Chapter 7

ECONOMIC GROWTH IN THE GLOBAL ECONOMY

Chapter 7: Learning Outcomes

Economic Growth in the Global Economy

- **7.1 ECONOMIC GROWTH**
  - How does economic growth differ from the business cycle?
  - What is economic growth?
  - What is the Rule of 70?
- **7.2 DETERMINANTS OF ECONOMIC GROWTH**
  - What factors contribute to economic growth?
  - What is investment

Chapter 7: Learning Outcomes

Economic Growth in the Global Economy

- **7.3 PUBLIC POLICY AND ECONOMIC GROWTH**
  - Why is the saving rate so important to economic growth?
  - Why are research and development so important to economic growth?
  - Why are property rights so important to economic growth?
  - What impact will free trade have on economic growth?
  - Why is education so important to economic growth?
- **7.4 POPULATION AND ECONOMIC GROWTH**
  - What is the effect of population growth on per capita economic growth?
  - What is the Mathusian prediction?

Chapter 7

7.1 Economic Growth

- How does economic growth differ from the business cycle?
- What is economic growth?
- What is the Rule of 70?

7.1 Economic Growth

How does economic growth differ from the business cycle?

Economic Growth

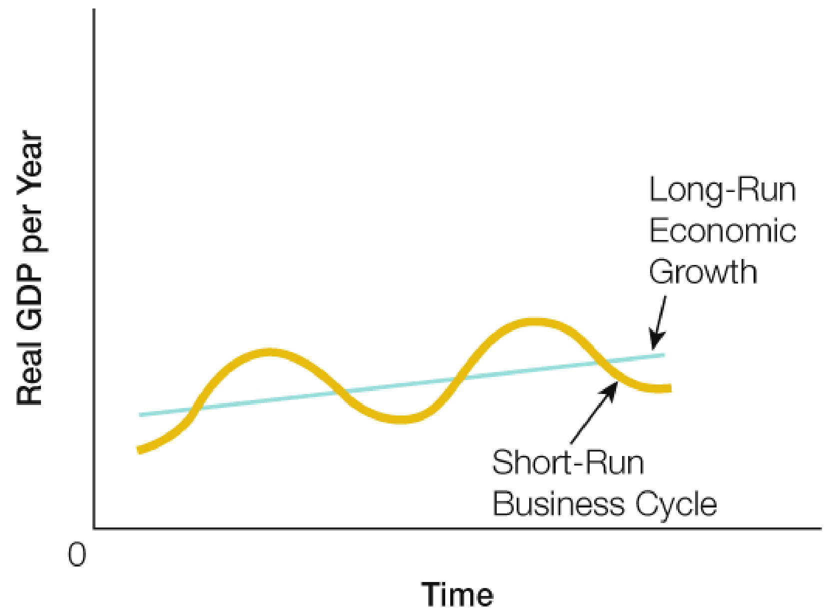
- short-run variations in economic activity are called business cycles
- the long-run trends indicate rates of growth—that is, economic growth.

7.1 Economic Growth

How does economic growth differ from the business cycle?

Business Cycles vs. Economic Growth

- Short-run fluctuations in economic activity occur around the long-run trend rate of growth.
- It is this long-run trend rate that shows economic growth.



7.1 Economic Growth

What is economic growth?

Economic Growth

- An upward trend in the real output of goods and services.
- Usually measured by the annual percent change in real GDP per capita.

7.1 Economic Growth

What is economic growth?

Economic Growth

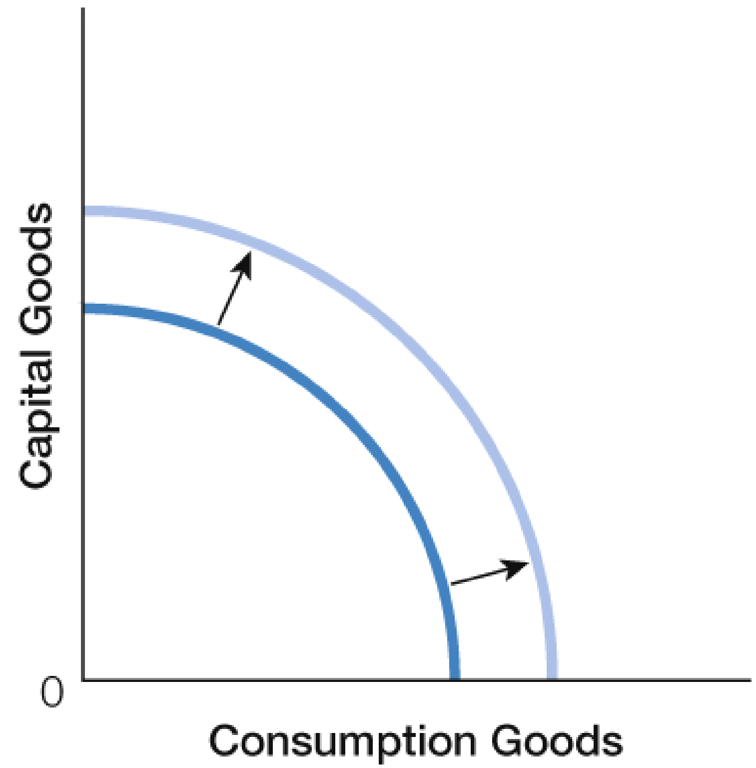
- Depends on the quantity and quality of an economy’s resources.
- Technology can also increase an economy’s production capabilities.
- Can be shown as outward shift of the production possibilities curve.

