CHAPTER 18

THE ECONOMIC PROBLEMS OF LESS-DEVELOPED ECONOMIES

Chapter in a Nutshell

What causes nations to grow? Why is it that some countries grow year in and year out with only temporary interruptions due to downturns in the business cycle? We can restructure this question and ask why it is that some countries have a difficult time experiencing economic growth and development. In fact, it seems like some countries have not experienced growth and development and are apparently unable to create an environment that fosters economic growth. Paul Collier noted in his 2007 book, *The Bottom Billion*, that most less-developed countries (LDCs) have had some success at achieving growth and development. Consider that 80 percent of the world’s 2.5 billion people in 1950 lived in abject poverty barely subsisting. By the year 2000, only 50 years later, one billion of the world’s population of six billion were rich, four billion lived in countries where incomes were rising rapidly, leaving one billion living in failed LDCs. The “bottom billion” are concentrated in Sub-Saharan Africa and other least-developed countries where incomes per capita are between one-tenth and one-twentieth of the high income OECD countries (mainly Western European countries and the United States). Incomes per capita in these least-developed countries are less than $1,000 per year and many of them have experienced falling incomes on average from 1975 to 2005. What explains their failure to grow and develop? The problems with growth and development for the least-developed countries can be examined in the context of various development traps.

For the bottom billion LDCs, a number of development traps keep incomes locked-down. The demographic trap is one example. For many least-developed countries, population growth outstrips growth in GDP leading to a decline in GDP per capita. And very rapid population growth in excess of 2.5 percent per year means that a large percentage of the population is under 15 years old meaning that the potential for continued high population growth exists far into the future. The political instability trap plagues least-developed countries. A depressingly long list of civil wars can be compiled for many countries in Sub-Saharan Africa. Even in the absence of civil wars, political instability can be a bar to economic growth and development. The absence of infrastructure trap is problematic for least-developed countries. Infrastructure is the basic institutions and public facilities upon which an economy’s development depends. Examples of infrastructure include the money and banking system, communication systems, education system, and transportation system. The natural resource trap is also problematic in some cases. Ironically, countries that are relatively resource rich may tend to ignore productive alternatives that lead to improved skill levels in the labor force and better economic performance in the future while focusing on the easy money to be made from exporting natural resources.

What can be done to release these traps? There are a number of different approaches that the least-developed countries might take toward successful development. Two strategies for development, the big push and unbalanced development with forward and backward linkages, are compared. Finally, the roles played by foreign direct investment and foreign economic aid in economic development are considered.

After studying this chapter, you should be able to:

- Explain what is meant by the “bottom billion” and describe their economic circumstances.
- Show how rapid population growth can slow down per capita income growth in LDCs.
- Describe the political instability trap.
- Discuss the importance of infrastructure to economic development.
- Compare the big push and unbalanced development strategies.
- Provide illustrations of forward and backward linkages.
Present arguments for and against foreign direct investment in LDCs.
Contrast foreign direct investment and foreign economic aid.

Concept Check — See how you do on these multiple-choice questions.

What has happened to the fraction of the world’s population in abject poverty since 1950?

1. Between 1950 and 2000, the fraction of the world’s population living at subsistence levels has
   a. increased from 50 percent to 60 percent
   b. fallen from 80 percent to one-sixth
   c. remained constant
   d. decreased slightly from 80 percent
   e. increased slightly from 80 percent

When does the demographic trap negatively affect development prospects for LDCs?

2. The demographic trap is problematic for LDCs when
   a. population growth is positive
   b. the death rate exceeds the birth rate
   c. population growth is too slow
   d. the rate of population growth exceeds growth in GDP
   e. population growth slows and a large percentage of the population are aged and unable to work

How does instability in the political system in an LDC adversely affect growth and development?

