

[7.1] Gross Domestic Product



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Learning Objectives

- Explain how gross domestic product (GDP) is calculated.
- Interpret GDP data.
- Identify factors that influence GDP.
- Describe other output and income measures.

[7.1] Gross Domestic Product

Key Terms

- national income accounting
- gross domestic product
- intermediate goods,
- durable goods
- nondurable goods
- nominal GDP
- real GDP,
- gross national product
- depreciation,
- price level,
- aggregate supply,
- Aggregate demand

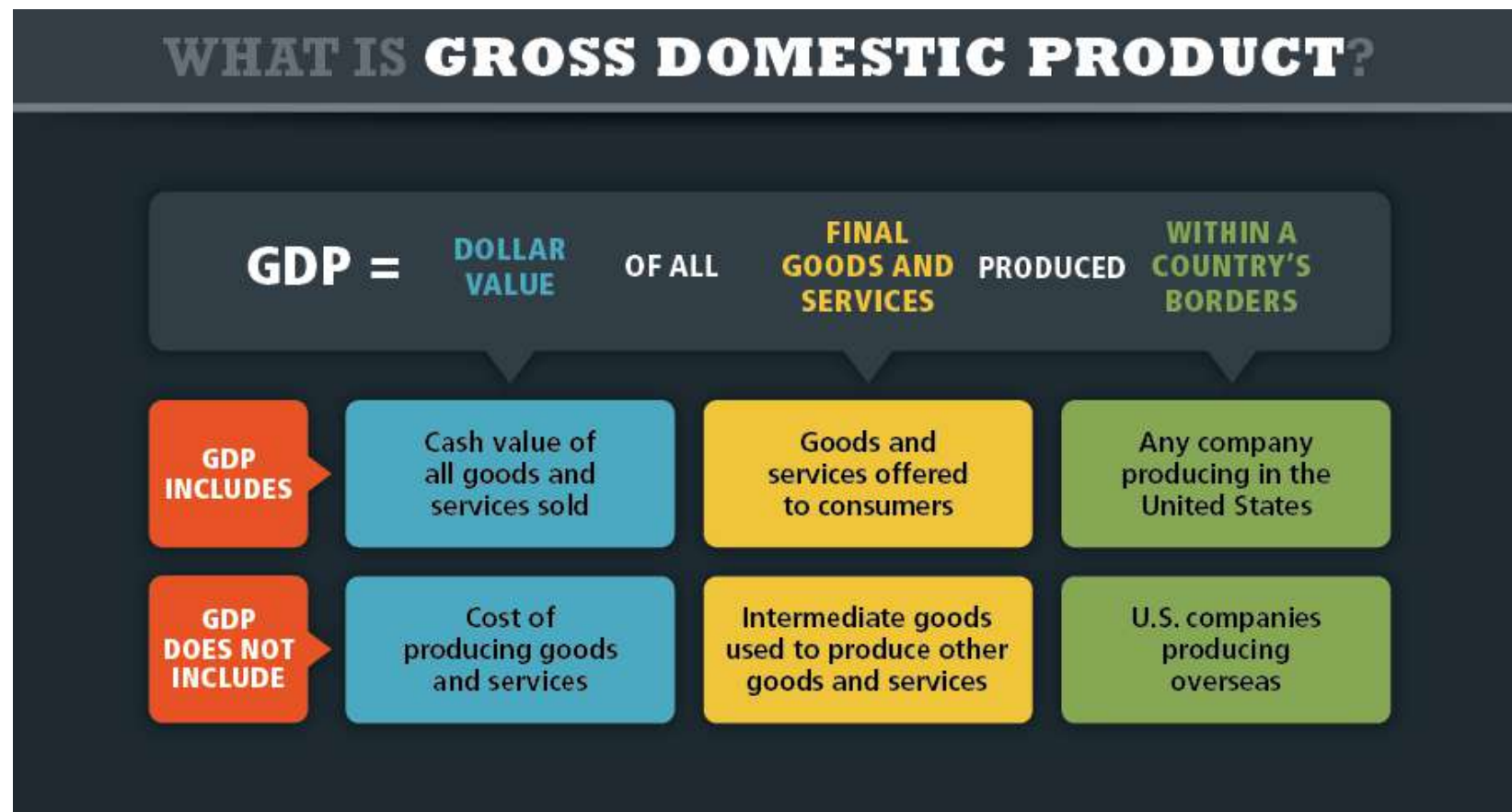
Economic Measures

How much attention do you pay to the economic news? If you're like most people your age—or most Americans in general—your answer is probably, “Not much.” After all, you'd have to be some kind of genius to keep track of the GDP, the GNP, the NNP, the NI, the DPI, and the rest of the economic alphabet soup. Who has the time? And who cares anyway?

