



CHAPTER 13 Resource Manager

CHAPTER 13 Resource Manager

Teaching Transparencies

Economic Concepts Transparency 13

Economic Concepts Transparency 14

Economic Concepts Transparency 15

Application and Enrichment

Enrichment Activity 13

Consumer Applications Activity 18

ECONOMIC CONCEPTS Transparency 13
GROSS DOMESTIC PRODUCT
This transparency shows how the development of new and better products affects the economy.

ECONOMIC CONCEPTS Transparency 14
AGGREGATE SUPPLY
This transparency shows how the price of aggregate supply is affected by the production of goods and services.

ECONOMIC CONCEPTS Transparency 15
AGGREGATE DEMAND
This transparency shows how the price of aggregate demand is affected by the production of goods and services.

ENRICHMENT Chapter 13
MEASURING THE ECONOMY'S PERFORMANCE
UNEMPLOYED PEOPLE DURING THE GREAT RECESSION

Consumer Applications Activity 18
ECONOMIC PERFORMANCE
The business manager of a company's health and economic performance (GDP) and how it affects the economy.

Application and Enrichment

Free Enterprise Activity 18

Cooperative Learning Simulations and Problems 18

Primary and Secondary Source Reading 18

Math Practice for Economics Activity 18

Economic Cartoons Activity 18

FREE ENTERPRISE ACTIVITY 18
ECONOMIC INDICATORS
Leading indicators are those which indicate the direction of the economy as a whole.

COOPERATIVE LEARNING ACTIVITY 18
ECONOMIC PERFORMANCE
This activity is designed to help students understand the relationship between the economy and the environment.

PRIMARY & SECONDARY SOURCES Reading 18
TAKING THE MEASURE OF THE GDP: ANOTHER NUMBER THAT DOESN'T QUITE ADD UP
This activity is designed to help students understand the relationship between the economy and the environment.

MATH PRACTICE FOR ECONOMICS ACTIVITY 18
COMPUTING A PRICE INDEX AND CALCULATING INFLATION
This activity is designed to help students understand the relationship between the economy and the environment.

ECONOMIC CARTOON 18
WHAT ECONOMIC INDICATORS REALLY INDICATE
This activity is designed to help students understand the relationship between the economy and the environment.

Review and Reinforcement

Critical Thinking Activity 18

Reteaching Activity 13

Economic Vocabulary Activity 13

Reinforcing Economic Skills 26

CRITICAL THINKING 18
DRAWING CONCLUSIONS ABOUT THE ECONOMY
This activity is designed to help students understand the relationship between the economy and the environment.

RETEACHING ACTIVITY 13
MEASURING THE ECONOMY'S PERFORMANCE
This activity is designed to help students understand the relationship between the economy and the environment.

Economic Vocabulary Activity
CHAPTER 13 MEASURING THE ECONOMY'S PERFORMANCE
This activity is designed to help students understand the relationship between the economy and the environment.

Reinforcing Economic Skills Chapter 26
TAKING NOTES
This activity is designed to help students understand the relationship between the economy and the environment.

Assessment and Evaluation



Chapter 13 Test Form A

Chapter 13 Test Form B

Performance Assessment Activity 18

ExamView® Pro Testmaker

TEST Chapter 13, Test Form A
MEASURING THE ECONOMY'S PERFORMANCE
This test form is designed to assess student understanding of the chapter's content.

TEST Chapter 13, Test Form B
MEASURING THE ECONOMY'S PERFORMANCE
This test form is designed to assess student understanding of the chapter's content.

PERFORMANCE ASSESSMENT ACTIVITY 18
ECONOMIC INDICATORS
This activity is designed to help students understand the relationship between the economy and the environment.

ExamView® Pro Testmaker
This software is used to create and deliver digital assessments.

