

ACTIVITY 18.1

INTRODUCTION TO KEY ECONOMIC INDICATORS

Directions: Read each of the three descriptions below, paying close attention to the economic indicator you have been assigned in your Expert Group. In your Expert Group, work to complete both the Study Guide and Table 18.1 for that indicator. Be prepared to share your findings when you return to your EFI group.

1. The Unemployment Rate¹

The unemployment rate is the percentage of the United States labor force that is unemployed. It is calculated by dividing the number of unemployed individuals (U) by the sum of the number of people unemployed (U) and the number of people employed (E). This result is then multiplied by 100 to turn the unemployment rate into a percentage:

$$\text{Unemployment Rate} = [U/U+E] \times 100$$

The U.S. labor force equals the number of people who are unemployed added to the number of people who are employed. An individual is counted as *unemployed* if he or she is 16 years old or older and is actively looking for a job, but cannot find one. Students, individuals who choose not to work, and retirees are *not* in the labor force, and therefore not counted in the unemployment rate.

Unemployed workers often do not have sufficient income to support themselves or their families; this can lead to financial challenges, marital problems, and even criminal activity.

State and federal governments provide unemployment compensation (insurance) to some unemployed workers. Because most workers pay the taxes that fund the unemployment compensation, some of the cost of unemployment is spread to employed taxpayers as well.

Increases in unemployment mean that real GDP is lower than it otherwise could be. If more individuals had been employed, the nation's economic output would be higher. Average standards of living are lower as a result of unemployment.

There are **three types of unemployment**, each of which describes the particular circumstances of individuals and their employment situations.

- **Frictional unemployment** is temporary unemployment arising from the normal job search process: it may include people who are seeking better or more convenient jobs, or those who are graduating from school and just entering the job market.
- **Structural unemployment** results from changes in the economy caused by technological progress and long-term shifts in the demand for goods and services. With structural unemployment, some jobs in certain sectors of the economy are eliminated and new jobs are created in faster-growing areas. Persons who are structurally unemployed may lack skills for new types of jobs and may face prolonged periods of unemployment.
- **Cyclical unemployment** is unemployment caused by a general downturn in economic activity. This type of unemployment can hit many different industries during a period of overall economic weakness.

¹ Description created using S. Buckles (2006), "A Case Study: The Unemployment Rate," *EconEdLink*. Accessed at <http://econedlink.org/lessons/index.cfm?lesson=EM219&page=teacher> on April 20, 2007.

ACTIVITY 18.1, CONTINUED

INTRODUCTION TO **KEY ECONOMIC INDICATORS**

Study Guide: The Unemployment Rate (fill out the Study Guide in your Expert Group; you will share this information with your EFI group).

1. All people without a job are considered unemployed. (circle one) TRUE / FALSE
2. The unemployment rate measures_____.
3. The unemployment rate is calculated by_____.
4. Calculate the unemployment rate if:
U = 7,000,000 E = 145,000,000
_____.
5. Costs of an increasing unemployment rate:
 -
 -
 -
6. Three types of unemployment:
 -
 -
 -
7. Current unemployment rate:_____.
8. Unemployment rate trend over the last year:_____.

ACTIVITY 18.1, CONTINUED

INTRODUCTION TO KEY ECONOMIC INDICATORS

2. Inflation: The Consumer Price Index (CPI)²

Inflation is a rise in the average prices of all goods and services. The consumer price index (CPI) is the most widely reported measure of inflation. The CPI compares the prices of a fixed set of goods and services (called a “market basket of goods and services”) to the prices of those same goods and services in a previous month or year. Any increase in the cost of purchasing this market basket of goods and services means an overall increase in the average level of prices paid by consumers, and thus inflation is said to be present.

The inflation rate is calculated by determining the percentage change in the CPI from one month to the next or from one year to another. For example, the CPI for November 2005 was 199.2. The CPI in November 2006 was 201.7. Therefore, the percent change in the CPI was:

$$\begin{aligned} [(201.7 - 199.2) / 199.2] \times 100 &= \\ [2.5 / 199.2] \times 100 &= \\ &= 1.3\% \end{aligned}$$

The inflation rate from November 2005 to November 2006 was 1.3%. In other words, the average price of the market basket of goods and services rose 1.3% during that one-year period.

