to risk.

Furthermore, in developing nations with markedly dualistic farming structures (i.e., large corporate capital-intensive farms existing side by side with thousands of fragmented, low-productivity peasant holdings), any growth in export earnings is likely to be distributed very unevenly among the rural population. Small farmers are further, disadvantaged in countries (mostly in Africa) in which agricultural marketing boards act as middlemen between the farmers

and export markets. Marketing boards often constrain export expansion by forcing cultivators to sell their goods at a fixed price-usually well below world market prices. They thereby remove the incentive to increase output.

Finally, we should mention here the pernicious effects of developed-country trade policies (such as the United States' sugar quota) and foreign aid policies that depress agricultural prices in LDCs and discourage production. For example, the European Union's policy of selling subsidized beef to the nations of West Africa in the guise of foreign assistance has devastated cattle prices in those countries. We may conclude, therefore, that the successful promotion of primary-product exports cannot occur unless there is a reorganization of rural social and economic structures to raise total agricultural productivity and distribute the benefits more widely. The primary objective of any Third World rural development strategy must be to provide sufficient food to feed the indigenous people first and only then be concerned about export expansion.

But having accomplished this most difficult internal development task, LDCs may be able to realize the potential benefits of their comparative advantage in world primary commodity markets only if they can

- cooperate with one another,
- be assisted by developed nations in formulating and carrying out workable international commodity agreements, and
- secure greater access to developed country markets.

Expanding Exports of Manufactured Goods: Some Successes, Many Barriers

The expansion of LDC manufactured exports has been given great stimulus by the spectacular export performances of countries like South Korea, Singapore, Hong Kong, Taiwan, Mexico, and Brazil over the past four decades. For example, Taiwan's total exports grew at an annual rate of over 20%, and exports from South Korea grew even faster. In both cases, this export growth was led by manufactured goods, which contributed over 80% of both nations' foreign exchange earnings. For the Third World as a whole, manufactured exports grew from 6% of total merchandise exports in 1950 to almost 45% by 1990. However, in 1990 South Korea, Taiwan, Singapore, and Hong Kong accounted for 82.8% of these exports. Despite this growth, therefore, the LDC share of total world trade in manufactures has remained relatively small, even though it did grow from 7% in 1965 to 18% in 1990.

The export successes of recent decades, especially among the Four Asian Tigers have provided the primary impetus for arguments by neoclassical counter revolutionaries -particularly those at the World Bank and the IMF. According to them, LDC economic growth is best served by allowing market forces, free enterprise, and open economies to prevail while minimizing government intervention. Unfortunately, the reality of the East Asian cases does not support this view of how their export success was achieved. In South Korea, Taiwan, and Singapore (as in Japan earlier), the production and composition of exports was not left to the market but resulted as much from carefully planned intervention by the government.

The demand problems for LDC export expansion of manufactured goods, though different in basic economic content from those for primary products, are nonetheless similar. Although income and price elasticities of international demand for manufactured goods in the aggregate are higher than for primary commodities, they afforded little relief to many developing nations bent on expanding their exports. For many years there was widespread protection in developed nations against the manufactured exports of LDCs-which was in part the direct result of the successful penetration of low-cost labor-intensive manufactures from countries like Taiwan, Hong Kong, and South Korea during the 1960s and 1970s.

Different sources indicate that industrial-nation trade barriers have been pervasive. During the 1980s, for example, 20 of the 24 industrial countries increased their protection against LDC manufactured or processed products. Moreover, their rates of protection were considerably higher against LDC exports than against those of other industrial nations. Making matters worse, DC protection often increased with the level of processing. Example, the tariff on processed cacao, is twice that of raw cacao, so chocolate imports are discouraged; raw sugar faces tariffs below 2% while processed sugar products are blocked by 20% tariffs.

Then there are the non-tariff barriers, which now form the main protection against Third World manufactured exports, affecting at least one-third of them. The most significant is the Multi-Fiber Arrangement (MFA), a complex system of mostly bilateral quotas against LDC exports of cotton, wool, and synthetic fiber products. The United Nation Development Program estimates that the MFA costs the Third World \$24 billion a year in lost textile and clothing export earnings.

