Chapter 12: Gross Domestic Product and Growth
Section 3

Prentice Hall
ECONOMICS

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Objectives

1. **Analyze** how economic growth is measured.
2. **Explain** what capital deepening is and how it contributes to economic growth.
3. **Analyze** how saving and investment are related to economic growth.
4. **Summarize** the impact of population growth, government, and foreign trade on economic growth.
5. **Identify** the causes and impact of technological progress.

Key Terms

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- **real GDP per capita:** real GDP divided by the total population of a country
- **capital deepening:** the process of increasing the amount of capital per worker
- **saving**: income not used for consumption
- **savings rate**: the proportion of disposable income that is saved
- **technological progress**: an increase in efficiency gained by producing more output without using more inputs

Introduction

- How does the economy grow?

  – The economy grows through
    - An increase in capital deepening
    - A higher savings rate
    - A population that grows along with capital growth
    - Government intervention
    - Technological progress

Measuring Economic Growth

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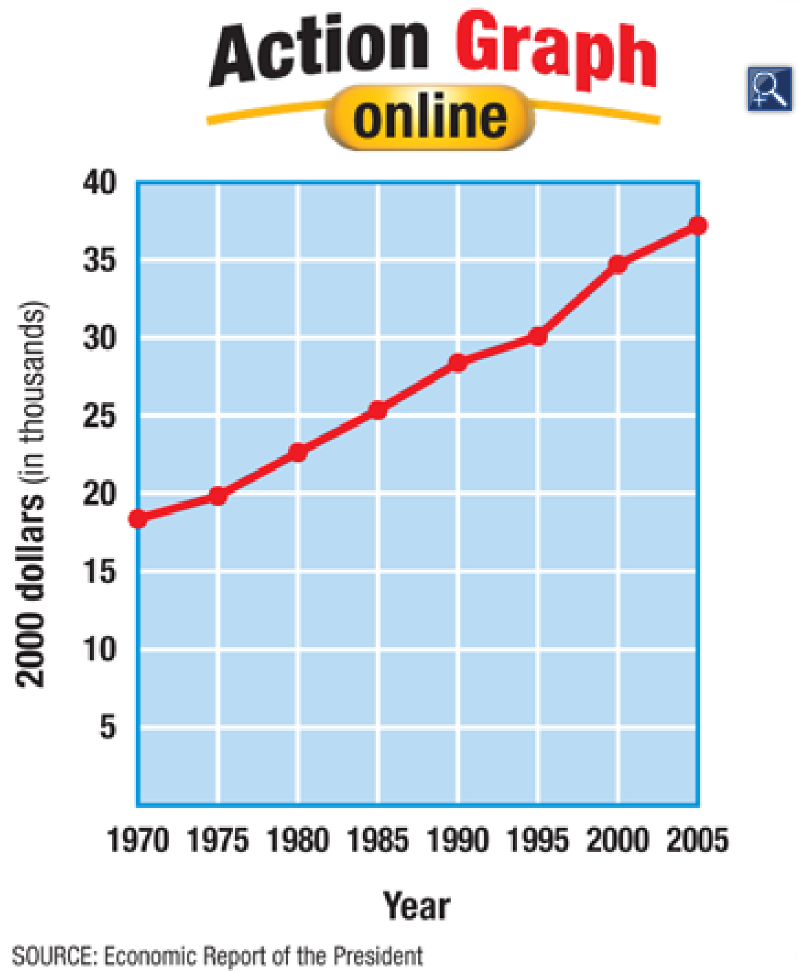
- The basic measure of a nation's economic growth rate is the percentage of change in real GDP over a period of time.
- Economists prefer a measuring system that takes population growth into account. For this, they rely on real GDP per capita.