Technology and Multimedia

- Vocabulary PuzzleMaker Software
- Interactive Tutor Self-Assessment Software
- ExamView® Pro Testmaker
- NBR Economics & You Video Program (English/Spanish) Presentation Plus!
- Glencoe Skillbuilder Interactive Workbook CD-ROM, Level 2
- Interactive Lesson Planner
- MindJogger Videoquiz
- Interactive Economics! CD-ROM
- Audio Program (English or Spanish)



You and your students can visit ett.glencoe.com—the Web site companion to **Economics Today and Tomorrow**. This innovative integration of electronic and print media offers your students a wealth of opportunities. The student text directs students to the Web site for the following options:

- Chapter Overviews
- Student Web Activities
- Self-Check Quizzes
- Textbook Updates

Answers are provided for you in the **Web Activity Lesson Plan**. Additional Web resources and Interactive Puzzles are also available.

Use the Glencoe Web site for additional resources. All essential content is covered in the Student Edition.

Additional Resources

- Reading for the Student**
- The Economist Guide to *Economic Indicators: Making Sense of Economics*. New York: John Wiley & Sons, 1998. Written by staff members of *The Economist* magazine.
 - Multimedia Material**
 - Capitalist Dilemmas: Ups and Downs*. Active Learning Consultants. Simulation. Introduces students to business fluctuations.

- Spanish Resources**
- Spanish Economic Concepts Transparencies 13, 14, 15
 - Spanish Vocabulary Activity 13
 - Spanish Reteaching Activity 13
 - Spanish Section Quizzes for Chapter 13
 - Spanish Chapter 13 Audio Program, Activity, and Test



Section Resources		
Reading Objectives	Reproducible Resources	Technology/Multimedia Resources
Section 1 National Income Accounting <ul style="list-style-type: none"> What four categories of economic activity are used to measure GDP? How do the three measurements of income—national, personal, and disposable—differ? 	<ul style="list-style-type: none"> Reproducible Lesson Plan 13-1 Daily Lecture Notes 13-1 Guided Reading Activity 13-1 Reading Essentials and Study Guide 13-1 Daily Focus Activity 52 Section Quiz 13-1* Reinforcing Economic Skills 26 	<ul style="list-style-type: none"> Daily Focus Transparency 52 Economic Concepts Transparency 13 Vocabulary PuzzleMaker Interactive Tutor Self-Assessment Software MindJogger Videoquiz NBR's <i>Economics & You</i>* ExamView® Pro Testmaker
Section 2 Correcting Statistics for Inflation <ul style="list-style-type: none"> What is the relationship between the purchasing power of money and the rate of inflation? How do the consumer price index and the producer price index differ in what they measure? 	<ul style="list-style-type: none"> Reproducible Lesson Plan 13-2 Daily Lecture Notes 13-2 Guided Reading Activity 13-2 Reading Essentials and Study Guide 13-2 Daily Focus Activity 54 Section Quiz 13-2* 	<ul style="list-style-type: none"> Daily Focus Transparency 54 Vocabulary PuzzleMaker Interactive Tutor Self-Assessment Software MindJogger Videoquiz Presentation Plus! ExamView® Pro Testmaker
Section 3 Aggregate Demand and Supply <ul style="list-style-type: none"> Why is there an inverse relationship between aggregate quantity demanded and the price level? What causes the aggregate supply curve to slope upward? How do you use aggregate demand and supply analysis to determine the equilibrium price level? 	<ul style="list-style-type: none"> Reproducible Lesson Plan 13-3 Daily Lecture Notes 13-3 Guided Reading Activity 13-3 Reading Essentials and Study Guide 13-3 Daily Focus Activity 55 Section Quiz 13-3* 	<ul style="list-style-type: none"> Daily Focus Transparency 55 Economic Concepts Transparencies 14, 15 Vocabulary PuzzleMaker Interactive Tutor Self-Assessment Software MindJogger Videoquiz Interactive Economics! Presentation Plus! ExamView® Pro Testmaker
Section 4 Business Fluctuations <ul style="list-style-type: none"> What are the phases of a typical business cycle? What have been the three most severe downturns in the United States economy since the 1920s? 	<ul style="list-style-type: none"> Reproducible Lesson Plan 13-4 Daily Lecture Notes 13-4 Guided Reading Activity 13-4 Reading Essentials and Study Guide 13-4 Daily Focus Activity 56 Section Quiz 13-4* 	<ul style="list-style-type: none"> Daily Focus Transparency 56 Vocabulary PuzzleMaker Interactive Tutor Self-Assessment Software MindJogger Videoquiz Presentation Plus! ExamView® Pro Testmaker
Section 5 Causes and Indicators of Business Fluctuations <ul style="list-style-type: none"> What are some of the potential causes of business fluctuations? What are the three broad categories of economic indicators? 	<ul style="list-style-type: none"> Reproducible Lesson Plan 13-5 Daily Lecture Notes 13-5 Guided Reading Activity 13-5 Reading Essentials and Study Guide 13-5 Daily Focus Activity 57 Section Quiz 13-5* 	<ul style="list-style-type: none"> Daily Focus Transparency 57 Vocabulary PuzzleMaker Interactive Tutor Self-Assessment Software MindJogger Videoquiz Presentation Plus! ExamView® Pro Testmaker