7.1 Economic Growth

How does economic growth differ from the business cycle?

Economic Growth and the PPC

- Increases in capital, land, labour, and entrepreneurial activity can expand the production possibilities curve.



7.1 Economic Growth

What is the Rule of 70?

Rule of 70

- Shows how long it will take a nation to double its output at various growth rates.
- Even a small change in the growth rate will have a large impact over a lengthy period

70 ÷ growth rate = # years for output to double

7.1 Economic Growth

Section Check

- *Economic growth* refers to the long-run trend rate of growth for an economy.
- *Business cycle* refers to the short-run fluctuation in economic activity around this trend rate of growth.
- Economic growth is usually measured by the annual percentage change in real output of goods and services per capita.

7.1 Economic Growth

Section Check

- Improvements in and greater stocks of land, labour, capital, and entrepreneurial activity will lead to greater economic growth and shift the production possibilities curve outward.
- According to the Rule of 70, if you take a nation's growth rate and divide it into 70, you have the approximate time it will take to double the national income level.

7.2 The Determinants of Economic Growth

- What factors contribute to economic growth?

7.2 The Determinants of Economic Growth

What factors contribute to economic growth?

- Productivity
  - The amount of goods and services a worker can produce in an hour.
  - Determines a country's standard of living.
  - Since aggregate expenditures are equal to aggregate income, can only increase consumption in the long run by increasing amount produced.

7.2 The Determinants of Economic Growth

What factors contribute to economic growth?

- Several factors contribute to economic growth:
  - The quantity and quality of labour.
  - Increase in the use of natural resources.
  - Physical capital inputs (machines, tools, buildings, inventories).
  - Technological knowledge.

7.2 The Determinants of Economic Growth

What factors contribute to economic growth?

- Quantity and Quality of Labour
  - Increase in the quantity of labour does not necessarily increase output per capita.
  - Output per capita increases if labour force participation rate rises, workers work more, or skills increase.
  - Human capital - productive knowledge and skill from education and on-the-job training.

7.2 The Determinants of Economic Growth

What factors contribute to economic growth?

- Increase in the Use of Natural Resources
  - A large natural resource base can affect the initial development process.
  - Sustained growth is influenced by other factors.
  - A limited resource base can pose an obstacle to growth.

7.2 The Determinants of Economic Growth

What factors contribute to economic growth?

- Physical Capital Inputs
  - Capital (tools, equipment, machinery) increases productivity.
  - Capital formation plays a significant role in economic development.

7.2 The Determinants of Economic Growth

What factors contribute to economic growth?

- Technological Advances
  - New ways of combining the factors of production
  - Enhance the amount of output from a given quantity of resources.
  - Innovation - applications of new knowledge that create new products or improve existing products.

7.2 The Determinants of Economic Growth

Section Check

- Generally speaking, higher levels of saving will lead to higher rates of investment and capital formation and, therefore, to greater economic growth.
- Larger rewards for research and development would spur even more rapid economic growth.

7.2 The Determinants of Economic Growth

Section Check

- Economic growth rates tend to be higher in countries where the government enforces both private property rights and intellectual property rights more vigorously.
- Allowing free trade can also lead to greater output because of the principle of comparative advantage.
- Education, an investment in human capital, is important to improving standards of living and economic growth.

7.3 Public Policy and Economic Growth

- Why is the saving rate so important to economic growth?
- Why are research and development so important to economic growth?

7.3 Public Policy and Economic Growth

- Why are property rights so important to economic growth?
- What impact will free trade have on economic growth?
- Why is education so important to economic growth?

7.3 Public Policy and Economic Growth

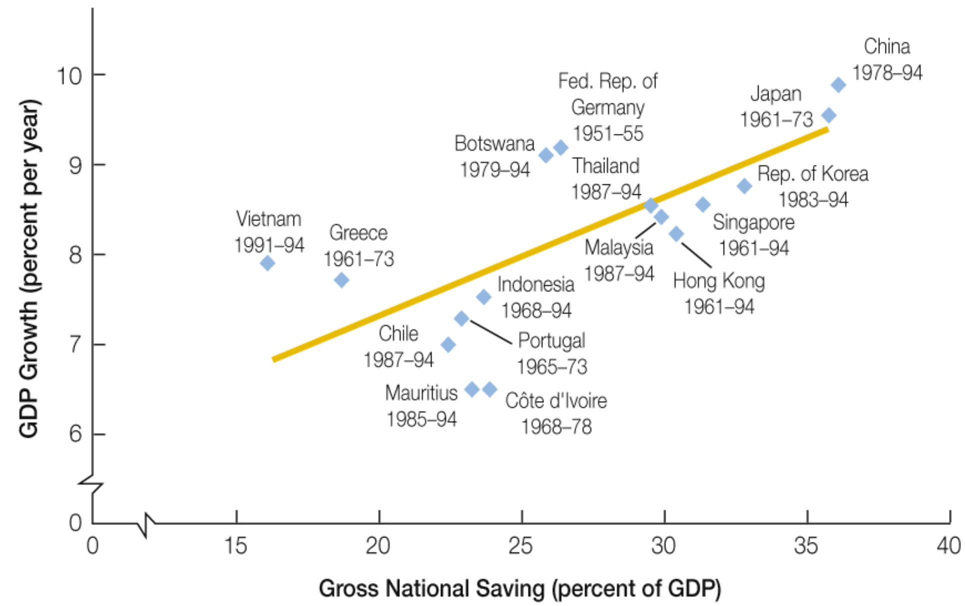
Why is the saving rate so important to economic growth?

