Chapter 12: Gross Domestic Product and Growth
Section 1

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ECONOMICS

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Objectives

1. **Explain** how gross domestic product (GDP) is calculated.

2. **Distinguish** between nominal and real GDP.

3. **List** the main limitations of GDP.

4. **Identify** factors that influence GDP.

5. **Describe** other output and income measures.

Key Terms

- **national income accounting:** a system economists use to collect and organize macroeconomic statistics on production, income, investment, and savings

- **gross domestic product**: the dollar value of all final goods and services produced within a country's borders in a given year

- **intermediate goods**: products used in the production of final goods

- **durable goods**: those goods that last for a relatively long time, such as refrigerators, cars, and DVD players

Key Terms, cont.

- **nondurable goods**: those goods that last a short period of time, such as food, light bulbs, and sneakers

- **nominal GDP**: GDP measured in current prices

- **real GDP**: GDP expressed in constant, or unchanging, prices

- **gross national product**: the annual income earned by U.S.-owned firms and people

Key Terms, cont.

- **depreciation**: the loss of the value of capital equipment that results from normal wear and tear

- **price level**: the average of all prices in the economy

- **aggregate supply**: the total amount of goods and services in the economy available at all possible price levels

- **aggregate demand**: the amount of goods and services in the economy that will be purchased at all possible price levels

Introduction

- What does the Gross Domestic Product (GDP) show about the nation's economy?

    – GDP measures the amount of money brought into a nation in a single year through the selling of that nation's goods and services.

    – GDP is a measurement of how well a nation's economy is doing for a particular year. A high GDP means the nation is doing well. A low GDP means the nation is doing poorly.

Nation Income Accounting

- Economists use a system called national income accounting to monitor the U.S. economy.
  - They collect macroeconomic statistics, which the government uses to determine economic policies.

- The most important data economists analyze is gross domestic product (GDP), which is the dollar value of all final goods and services produced within a country's borders in a given year.

What is GDP?

- Basically, gross domestic product tracks exchanges of money.

- To understand GDP, you need to understand which exchanges are included in the final calculations—and which ones are not.

Money paid by shoppers in New York for corn grown in Iowa		YES
Money paid by buyers in Indiana for cars made by a Japanese company at a factory in Kentucky		YES
Fees charged to patients by a dentist in Texas		YES
Money paid by a computer factory in New Mexico for computer chips produced in California		NO
Cost of processing wood pulp into paper at a factory in Maine		NO
Money paid by shoppers in Florida for jeans manufactured in Mexico by a company headquartered in North Carolina		NO

Expenditure Approach

- One method used to calculate GDP is to estimate the annual expenditures on four categories of final goods and services:
  - Consumer goods
  - Business goods and services
  - Government goods and services
  - Net exports

❶ Suppose an economy's entire output is cars and trucks.

❷ This year the economy produces:

10 cars at $15,000 each = $150,000
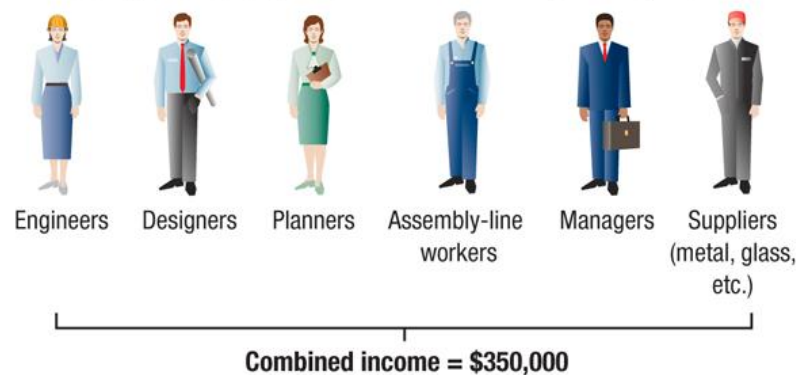+ 10 trucks at $20,000 each = $200,000
_____
Total = $350,000

❸ The economy's GDP for this year is $350,000.