All in all trade restrictions by developed countries cost LDCs at least \$40 billion a year in foreign exports and lowers their GNP by more than 3%. If these barriers were dropped-for example, if the 1995 Uruguay Round of multilateral GATT negotiations can effectively be implemented-developing-country manufactured exports could grow by \$30 to \$40 billion annually.

As in the case of agricultural and other primary production, the uncertain export outlook should be no cause for curtailing the needed expansion of manufacturing production to serve local LDC markets. There is great scope for mutually beneficial trade in manufactures among developing countries themselves within the context of the gradual economic integration of their national economies. Too much emphasis has been placed on the analysis of trade prospects of individual LDCs with the developed nations (North-South trade) and not enough on the prospects for mutually beneficial trade with one another (South-South trade).

5.4.Balance of Payments and Macroeconomic Stabilization

The extension of our analysis beyond simple merchandise trade into areas related to the international flow of financial resources permits us to examine the balance of payments of developing nations. A balance of payments table is designed to summarize a nation's financial transactions with the outside world. It is divided into three components, as shown by the summary in Table 5.1 .

Table 5.1: A Hypothetical Balance of Payments Table for a Developing Nation

Item	Amounts (millions of dollars)	
Current account		
Commodity exports		135
Primary products	125	
Manufactured goods	110	
Commodity imports		245
Primary products	210	
Manufactured goods	235	
Services (e.g., shipping costs)		25
Investment income		11
Debt service payments		215
Net remittances and transfers		12
Balance on current account	227	
Capital account		
Private direct foreign investment		13
Private loans and portfolio investments		14
Government and multilateral flows (net)		13
Loans	19	
Debt amortization	26	
Resident capital outflow		28
Balance on capital account	12	
Balance on current and capital accounts	225	
Cash account		
Net decrease in official monetary reserves		125
Balance on cash account	125	

Note that balance of payments tables is sometimes presented in a revised format that splits the current account into two parts (called the current account and the capital account) and labels what is here called the capital account (financial account). We retain the traditional approach to balance of payments accounting because most of the literature on developing-country debt and its ongoing treatment in the financial press is usually presented in that format.

The current account focuses on the export and import of goods and services, investment income, debt service payments, and private and public net remittances and transfers. Specifically, it subtracts the value of imports from exports (the merchandise trade balance) and then adds flows of the net investment income received from abroad (e.g., the difference between interest and dividend payments on foreign stocks, bonds, and bank deposits owned by developing-country nationals and brought into the country, as opposed to being left overseas, and those securities, if any, of the developing country owned by foreigners plus repatriated profits of multinational corporations).

For most developing countries, the 1980s was an extraordinarily difficult period in their balance of payments accounts with the rest of the world. Prior to 1980, the conventional development strategy had developing countries operating with sizable current account deficits, for imports of capital and intermediate goods were required to provide the machinery and equipment for rapid industrialization. Export earnings paid for most, but not all, of these imports. The financing of

these deficits was therefore made possible by large resource transfers in the capital account in the form of country-to-country (bilateral) foreign aid, direct private investment by multinational corporations, private loans by international banks to both developing-country governments and local businesses, and multilateral loans from the World Bank and other international development agencies. Capital account surpluses, therefore, typically more than compensated for current account deficits so that international reserves were being accumulated.

The reasons for the decline in current account balances in the 1980s and 1990s included

- A. a dramatic fall in commodity prices, including oil;
- B. global recessions in 1981–1982 and 1991–1993, which caused a general contraction in world trade;
- C. increasing protectionism in the developed world against export from developing countries; and
- D. some severely overvalued exchange rates in several key developing economies, such as Argentina. This reversed in the 2000s with large current account surpluses in many middle-income countries.

Table 5.2: Developing Country Payments Balances on Current Account, 1980–2009 (billions of dollars)