*Also available in Spanish

Blackline Master
 Transparency
 Software
 CD-ROM
 Videodisc
 Audiocassette
 Videocassette



ACTIVITY From the Classroom of

Eleanor S. Allen
Foothill High School
Sacramento, California

GDP Assessment

Post large letters *C*, *G*, *I*, and *X* in four corners of your classroom. As students enter the room, give each person one of the following statements on cards and instruct students to stand by the appropriate sign. If their statement is not counted in GDP, have students sit in their seat. After each group has formed, have them check among themselves to ensure accuracy, and then have each person read his or her card aloud.

C (Consumer)

- Teens buy Michael Jordan clothes in record numbers
- New car sales up

- Stores unable to keep up with demand for new calorie-free chocolate ice cream
- Colleges require every student to have a calculator
- New Barbie doll sells quickly
- Haircuts and perms at local beauty salon go on sale
- Tax accountants in greater demand
- Bus rides increase
- Fitness fads increase gym membership
- Diamond sales go up
- Teens rent limousines for Senior Ball

I (Investment)

- Intel builds new plant
- GM installs robots for assembly line
- HP expands its Roseville plant
- Wal-Mart opens new stores
- Processing plant for tomatoes built
- Lumber mills renew production
- Microsoft/GE launch new network

G (Government)

- Department of Defense orders three new submarines
- Job training program funded by federal government
- New science labs built by Department of Human Services
- New Federal Courthouse under construction
- Third new prison built this year

X (Foreign)

- Tractors sold to Poland
- Almonds bought by Germans for marzipan
- Jeeps to Japan
- Airplanes to Saudi Arabia
- Rice to India
- CDs to China

Not Included in GDP

- Jim buys a '64 Mustang
- Jill paints her own house
- "Young genius repairs his own computer"
- Electrician takes money "under the table"
- Van Gogh painting sells for record \$15 million
- Welfare payments increase

Easy Planning and Preparation!

Use Glencoe's **Presentation Plus!**, a Microsoft PowerPoint® application, to teach **Measuring the Economy's Performance**. With this multimedia teacher tool, you can customize ready-made presentations. At your fingertips are interactive transparencies, on-screen lecture notes, audiovisual presentations, and links to the Internet and to other Glencoe multimedia.

Interactive Lesson Planner

Planning has never been easier! Organize your week, month, semester, or year with all the lesson helps you need to make teaching creative, timely, and relevant—the way it is meant to be. The Interactive Lesson Planner opens Glencoe's **Chapter 13** resources, helps you build your schedule, and tracks your progress.

National Council on Economic Education

THE Economics America AND Economics International PROGRAMS

Voluntary Standards Emphasized in Chapter 13

Content Standard 18 Students will understand that the nation's overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy.

Content Standard 19 Students will understand that inflation can reduce the rate of growth of national living standards, because individuals and organizations use resources to protect themselves against the uncertainty of future prices.

Resources Available from NCEE

- Capstone: The Nation's High School Economics Course*
- Focus: High School Economics*
- Civics and Government: Focus on Economics*

To order these materials, or to contact your State Council on Economic Education about workshops and programs, call 1-800-338-1192 or visit the NCEE Web site at <http://www.nationalcouncil.org>

Measuring the Economy's Performance

Why It's Important

Inflation, GDP, the consumer price index—what do the headlines mean? This chapter will explain what these terms indicate about the state of the economy.