Over short periods of time, inflation can be caused by increases in costs or increases in spending. **Demand-pull inflation** occurs when overall increases in demand **pull up** the average level of prices. If spending increases faster than the economy’s capacity to produce more goods and services, there will be upward pressure on prices. **Cost-push inflation** is caused by increases in costs of major inputs used throughout the economy. Increases in costs **push up** the average level of prices. For example, throughout much of 2007 and 2008, inflation rates increased largely because of increases in the price of oil. Because oil is an important input for many goods and services, an increase in its price leads to price increases for many other things. In the long run, inflation can also be caused by excessive growth of the money supply.

Costs of Inflation. Inflation that is greater than people expected reduces the purchasing power of money. Because prices rise over time, consumers require a larger income to purchase the goods and services necessary to maintain a constant standard of living. People on fixed incomes such as pensioners or workers without cost-of-living adjustments (COLAs) are especially hurt by unexpected inflation. High inflation makes it difficult for businesses and consumers to predict the future and can discourage long-term saving and investment. High inflation leads to high interest rates. Lenders receive higher interest payments, part of which is compensation for the decrease in the value of the money lent (due to inflation). Borrowers have to pay higher interest rates and lose any advantage they may have from repaying loans with money that is not worth as much as it was prior to the inflation.

² Description created using S. Buckles (2006), “A Case Study: The Inflation Rate,” *EconEdLink*. Accessed at <http://econedlink.org/lessons/index.cfm?lesson=EM222&page=teacher> on April 23, 2007.

ACTIVITY 18.1, CONTINUED

INTRODUCTION TO KEY ECONOMIC INDICATORS

Study Guide: The Inflation Rate. Fill out the study guide in your expert group; you will share this information with your EFI group.

1. The Consumer Price Index (CPI) is_____.
2. The Consumer Price Index measures_____.
3. The inflation rate is calculated by_____.
4. Calculate the inflation rate if:
CPI (September 2007) = 208.5 CPI (September 2008) = 218.8

5. Two causes of inflation:
 - a.
 - b.
6. Costs when the inflation rate increases faster than expected:
 - a.
 - b.
 - c.
 - d.
7. Current (12-month) inflation rate: _____.
8. Inflation rate trend over the last three years:_____.

ACTIVITY 18.1, CONTINUED

INTRODUCTION TO KEY ECONOMIC INDICATORS

3. Economic Output: Real Gross Domestic Product (GDP)³

Real gross domestic product (real **GDP**) is a measure of economic output. It is defined as the market value of final goods and services produced in the United States in a year, adjusted for inflation. Real GDP is total output adjusted for inflation by holding prices constant.

- **Gross** measurement includes the total amount of goods and services produced, some of which replace goods that have depreciated or have worn out.
- **Domestic** production includes only goods and services produced within the United States.
- Current **production** is measured during the year in question.
- It is a measurement of the **final** goods and services produced because it does not separately include the value of an intermediate good that is part of a transaction between parties that do not involve the final customer. We count only the final sale.

Changes in real GDP from one year to the next reflect changes in the market value of the output of goods and services holding the prices of goods and services constant. Therefore, any changes in real GDP can only arise from a change in the quantities of goods and services produced. Prices are held constant in constructing real GDP measures. **Real GDP per capita** is the real GDP per person in the economy and is commonly thought of as the best measure of overall economic well-being in a country.

The GDP is calculated by totaling up consumption spending, investment spending, government purchases of goods and services, and spending on U.S. exports. To arrive at the amount actually produced in the United States (that is, U.S. Gross Domestic Product), our spending on imports is subtracted from those other amounts of spending. Thus,

GDP = Consumption spending + investment spending + government purchases of goods and services + (export spending – import spending)

Consumption spending consists of household spending on final goods and services. These purchases can account for 60 to 70 percent of GDP and include goods such as new cars, furniture, food, and clothing; and services such as rent paid on apartments, airplane tickets, legal advice, and entertainment. Services are the largest and fastest growing component of consumption spending.