Income Approach

- Another method calculates GDP by adding up all the incomes in the economy.
  - The rationale for this approach is that when a firm sells a product or service, the selling price minus the dollar value of goods service purchased from other firms represents income from the firm's owners and employees.

① Suppose an economy's entire output is cars and trucks.

② All employed citizens, therefore, would work in the car and truck industry, or for its suppliers.

③ The combined selling price of all the cars and trucks reflects the money paid to all the people who helped build the vehicles.

④ The economy's GDP for this year, then, is the sum of the income of all its working citizens, or $350,000.

Engineers   Designers   Planners   Assembly-line workers   Managers   Suppliers (metal, glass, etc.)

Combined income = $350,000

Nominal versus Real GDP

- Nominal GDP is measured in current prices.
  - To calculate nominal GDP, we use the current year's prices to calculate the value of the current year's output.
  - The problem with nominal GDP is that it does not account for the rise in prices. Even though your output might be the same from year to year, the prices won't be and nominal GDP would be different.
  - To solve this problem, economists determine real GDP, which is GDP expressed in constant, or unchanging, prices.

Limitation of GDP

- Checkpoint: What are two economic activities that GDP does not include?

    - Nonmarket Activities—GDP does not measure goods and services that people make or do themselves.

    - The Underground Economy—GDP does not account for black market activities or people paid "under the table" without being taxed

    - Negative Externalities—unintended economic side effects, like pollution, are not subtracted from GDP

    - Quality of Life—a high GDP does not necessarily mean people are happier

Other Output and Income Measures

- ## In addition to GDP, economists use other ways to measure the economy.

  - ### The equations below summarize the formulas for calculating these other economic measurements.

Influences on GDP

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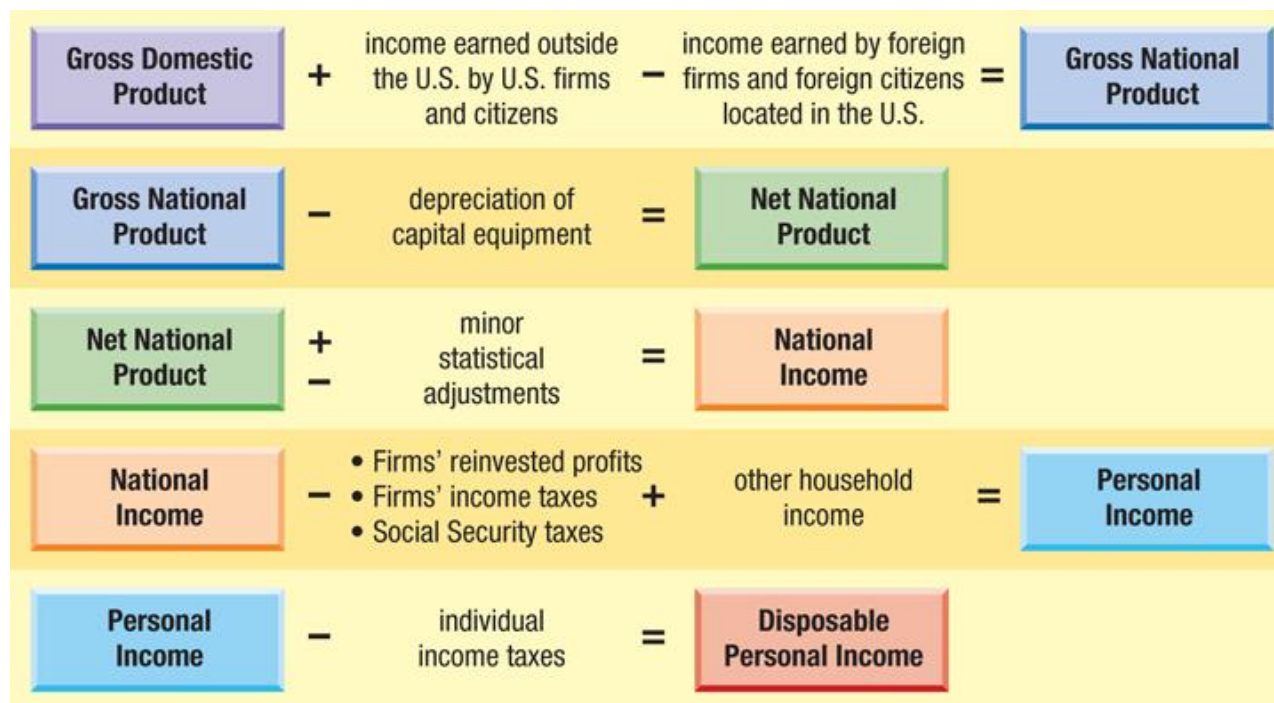
- Aggregate Supply
  - Aggregate supply is the total amount of goods and services in the economy available at all possible price levels.
  - In a nation's economy, as the prices of most goods and services change, the price level changes and firms respond by changing their output.
  - As the price level rises, real GDP, or aggregate supply rises. As the price level falls, real GDP falls.

