Chapter 32

HOW ECONOMIES GROW AND DEVELOP

Principles of Economics In Context (Goodwin, et al.), 2nd Edition

Chapter Overview

This chapter presents material on economic development and growth, including the theory behind these concepts, their measurements, and the historical context for understanding why some countries are successful at promoting development, while others seem to be "stuck" at low levels of development. You will be able to compare data on growth rates for different countries in trying to determine whether the world's poor countries are, over time, "catching up" to the rich countries. You will also learn about the main institutional factors that economists consider important in achieving economic development. The chapter discusses issues of poverty, inequality, and human development; each will allow you to independently examine the subject matter, and consider its relationship to economic growth. In the final section, you will learn about the different kinds of economies and the role of the government in influencing economic outcomes.

Chapter Objectives

After reading and reviewing this chapter, you should be able to:

1. Explain the difference between "economic growth" and "economic development."
2. Discuss the relevance of GDP measures and poverty indices in evaluating the economic progress of countries and regions.
3. Understand the relevance to economics—and to economic growth in particular—of the Industrial Revolution.
4. Explain the different theories on economic development and understand their historical context.
5. Describe the various sources of economic growth and development.
6. Describe general patterns of economic growth over time and across different regions and countries.
7. Discuss the trends in global inequality and the relation between inequality and economic-well-being.
8. Describe the recent perspectives on development including the Millennium Development Goals and the Sustainable Development Goals.
9. List the different kinds of economies and their relevance for understanding the process of economic development and well-being.

Key Terms

human development	bilateral development assistance
Capabilities	multilateral development assistance
poverty line	conditional cash transfer (CCT)
Industrial Revolution	unconditional cash transfer (UCT)
dependency theory	convergence
primary goods	Kuznets curve hypothesis

terms of trade	Millennium Development Goals (MDGs)
virtuous cycles (in development)	Sustainable Development Goals (SDGs)
capital intensive	laissez-faire capitalism
labor intensive	administrative capitalism
industrial policy	administrative socialism
infant industry	market socialism

Active Review

Fill in the Blank

1. When an economy has experienced increases in aggregate levels of production and income, and its real GDP has risen by some percentage from one year to the next, it has experienced economic ____________________.

2. When an economy has moved people from a situation of poverty to material plenty through investments in productive capacity and changes in the organization of work, it has experienced economic ____________________.

3. The ____________________ approach defines development in terms of the opportunities that people have to pursue important aspects of well-being, such as being healthy and having access to education.

4. The process of social and economic change that began in 18^{th} century England and resulted in a huge increase in output per worker is called the ___________________.

5. The theory that under-development in developing countries is caused by unequal trade relations between developing and developed countries is called ____________________.

6. Self-reinforcing patterns of high savings, investment, productivity growth, and economic expansion, such as experienced by Japan and other "Asian tigers," are called _______________________.

7. The idea that poor countries are on a path to "catch up" with the rich countries due to underlying economic forces, is called ______________________.

8. Aid or loans given by the government of a rich country like the U.S. to a poor country like Ethiopia is called _________________development assistance.

9. Aid or loans given by international institutions such as the World Bank, IMF, or United Nations Development Program (UNDP) is called ______________ development assistance.

10. Suppose a U.S. company builds a factory in China to produce electronic goods. When such a private company acquires or creates assets for their own business operations in a foreign country, it is engaging in __________________ investment.

True or False

11. Economic growth will always lead to inflation.

12. The income threshold below which members of a population are classified as poor is called poverty line.

13. Additions to a nation's capital stock will automatically lead to economic growth.

14. History shows that having plentiful resources of arable land, energy, and/or minerals is a requirement for a country to have strong economic growth and development.

15. A system of private property rights is essential for economic growth.

16. Economic growth is a necessary condition for human development.

17. The system of administrative capitalism is characterized by private corporate ownership and a substantial reliance on public administration as a mode of coordination.

Short Answer

18. Explain the difference between economic growth and economic development.

19. Given data on growth of real GDP and the growth of population, how can growth in real GDP per capita be calculated?

20. List seven factors that can promote economic growth and development. Are these factors requirements for achieving economic growth?