	1980	1981	1982	1983	1984	1985	1986	1987
All developing economies	43.203	-17.934	-43.535	-40.573	-19.798	-27.544	-56.07	-23.168
Developing Asia	-7.604	-12.295	-13.898	-17.372	-10.751	-20.124	-16.382	-6.22
Middle East and North Africa	79.623	61.314	23.835	-10.585	-9.128	-2.164	-17.117	-8.23
Sub-Saharan Africa	0.612	-17.405	-16.347	-8.687	-4.319	0.14	-4.673	-1.836
Developing Western Hemisphere	-27.677	-43.789	-42.287	-7.501	-1.266	-1.97	-17.089	-10.959
	1988	1989	1990	1991	1992	1993	1994	1995
All developing economies	-41.458	-38.121	-32.15	-95.512	-81.619	-120.442	-79.1	-92.015
Developing Asia	-14.931	-19.715	-11.261	-8.954	-9.166	-31.691	-16.711	-36.916
Middle East and North Africa	-9.303	-4.362	3.225	-66.499	-25.704	-21.744	-10.471	-1.208
Sub-Saharan Africa	-6.818	-3.823	-2.314	-4.876	-6.382	-5.766	-5.923	-9.864
Developing Western Hemisphere	-9.322	-4.977	-1.087	-17.413	-34.821	-45.853	-51.931	-37.451
	1996	1997	1998	1999	2000	2001	2002	2003
All developing economies	-68.881	-69.83	-105.755	-15.457	92.923	47.897	80.48	148.978
Developing Asia	-35.981	11.08	50.156	39.801	41.651	39.285	66.937	85.011
Middle East and North Africa	18.038	15.028	-26.183	13.502	78.242	45.814	31.417	63.895
Sub-Saharan Africa	-4.692	-6.813	-15.516	-12.168	1.985	-4.891	-12.638	-12.702
Developing Western Hemisphere	-39.137	-66.266	-90.539	-56.513	-48.569	-53.88	-16.153	9.245
	2004	2005	2006	2007	2008	2009		
All developing economies	222.251	449.74	665.562	657.93	709.16	321.748		
Developing Asia	92.904	167.489	289.244	414.67	424.059	319.003		
Middle East and North Africa	106.152	219.225	286.385	279.219	347.809	34.81		
Sub-Saharan Africa	-8.484	-2.713	30.985	10.074	8.582	-18.149		
Developing Western Hemisphere	21.37	36.66	49.822	14.825	-26.687	-18.612		

Source of data: International Monetary Fund, *World Economic Outlook Database*, April 2010.

Note: Developing economies includes what the IMF terms emerging economies.

In most cases, these surpluses shrunk in the aftermath of the global financial crisis—at least temporarily. The capital account showed a dramatic turn in the 1980s as a combined result of rising developing-country debt service obligations, sharp declines in lending by international banks, and massive capital flight. During the 1980s, these factors turned what had previously been a positive annual resource flow of \$25 billion to \$35 billion from developed to less developed countries into a negative annual flow of \$25 billion to \$35 billion from the developing to the developed world. Behind these trends, however, was the debilitating dilemma of developing-country debt—a historically recurrent problem with important lessons for developing-country policy.

CHAPTER SIX

6. Foreign Aid, Debt, Financial Reform and Development

Dear Students, looking in to the sources of finance is compulsory in dealing with development. Economic development can be financed from domestic sources as well as external sources. Thus, this chapter is focused on putting the analysis for source for finance for national and local development as well as setting possible policy direction for developing countries.

Learning Objectives

After completing this chapter, the student is expected to be able to:

- ❖ To understand how economic development is financed from domestic sources non-inflationary and inflationary finance
- ❖ Explain external sources of capital formation mainly made up of debt flows and equity flows
- ❖ Describe the distinction between organized and unorganized money markets.
- ❖ Know the relative roles of central banks, commercial banks, development banks, informal and unorganized sources of credit, and microfinance for development of developing countries.

6.1.Motivations for foreign aid

In principle, all governmental resource transfers from one country to another should be included in the definition of foreign aid. Even this simple definition, however, raises a number of problems. For one thing, many resource transfers can take disguised forms, such as the granting of preferential tariffs by developed countries to exports of manufactured goods, particularly from the least developed countries. This permits developing countries to earn more foreign exchange from selling their industrial products in developed-country markets at higher prices than would otherwise be possible. There is consequently a net gain for developing countries and a net loss for developed countries, which amounts to a real resource transfer to the developing world. Such implicit capital transfers, or disguised flows, should be counted in qualifying foreign-aid flows. Normally, however, they are not.

However, we should not include all transfers of capital to developing countries, particularly the capital flows of private foreign investors. Private flows represent normal commercial

transactions, prompted by commercial considerations of profits and rates of return, and therefore should not be viewed as foreign aid. Commercial flows of private capital are not a form of foreign assistance, even though they may benefit the developing country in which they take place.

