

# WHAT'S IN GDP?

## TEACHER ANSWER KEY FOR STUDENT HANDOUT

### ACTIVITY 1: Components of GDP

Which component of GDP would each of these fit into?

1. *Consumption* Mechanic fixes a transmission
2. *Investment* A business purchases computer software and a PC
3. *Government spending* A local library purchases new audio books
4. *Net exports or imports* A retailer purchases tennis shoes from a manufacturer in China and sells them
5. *Consumption* Mother purchases those tennis shoes from the retailer

Write one more example of each of the four components.

6. *Answers will vary* Consumption
7. *Answers will vary* Investment
8. *Answers will vary* Government spending
9. *Answers will vary* Net exports
10. Explain why the sale of used goods is not included in GDP.

*[Expenditure on used goods is not part of GDP because these goods were part of GDP in the period in which they were produced and during which time they were new goods. Counting the sale of used goods would be double-counting and would distort the true level of production for a given period.]*

### ACTIVITY 2: Nominal and real GDP

You are an economist who has been asked to calculate your nation's GDP, which produces only three goods/services. Calculate nominal GDP for Year 1 and Year 2. GDP = price x quantity.

Year 1 Nominal GDP				Year 2 Nominal GDP			
	Price	Quantity	GDP		Price	Quantity	GDP
Oil changes	\$15	5	\$75	Oil changes	\$18	6	\$108
Hamburgers	\$2	20	\$40	Hamburgers	\$3	25	\$75
MP3 players	\$150	3	\$450	MP3 players	\$175	5	\$875
		Total	\$565			Total	\$1,058

11. By how much has GDP increased from Year 1 to Year 2? [ $\$1,058 - \$565 = \$493$ ]

Now calculate Year 2 real GDP using Year 1 as the base year.

Year 2 Real GDP			
	Price	Quantity	GDP
Oil changes	\$15	6	\$90
Hamburgers	\$2	25	\$50
MP3 players	\$150	5	\$750
		Total	\$890

12. By how many dollars was nominal GDP overstating GDP in Year 2? [ $\$1,058 - \$890 =$  **\$168**]

13. How much has real GDP increased from Year 1 to Year 2? [ $\$890 - \$565 =$  **\$325**]

14. Why is it important to adjust nominal GDP for inflation?

*[Nominal GDP is not adjusted for inflation and therefore can distort true changes in the output of goods and services from one period to the next. Real GDP is a better measure of changes in short-run economic growth because it measures the market value of output of goods and services in the base year prices. It compares changes in output after holding prices constant.]*

### ACTIVITY 3: Other Measures of Standard of Living

Economists often use real GDP over the long run to understand changes in a nation's economic growth. Real GDP tends to increase as a nation's standard of living improves; however, GDP does not capture some very important social measures. For example, other factors that can give insight into a population's well-being are income distribution, the literacy rate, the mortality rate, and life expectancy.

Using the Internet, investigate one of the following measures of the standard of living in a country:

- Gini Coefficient
- Human Development Index
- Human Poverty Index
- Gross National Happiness

Create a presentation for your classmates about your standard of living measure. As part of your presentation, address the following issues:

1. How is the measure calculated? That is, what factors does it include?
2. What are the advantages and disadvantages of the measure?
3. Evaluate the measure's effectiveness in determining a country's standard of living.

### ACTIVITY 4: Assessment

1. Assume that a country has a closed economy that has only three goods/services. That is, there is no trade with other countries, so the economy has consumption, investment, and government spending, but no net exports. In a given year, the economy produces
  - three haircuts that cost \$10 each
  - two factory machines that cost \$100 each
  - one highway repair that costs \$500

1a. What is total GDP for this economy?

$$[(3 \times 10) + (2 \times 100) + (1 \times 500) = \mathbf{\$730}]$$

1b. What percent of GDP is consumption?

$$[30 / 730 = \mathbf{approximately\ 4\%}]$$

1c. What percent of GDP is investment?

$$[200 / 730 = \mathbf{approximately\ 27\%}]$$

1d. What percent of GDP is government spending?

$$[500 / 730 = \mathbf{approximately\ 68\%}]$$

2. Suppose an economy's nominal GDP increased 3 percent in 2008. Why is this information alone not enough to determine whether the economy experienced economic growth? What other information would you need?

*[The increase in nominal GDP could be the result of increases in the price level, not necessarily an increase in the output of goods or services. To determine if the economy experienced economic growth, one would need to convert the nominal GDP into base year prices to get an accurate comparison between years.]*

3. Why is GDP not the best measure of standard of living? What other factors should be considered when one determines a country's standard of living relative to other countries?

*[Answers will vary depending on information covered in presentations for Activity 3. Answers may include that real GDP does not take into consideration some measures of social well-being, such as income distribution, literacy rate, life expectancy, and mortality rate.]*