21. Explain the idea of convergence.

22. Explain how inflow of remittances has affected development prospects for migrant-sending countries.

23. What kinds of institutions are beneficial for promoting economic growth and development?

24. Why have the net official flows from multilateral agencies turned negative in recent years?

25. Is China more “developed” than India? Explain.

Problems

1. Suppose the following data for the fictitious country Growland:

	2016	2017
Real GDP (in 2009 U.S. dollars)	286.9 billion	301.3 billion
Population	220.5 million	223.0 million

a. Calculate the growth in real GDP between 2016 and 2017.

b. Calculate the GDP per capita for 2016 and 2017. (Note that GDP is measured in billions, while population is measured in millions.

c. Calculate the population growth rate between 2016 and 2017.

d. Calculate the growth rate of GDP per capita.

2. Draw a graph with shifts in the AD/AS curves to illustrate each of the following:

a. Economic growth with inflation rising.

b. Economic growth with inflation falling.

3. Whether worldwide inequality is increasing or decreasing much debated in the press and popular writings. Some commentators claim that the world is getting much more equal—"just look at the progress of India and China!" Others claim that the world is getting much more unequal—"just look at the problems in Sub-Saharan Africa!" This exercise has you explore data regarding such claims.

a. Using the data in the following table, create a graph showing real GDP per capita on the horizontal axis and the rate of real GDP per capita growth for 1980-2011 on the vertical axis. Plot the data for each country.

Country	**GDP per Capita, 2016 (PPP, 2011 US $)**	**Percent Growth in GDP Per Capita (PPP, Annual Average, 1990-2016)**
United States	53,342	1.4
Hong Kong	54,279	2.8
Japan	38,252	1.1
France	38,059	1.0
China	14,399	8.8
India	6,093	4.9
Bangladesh	3,319	3.7

Source: World Bank, World Development Indicators Database, 2017

b. Examining just these selected countries, is there evidence that convergence is occurring?

c. Now re-do your diagram for the following countries:

Country	GDP per Capita, 2016 (PPP, 201 US $)	Percent Growth in GDP Per Capita (PPP, Annual Average, 1990-2016)
United States	53,279	2.8
Japan	38,252	1.1
France	38,059	1.0
Turkey	23,756	3.1
Brazil	14,024	1.0
Haiti	1,654	-0.2
Ethiopia	1,608	3.6
Congo, Dem. Rep.	744	-2.2

Source: World Bank, World Development Indicators Database, 2017

d. Now is there evidence that convergence is occurring?

e. What criticism can you make about basing generalizations about world inequality on studies such as these?

Self Test

1. Suppose in a given year, a country's real GDP growth rate was 5 percent and its population grew at 2 percent. Then its per capita real GDP growth rate was:

a. 7%
b. 5%
c. 3%
d. 2%
e. 2.5%

2. If an economy is experiencing economic growth, this is usually shown in the AD/AS model with

a. a shift to the left of the AS and maximum capacity
b. a shift to the left of the AD curve.
c. a shift to the right of the AD curve.
d. a shift to the right of the AS and maximum capacity
e. a shift to the right of the AS and maximum capacity, together with a shift to the right of the AD curve.

3. Which of the following is *not* one of the stages of development in Rostow's thesis on how countries progress from "underdevelopment" to "development"?

a. take-off into self-sustaining growth
b. age of high mass consumption
c. drive to maturity
d. unbalanced terms of trade
e. traditional agrarian society

4. The process of social and economic change that began in 18th century England and led to huge increases in output per worker is called

a. the Democratic Revolution
b. the Communist Revolution
c. the Industrial Revolution
d. the Gender Revolution
e. the Environmental Revolution

5. Which of the following was *not* one of the factors that contributed to the Industrial Revolution?

a. New agricultural techniques, new tools and machines that boosted agricultural productivity.
b. New technologies adopted in factory production that boosted output in manufacturing.
c. New communication technologies that boosted output in the service sector.
d. Supplies of cheap raw materials from other countries.
e. Access to markets in other countries in which to sell finished products.