Economists have defined foreign aid, therefore, as any flow of capital to a developing country that meets two criteria:

1. Its objective should be non-commercial from the point of view of the donor, and
2. it should be characterized by concessional terms; that is, the interest rate and repayment period for borrowed capital should be softer (less stringent) than commercial terms.

Even this definition can be inappropriate, for it could include military aid, which is both noncommercial and concessional. Normally, however, military aid is excluded from international economic measurements of foreign-aid flows. The concept of foreign aid that is now widely used and accepted, therefore, is one that encompasses all official grants and concessional loans, in currency or in kind, that are broadly aimed at transferring resources from developed to less developed nations on development, poverty, or income distribution grounds. Unfortunately, there often is a thin line separating purely developmental grants and loans from sources ultimately motivated by security or commercial interests.

Just as there are conceptual problems associated with the definition of foreign aid, there are measurement and conceptual problems in the calculation of actual development assistance flows. In particular, three major problems arise in measuring aid.

- *First*, we cannot simply add up the dollar values of grants and loans; each has a different significance to both donor and recipient countries. Loans must be repaid and therefore cost the donor and benefit the recipient less than the nominal value of the loan itself. Conceptually, we should deflate or discount the dollar value of interest-bearing loans before adding them to the value of outright grants.
- *Second*, aid can be tied either by source (loans or grants have to be spent on the purchase of donor-country goods and services) or by project (funds can only be used for a specific project, such as a road or a steel mill). In either case, the real value of the aid is reduced because the specified source is likely to be an expensive supplier or the project is not of the

highest priority (otherwise, there would be no need to tie the aid). Furthermore, aid may be tied to the importation of capital-intensive equipment, which may impose an additional real resource cost, in the form of higher unemployment, on the recipient nation. Or the project itself may require the purchase of new machinery and equipment from monopolistic suppliers while existing productive equipment in the same industry is being operated at very low levels of capacity.

- *Finally*, we always need to distinguish between the nominal and real value of foreign assistance. Aid flows are usually calculated at nominal levels and tend to show a steady rise over time. However, when deflated for rising prices, the actual real volume of aid from most donor countries declined substantially in recent decades despite a recent uptick.

Donor-country governments give aid because it is in their political, strategic, or economic self-interest to do so. Some development assistance may be motivated by moral and humanitarian desires to assist the less fortunate (e.g., emergency food relief and medical programs) and certainly this has been the international rhetoric in the increases in aid in the first decade of the twenty-first century. Still, there is no historical evidence to suggest that over longer periods of time, donor nations assist others without expecting some corresponding benefits (political, economic, military, counterterrorism, antinarcotics, etc.) in return. We focus here on the foreign-aid motivations of donor nations in two broads but often interrelated categories: political and economic.

1. *Political Motivations*

Political motivations have been by far the more important for aid-granting nations. Most aid programs to developing countries were therefore oriented more toward purchasing their security and propping up their sometimes-shaky regimes than promoting long-term social and economic development. Recent increases in aid to African countries with public health crises including HIV assistance may be due in part to concerns that disease may spread internationally or lead to destabilizing state collapse and possible havens for terrorists.

2. Economic Motivations:

Two-Gap Models (that between domestic savings and the investment required for take-off) and Other Criteria Within the broad context of political and strategic priorities, foreign-aid programs of the developed nations have had a strong economic rationale.

This is especially true for Japan, which directs most of its aid to neighboring Asian countries where it has substantial private investments and expanding trade. Even though political motivation may have been of paramount importance for other donors, the economic rationale was at least given lip service as the overriding motivation for assistance.

Let us examine the principal economic arguments advanced in support of foreign aid:

- *Foreign-Exchange Constraints*: External finance (both loans and grants) can play a critical role in supplementing domestic resources in order to relieve savings or foreign-exchange bottlenecks.
- *Growth and Savings*: External assistance is also assumed to facilitate and accelerate the process of development by generating additional domestic savings as a result of the higher growth rates that it is presumed to induce.
- *Technical Assistance*: Financial assistance needs to be supplemented by technical assistance in the form of high-level worker transfers to ensure that aid funds are used most efficiently to generate economic growth.
- *Absorptive Capacity*: the amount of aid is considered in relation to the recipient country's absorptive capacity, its ability to use aid funds wisely and productively (often meaning as donors want them to be used).
- *Economic Motivations and Self-Interest*: The arguments on behalf of foreign aid as a crucial ingredient for successful development should not mask the fact that even at the strictly economic level, definite benefits accrue to donor countries as a result of their aid programs.

