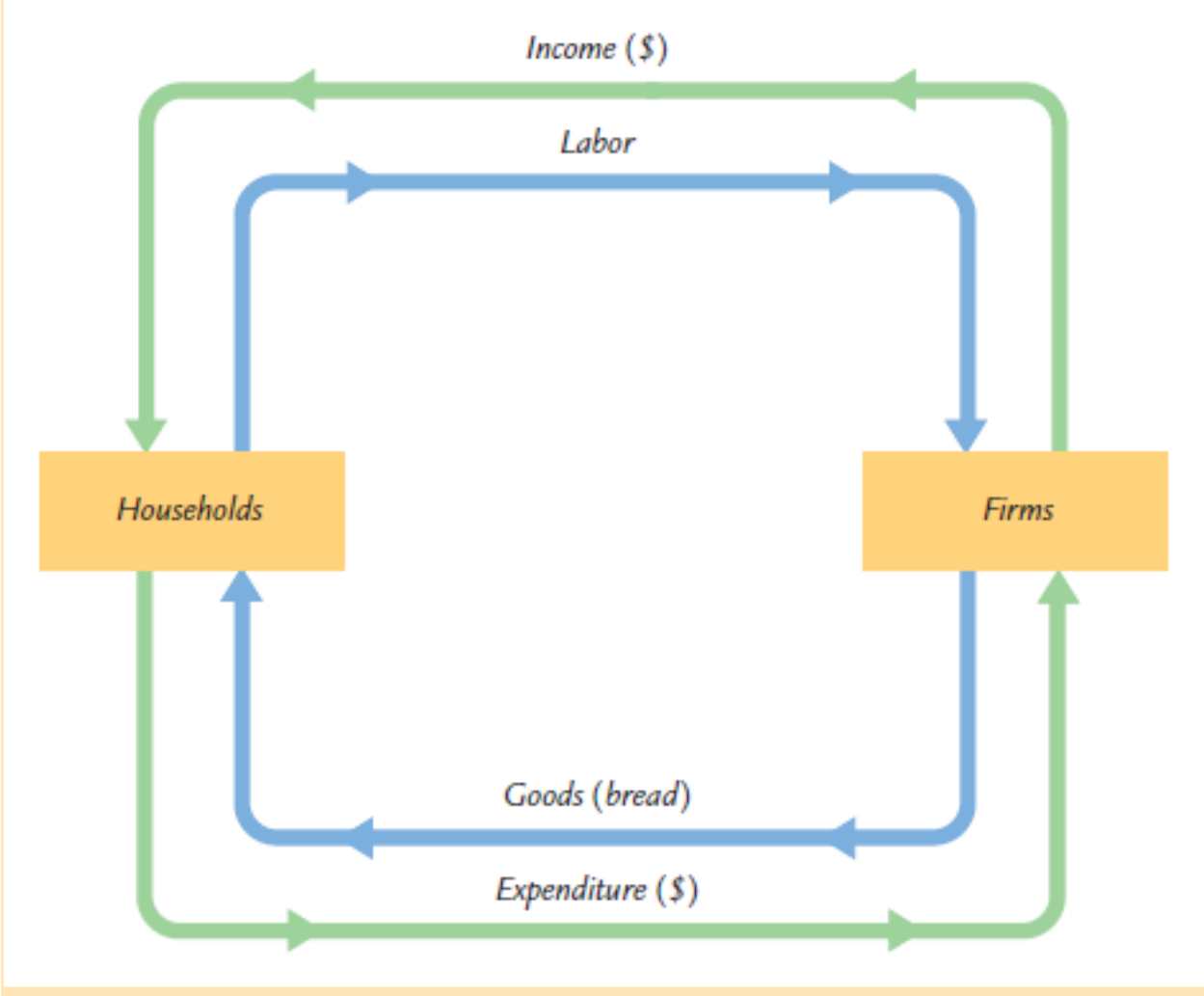
Measuring the Value of Economic Activity: GDP

- National Income Accounting
- Basic Concept: GDP is as the total income of everyone in the economy. Another way to view GDP is, as the total expenditure on the economy's output of goods and services.
- The Circular Flow:



- Rules of Computing GDP:
    - Stocks and Flows: A stock is a quantity measured at a given point in time, whereas a flow is a quantity measured per unit of time.
    - Examples:

A person's wealth is a stock; his income and expenditure are flows.

The number of unemployed people is a stock; the number of people losing their jobs is a flow.

The amount of capital in the economy is a stock; the amount of investment is a flow.

- GDP is probably the most important flow variable in economics: it tells us how many rupees are flowing around the economy's circular flow per unit of time.

- Gross domestic product (GDP) is the market value of all the final goods and services produced within an economy in a given period of time.

- Example: Adding Apples and Oranges
    - GDP = (Price of Apples × Quantity of Apples) + (Price of Oranges × Quantity of Oranges)
    - Second Hand Goods
    - The Treatment of Inventories

- The Methods for Calculating GDP:
    - Income Method
    - Expenditure Method
    - Value Added Method

- Intermediate Goods and Value Added: Stage Production
    - Housing Services and Other Imputed value

- The Components of Expenditure: Y = C + I + G + NX
- This equation is an identity — it is because of the way the variables are defined. It is called **the national income accounts identity.** Assuming Y is the **GDP:**
    - Consumption

- Investment
- Government’s Expenditure
- Net Export

- Measures of Income: Payments for the Factors
  - Rent
  - Wages
  - Interest
  - Profits
- Other Measures of Income:
  - GNP = GDP + Factor Payments from Abroad − Factor Payments to Abroad.
  - NNP = GNP − Depreciation.
  - Market Prices = Factor Costs + Indirect Business Taxes (It may be of GDP, GNP or NNP)
  - Personal Income = National Income – (Indirect Business Taxes − Corporate Profits − Social Security Contributions) + (Dividends + Government Transfers to Individuals)

- Personal Disposable Income = Personal Income − Personal Tax and Nontax Payments.

- **Real GDP Vs. Nominal GDP:**
  - The value of goods and services measured at current prices is nominal GDP
  - The value of goods and services measured using a constant set of prices is real GDP

- Real GDP_{2009} = (2009 Price of Apples × 2009 Quantity of Apples) + (2009 Price of Oranges × 2009 Quantity of Oranges)
- Real GDP_{2010} = (2009 Price of Apples × 2010 Quantity of Apples) + (2009 Price of Oranges × 2010 Quantity of Oranges)
- Real GDP_{2011} = (2009 Price of Apples × 2011 Quantity of Apples) + (2009 Price of Oranges × 2011 Quantity of Oranges)

➢ GDP Deflator: The implicit price deflator for GDP, is the ratio of nominal GDP to real GDP
  - GDP Deflator = (Nominal GDP / Real GDP)