3. Even in the absence of destructive civil wars, political instability in the form of frequent and erratic
government changeovers in LDCs can interfere with the start of ambitious development programs because
   a. property rights are uncertain hence investment in new projects becomes risky
   b. new governments make too many bold promises
   c. new governments are inclined to repeat mistakes of the past
   d. development occurs most successfully under a long-term dictator
   e. development occurs most successfully in a mature political democracy like the United States

Some economists believe that capital formation on a massive scale is necessary for development to begin in
certain LDCs.

4. The big-push development strategy depends on
   a. backward and forward linkages
   b. first undertaking an unbalanced growth strategy
   c. foreign direct investment
   d. an integrated network of government-sponsored and financed investments
   e. generous foreign economic aid

Learn the distinction between forward and backward linkages.

5. Forward linkages refer to
   a. investments in one industry that create opportunities for profitable investments in other industries
   b. investments in one industry that create demands for inputs, thereby inducing investment in other
      industries
   c. connections between LDCs and industrialized countries created by foreign direct investment
   d. connections between LDCs and industrialized countries created by foreign economic aid
   e. connections between LDCs and industrialized countries that result from the colonial past
Am I on the Right Track?

Your answers to the questions above should be b, d, a, d, and a. Addressing the problems of less-developed economies requires that we first identify the most pressing of these problems and then arrive at strategies to remedy these problems. While there are many similarities among the problems facing LDCs, significant differences exist as well. The strategies appropriate for one LDC may or may not be appropriate for another. The problems associated with economic development are complex, making generalizations difficult. The questions that follow will help you begin to appreciate how difficult it can be for LDCs to realize successful development strategies.

Key Terms Quiz — Match the terms on the left with the definitions in the column on the right.

1. less-developed countries _____ a. the basic institutions and public facilities upon which an economy’s development depends
2. big push _____ b. the development strategy that relies on an integrated network of government-sponsored and financed investments introduced into the economy all at once
3. forward linkage _____ c. investments in one industry that create demands for inputs, inducing investment in other industries to produce those inputs
4. backward linkage _____ d. economies of Asia, Africa, and Latin America
5. infrastructure _____ e. investments in one industry that create opportunities for profitable investments in other industries, using the goods produced in the first as inputs

True-False Questions — If a statement is false, explain why.

1. Economists have determined specific levels of per capita income and specific rates of output growth that identify countries as LDCs. (T/F)

2. Most least-developed countries are located in Sub-Saharan Africa. (T/F)

3. The demographic trap refers to a situation where population growth is nearly as high or higher than GDP growth so that per capita GDP cannot increase. (T/F)

4. Political instability is less problematic for most least developed countries because entrepreneurs do not mind uncertainty regarding their property rights. (T/F)

5. Many least-developed countries are characterized by an age distribution profile that loads the population in the under-15-years-old group. (T/F)

6. One reason for the demographic trap is a dramatic decrease in death rates due to the increased availability of basic medical care. (T/F)

7. LDCs would be able to make larger investments in capital goods if production levels were further above subsistence. (T/F)
8. Most least-developed countries have adequate infrastructure. (T/F)

9. Sub-Saharan African countries have experienced numerous civil wars since the mid-1970s. (T/F)

10. A backward linkage would exist between a bottling plant and a soda manufacturer. (T/F)

11. Political instability in LDCs leads to uncertainty about property rights, which interferes with economic decision making. (T/F)

12. A forward linkage would exist between a brick maker and a clay supplier. (T/F)

13. A country’s infrastructure consists of its basic institutions and the public facilities, like transportation and communication systems, upon which development depends. (T/F)

14. A big-push development strategy relies on coordinated increases in investment in several industries at once in order to create interlocking markets for output. (T/F)

15. The unbalanced development strategy relies on private entrepreneurs to undertake investment projects that become profitable as a result of government-sponsored investment in infrastructure. (T/F)

**Multiple-Choice Questions**

1. People in LDCs are poor because
   a. they choose to be
   b. of exploitation by multinationals
   c. of slow population growth
   d. of a variety of development traps
   e. of dependence on foreign aid