To learn more about economic statistics, view the **Economics & You Chapter 20 video lesson: Measuring the Economy's Performance**

Economics Online

Chapter Overview Visit the *Economics Today and Tomorrow* Web site at ett.glencoe.com and click on **Chapter 13—Chapter Overviews** to preview chapter information.

CHAPTER LAUNCH ACTIVITY

Remind students that in Chapter 7 they studied supply and demand among individual consumers. Then have students imagine they are economic forecasters who must determine the total supply and demand in the economy for a particular month. Ask them to suggest ways they might gather such information and how they might present this information in visual form. Conclude by pointing out that in this chapter students will learn about aggregate supply and demand—supply and demand for the whole economy.



Measuring the Economy's Performance

Chapter 20
Disc 1, Side 2

ASK: What is the definition of personal income? *the total income received by individuals before they pay taxes*

Also available in VHS.

Chapter Overview

Chapter 13 describes or explains key statistics used to measure economic performance; consumer and producer price indexes; aggregate supply and demand; business cycles; and the major causes and indicators of these business fluctuations.

GLENCOE TECHNOLOGY

Use **MindJogger Videoquiz VHS** to preview Chapter 13 content.



Introduce students to chapter content and key terms by having them access **Chapter 13—Chapter Overviews** at ett.glencoe.com

SECTION 1

National Income Accounting

COVER STORY

THE COLUMBUS DISPATCH, JUNE 8, 1999

Oregon and New Hampshire enjoyed the fastest economic growth among the states in 1997, and California's economy remained the biggest, the government said. . . .

A Commerce Department report broke down the nation's gross domestic product, the total output of goods and services, to show the amount contributed by each state.



People can measure how successful they are economically by the amount of their incomes and by their standard of living, including how much their spendable income will buy. In this section, you'll learn that the success of the overall economy is measured in a similar way.

National Income Accounting

To determine how healthy the American economy is, economists constantly measure such factors as the amount of goods and services produced yearly by the nation and the amount of income people have to spend. The measurement of the national economy's performance is called **national income accounting**. This area of economics deals with the overall economy's output, or production, and its income.

READER'S GUIDE

Terms to Know

- national income accounting
- gross domestic product (GDP)
- net exports
- depreciation
- net domestic product (NDP)
- national income (NI)
- personal income (PI)
- transfer payments
- disposable personal income (DI)

Reading Objectives

1. What four categories of economic activity are used to measure GDP?
2. How do the three measurements of income—national, personal, and disposable—differ?

national income accounting: measurement of the national economy's performance, dealing with the overall economy's output and income

Measuring the Economy's Performance 343

1 Focus Overview

Section 1 describes national income accounting and explains how gross and net domestic product, national income, personal income, and personal disposable income are calculated, and how these measures are used to evaluate the economy.

BELLRINGER Motivational Activity

Project Daily Focus Transparency 52 and have students answer the questions. This activity is also available as a blackline master.

Daily Focus Transparency 52

FOCUS ACTIVITIES Transparency 52

NATIONAL INCOME ACCOUNTING



- Output and Income**
- Babysitting for unreported cash
 - Making pies at home for sale in a store
 - Yard work for pocket money
 - Running illegal numbers game
 - Cooking an apple pie for supper
 - Robbing a bank
 - Teaching at school
 - Running a Las Vegas casino business
 - Tutoring for unreported income
 - Repainting your own house

1. Which of the components of output and income listed above are excluded from the official national income accounts?
2. What is the point of the cartoon, and why is it relevant for any analysis of official indicators of GDP trends?

READER'S GUIDE

Answers to the Reading Objectives questions are on page 348.

Preteaching Vocabulary

Have students study the Glossary definitions of the **Terms to Know**. Then have students close their books. State each term in turn, calling on volunteers to define each one.