Finally, whether on grounds of basic humanitarian responsibilities of the rich toward the welfare of the poor or because of a belief that the rich nations owe the poor nations reparations for past exploitation, many proponents of foreign aid in both developed and developing countries believe that rich nations have an obligation to support economic and social development, particularly in the least developed countries. They often link this moral obligation with the need for greater

freedom of choice for recipient developing countries in the allocation and use of aid funds. In sum, while there is no doubt that the least developed countries will need more assistance to escape from the vicious circle of poverty.

The attention to improved assistance to reduce extreme poverty, particularly in its increased focus on the 49 least developed countries at the United Nations' 2010 Millennium Development Goals summit, the improvements in accountability and evaluation of aid that have taken more shape since the Paris Declaration, and some enhancement of resources are hopeful signs that aid will become more effective and more targeted toward people living in poverty. And foreign aid has played a crucial role in assistance with conflict resolution, post conflict recovery, and making the transition to resumed development.

6.2. Foreign debt

Foreign debt is an outstanding loan or set of loans that one country owes to another country or institutions within that country. Foreign debt also includes obligations to international organizations such as the World Bank, Asian Development Bank or Inter-American Development Bank. Total foreign debt can be a combination of short-term and long-term liabilities. Also known as external debt, these outside obligations can be carried by governments, corporations or private households of a country.

A country may borrow abroad to diversify its currency denominations of debt or because its own country's debt markets are not deep enough to meet their borrowing needs. In the case of third-world countries, borrowing from international organizations like the World Bank is an essential option, as they can provide attractive lending rates and flexible repayment schedules. The World Bank, in conjunction with the International Monetary Fund (IMF) and Bank for International Settlements (BIS), gathers short-term foreign debt data from the Quarterly External Debt Statistics (QEDS) database. Long-term external debt data compilation is also collectively accomplished by the World Bank, individual countries that carry foreign debt, and multilateral banks and official lending agencies in major creditor countries.

One measurement of foreign debt burden is the amount of foreign exchange reserves relative to outstanding foreign debt. Foreign exchange reserves consist of foreign currencies held by a central monetary authority. They include banknotes, bank deposits, bonds, treasury bill and other

government securities denominated in other currencies. The U.S. dollar dominates most foreign exchange reserves of debtor countries, but the euro, British pound, Japanese yen and Chinese yuan are also prominent in these reserves.

Foreign debt as a percent of reserves indicates the level of creditworthiness of a country. Also tracked are foreign debt to exports (as many of the debtor nations rely on exports of commodities and goods to service loans) and foreign debt to gross domestic product (GDP).

In the past, countries have experienced trouble repaying foreign loans due to bad luck or bad fiscal management. Factors beyond their control such as a drought that wiped out a season's worth of crops or a flood that shut down factories producing export goods have had adverse impacts on loan repayment. Sometimes governments or companies have brought difficulties on themselves by mismatching maturities of their foreign loans and the cash flows of the projects that the loans were used for. Also, currency pegs have been ignored. The Asian currency crisis, sparked by the sudden devaluation of the Thai baht in 1997, caused extreme stress to foreign debtors in that region. Sounder foreign debt management practices have since been emphasized.

6.3. Foreign Direct Investment (FDI) and Multinational Corporations (MNCs)

There are two types of foreign private equity capital flows:

- i. portfolio investment (an investor holds shares in a firm in a developing country but is not involved in its management) and
- ii. foreign direct investment (investment where the investor participates in the management of the firm in which he owns shares);

FDI comprises a larger proportion of foreign private capital flows to developing countries than portfolio investment. From the 1970s to the 1990s, total financial flows to LDCs have increased; however, the composition of foreign financial flows changed over this period: the proportion that was aid decreased, the proportion that was commercial loans first increased then decreased, and the proportion that was FDI increased. Most FDI is conducted by multinational corporations (MNCs), also known as transnational corporations (TNCs), as opposed to individuals, small businesses, etc.