Economic Measures

- What is GDP?
- The Expenditure Approach
- The Income Approach

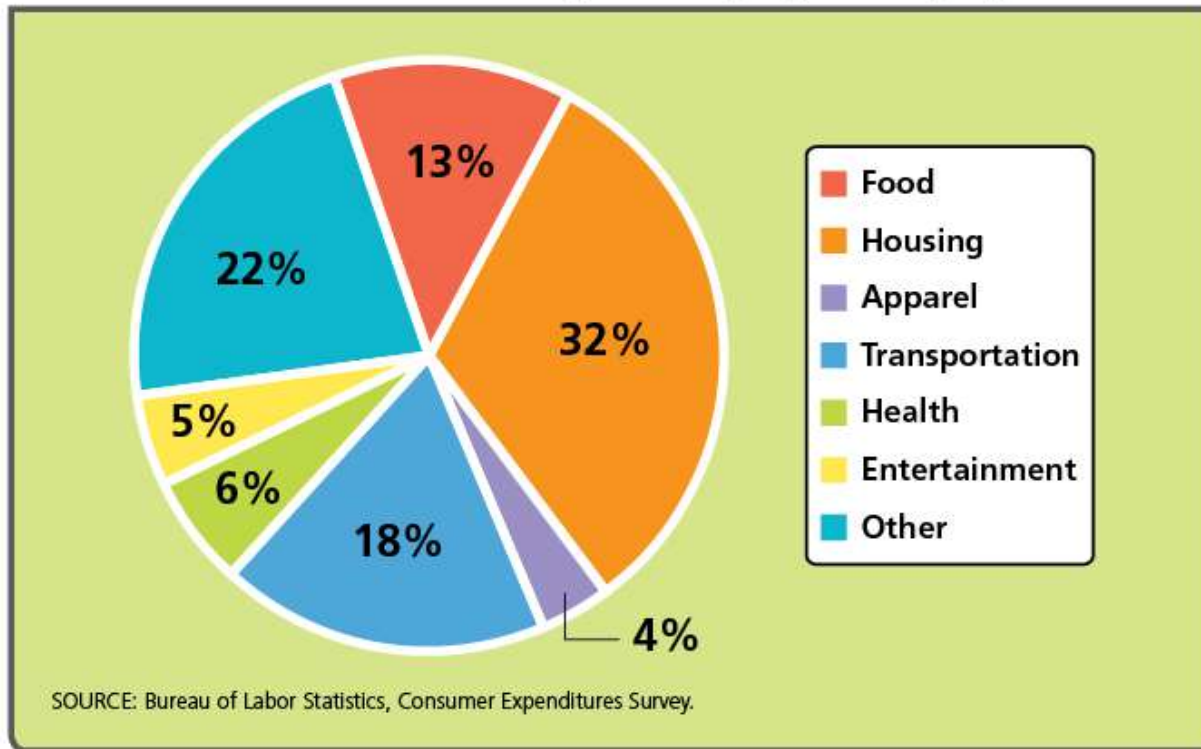
Economic Measures



Analyze Charts Would GDP include a computer chip made by a U.S. company in China? Why or why not?

Economic Measures

Gross Domestic Product: Spending by Category



Analyze Graphs Based on this chart, which shows the average spending by household in different categories as a portion of GDP, about what portion of GDP do Americans spend on housing?

Economic Measures



Electronic devices such as smartphones include many intermediate goods, or parts. Only the value of the final product is included in GDP.

Two Measures of GDP

Government officials use gross domestic product to find out how well the economy is performing. To help them understand what is really going on in the economy, economists distinguish between two measures of GDP, nominal and real.

Two Measures of GDP

- Calculating Nominal GDP
- Calculating Real GDP

Two Measures of GDP

NOMINAL AND REAL GDP

YEAR 1: NOMINAL GDP

- 1 Suppose an economy's entire output is cars and trucks.
- 2 This year the economy produces:
$$\begin{array}{r} 10 \text{ CARS AT} \\ \$15,000 \text{ EACH} = \$150,000 \\ + 10 \text{ TRUCKS AT} \\ \$20,000 \text{ EACH} = \$200,000 \\ \hline \text{TOTAL} = \$350,000 \end{array}$$
- 3 **Nominal GDP** for Year 1 is **\$350,000**.