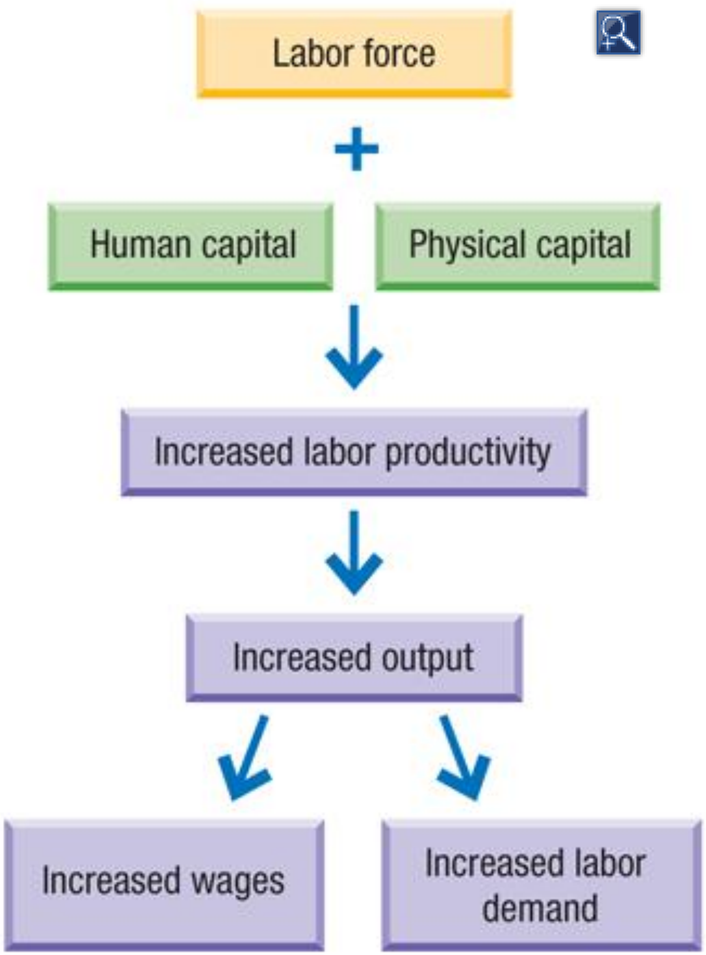


GDP and Quality of Life

- GDP measures the standard of living but it cannot be used to measure people's quality of life.
- In addition, GDP tells us nothing about how output is distributed across the population.
  - While real GDP per capita tells us little about individuals it does give us a starting point for measuring a nation's quality of life.
  - In general, though, nations with a high GDP per capita experience a greater quality of life.

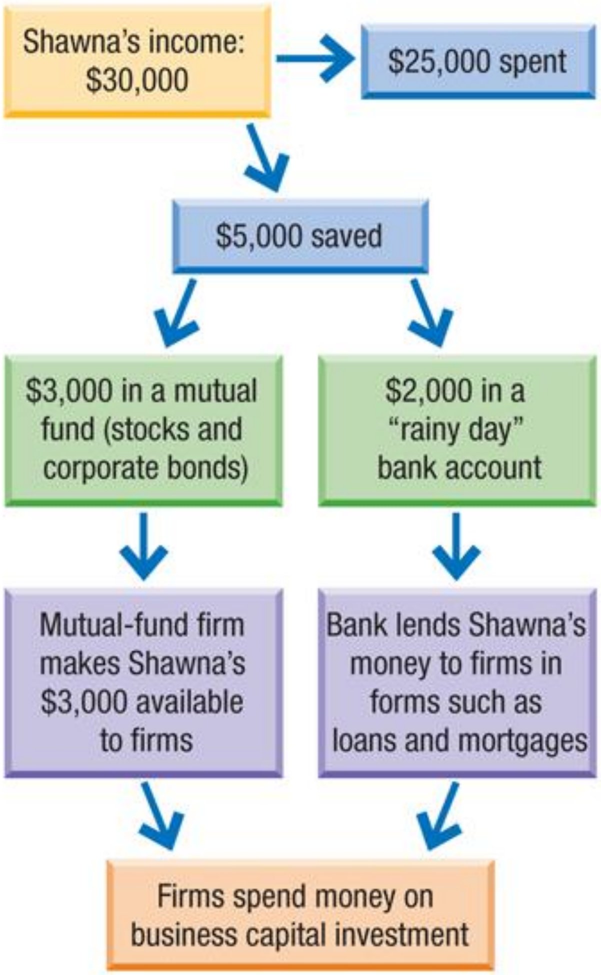
Capital Deepening

- A nation with a large amount of physical capital will experience economic growth.
- The process of increasing the amount of capital per worker, known as capital deepening, is one of the most important sources of growth in modern economies.
  - What is capital deepening?



Saving and Investment

- Checkpoint: How is saving linked to capital deepening?
  - If the amount of money people save increases, then more investment funds are available to businesses.
  - These funds can then be used for capital investment and expand the stock of capital in the business sector.



Population Growth

- If the population grows while the supply of capital remains constant, the amount of capital per worker will shrink, which is the opposite of capital deepening.
  - This process leads to lower standards of living.
- On the other hand, a nation with low population growth and expanding capital stock will experience significant capital deepening.

Government

- Checkpoint: Do higher tax rates increase or reduce investment?
  - If government raises taxes, households will have less money. People will reduce saving, thus reducing the money available to businesses for investment.
  - However, if government invests the extra tax revenues in public goods, like infrastructure, this will increase investment, resulting in capital deepening.

Foreign Trade

- Foreign trade can result in a trade deficit, a situation in which the value of goods a country imports is higher than the value of goods it exports.
  - If these imports consist of investment goods, running a trade deficit can foster capital deepening.
  - When the funds are used for long-term investment, capital deepening can offset the negatives of a trade deficit by helping generate economic growth, helping a country pay back the money it borrowed in the first place.

Economics & YOU

Economic Growth

When the economy is on the upswing, financial institutions are more likely to lend money. ***A strong economy means you have greater access to loans that help pay for education.***

Many economists see teen spending as a huge source of future economic growth. ***When you spend money responsibly, you help the economy expand.***

Technological Progress

- Technological progress is a key source of economic growth.
- It can result from new scientific knowledge, new inventions, and new production methods
- Measuring technological progress can be done by determining how much growth in output comes from increases in capital and how much comes from increases in labor.
  - Any remaining growth in output must come from technological progress.

Technological Progress, cont.

- Causes of technological progress include:
  - Scientific research
  - Innovation
    - New products increase output and boost GDP and profits
  - Scale of the market
    - Larger markets provide more incentives for innovation
  - Education and experience
    - Increases human capital
  - Natural resources
    - Increased natural resources use can create a need for new technology

Review

- Now that you have learned how the economy grows, go back and answer the Chapter Essential Question.
  - How do we know if the economy is healthy?