Multinational Corporations: most multinational corporations are headquartered in North America, Japan, and Europe, although some of the largest ones are based in Brazil, South Korea, and India •

The sizes of MNCs relative to developing countries: MNCs can be large relative to the economies of some LDCs (measured by the ratio of sales by the MNC to the GDP of the developing country) for example, in 1998 the largest MNC, General Motors, had US\$161.3 billion of sales, which was larger than the entire GDP of Poland (US\$149 billion), Algeria (US\$29.6 billion), and Kenya (US\$11.1 billion), the 10th, 25th, and 50th largest LDCs by GDP, respectively although China had a population of 1.2 billion people, its GDP (US\$960.9 billion) was only about six times as great as General Motors' sales. An alternative method to illustrate the size of MNCs could compare the assets of MNCs to the wealth of a citizens in a country the large size of MNCs relative to some LDC economies might be a cause for concern because an MNC's substantial bargaining power possibly could allow it to create an exploitative arrangement with a developing country.

The distribution of FDI by country: FDI tends to be concentrated among a few countries, such as China (US\$44 billion), Brazil (US\$19 billion), and Mexico (US\$12 billion); some developing countries are more successful at attracting FDI than others FDI as a proportion of GDP varies from 12.5% to less than 1%.

The benefits for LDCs of MNC investment: MNCs used to be considered exploitative and developing countries used to adopt policies to keep them out and nationalize their assets; by the 1990s, Private Foreign Capital Flow, Debt, and Financial Crisis, countries were competing with each other to attract MNCs; even those countries that used to completely keep MNCs out (Mozambique, Angola, China, Vietnam, etc.). MNCs can be considered to bring a “package” of 5 benefits with their investment in a developing country:

1. ***Transfer of capital (funds, not necessarily physical capital):*** the foreign funds MNCs bring is not necessarily their most important contribution – only about 20-25% of the total investment funding of poor countries is of foreign origin, with MNC investment being less than half of that; the MNCs often borrow some of the funds they use in the developing country by issuing bonds, borrowing from local banks, etc.; thus, because LDCs are capable

of saving sufficiently, foreign saving is only supplementary and not a primary benefit of MNCs, because MNCs borrow locally, they possibly crowd out other domestic investment. The returns to foreign private funds are repatriated to owners abroad, limiting their benefit to the LDC; however, the host country still benefits from foreign funds because the additional capital created from foreign investment raises the marginal productivity of domestic labor (by increasing the amount of capital per worker) and of other domestic resources:

2. **Employment creation:** MNCs do not create much employment in the host developing countries; this could be because MNCs have a tendency to use capital-intensive technology developed in an industrialized country. MNCs offer wages that are high relative to other wages in a developing country; however, MNCs are often criticized because these wages are still very low relative to the wages they offer in their home country; MNCs might offer high wages for political reasons.
3. **Technology transfer:** although MNCs might not use technology best-suited to a developing country (the technology might be too capital-intensive or the skills required to use the technology might not be available in the LDC), technology transfer is a significant benefit of investment by MNCs. Developing countries have tried to catch-up technologically with industrialized countries.
4. **Managerial capability:** this is a transfer of managerial ability (this is similar to the transfer of technology, only for managerial skills). This is one of the main benefits of investment by MNCs in LDCs.
5. **Access to world markets:** developing countries have had difficulty breaking into world markets because they lack connections and knowledge of how the markets work. Using their connections and knowledge of international markets, MNCs have helped developing countries enter international trade. This is one of the main benefits of investment by MNCs in LDCs.

6.4. Financial reform

The restriction of loans to a few large borrowers, together with the widespread existence of high inflation, growing budget deficits, and negative real interest rates, led to a serious “credit crunch” among developing countries during the 1980s. The global recessions of 1981–1982 and 1987 exposed the frailty of many development bank loans so that by the end of the decade, almost half

of these banks were reporting 50% or more of their loans in arrears and another quarter had delinquency rates in excess of 25%. With real interest rates on savings deposits in the negative and expectations of continued inflation and exchange-rate devaluation contributing to substantial capital flight, it is not surprising that few individuals were willing to save.