Investment spending accounts for approximately 15 percent of GDP and can fluctuate a lot over time. It includes the production of tools, equipment, new business structures, machinery, etc., that are used in the production of other goods and services. These items are expected to yield a stream of returns over time, which is why expenditures in this category are referred to as economic

³ Description created using S. Buckles (2006), “A Case Study: Gross Domestic Product,” *EconEdLink*. Accessed at <http://econedlink.org/lessons/index.cfm?lesson=EM225&page=teacher> on April 23, 2007.

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investment. GDP *does not* include financial investment such as purchases of stocks and bonds. The investment category of GDP also includes the building of a new home or apartment. Inventory changes are also found in investment expenditures.

Government purchases of goods and services includes federal, state, and local government spending on goods and services such as research, roads, defense, schools, and police and fire departments. This spending (approximately 20 percent of GDP) does not include transfer payments such as Social Security, unemployment compensation, and welfare payments, which do not represent production of goods and services. National defense spending now accounts for approximately 5 percent of GDP. State and local government spending on goods and services accounts for about 12 percent of GDP, while federal government purchases of goods and services are about 8 percent of GDP.

Exports are goods and services produced in the United States and purchased by foreigners. Currently exports account for about 10 percent of GDP.

Imports are items produced by foreigners and purchased by U.S. consumers; they account for about 16 percent of GDP.

Net exports (exports minus imports) have consistently been negative over the past three decades and are now about negative 6 percent of GDP.

Real GDP per capita is a measure of the claim on final goods and services of the average member of the U.S. population. This is the best measure of overall material standards of living and is commonly used in making comparisons of living standards across countries and over time.

While there are several measures of overall economic performance (such as inflation, unemployment, personal income, etc.), none is a more important indicator of our economy's health than rates of change in real GDP. When our real GDP increases, we are producing more "product" as a nation, and we are usually better off.

Changes in real GDP are discussed in the press and on the nightly news after every announcement of the latest quarter's newly released or revised data. Any change in the growth of real GDP will be discussed in news reports as an indicator of the health of the national economy.

Real GDP trends are prominently included in discussions of potential slowdowns and economic booms. Economic commentators use decreases in real GDP as indicators of recessions. For example, the most popular (although technically inaccurate) definition of a recession is at least two consecutive quarters of declining real GDP.

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Study Guide: Real Gross Domestic Product (GDP). (Fill out the study guide in your expert group; you will share this information with your EFI group.)

1. The gross domestic product (GDP) is_____.
2. Real GDP is_____.
3. The components of GDP are
 - a. _____.
 - b. _____.
 - c. _____.
 - d. _____.

Complete the formula: GDP =

4. GDP is an important measure of the nation's economic health because
_____.
5. Increasing GDP indicates
_____.
6. Decreasing GDP indicates
_____.
7. Current level and growth rate of real GDP:
_____.
8. Trend in the growth of real GDP over the last three years:_____.

ACTIVITY 18.1, CONTINUED

TABLE 18.1 KEY ECONOMIC INDICATORS

Indicator	Indicator measures?	How calculated?	An <u>increase</u> in this indicator means...?	A <u>decrease</u> in this indicator means...?	Current data (and trend) for the indicator?
Real GDP					
Inflation Rate					
Unemployment Rate					

ACTIVITY 18.2

ECONOMIC FORECAST REPORT

Directions: Use the completed Study Guides and Table 18.1 to develop a report to Ms. J. Q. Public. As a group, come to a consensus about your recommendation. Use the template below to prepare your report.

Economic Forecasters, Inc.

Economic Forecast Report

Prepared for Ms. J. Q. Public

Output of the United States economy, as measured by _____ is currently _____ . The trend in output over the last 12 months has been _____ .

The overall effect of this trend implies that _____ .

The average level of prices in the U.S., as measured by _____ , is rising at a current rate of _____ . The trend in the U.S. price level over the last 12 months has been _____ .

The overall effect of this trend implies that _____ .

ACTIVITY 18.2, CONTINUED

ECONOMIC FORECAST REPORT

The percentage of the U.S. labor force that wishes to work, but is unable to find a job, as measured by _____, is currently _____.

The trend in this percentage over the last 12 months has been _____.

_____.

The overall effect of this trend implies that _____.

_____.

Given these economic statistics, Economic Forecasters, Inc. (EFI) recommends

Signed,

EFI Economists