Vocabulary PuzzleMaker

SECTION 1 RESOURCE MANAGER

Reproducible Masters

- Reproducible Lesson Plan 13–1
- Reading Essentials and Study Guide 13–1
- Guided Reading Activity 13–1
- Section Quiz 13–1
- Daily Focus Activity 52
- Daily Lecture Notes 13–1

Multimedia

- Daily Focus Transparency 52
- Economic Concepts Transparency 13
- Vocabulary PuzzleMaker
- Interactive Tutor Self-Assessment Software
- ExamView® Pro Testmaker
- MindJogger Videoquiz
- NBR's *Economics & You*
- Presentation Plus!

2 Teach

Guided Practice

L2 Classifying Ideas On the board, draw a two-column chart using “Strengths” and “Weaknesses” as column headings. Call on volunteers to identify what they think are the strengths and weaknesses of GDP as a measure of economic performance. Note their responses in the appropriate column. Then have students use the information in the chart to write a paragraph explaining why GDP, despite its weaknesses, is a useful measure of the health of the economy.

Daily Lecture Notes 13-1

DAILY LECTURE NOTES Lesson 13-1

LECTURE LAUNCHER

When Hurricane Andrew blew through Southern Florida it was a disaster, but the GDP recorded it as a \$15 billion boon to the economy. What does GDP measure? Under what circumstances would the labor of preparing a meal be included in GDP?

PAGES 343-344

- I. National Income Accounting
 - A. The measurement of the national economy's performance is called national income accounting.
 - B. Five major statistics measure the national economy: gross domestic product, net domestic product, national income, personal income, and disposable personal income.

Discussion Questions

Why do you think it is important to measure the nation's economy in a variety of ways? (Answers will vary but should demonstrate an understanding that the economy is very difficult to measure, and that by using many different statistics, economists can get a better picture of the overall economy.)

PAGES 344-347

- II. Measuring GDP

Visual Instruction FIGURE 13.1

Answer: \$2,238,000,000,000 (\$2.2 trillion)

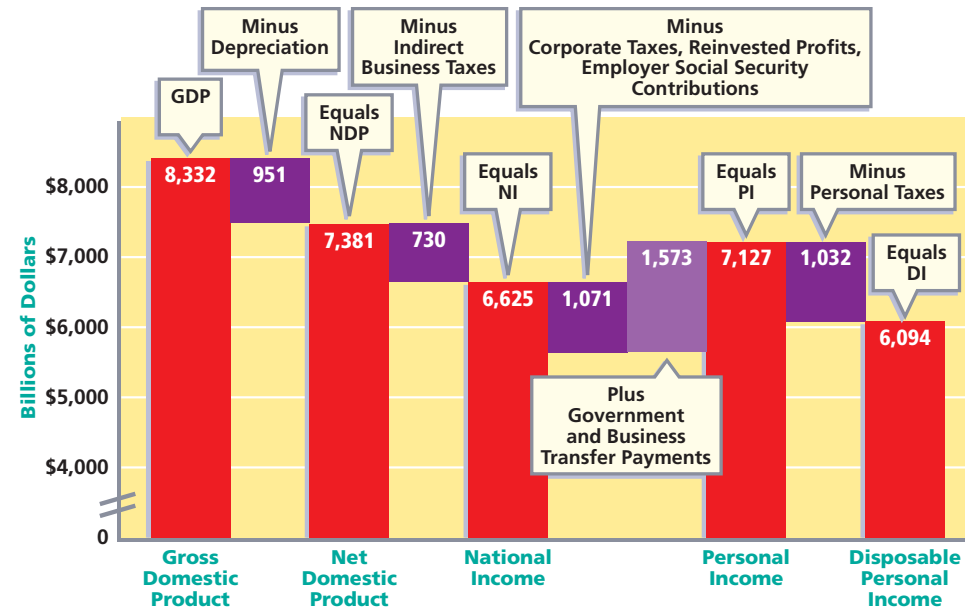
Five major statistics measure the national economy. These are gross domestic product, net domestic product, national income, personal income, and disposable personal income. Each will be examined separately, starting with the largest overall measurement—gross domestic product. **Figure 13.1** shows gross domestic product and the other four measurements in descending order of value.

