Productivity

Economic Growth and the Determinants of Productivity

An economy's productive capacity is determined by the quantity/quality of its productive resources and technology. In the short run an economy's total productive capacity is fixed, but in the long run an economy can increase its capacity to produce goods and services by increasing the quantity and/or the quality of its productive resources or through technological progress.

An economy's productive capacity is determined by the quantity and quality of its resources, including:

- **Human resources:** labor resources and *human capital*. Human capital refers to the education and skills possessed by labor resources. Education is an investment in human capital because it increases workers' ability to produce.
- **Natural resources:** the gifts of nature that are useful in producing goods and services.
- **Capital goods:** goods (e.g., equipment and machinery) used to make other goods and services.
- **Technology:** technology refers to the way that resources are combined to produce goods and services. Technological progress means that there is a new and better way to produce. Technological progress occurs when production becomes more efficient—that is, when more output can be produced using the same inputs.

Economic growth is often measured by changes in real gross domestic product (GDP) or real GDP per capita. For example, the rate of economic growth can be measured by the average annual percentage change in real GDP per capita. Real GDP per capita is often used to measure living standards across time and between countries. Economic growth occurs because an economy experiences technical progress, increased investments in physical capital, and increased investments in human capital. In the most fundamental sense, economic growth is concerned with increasing an economy's total productive capacity at full employment.

Measuring Economic Growth in Hamilton County and Jefferson County

1. Use Table 6-2.1 to fill out Tables 6-2.2, 6-2.3, and 6-2.4. Recall that a percentage change is equal to the change divided by the starting value.

Table 6-2.1

Year	Hamilton real GDP	Hamilton population	Jefferson real GDP	Jefferson population
1	$2.1 billion	70,000	$500,000	15
2	$2.5 billion	80,000	$525,000	16
3	$2.8 billion	90,000	$600,000	17
4	$2.7 billion	86,000	$650,000	18

Table 6-2.2

Time period	Hamilton % change in real GDP	Jefferson % change in real GDP
From Year 1 to Year 2		
From Year 2 to Year 3		
From Year 3 to Year 4		

Table 6-2.3

Year	Hamilton per capita real GDP	Jefferson per capita real GDP
1		
2		
3		
4		

Table 6-2.4

Time period	Hamilton % change in per capita real GDP	Jefferson % change in per capita real GDP
From Year 1 to Year 2		
From Year 2 to Year 3		
From Year 3 to Year 4		

2. When did Hamilton County experience the largest growth in real GDP? _____

   (A) When did Hamilton County experience the largest growth in per capita real GDP? _____

   (B) Why are these growth rates different?

3. When did Jefferson County experience the largest growth in real GDP? _____

   (A) When did Jefferson County experience the largest growth in per capita real GDP? _____

   (B) Why are these growth rates different?

4. Which county do you believe is better off? Explain.

Analyzing Economic Growth

5. Economic growth can be illustrated using both the LRAS curve and the PPC. Use the following graphs to illustrate economic growth.