- The saving rate is one of the most important determinants of economic growth.
- Leads to higher rates of investment and capital formation.
- Allows greater consumption in future.

7.3 Public Policy and Economic Growth

Why is the saving rate so important to economic growth?

- Saving Rates and GDP Growth during High-Growth Periods in Selected Economies



NOTE: Data are annual averages for the periods indicated.

SOURCE: World Bank, *World Development Report, 1996,* Oxford University Press, 1996.

7.3 Public Policy and Economic Growth

Why are research and development so important to economic growth?

- Research and development refers to activities undertaken to create new products and processes that will lead to technological progress

7.3 Public Policy and Economic Growth

Why are research and development so important to economic growth?

- It leads to new products, management improvements, production innovations, or simply learning-by-doing
- capital depreciates over time and is replaced with new equipment that embodies the latest technology
- rewarding innovators with patents has paid big dividends in the past 50 to 60 years
- Science and medicine, information and communications and agriculture

7.3 Public Policy and Economic Growth

Why are property rights so important to economic growth?

- Property rights give owners the legal right to keep or sell their property.
- Growth rates tend to be higher in countries where the government enforces property rights.

7.3 Public Policy and Economic Growth

What impact will free trade have on economic growth?

- Free trade can lead to greater output because of comparative advantage.
- Comparative advantage suggests that if two nations each specialize in producing a small number of goods and then trade, both parties can benefit.

7.3 Public Policy and Economic Growth

Why is education so important to economic growth?

- Determinants of Growth
  - Education is an investment that can improve productivity and increase future earning power.
  - Increases the skill level of the population and raises the standard of living.
  - Indirect benefits include lower crime rates, new ideas, and more informed voters.

7.3 Public Policy and Economic Growth

Why is education so important to economic growth?

- Literacy and Economic Development

Country	GDP Per Capita (US$)	Adult Literacy Rates (%)
United States	$46 653	99.0%
Canada	39 035	99.0
Japan	33 649	99.0
Brazil	10 847	88.6
India	3 354	61.0
Ethiopia	991	35.9
Guinea	1 037	29.5
Niger	667	28.7

NOTE: The literacy rates are based on the ability to read and write at an elementary-school level.

SOURCE: *United Nations Human Development Report 2010.*

7.3 Public Policy and Economic Growth

Section Check

- Generally speaking, higher levels of saving will lead to higher rates of investment and capital formation and, therefore, to greater economic growth.
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Section Check

- Allowing free trade can also lead to greater output because of the principle of comparative advantage.
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7.4 Population and Economic Growth

- What is the effect of population growth on per capita economic growth?
- What is the Malthusian prediction?

7.4 Population and Economic Growth

What is the effect of population growth on per capita economic growth?

- The effect of population growth on per capita economic growth is unclear.
- If population expands faster than output, per capita output falls.
- However, due to economies of scale, larger markets can lead to more efficient-sized production units.

7.4 Population and Economic Growth

What is the Malthusian prediction?

- English economist Thomas Malthus predicted that:
  - Per capita economic growth would eventually become negative.
  - Wages would ultimately reach equilibrium at a subsistence level.

7.4 Population and Economic Growth

What is the effect of population growth on per capita economic growth?

- Based on three assumptions:
  - The economy was agricultural, with two inputs – land and labour.
  - Supply of land was fixed.
  - Sexual desire worked to increase population.

7.4 Population and Economic Growth

What is the effect of population growth on per capita economic growth?

- Malthus' assumptions proved wrong for many nations.
  - New techniques effectively increase arable land.
  - Ignored effect of technological advance.
  - Population can be controlled through birth control techniques.

7.4 Population and Economic Growth

What is the effect of population growth on per capita economic growth?

- In some developing countries, population growth is a problem.
- Especially if supply of land is fixed, capital growth is slow, and technological advances are few.

7.4 Population and Economic Growth

Section Check

- Population growth may increase per capita output in resource-rich countries such as Canada, the United States, Australia, and Saudi Arabia, because these countries have more resources for production use by each labourer.
- Such countries are more likely to be able to take advantage of economies of large-scale production and are also more likely to have rapidly expanding technology.

7.4 Population and Economic Growth

Section Check

- The Malthusian prediction was that, due to limited productive resources and rapid population growth, eventually per capita economic growth would become negative.

Reviewing the Learning Outcomes

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