YEAR 2: NOMINAL GDP

- 1 The next year, the economy's output increases, and so do the prices of cars and trucks.
$$\begin{array}{r} 12 \text{ CARS AT } \$16,000 \text{ EACH} = \$192,000 \\ + 12 \text{ TRUCKS AT } \$21,000 \text{ EACH} = \$252,000 \\ \hline \text{TOTAL} = \$444,000 \end{array}$$
- 2 **Nominal GDP** for Year 2 is **\$444,000**, but this sum includes price increases. Economists prefer a measure of GDP that is not affected by price changes.

YEAR 2: REAL GDP

- 1 Economists establish constant prices by choosing one year as a base year. To correct for an increase in prices, we calculate **real GDP** for Year 2 using Year 1 prices:
$$\begin{array}{r} 12 \text{ CARS AT } \$15,000 \text{ EACH} = \$180,000 \\ + 12 \text{ TRUCKS AT } \$20,000 \text{ EACH} = \$240,000 \\ \hline \text{TOTAL} = \$420,000 \end{array}$$
- 2 **Real GDP** for Year 2, therefore, is **\$420,000**, showing an increase of \$70,000 in real dollars over the previous year.

Although nominal GDP offers useful information, real GDP corrects for increases in prices. Analyze Charts What is the difference between nominal and real GDP for Year 2?

What GDP Doesn't Measure

Even though GDP is a valuable tool, it is not a perfect yardstick. For instance, GDP does not take into account certain economic activities or aspects of life. These include nonmarket activities, the underground economy, negative externalities, and quality of life.

What GDP Doesn't Measure

- Nonmarket Activities
- The Underground Economy
- Negative Externalities
- Quality of Life

What GDP Doesn't Measure



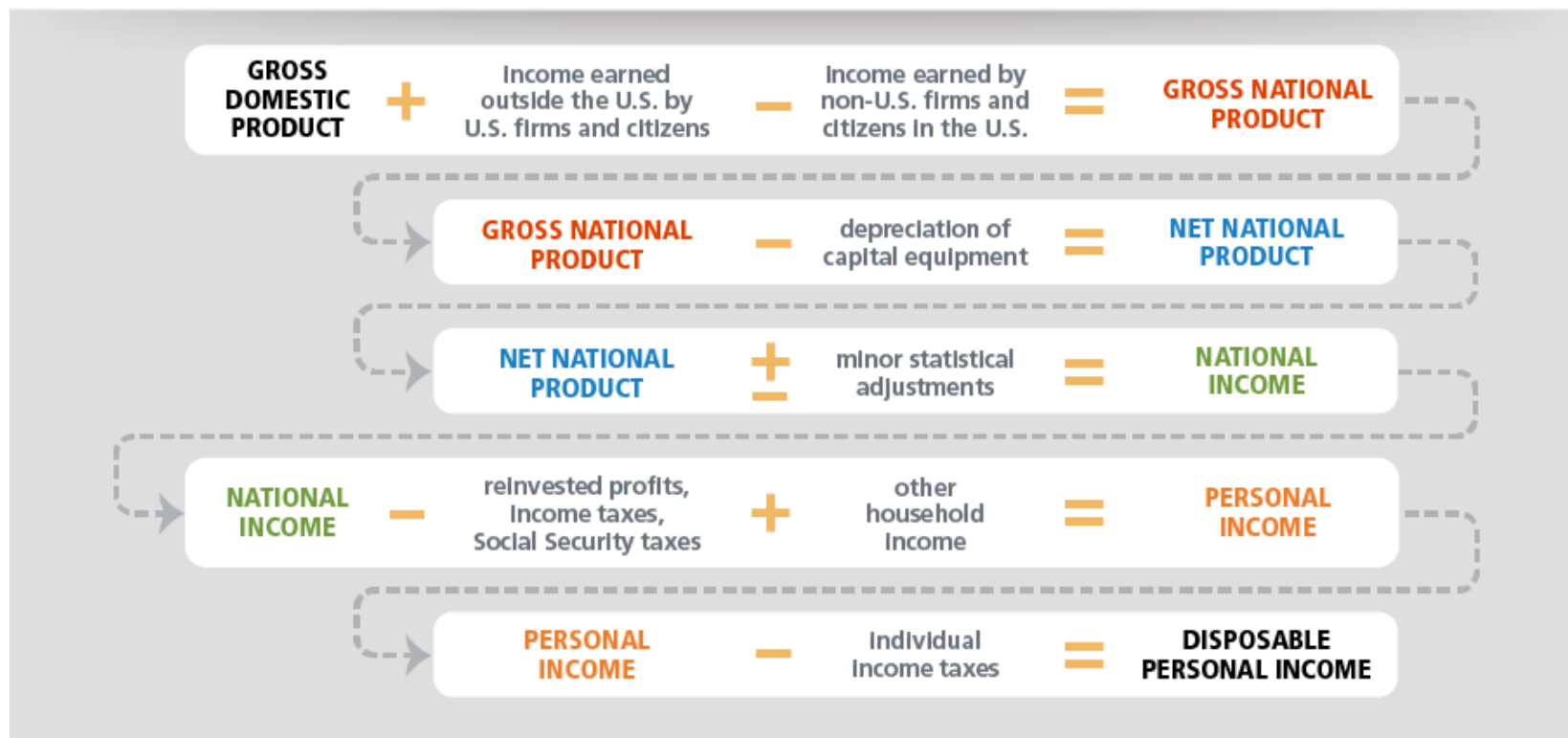
Professional day-care services are included in the calculation of GDP. However, unpaid child care and informal baby-sitting are not.