6. Which of the following was *not* one of the main policies promoted in the "Washington Consensus"?

a. Fiscal discipline
b. Development of infrastructure, health, and education
c. Market liberalization
d. Privatization
e. Trade liberalization

7. Which of the following best characterizes the record of the policies of the "Washington Consensus"?

a. The countries that most strictly followed the World Bank's market-oriented development path suffered the most severe crises.
b. Some countries in Africa were forced to make cutbacks in desperately needed health and education.
c. Countries were barred from using fiscal policy for macroeconomic stabilization.
d. Some countries that did not follow the Washington Consensus experienced notable success.
e. All of the above.

8. Which of the following is one of the trends of global economic growth in the 20th century?

a. World per capita economic output grew about fivefold.
b. The use of energy more than tripled.
c. Per capita incomes steadily increased.
d. Most of the growth came in the second half of the 20th century.
e. All of the above.

9. Which of the following factors were key to Japan's rapid economic growth in the 1950-1980 period?

a. High savings rates.
b. The investment of savings in machines and equipment to boost productivity rates.

c. Investment in human capital.
d. Promotion of exports.
e. All of the above.

10. Which of the following is a middle-income country?

a. The Congo
b. France
c. Japan
d. Russia
e. Haiti

11. Which of the following characterizes the global distribution of per capita GDP across countries?

a. Income per person is highest in the industrialized countries.
b. Income per person is lowest in many African and Asian countries.
c. The income per person in many industrialized countries such as U.S., Canada, Europe, and Japan is more than $25,000.
d. Many of the low-income countries in sub-Sahara have income per capita lower than $2,500.
e. All of the above.

12. Which of the following has clearly NOT been converging to rich country income levels since 1990?

a. Democratic Republic of Congo
b. South Korea
c. Ethiopia
d. China
e. India

13. Which of the following is NOT considered by economists to be a source of economic growth?

a. Natural resources
b. Consumption
c. Savings and investment
d. Foreign sources of capital
e. Financial, legal, and regulatory institutions

14. A national system combining private ownership of capital with substantial reliance on government as a mode of coordination is known as

a. market socialism
b. administrative capitalism

c. impure communism
d. fascism
e. welfarism

15. Among variables NOT considered in the multidimensional poverty index are

a. income inequality
b. child mortality
c. school attendance
d. cooking fuel
e. drinking water

16. The Sustainable Development Goals

a. have already largely been achieved
b. were introduced to the public by the World Bank
c. place greatest emphasis on reversing climate change
d. can be achieved indirectly with global GDP growth
e. None of the above.

17. The Kuznets curve hypothesis states that

a. inequality will intensify in a country as it grows richer, but beyond a certain point it will diminish.
b. inequality will steadily decrease as a county grows richer
c. inequality will increase as a country grows richer
d. a country's income level mattered more to inequality in the era of colonies
e. The hypothesis does not say anything about inequality.

18. Which of the following is *not* one of the ingredients that can stimulate economic growth?

a. Savings and investment.
b. Technological innovation and entrepreneurship.
c. Access to domestic and international markets.
d. Contractionary macroeconomic policies to slow down aggregate demand.
e. Access to foreign capital.

19. From what sources can a developing country acquire funds to finance investments?

a. From domestic savings.
b. From bilateral assistance.
c. From multilateral assistance.
d. From private foreign banks.
e. All of the above.

20. Approximately how much in development assistance (as a % of GDP) do the rich countries give to poor developing countries?