2. Levels of income have jumped dramatically in recent years in all of the following countries except
   a. Europe and North America
   b. Latin America
   c. East Asia
   d. Sub-Saharan Africa
   e. South Asia

3. All of the following are characteristics of less-developed countries except
   a. high birth rates
   b. political instability
   c. low levels of infant mortality
   d. the absence of infrastructure
   e. a small proportion of the population under age 15
4. The vicious circle of poverty in LDCs means that
   a. people are poor because they can't invest in capital goods and they can't invest in capital goods because they are poor
   b. their production possibilities curves are bowed-out from the origin
   c. investments in human capital have long payoff periods, so they aren't undertaken even though they are essential for economic growth
   d. investments in infrastructure have long payoff periods, so they aren't undertaken even though they are essential for economic growth
   e. the large fraction of an LDC’s population that is poor and below the age of 15 ensures that the population will remain poor for years to come

5. The natural resource trap for LDCs is evident when development programs
   a. spend large sums importing critical natural resources
   b. are stymied by falling prices of natural resource exports
   c. focus heavily on natural resource exports rather than industries that require high skill levels
   d. are halted because supplies of natural resources run out
   e. fail because benefits from natural resource exports accrue to the whole population rather than the elites who are able to save and invest

6. Big-push development strategies are typically financed primarily by
   a. loans from international agencies
   b. loans from industrialized countries
   c. grants from industrialized countries
   d. foreign direct investment
   e. tax revenues

7. The big-push development strategy relies heavily on the efforts of ____________________ while the unbalanced development strategy depends on ____________________ to take advantage of backward and forward linkages.
   a. government; entrepreneurs
   b. entrepreneurs; government
   c. loans, foreign direct investment
   d. foreign direct investment; loans
   e. poor farmers; planners

8. Political instability in an LDC interferes with economic development by causing
   a. uncertainty in economic decision making
   b. economic dualism
   c. the rise of single-party regimes
   d. the big-push strategy to be more difficult to adopt
   e. the unbalanced strategy to be more difficult to adopt

9. All of the following are causes of rapid population growth in LDCs except
   a. high birth rates
   b. cleaner water
   c. improved sanitation
   d. improved status of women
   e. a low age at first marriage
10. Ranking the average GDP per capita for developing countries from low to high we have
   a. Sub-Saharan Africa, Latin America, East Asia, South Asia
   b. Sub-Saharan Africa, South Asia, East Asia, Latin America
   c. Sub-Saharan Africa, South Asia, Latin America, East Asia
   d. Sub-Saharan Africa, Latin America, South Asia, East Asia
   e. Latin America, East Asia, South Asia, Sub-Saharan Africa

11. Although it is possible to transplant a modern Detroit automobile plant to an LDC such as Chad, the plant
    is unlikely to contribute much to Chad's economic development because
    a. Chad lacks the skilled personnel necessary to run the plant
    b. an adequate energy system to power the plant is lacking
    c. a system of good roads does not exist
    d. the Chadian banking system is still embryonic
    e. all of the above

12. A key difference between the big-push strategy and the unbalanced development strategy is that
    a. the big-push strategy focuses on a few key industries
    b. the big-push strategy is less expensive
    c. the unbalanced development strategy is an integrated network of government investments
    d. the big-push strategy relies mainly on private entrepreneurs
    e. the unbalanced development strategy relies on forward and backward linkages while the big-push
        strategy involves all sectors of the economy

13. Government investment is emphasized by advocates of the big-push strategy because
    a. only government has the resources to finance the large investments required
    b. private investment is already fully utilized
    c. the government is likely to have a longer time horizon than private investors, making it possible for
       government to wait for the results of investment that come in the long run
    d. private investors are incompetent
    e. only the government has the personnel to implement and manage the big push in highly technical
       industries