Other Economic Measures

As you have read, our system of National Income and Product Accounts provides numerous measurements of the performance of the nation's economy. While gross domestic product is the primary measure of income and output, economists also look at other measures to focus on specific parts of the economy. Many of these other yardsticks are derived from GDP. Figure 7.4 shows how GDP is used to determine five other economic measures.

Other Economic Measures

MEASURES OF THE MACROECONOMY



These equations summarize formulas for calculating some of these key indicators. Analyze Charts
Which measure includes depreciation in its calculation?

Other Economic Measures



Depreciation accounts for the cost of replacing capital equipment such as these washing machines in a laundromat.

Factors That Affect GDP

So far, we have defined GDP, calculated it, and learned about its limitations. One important issue remains, however: What influences GDP? That is, in a real economy, what factors can make GDP go up or down? These questions go to the heart of macroeconomics.

Factors That Affect GDP

- Aggregate Supply
- Aggregate Demand
- Aggregate Supply/Aggregate Demand Equilibrium

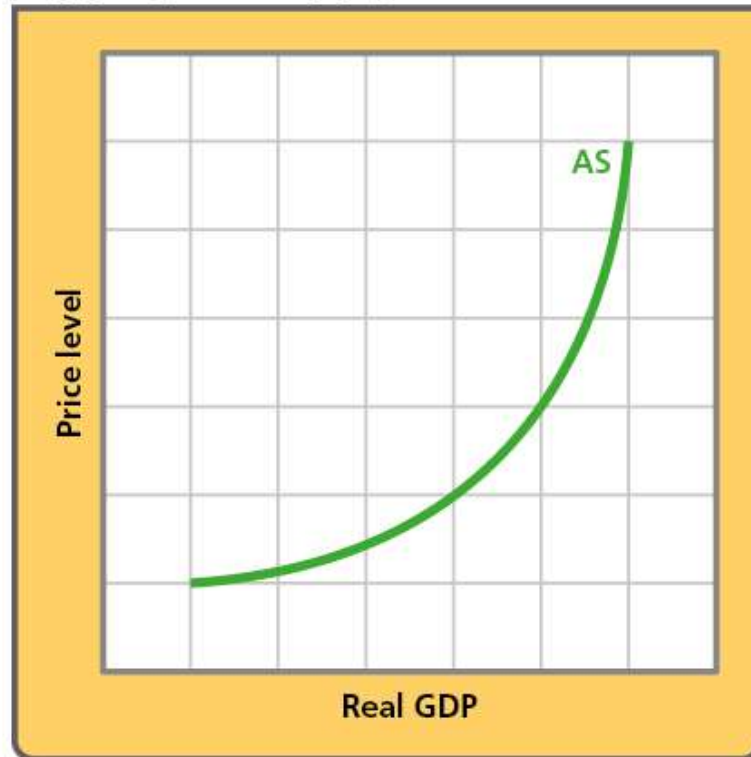
Factors That Affect GDP



Aggregate supply is the total amount of goods and services available at all price levels in the economy.

Factors That Affect GDP

Aggregate Supply



Analyze Graphs What does the positive slope of the graph mean?