Chapter 22: Measuring a Nation's Income
(Macro Chapter 10)

Questions for Review: Answers

1. An economy's income must equal its expenditure, since every transaction has a buyer and a seller. Expenditure by buyers equals income by sellers.

2. The production of a luxury car contributes more to GDP than the production of an economy car because the luxury car has a higher market value.

3. The contribution to GDP is $3, the market value of the bread, which is the final good that is sold.

4. The sale of used records doesn't affect GDP at all because it involves no current production.

5. The four components of GDP are consumption, such as the purchase of a music CD, investment, such as the purchase of a computer by a business, government purchases, such as the purchase of military aircraft, and net exports, such as the sale of American wheat to Russia.

6.

Year	Nominal GDP	Real GDP	Deflator
2001	100 x $2 = $200	100 x $2 = $200	($200/$200) x 100 = 100
2002	200 x $3 = $600	200 x $2 = $400	($600/$400) x 100 = 150

The percentage change in nominal GDP is (600-200)/200 x 100 = 200%. The percentage change in real GDP is (400-200)/200 x 100 = 100%. The percentage change in the deflator is (150-100)/100 x 100 = 50%.

7. It is desirable for a country to have a large GDP because people could enjoy higher expenditures. But GDP isn't the only important measure of well-being. For example, laws that restrict pollution cause GDP to be lower. If laws against pollution were eliminated, GDP would be higher but the pollution might make us worse off. Or, for example, an earthquake would raise GDP, as expenditures on cleanup, repair, and rebuilding increase. But an earthquake is a pretty undesirable event that lowers our welfare.

Problems and Applications: Answers

1. a. consumption increases; b. investment increases; c. consumption increases, investment decreases; d. consumption increases; e. government purchases increase; f. consumption increases, net exports decrease; g. investment increases

2. With transfer payments, nothing is produced, so there is no contribution to GDP.

3. Purchases of new housing are included in the investment portion of GDP because housing lasts for a long time. For the same reason, purchases of new cars could be thought of as investment, but by convention, they are not. The logic could apply to any durable good, such as household appliances.

4. If GDP included goods that are resold, it would be counting output of that particular year, plus sales of goods produced in a previous year. It would double-count goods that were sold more than once and would count goods in GDP in several years if they were produced in one year and resold in another.

5. The advantage of using prices in counting GDP is that it counts goods according to their economic value, that is, their opportunity cost. Other methods, such as using sizes or weights, wouldn't tell you much about the value of economic resources used in production.

6.

Year	Nominal GDP (billions)	GDP Deflator
1993	\$6,343	124
1994	\$6,738	126

a. The growth rate of nominal income is (\$6,738 - \$6,343)/\$6,343 x 100% = 6.2%.

b. The growth rate of the deflator is (126-124)/124 x 100% = 1.6%.

c. Real income in 1993 is \$6,343/(124/100) = \$5,115.

d. Real income in 1994 is \$6,738/(126/100) = \$5,348.

e. The growth rate of real income is (\$5,348 - \$5,115)/\$5,115 x 100% = 4.6%.

f. The growth rate of nominal income is higher than the growth rate of real income because of inflation.

7. Economists ignore the rise in people's incomes that is caused by higher prices because although incomes are higher, the prices of the goods and services that people buy are also higher. Thus economists prefer to look at real GDP instead of nominal GDP.

8. Many possible answers.

9. To tell if the farmer is better off, you'd need to know if the prices of the goods she buys have increased by more or by less than the prices of the goods she sells.

10. Knowing that the GDP of China is three times that of Sweden doesn't tell you which country is better off economically. Most importantly, the populations of the two countries are quite different. A better measure of economic well-being would be GDP per person.

11. In countries like India, people produce and consume a fair amount of food at home that is not included in GDP. So GDP per person in India and the United States will differ by more than their comparative economic well-being.

12. If the government cares about the total income of Americans, it will emphasize GNP, since that measure includes the income of Americans that is earned abroad. If the government cares about the total amount of economic activity occurring in the United States, it will emphasize GDP, which measures production in the country, whether produced by domestic citizens or foreigners.

13.
   a. The increased labor-force participation of women has increased GDP in the United States, since it means more people are working.

   b. If our measure of well-being included time spent working in the home and taking leisure, it wouldn't rise as much as GDP, since the rise in women's labor-force participation has reduced time spent working in the home and taking leisure.

   c. Other aspects of well-being that are associated with the rise in women's increased labor-force participation include increased self-esteem and prestige for women in the workforce, especially at managerial levels, but decreased quality time spent with children, whose parents have less time to spend with them. Such aspects would be quite difficult to measure.