

6.11: Alternative Ways to Measure the Economy

Learning Objectives

- Contrast and calculate GDP, GNP, and NNP

Besides GDP, there are several different but closely related ways of measuring the size of the economy. We mentioned above that GDP can be thought of as total production and as total purchases. It can also be thought of as total income since anything produced and sold produces income.

Gross National Product

One of the closest cousins of GDP is the **gross national product** (GNP). GDP includes only what is produced within a country's borders. GNP adds what is produced by domestic businesses and labor abroad, and subtracts out any payments sent home to other countries by foreign labor and businesses located in the United States. In other words, GNP counts the production of a nation's citizens and firms, whether they are located inside or outside the borders of the nation, while GDP measures all production that happens within the geographic boundaries of a nation. For the United States, the gap between GDP and GNP is relatively small; in recent years, only about 0.2%. For small nations, which may have a substantial share of their population working abroad and sending money back home, the difference can be substantial.

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<https://assessments.lumenlearning.co...sessments/7458>

Net National Product

Net national product (NNP) is calculated by taking GNP and then subtracting the value of how much physical capital is worn out, or reduced in value because of aging, over the course of a year. The process by which capital ages and loses value is called **depreciation**. The NNP can be further subdivided into **national income**, which includes all income to businesses and individuals, and **personal income**, which includes only income to people.

To get an idea of how these calculations work, follow the steps in the following feature.

CALCULATING GDP, NET EXPORTS, AND NNP

Based on the information in table below:

- What is the value of GDP?
- What is the value of net exports?
- What is the value of NNP?

Government purchases	\$120 billion
Depreciation	\$40 billion
Consumption	\$400 billion
Investment	\$60 billion
Exports	\$100 billion
Imports	\$120 billion
Income receipts from rest of the world	\$10 billion
Income payments to rest of the world	\$8 billion

Step 1. To calculate GDP use the following formula:

$$\text{GDP} = \text{Consumption} + \text{Investment} + \text{Government spending} + (\text{Exports} - \text{Imports})$$

$$\begin{aligned}&= C + I + G + (X - M) \\&= \$400 + \$60 + \$120 + (\$100 - \$120) \\&= \$560 \text{ billion}\end{aligned}$$

Step 2. To calculate net exports, subtract imports from exports.

$$\text{Net exports} = X - M$$

$$\begin{aligned}&= \$100 - \$120 \\&= -\$20 \text{ billion}\end{aligned}$$

Step 3. To calculate NNP, use the following formula:

$$\begin{aligned}\text{NNP} &= \text{GDP} + \text{Income receipts from the rest of the world} - \text{Income payments to the rest of the world} - \text{Depreciation} \\&= \$560 + \$10 - \$8 - \$40 \\&= \$522 \text{ billion}\end{aligned}$$

Try It

These questions allow you to get as much practice as you need, as you can click the link at the top of the first question (“Try another version of these questions”) to get a new set of questions. Practice until you feel comfortable doing the questions.

[ohm_question sameSeed=1]152054-152055-152056-152057[/ohm_question]

Learning Objectives

[glossary-page][glossary-term]depreciation: [/glossary-term]

[glossary-definition]the process by which capital ages and loses value[/glossary-definition][glossary-term]gross domestic product (GDP): [/glossary-term][glossary-definition]the value of the output of all final goods and services produced within a country in a year[/glossary-definition][glossary-term]gross national product (GNP): [/glossary-term]

[glossary-definition]includes what is produced domestically and what is produced by domestic labor and business abroad in a year[/glossary-definition][glossary-term]national income: [/glossary-term]

[glossary-definition]all income to businesses and individuals[/glossary-definition][glossary-term]net national product (NNP): [/glossary-term]

[glossary-definition]GDP minus depreciation[/glossary-definition]

[glossary-term]personal income: [/glossary-term][glossary-definition]income made by individuals[/glossary-definition] [/glossary-page]

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