14. The unbalanced development strategy is unbalanced because
    a. governments that undertake this approach are unstable
    b. forward linkages are stronger than backward linkages
    c. backward linkages are stronger than forward linkages
    d. an imbalance results between supply capacity and the creation of new demands
    e. government's role is completely eliminated so the process is completely private

15. Backward linkages in the unbalanced development strategy relate to increases in
    a. demands for inputs produced in other industries
    b. demands for the products of the backward traditional sector
    c. traditional practices that emerge in opposition to modernization
    d. links between businesses in the traditional sector
    e. links with government agencies that used to sponsor fledgling private-sector businesses
16. Foreign direct investment has the advantage that ______________, which has to be weighed against the disadvantage that ________________.
   a. growth is much faster; the environment is destroyed
   b. investment is financed by foreigners; ultimately, LDCs must take responsibility for development
   c. investment in foreign countries is profitable; domestic investment may languish
   d. domestic firms get funding; foreign firms lose employment
   e. LDCs profit enormously; industrialized nations suffer

17. Increasingly, aid to LDCs from the United States has consisted of
   a. arms exports
   b. direct food relief
   c. grants for development
   d. low-interest loans
   e. high-interest short-term loans

18. One reason that the big-push strategy might be necessary for a developing country is that
   a. private investors may be unwilling to undertake the projects necessary for development
   b. LDC governments have ample resources to support the big-push strategy
   c. few LDCs have the human capital necessary to allow the unbalanced development strategy to work
   d. the big-push is required to break down traditional customs in an LDC
   e. the big-push creates more human capital than any other strategy

19. The main reason for the existence of forward linkages in the unbalanced development strategy is that
   investments in one industry will result in
   a. lower interest rates for other investors in other industries
   b. savings that can be transmitted to other industries
   c. opportunities for investment in new industries that use the output of the first as inputs
   d. the gradual replacement of the traditional economy by forward-looking entrepreneurs
   e. the expansion of infrastructure investment in the traditional sector

20. All of the following are explanations for the low level of development in LDCs except
   a. low levels of literacy
   b. low levels of capital per person
   c. poor infrastructure
   d. attitudes opposed to modernization
   e. the absence of low-wage labor

The following questions relate to the applied and global perspectives in the text.

21. Although Chinese economic growth has been just over twice India’s annual growth rate over the last 15 years, there is reason to believe that India’s economy may perform better than China’s in the long run because
   a. India has a more efficient centralized government than does China
   b. India has a more successful entrepreneurial class that has succeeded in knowledge-based industries
   c. India has a larger population than does China
   d. India has a faster rate of population growth than does China
   e. India is less democratic than China
22. Narrowing the Internet access gap between developed and less-developed countries may be difficult for LDCs because
   a. the advantages in international commerce of widespread Internet use are limited for LDCs
   b. the Internet has not helped even the developed countries to grow faster
   c. the Internet is likely to be replaced with a new technology soon, so any investment will be wasted
   d. investment in Internet access in a LDC requires highly-skilled labor and considerable capital
   e. their economies are already growing at the maximum rate possible

23. A symbiotic linkage exists between the pineapple industry and the cattle industry in Indonesia where
   a. pineapple canning results in pulp to use in cattle feed and cattle produce manure for fertilizer
   b. cattle ranchers rotate land from cattle pasture to pineapple production from year to year
   c. beef and pineapple are favorite items in Indonesian cuisine
   d. cattle graze among the pineapple plants keeping weeds down
   e. trucks used to transport cattle can also be used to haul pineapples

Fill in the Blanks

1. Development traps facing LDCs include the __________________, the __________________, the _____________________, and the __________________.

2. Foreign direct investment allows an LDC to create _____________ goods production without having to sacrifice _____________ goods production.

3. Many LDCs are caught in the vicious __________________—— they are poor because they are unable to invest in __________________________, and the reason they don’t is because they are ________.

