CHAPTER 11
Economic Performance

11.1 Gross Domestic Product
11.2 Limitations of GDP Estimation
11.3 Business Cycles
11.4 Aggregate Demand and Aggregate Supply
CHAPTER 11
Economic Performance

- How is the economy’s performance measured?
- What’s gross about the gross domestic product?
- What’s the impact on gross domestic product if you make yourself a sandwich for lunch?
- How can you compare the value of production in one year with that in other years if prices change over time?
- What’s the business cycle?
- What’s the big idea with the national economy?
LESSON 11.1

Gross Domestic Product

- Describe what the gross domestic product measures.
- Learn two ways to calculate the gross domestic product, and explain why they are equivalent.
LESSON 11.1

Gross Domestic Product

- economy
- gross domestic product (GDP)
- consumption
- investment
- aggregate expenditure
- aggregate income
The National Economy

- National economics, or macroeconomics, focuses on the overall performance of the economy.
- **Economy** describes the structure of economic activity in a locality, a region, a country, a group of countries, or the world.
Gross Domestic Product

- Gross domestic product (GDP) measures the market value of all final goods and services produced in the United States during a given period.
National Income Accounts

- Organize huge quantities of data collected from a variety of sources across the United States
- Keep track of the value of final goods and services
No Double Counting

- Intermediate goods and services are those purchased for additional processing and resale.
- Sales of intermediate goods and services are excluded from GDP to avoid the problem of double counting.
- GDP also ignores most of the secondhand value of used goods, such as existing homes and used cars.
Calculating GDP

- GDP based on the expenditure approach
- GDP based on the income approach
GDP Expenditure Approach

- The expenditure approach to GDP adds up the spending on all final goods and services produced in the economy during the year.

- **Consumption** consists of purchases of final goods and services by households during the year.

- **Investment** consists of spending on new capital goods and additions to inventories.

- **Aggregate expenditure** equals the sum of consumption, investment, government purchases, and net exports.

\[ C + I + G + (X - M) = GDP \]
GDP Income Approach

- The income approach to GDP adds up the aggregate income earned during the year by those who produce that output.

- **Aggregate income** equals the sum of all the income earned by resource suppliers in the economy.
# Computation of Value Added for a New Desk

<table>
<thead>
<tr>
<th>Stage of Production</th>
<th>(1) Sale Value</th>
<th>(2) Cost of Intermediate Goods</th>
<th>(3) Value Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logger</td>
<td>$20</td>
<td>—</td>
<td>$20</td>
</tr>
<tr>
<td>Miller</td>
<td>50</td>
<td>$20</td>
<td>30</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>120</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>Retailer</td>
<td>200</td>
<td>120</td>
<td>80</td>
</tr>
</tbody>
</table>

Market value of final good $200
LESSON 11.2
Limitations of GDP Estimation

- Identify what types of production GDP calculations neglect.
- Determine why and how to adjust GDP for changes over time in the general price level.
LESSON 11.2
Limitations of GDP Estimation

- depreciation
- nominal GDP
- real GDP
- consumer price index (CPI)
What GDP Misses

- Household production
- Underground economy
- Leisure, quality, and variety
- Depreciation
- GDP does not reflect all costs
  - Negative externalities
  - Both GDP and net national product ignore the depletion of natural resources.
Adjusting GDP for Price Changes

- Nominal GDP versus real GDP
- Price indexes
  - Consumer price index
  - GDP price index
Nominal GDP Versus Real GDP

- **Nominal GDP** is based on the prices at the time of the transaction; current-dollar GDP.

- **Real GDP** is the economy’s aggregate output measured in dollars of constant purchasing power; GDP measured in terms of the goods and services produced.
Price Indexes

An index number compares the value of a variable in a particular year to its value in a base year, or reference year.
### Example of Price Index (base year = 2002)

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) Price of Bread in Current Year</th>
<th>(2) Price of Bread in Base Year</th>
<th>(3) Price Index ( (3) = (1)/(2) \times 100 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>$1.25</td>
<td>$1.25</td>
<td>100</td>
</tr>
<tr>
<td>2003</td>
<td>$1.30</td>
<td>$1.25</td>
<td>104</td>
</tr>
<tr>
<td>2004</td>
<td>$1.40</td>
<td>$1.25</td>
<td>112</td>
</tr>
</tbody>
</table>
Consumer Price Index

- The **consumer price index (CPI)** measures changes over time in the cost of buying a “market basket” of goods and services purchased by a typical family.
- The CPI is reported monthly, based on prices from thousands of sellers across the country.
GDP Price Index

- The GDP price index includes all goods and services produced.

\[
\text{GDP price index} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100
\]
LESSON 11.3

Business Cycles

- Distinguish between the two phases of the business cycle, and compare the average length of each.
- Differentiate among leading, coincident, and lagging economic indicators.
Key Terms

LESSON 11.3
Business Cycles

- business cycle
- recession
- expansion
- leading economic indicators
The **business cycle** reflects the rise and fall of economic activity relative to the long-term growth trend of the economy.
Recessions and Expansions

- **A recession** is a decline in total production lasting at least two consecutive quarters, or at least six months.

- **Expansion** is the phase of economic activity during which the economy’s total output increases.
Long-term Growth

- The U.S. economy has grown dramatically over the long run.
Business Cycles

Economy's aggregate output per year

- Period of recession
- Period of expansion

Peak

Trough

Long-term growth trend

Time
Annual Percentage Change in U.S. Real GDP Since 1929
Different Impact on States

- The intensity of the business cycle varies from region to region across the United States.
- A recession hits hardest those regions that produce durable goods.
Business Cycles Around the Globe

- Market economies around the world often move together.
- A slump in other major economies could worsen a recession in the United States, and vice versa.
Economic Indicators

- Leading indicators predict future changes.
  - There are 10 leading indicators combined into the index of leading indicators and reported monthly.

- Coincident indicators measure ups and downs as they occur.
  - There are four coincident economic indicators combined into the index of coincident indicators.

- Lagging indicators measure ups and downs after they have already occurred.
  - There are seven economic measures combined into the index of lagging indicators.
Objectives

LESSON 11.4
Aggregate Demand and Aggregate Supply

- Explain what is meant by aggregate output and the economy’s price level.
- Describe the aggregate demand curve and the aggregate supply curve, and show how they determine the equilibrium level of price and aggregate output.
Key Terms

LESSON 11.4

Aggregate Demand and Aggregate Supply

- aggregate output
- aggregate demand
- price level
- aggregate demand curve
- aggregate supply curve
Aggregate Output

- **Aggregate output** is the total amount of goods and services produced in the economy during a given period.
- **Aggregate demand** is the relationship between the average price of aggregate output and the quantity of aggregate output demanded.
The Price Level

A composite measure reflecting the prices of all goods and services in the economy relative to prices in a base year.
Real Gross Domestic Product

After adjusting GDP for price changes, you end up with real GDP.
Aggregate Demand and Aggregate Supply Curves

- The aggregate demand curve shows the relationship between the price level in the economy and the real GDP demanded.
- The aggregate supply curve shows how much output U.S. producers are willing and able to supply at each price level.
- The intersection of the aggregate demand curve and aggregate supply curve determines the equilibrium levels of price and real GDP in the economy.
Aggregate Demand and Aggregate Supply Curves
U.S. Real GDP and Price Level Since 1929