

## Answers to Questions: Chapter 2

1. A flow magnitude moves from one economic unit to another over a period of time. A stock magnitude is in the possession of a given economic unit at a particular point in time.
  - (a), (b), (e), (f), (j), (k), (l) are flows.
  - (c), (d), (g), (h), (i) are stocks.
2.
  - a. No, the peaches are an intermediate good in the production of peach ice cream by the peach maker.
  - b. Yes, the new machine is part of private investment.
  - c. Yes, your purchase of ice cream is part of consumption expenditures.
  - d. No, the peach ice cream is an intermediate good in the production of peach smoothies.
  - e. Yes, your cousin's purchase is an export for the United States.
  - f. No, only currently produced books would be included in GDP.
  - g. Yes, the peaches are part of consumption, but the value of the time you spend in making the ice cream is not included in GDP.
  - h. Yes, but unlike the purchase of the machine by a business, your purchase of the ice-cream maker would be part of consumption expenditures and not private investment.
  - i. No, you are giving a gift to your cousin; the ice cream was not sold on the market.
3.
  - a. The salary would be included in GNP, but not GDP, since it is income that is earned by an American from production that takes place in Japan.
  - b. The profits would be included in GDP, but not GNP, since it is income earned by a foreign company on production that takes place in the United States.
  - c. The software is part of exports, which is included in both GDP and GNP.
4. The Europeans are buying goods and services produced in the United States. This makes these purchases part of our exports. Similarly, when an American on vacation in Ireland buys an Irish sweater, that is equivalent to an American who buys the same sweater in a store in the United States that specializes in clothes imported from Ireland.
5. There are at least two reasons why you cannot compare the well-being of the average individual in the two countries simply by comparing the GDPs of the two countries. The first is that the populations of the two countries are different. In particular, the population of China is approximately four times larger than that of the United States. Therefore, if the real GDP of the United States is twice as large as China's, the amount of output for each person in the United States is eight times as large as the amount of output for each person in China.

A second reason why it is not possible to compare the well-being of the average individual in the two economies simply by comparing their total output is that real GDP provides no information on how that aggregate output is distributed among the each economy's members. For example, if in one economy, a larger percentage of its output is received by a smaller percentage of its population, then the well-being of a larger percentage of its population would be less than in the other economy, all other things being equal.
6. Because activity in the underground economy goes unrecorded, official measures understate GDP and productivity and overstate unemployment, with the degree of inaccuracy in these measures directly related to the size of the underground economy. This makes it more difficult for policymakers to estimate how close the economy is to its natural real GDP and natural rate of unemployment and to accurately gauge threats of inflation and recession.
7.
  - a. For the interest rate data, go to [research.stlouisfed.org/fred2](http://research.stlouisfed.org/fred2). When you get to that page, click on the link for interest rates, and then click on the link for the Treasury constant maturity page. That page

- will allow you to either view or download the interest rate data for many Treasury securities, including the two asked for in the question.
- b. To obtain the value of the GDP deflator in the latest quarter, go to [www.bea.gov](http://www.bea.gov) and click on the link for Gross Domestic Product. When that page comes up, click on the link for Gross National Product that follows the caption News Release. It is easier to read and/or print the news release in PDF format rather than HTML format. The GDP deflator is contained in Table 6 and is referred to as the price index for Gross Domestic Product.
  - c. These data can be obtained by going to [www.bls.gov](http://www.bls.gov) and clicking on the link for National Employment. When that page comes up, click on the Economic New Releases link. When the new releases page comes up, click on the Employment Situation Summary link. The data you are looking for are contained in Table A.
  - d. Follow the same links that are needed to get the GDP deflator. The data you are looking for in this part of the question are contained in Table 3 of the News Release. Data for nominal GDP and nominal personal consumption expenditures are listed in the billions of current dollars portion of Table 3. Data for real GDP and real personal consumption expenditures are listed in the billions of chained (2005) dollars portion of Table 3.
8.
    - a. Savings and taxes are leakages from the spending stream in the circular flow diagram. Savings go into capital markets and taxes go to the government. Imports are also leakages from the spending stream and become part of the rest of the world's income.
    - b. Private domestic investment and government purchases of goods and services are injections into the spending stream in the circular flow diagram. The funds for private domestic investment come from capital markets. Government purchases of goods and services are financed either through taxes or borrowing from capital markets. Exports are also an injection into the spending stream in the circular flow diagram. They come from the rest of the world.
  9. When the government runs a budget surplus, it retires more debt than it issues. The amount of debt retired is the value of the bonds that the government buys from bondholders, which exceeds the value of the bonds that it sells to bondholders when the government runs a budget surplus. As a result, funds flow from the government to capital markets.
  10. Domestic income, by definition, includes income earned by the factors of production in current production. But as we move from domestic income to personal income, we subtract from income earned that portion paid to the government as corporate taxes and social security contributions, as well as undistributed corporate profits (i.e., income earned but not received). We also add into the flow of income certain payments such as government transfers (interest on the national debt and welfare payments) and personal interest payments (i.e., income received but not earned).
  11. If all parts for the car, other than the tires, are produced in 2010:
 

2010: 400 tires @ \$75 each = \$30,000.

2011: 100 cars @ \$30,000 each = \$3,000,000 minus the decrease in inventory of \$30,000  
= \$2,970,000.
  12.
    - a. income: \$1,600,000.
    - b. consumption expenditures: \$1,250,000.
    - c. personal saving: \$350,000.
    - d. investment: \$250,000.
  13. The "magic equation" tells us that private saving equals the total of domestic private and net foreign investment minus government saving. Therefore, if private saving declines, either government saving must rise to offset that decline or domestic private investment or net foreign investment must decrease to match the decline in private saving.

14. Many alternative combinations of changes in prices and output could yield an increase in nominal GDP; thus, with this limited information, you can't say what happened to output and prices. If real GDP had increased in 2011, then you would know that output had gone up; however, you still would not know what happened to prices.
15. Deflation means that prices are falling. Therefore, the prices used to calculate real GDP would be higher than the prices used to calculate nominal GDP. As a result, real GDP would grow faster than nominal GDP.
16. There are two types of people who fit into the ranks of the "hidden unemployed." The first group consists of people who are forced to work part-time because they cannot find the full-time employment that they desire. People in this group are counted as employed even though they spend less time working than they would like, which means that their labor resources are being under utilized. The second group of people in the ranks of the "hidden unemployed" consists of individuals who have given up looking for work because they have been unable to find work. These "discouraged workers" are not counted as unemployed because they have not sought work within the past four weeks.

The pink and brown areas of the graph on page 45 shows that the amount of "hidden unemployment" during the Global Economic Crisis surpassed previous recessions, with the exception of the 1981-82 recession. But note that the increase in the amount of "hidden unemployment" was larger during the Global Economic Crisis than it was during the 1981-82 recession. These two facts allow us to conclude that "hidden unemployment" was more severe during the Global Economic Crisis.

Businesses are more likely to put part-time employees to work on a full-time basis when economic activity picks up, rather hire people with whom they have no employment history. That will contribute to the problem of long-term unemployment, which also became quite severe during the Global Economic Crisis, as we will see in later chapters of the text.

17. The unemployment rate would go down. This is a nice trick that might be used by an administration that wanted to convince people that a prolonged recession is ending (assuming people didn't understand the mechanics of the situation).
18. a. Don is considered unemployed because he is on a temporary layoff.  
b. Ellen is considered employed since she now has another job.

- c. Since Frank has resigned his position and is taking no steps to seek part-time work while he is in school, he is considered not in the labor force. On the other hand, since Frank's wife is actively seeking employment, she is considered unemployed.