4. The big-push strategy emphasizes investment in many projects __________________ to create both ________________ capacity and markets for the production.

5. The unbalanced strategy emphasizes private-sector development in key areas of the economy to create __________________ and __________________ linkages to new projects.

Discussion Questions

1. Why is rapid population growth considered to be a problem for many LDCs?
2. Contrast the role of government in the big-push development strategy and the unbalanced strategy.

3. Why is infrastructure so critical to successful development?

4. Why would an LDC welcome foreign direct investment? Why might an LDC be reluctant to allow foreign direct investment?

**Everyday Applications**

Often, a state government provides financial support for economic development within its borders. For example, it may offer tax incentives to new businesses thinking of relocating to the state or to established businesses thinking of leaving the state. Does your state engage in these types of efforts? In what ways is this process similar to the efforts of LDCs that wish to engage in economic development? In what ways is it different?

**Economics Online**

The World Bank supports development projects in many LDCs. Find out more about the World Bank’s activities at its Web site (http://www.worldbank.org).
Answers to Questions

Key Terms Quiz

a. 5
b. 2
c. 4
d. 1
e. 3

True-False Questions

1. False. A variety of economic conditions exists in different LDCs.
2. True
3. True
4. False. Entrepreneurs need firm property rights in order to make long-term business decisions.
5. True
6. True
7. True
8. False. Most least-developed countries lack adequate infrastructure.
9. True
10. False. That is a forward linkage
11. True
12. False. That is a backward linkage
13. True
14. True
15. True

Multiple-Choice Questions

1. d
2. d
3. c
4. a
5. c
6. e
7. a
8. a
9. d
10. b
11. e
12. e
13. c
14. d
15. a
16. b
17. c
18. a
19. c
20. e
21. b
22. d
23. a

Fill in the Blanks

1. demographic trap; political instability trap, lack of infrastructure trap; natural resources trap
2. capital; consumer
3. circle of poverty; capital goods; poor
4. all at once; productive
5. backward; forward

Discussion Questions

1. The main problem associated with rapid population growth in many LDCs is that it makes the achievement of per capita income growth more difficult. Per capita income growth is defined as income growth divided by population growth. If population grows faster than income, per capita income falls. In many LDCs, population growth is rapid and income growth is slow. Such LDCs face a double-whammy problem. Population growth rates in excess of 2.5 percent per year are not uncommon among LDCs, meaning that
economic growth must exceed 2.5 percent per year in order for per capita income to grow at all.

Another problem associated with rapid rates of population growth in LDCs is that the country’s age distribution profile is weighted heavily in the under-15-years-old group. Even though children living in poverty in an LDC consume meagerly, they still consume more than they produce. The consumption requirements of the large numbers of children in LDCs make it more difficult for these countries to shift resources from consumption goods production to capital goods production in order to accelerate growth rates. So, high rates of population growth contribute to the vicious circle of poverty — people are poor because they can’t invest in capital goods and they can’t invest in capital goods because they are poor.

2. The role of government in the big-push development strategy is extensive. The idea behind the big-push strategy is that by pursuing a large all-at-once investment commitment in many different industries, ready markets for the interlocking projects will be created. Furthermore, the growing markets in the economy make many other investment projects attractive. Economists who advocate the big-push strategy believe that government is best suited to initiate, finance, and manage the set of infrastructure and development investments that comprise the big push. The main reason for relying on government to undertake the big push is that government has a sufficiently long time horizon to make the kinds of investments where payoffs may lie some time in the future. Once the big push is underway, the private sector is expected to participate because the big push creates a set of new, profitable investment opportunities.

The unbalanced strategy relies less heavily on government investment in the economy. The unbalanced strategy is based on the idea that every investment will have its own set of backward and forward linkages. A backward linkage results when investment in one industry creates demands for inputs in another industry, inducing investment in it to produce those inputs. An example would be the construction of a railroad that creates a demand for steel rails, causing the steel industry to expand. A forward linkage is investment in one industry that creates opportunities in other industries that use the goods produced in the first as inputs.

