# **CHAPTER 12: SECTION 3 Economic Growth**

# What Is Economic Growth?

- Absolute real economic growth is an increase in real GDP from one period to the next.
- **Per capita real economic growth** is an increase in per capita real GDP from one period to the next. Per capita real GDP is real GDP divided by population.

# **Per Capita Real GDP Growth and the Rule of 72**

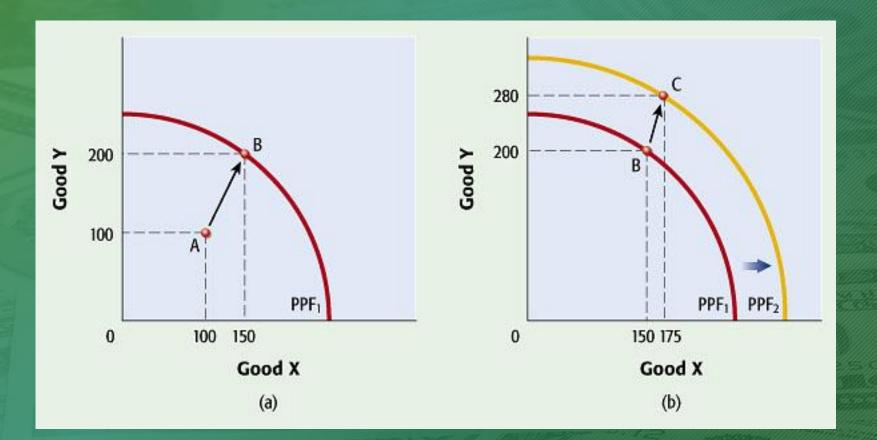
- The Rule of 72 states that the amount of time it would take for any variable to double is equal to 72 divided by the variable's percentage growth rate.
- For example, if a variable is growing at 10 percent, it will double in 7.2 years: 72 divided by 10 equals 7.2.

# **Economic Growth and a Production Possibilities Frontier**

- The production possibilities frontier (PPF) shows us all possible combinations of two goods that an economy can produce in a certain period of time.
- Using a PPF, we can show what absolute economic growth looks like. (See <u>Transparency 12-4</u>.)

- An economy can grow from a point below the PPF because some resources in the economy are currently unused. Movement from a point below the PPF to a point on the PPF is evidence of economic growth. Real GDP is higher at the point on the PPF than it is at the point below the PPF. (See part (a) of the transparency.)
- When an economy already resides on the PPF, the only way for it to experience economic growth is by shifting the frontier to the right. (See part (b) of the transparency.)

#### **TRANSPARENCY 12-4: Economic Growth**



Economic growth can occur from a position below the PPF as shown in part (a), or a position on the PPF as shown in part (b).



### What Causes Economic Growth?

- Factors that cause a rightward shift in the PPF include natural resources, labor, capital, human capital, technological advances, and incentives.
- With more natural resources, a country can produce more goods and services.
- With more labor, a country can produce more output. An increase in productivity of existing labor will also cause economic growth.
- Capital investment can lead to increases in labor productivity and therefore lead to increases in output or real GDP.

- Human capital can also affect economic growth. **Human capital** is the knowledge and skill that people use in the production of goods and services. Human capital includes honesty, creativity, and perseverance—traits that lend themselves to finding work.
- Technological advances can make it possible to obtain more output from the same amount of resources. Technological advances may result from new capital goods or new ways of producing goods.
- Some economists argue that economic growth develops where people are given the incentive to produce and innovate.

# **Two Worries About Future Economic Growth**

- Growth can come at a great cost. Economic growth may mean more pollution, more factories, and more crowded cities, along with increased social and psychological issues.
- Continued economic and population growth may bring us to a time when there is no clean air or water, and no land for people to live on comfortably.