a. Less than 1%
b. About 1%
c. About 3%
d. About 5%
e. About 10%

Answers to Active Review Questions

1. growth
2. development
3. capabilities
4. Industrial Revolution
5. dependency theory
6. virtuous cycles (in development)
7. convergence
8. bilateral
9. multilateral
10. foreign direct (investment)
11. False. The effect of economic growth on inflation is ambiguous. If the AS curve shifts further to the right than the AD curve, the inflation rate may decline. If the AD curve shifts further to the right than the AS curve, the inflation rate may rise.
12. True.
13. False. Poorly planned or misguided development projects may lead to waste or even harm.
14. False. While natural resources are generally very important, there are some economies with few natural resources that have done very well (e.g. Hong Kong and Singapore, which are natural ports but have little energy or mineral resources or arable land).
15. False. Some countries, like China and Vietnam, have been successful in achieving economic growth without a system of private property rights.
16. False. Economic growth often helps, but it is not required. Human development has many dimensions, and it could be achieved through progress in many different areas unrelated to income.
17. True.
18. Economic growth is the growth in production of output (or income), and can be measured as the percent change in real GDP. Economic development is the movement of the population from poverty into a situation of material plenty or well-being. Development is a much broader concept than growth, as it includes improvement in the quality of living through changes in non-income aspects such as access to better nutrition and housing, progress in quality of education and healthcare, decline in crime rates, and improvement in environmental quality.
19. Growth in real GDP per capita = growth in real GDP – growth in population.
20. The factors that can promote economic growth include: savings and investment, technological innovation and entrepreneurship, good macroeconomic policies that stabilize aggregate demand, access to international markets, availability of natural resources, access to foreign capital, and good institutions. These factors are not requirements for economic growth, however, as there are many examples of countries that have achieved growth without one or more of these factors.
21. The idea of convergence is that the poor countries are on a path to "catch up" with the rich countries, because they are starting off with little capital. So as they experience increases in their manufactured capital stock, their output will grow at a faster rate than that of rich countries that are already rich in manufactured capital.

22. Remittances are a significant source of financial capital (much greater than aid) for many of the poor migrant-sending countries. Research on the impacts of remittances show gains in income and improvement in other aspects of well-being such as access to healthcare and education.
23. The beneficial institutions include: a good banking system; a good legal system with private property rights and contact enforcement; and the absence of corruption, internal conflict, and political instability.
24. Because developing countries are currently paying back more due to their heavy debt burdens, than what they receive in new loans.
25. Despite rapid economic growth in both countries in recent decades, China has made significantly more progress in improving the capabilities of its people. It has placed a greater priority in eliminating hunger, illiteracy, and medical neglect, and developing the economic potential of its population. However, India is ahead of China in terms of human freedom as it is a democracy, while China's government is authoritarian. Most of the development efforts in China has come from its leaders without much pressure from the public. In India, on the other hand, public protests and court decisions play a central role in influencing the process of development.

Answers to Problems

1.

a. [(301.3 − 286.9) / 286.9] × 100 = 5.0%

b. Real GDP per capita for 2016 = $286,900,000,000 / 220,500,000 = $1,301

Real GDP per capita for 2017 = $301,300,000,000 / 223,000,000 = $1,351

c. [(223.0 − 220.5)/220.5] × 100 = 1.1%

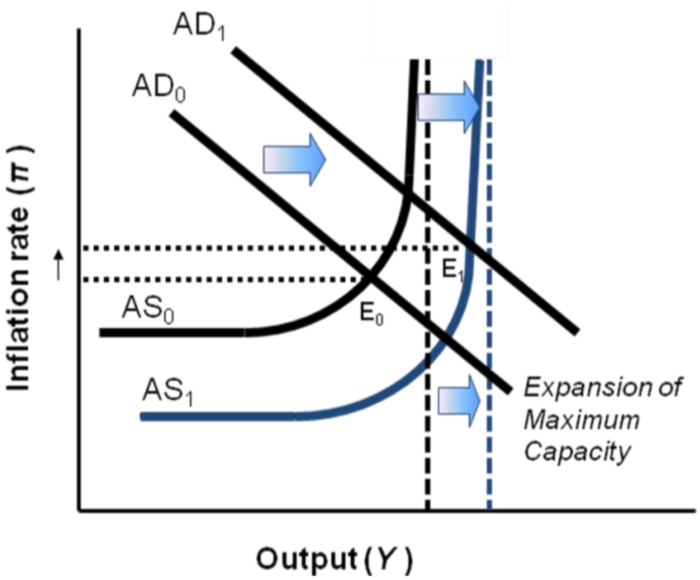
d. 5.0% − 1.1% = 3.9%

Calculating the percentage change in real GDP per capita from part b, as (1351-1301)/1301 × 100, gives a rate of 3.8%. This is also an acceptable answer.

