Chapter 7 Tracking the Macro Economy

Suggested Problems: Problems – 1, 3, 6

1. Below is a simplified circular-flow diagram for the economy of Micronia.
a. What is the value of GDP in Micronia?
b. What is the value of net exports?
c. What is the value of disposable income?
d. Does the total flow of money out of households-the sum of taxes paid and consumer spending—equal the total flow of money into households?
e. How does the government of Micronia finance its purchases of goods and services?

a. We can measure GDP in Micronia as the sum of all spending on domestically produced final goods and services. Spending consists of consumer spending, government purchases of goods and services, and exports less imports, or $750 ($650 + $100 + $20 − $20).
b. Net exports are exports less imports. In Micronia, net exports equal zero ($20 − $20).
c. Disposable income is income received by households less taxes plus government transfers. In Micronia, disposable income equals $650 ($750 − $100).
d. Yes. Consumer spending plus taxes equals $750—the same as the wages, profit, interest, and rent received by households.
e. The government finances its purchases of goods and services with tax revenue.

3. The components of GDP in the accompanying table were produced by the Bureau of Economic Analysis.

a. Calculate consumer spending.
b. Calculate private investment spending.
c. Calculate net exports.
d. Calculate government purchases of goods and services and investment spending.
e. Calculate gross domestic product.
f. Calculate consumer spending on services as a percentage of total consumer spending.
g. Calculate exports as a percentage of imports.
h. Calculate government purchases on national defense as a percentage of federal government purchases of goods and services.

All figures below are in billions of dollars.
a. Consumer spending is $1,082.8 + $2,833.0 + $5,794.4 = $9,710.2.
b. Private investment spending is $2,134.0 − $3.6 = $2,130.4.
c. Net exports are $1,662.4 − $2,370.2 = −$707.8.
d. Government purchases of goods and services and investment spending are $1,695.5 + $979.3 = $2,674.8.
e. Gross domestic product is $9,710.2 + $2,130.4 + $2,674.8 − $707.8 = $13,807.6.
f. Consumer spending on services as a percentage of total consumer spending is ($5,794.4/$9,710.2) × 100 = 59.7%.

g. Exports as a percentage of imports is (\$1,662.4/\$2,370.2) × 100 = 70.1%.
h. Government purchases of goods and services on national defense as a percentage of federal purchases of goods and services is (\$662.2/\$979.3) × 100 = 67.6%.

6. Which of the following transactions will be included in GDP for the United States?
a. Coca-Cola builds a new bottling plant in the United States.
b. Delta sells one of its existing airplanes to Korean Air.
c. Ms. Moneybags buys an existing share of Disney stock.
d. A California winery produces a bottle of Chardonnay and sells it to a customer in Montreal, Canada.
e. An American buys a bottle of French perfume in Tulsa. f. A book publisher produces too many copies of a new book; the books don't sell this year, so the publisher adds the surplus books to inventories.

a. When Coca-Cola builds a new bottling plant, it is investment spending and included in GDP.
b. If Delta sells one of its airplanes to Korean Air, this transaction is not included in GDP because it does not represent production during the current time period. The airplane would have been included in GDP when it was produced; now it is just a sale of a used item.
c. When an individual buys an existing share of stock, the transaction is not included in GDP because there is no production.
d. If a California winery sells a bottle of Chardonnay to a customer in Montreal, it is a U.S. export and is entered as such in U.S. GDP.
e. When an American buys a bottle of French perfume; it is consumption expenditure as measured by GDP. But since it does not represent production in the United States, it is also deducted from GDP as an import. The net effect of the transaction does not change GDP in the United States.
f. If a book publisher produces too many copies of a new book and the books don't sell in the year they are produced, the publisher adds the surplus books to inventories. These books are considered investment spending and added to GDP. It is as if the publisher bought the books itself.