Reform and liberalization of the organized money sector is therefore no panacea for the financial systems of developing nations. The early success of South Korea and Taiwan (and before them, Japan) with financial systems that exhibited many of the attributes of repression demonstrates that judicious and selective government intervention can be a stimulus to industrial development. Although there is evidence that the elimination of substantial interest rate distortions can promote greater saving and more rapid economic growth, financial reform must always be accompanied by other more direct measures to make sure that small farmers and investors have access to needed credit. Furthermore, as shown in the next section, careful supervision of the banking and financial sectors is needed to prevent undue concentration by local elites. As we have already pointed out in this text, “getting prices right” is only one step, albeit an important one, in making development serve the needs of the forgotten majority.

Brain storming: Does financial liberalization mean that governments in developing countries have no role to play in the financial sector?

In an effort to identify how these governments can work effectively within the context of liberalized financial markets, the 2001 Nobel laureate Joseph Stiglitz and his coauthors isolated seven major market failures that imply a potential role for state intervention. His basic argument is “that financial markets are markedly different from other markets,” “that market failures are likely to be more pervasive in these markets,” and that “much of the rationale for liberalizing financial markets is based neither on a sound economic understanding of how these markets work nor on the potential scope for government intervention.” The seven market failures Stiglitz and colleagues identified and that are likely to be of particular relevance to developing countries are the following:

1. *The “public good” nature of monitoring financial institutions:* Investors need information about the solvency and management of financial institutions. Like other forms of information, monitoring is a public good—everyone who places savings in a particular financial institution would benefit from knowing that the institution was prospering or close to insolvency. But like other public goods in free-market economies, there is an undersupply of monitoring information, and consequently, risk-averse savers withhold their funds. The net result is fewer resources allocated through these institutions.
2. *Externalities of monitoring, selection, and lending:* Benefits are often incurred by lenders who learn about the viability of potential projects from the monitoring, selection, and lending decisions of other lenders. Investors can also benefit from information generated by other investors on the quality of different financial institutions. Like other positive (or negative) externalities, the market provides too little information, and resources are under allocated or over allocated.
3. *Externalities of financial disruption:* In the absence of government insurance (whether or not an explicit policy has been issued), the failure of one major financial institution can cause a run on the entire banking system and lead to long-term disruptions of the overall financial system.
4. *Missing and incomplete markets:* In most developing countries, markets for insurance against a variety of financial (bank failure) or physical (e.g., crop failure) risks are missing. The basic problem is that information is imperfect and costly to obtain, so a developing-country government has an important role in reducing these risks. It can, for example, force membership in insurance programs or require financial institutions as well as borrowers to disclose information about their assets, liabilities, and creditworthiness.
5. *Imperfect competition:* Competition in the banking sector of most developing countries is extremely limited, meaning that potential borrowers usually face only a small number of suppliers of loanable funds, many of which are unwilling or unable to accommodate new and unknown customers. This is particularly true of small borrowers in the informal urban and rural sectors.
6. *Inefficiency of competitive markets in the financial sector:* Theoretically, for perfectly competitive markets to function efficiently, financial markets must be complete (without uninsured risks) and information must be exogenous (freely available to all and not

influenced by any one participant's action in the market). Clearly, there are special advantages to individuals or entities with privileged information in financial markets in developing countries, and risk insurance is difficult, if not impossible, to obtain. As a result, unfettered financial markets may not allocate capital to its most profitable uses, and there can be substantial deviations between social and private returns to alternative investment projects. In such cases, direct government intervention—for example, by restricting certain kinds of loans and encouraging others—may partly or completely offset these imbalances.

7. *Uninformed investors:* Contrary to the doctrine of consumer sovereignty, with its assumption of perfect knowledge, many investors in developing countries lack both the information and the appropriate means to acquire it in order to make rational investment decisions. Here again, governments can impose financial disclosure requirements on firms listed on local stock exchanges or require banks, for example, to inform customers of the differences between simple and compound interest rates or of the nature of penalties for early withdrawals of savings.

In each of these seven instances, Stiglitz and his coauthors argue, governments have a proper role to play in regulating financial institutions, creating new institutions to fill gaps in the kinds of credit provided by private institutions (e.g., microloans to small farmers and tradespeople), providing consumer protection, ensuring bank solvency, encouraging fair competition, and ultimately improving the allocation of financial resources and promoting macroeconomic stability.