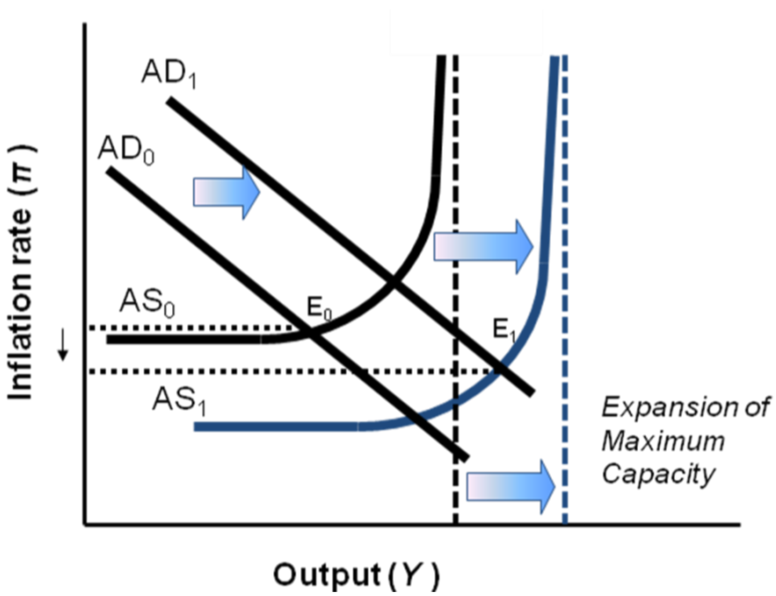
Technical Note: The simple formula given for figuring percentage changes is to blame for the discrepancy between the two answers. In practice, economists often use a different formula--the "log-difference formula"--to calculate percentage changes. Using the "ln" (natural log) function on a calculator or spreadsheet, the equation $[\ln(GDP_{2017}) - \ln(GDP_{2016})] \times 100$ gives a measure of percentage change. Using this method of calculating percentage changes, there would be no discrepancies (except due to rounding.)

2.

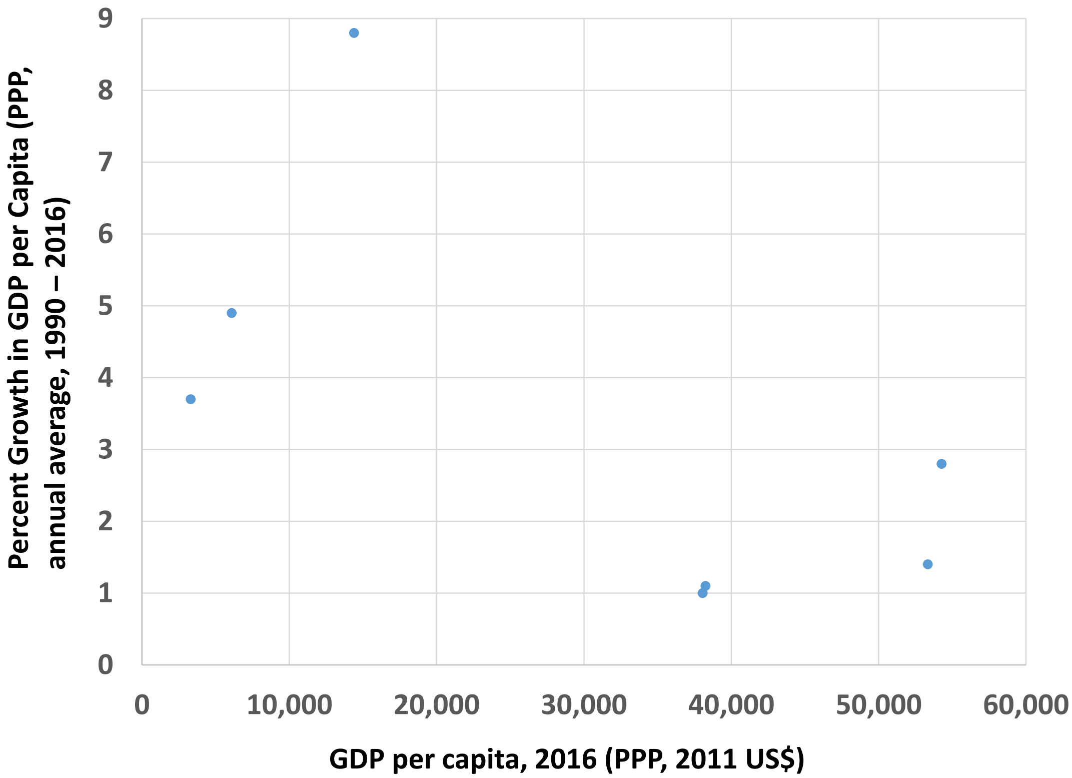
a. Economic growth with inflation rising.