Continuing with the railroad example, a forward linkage from railroad construction might be the expansion of agricultural production for export to distant markets. The railroad provides transportation, an input critical to the expansion of agricultural exports. The unbalanced strategy emphasizes reinforcing imbalances caused by the continuous creation of new supplies and new demands in the economy. The emphasis on government investment is minimal. However, government funding and putting in place some of the economy’s key infrastructure investments are still important for the unbalanced strategy to be successful.

3. Adequate infrastructure is a necessary condition for successful economic development. Infrastructure consists of a system of money and banking, the educational system, transportation and communication systems, the energy system, and the market system itself among other components. Imagine trying to operate a business if any of these systems were absent, much less most of them. Development requires not just direct investment in new productive activities, but indirect investments in the infrastructure to support them.

4. Foreign direct investment can be a boon to an LDC because it allows the country to expand economic development at zero opportunity cost. Instead of sacrificing consumption goods production in order to invest more in capital goods production, foreign capital is infused into the LDC. Thus, no consumption goods are sacrificed, and production increases due to the infusion of foreign capital. Typically, foreign direct investment brings new expertise to an LDC along with the new capital goods.

However, LDCs must ultimately be responsible for starting their own development projects. Foreign direct investment can serve as a catalyst for this process but it is not a substitute.
Homework Questions

True-False Questions  —  If a statement is false, explain why.

1. Rapid population growth in LDCs contributes to higher rates of investment and faster economic growth, thus causing per capita incomes to rise rapidly. (T/F)

2. Political instability has played a relatively minor role contributing to low levels of development in Sub-Saharan Africa. (T/F)

3. A country’s money and banking system and its educational system are parts of its infrastructure. (T/F)

4. Forward linkages in a development process involve investments in one industry that create demands for inputs which result in investments in other industries to produce those inputs. (T/F)

5. Foreign direct investment can provide additional capital for an LDC, thus accelerating the development process. (T/F)

Multiple-Choice Questions

1. Undertaken successfully, foreign direct investment in an LDC should lead to
   a. an outward shift in the production possibilities curve
   b. a flattening of the production possibilities curve since resources are more easily substitutable in production
   c. a return to conditions similar to those experienced by LDCs under colonial rule
   d. high levels of international debt for LDCs
   e. greater need for foreign economic aid

2. A fundamental difference between a big-push development strategy and one that relies heavily on foreign direct investment is that the big-push strategy
   a. is largely a private sector approach, whereas government manages foreign direct investment
   b. focuses on one market while foreign direct investment involves many markets
   c. emphasizes forward linkages and foreign direct investment emphasizes backward linkages
   d. is unbalanced and foreign direct investment is balanced
   e. is an integrated network of government financed and sponsored investments while foreign direct investment is essentially a private sector activity

3. Which of the following is not an indicator of persistent poverty for an LDC nation?
   a. a low level of capital goods production
   b. a declining population growth rate
   c. a lack of infrastructure
   d. a high birth rate
   e. political instability
4. A development strategy that emphasizes the existence of forward and backward linkages in investment projects is
   a. economic dualism
   b. the big push
   c. the unbalanced strategy
   d. foreign direct investment
   e. reliance on foreign economic aid

5. Which of the following is not an example of a development trap?
   a. the demographic trap
   b. the political instability trap
   c. the multinational exploitation trap
   d. the natural resources trap
   e. the lack of infrastructure trap

Discussion Questions/Problems

1. Adam Smith argued that the size of the labor force was an important determinant of the wealth of a nation. If Smith was correct, then how could rapid population growth result in the demographic trap? Explain.

2. Should an LDC fund all of its development efforts internally, that is to say, completely avoid foreign loans and foreign direct investment? Discuss.