Influences on GDP, cont.

- Aggregate Demand
  - Aggregate demand is the amount of goods and services that will be purchased at all possible price levels.
  - As price levels in the economy move up and down, individuals and firms change how much they buy—in the opposite direction that aggregate supply changes.
  - Any shift in aggregate supply or aggregate demand will have an impact on real GDP and the price level.

Aggregate Supply and Demand

- Aggregate supply and demand represent supply and demand on a nationwide level. The far right-hand chart shows what happens to GDP and price levels when aggregate demand shifts.

  - What do the positive and negative slopes of these curves mean?
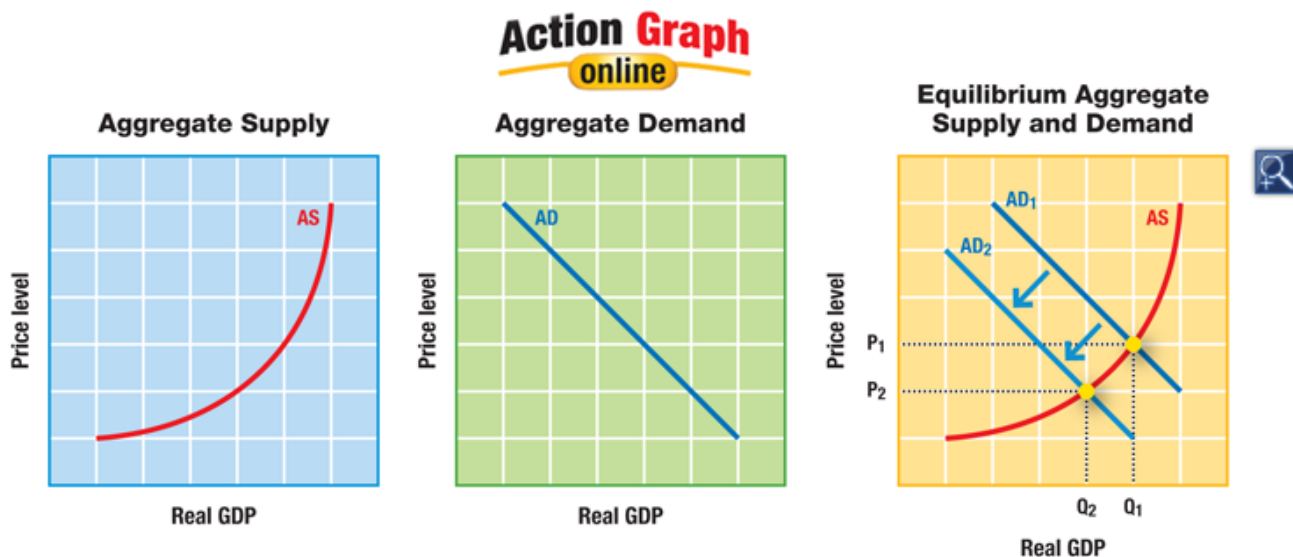
Review

- Now that you have learned what GDP shows about the nation's economy, go back and answer the Chapter Essential Question.

    – How do we know if the economy is healthy?