b. Economic growth with inflation falling.

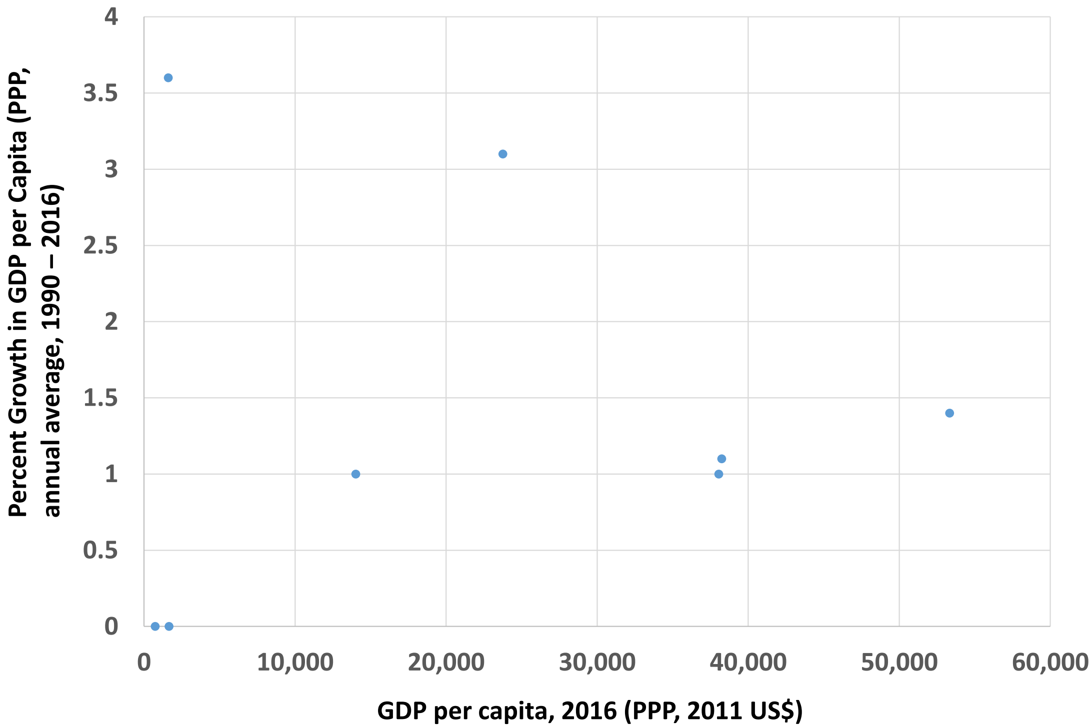


3.
a.



b. Yes, looking only at this evidence, it would appear that convergence may be occurring. The poorer countries tend, on balance, to have faster growth rates than the richer countries, and are on the path to "catch up" to them.

c.



d. Now it does *not* appear that convergence is occurring, because the poor countries are growing at rates generally less than those of the developed countries.

e. Neither "study" looks at the whole picture.

Answers to Self Test Questions

1. C
2. E
3. D
4. C
5. C
6. B
7. E
8. E
9. E
10. D
11. E
12. A
13. B
14. B
15. A
16. E
17. A
18. D
19. E
20. A