Measuring GDP

The broadest measure of the economy's size is **gross domestic product (GDP)**. This is the total dollar value of all *final* goods and services produced in the nation during a single year. This

FIGURE 13.1

GDP and Its Components Economists start with GDP and subtract various items until they reach the figure measuring disposable personal income—the amount of money people have left to spend after they pay taxes. *What is the difference in dollars between gross domestic product and disposable personal income?*



Source: Standard & Poor's



For an online update of this graph, visit ett.glencoe.com and click on **Textbook Updates—Chapter 13**.

STANDARD & POOR'S

Meeting Special Needs

Abstract Reasoning Difficulties Some students have difficulty with abstract information. They may grasp more concrete concepts, such as individual income, but may be confused by the use of income statistics. Work through the calculations of GDP, NDP, NI, PI, and DI. Help students see how the total economic activity of the country affects communities, businesses, and families. Students will be better able to grasp national accounting statistics if they understand that these numbers are relevant to their own lives.

Refer to *Inclusion for the Social Studies Classroom Strategies and Activities* for students with different learning styles.

figure tells the amount of goods and services produced within the country's borders and made available for purchase in that year.

Measuring Value Note the word *value* in the definition. Simply adding up the *quantities* of different items produced would not mean much. Can we really measure the strength of the economy, for example, if we know that 3 billion safety pins and 2 space shuttles were produced?

What we need to know is the total *value* of the items, using some common measure. Economists use the dollar as this common measure of value. As a result, GDP is always expressed in dollar terms. For example, in 1999, GDP for the United States totaled more than \$9 trillion.

Measuring Final Goods and Services The word *final* in the definition of GDP is also important. Measuring the economy's performance accurately requires that economists add up only the value of final goods and services to avoid *double counting*. For example, GDP does not add the price of computers and memory chips and motherboards if those chips and motherboards are installed in computers for sale. The final price to the buyer already includes the price of the memory chips and motherboards.

Also, only new goods are counted in GDP. The sale price of a used car or a secondhand refrigerator is not counted as part of GDP. Such a sale is not due to the production of the nation, but only transfers a product from one owner to another. If a new battery is put in an old car, however, that new battery is counted as part of GDP. **See Figure 13.2.**

Computing GDP To total the amount of GDP, economists add the expenditures made in four categories of the economy. The first category is the *consumer sector* (C), or those goods and services bought by consumers for their direct use. The second category is the *investment sector* (I), or business purchases of tools, machines, buildings, and so on, used to produce other goods. This area also includes money spent on business inventories.



FIGURE 13.2

Avoiding Double Counting

When calculating GDP, economists count only the value of the final product. The intermediate products that go into making a loaf of wheat bread—wheat that was milled into wheat flour—are not counted in GDP. Only the price of the loaf of bread is counted.

Economics Online

Student Web Activity Visit the *Economics Today and Tomorrow* Web site at ett.glencoe.com and click on **Chapter 13—Student Web Activities** to learn about your gross state product.

Cooperative Learning

Point out that the Census Bureau collects information on personal income for large metropolitan areas in the United States. Then organize students into several groups, and have groups use the most recent edition of the *Statistical Abstract of the United States* to find the top 10 metropolitan areas in terms of personal income. Have them note how personal income has changed for these metropolitan areas over time. Have groups present their findings in annotated graph form. Encourage groups to display and discuss their graphs.

BLOCK SCHEDULING

Guided Reading Activity 13-1

GUIDED READING Activity 13-1

For use with the textbook pages 343-348

NATIONAL INCOME ACCOUNTING

FILLING IN THE BLANKS

Directions: Use your textbook to fill in the blanks using the words in the box. Some words may be used more than once.

national income accounting	gross domestic product (GDP)	net exports
depreciation	net domestic product (NDP)	national income (NI)
personal income (PI)	transfer payments	disposable personal income (DI)
dollar	double counting	consumer sector

Introduction/National Income Accounting

1. _____ is a way of measuring the economy's overall output and income. Five major factors measure the economy including 2. _____, net domestic product, national income, personal income, and 3. _____.

Measuring Gross Domestic Product

4. _____ is the total dollar value of all final goods and services produced in the nation during a single year. Economists always use the \$ _____ to measure GDP. Measuring the economy's performance means that only the final value of goods and services is counted to avoid 5. _____.

To compute the total amount of GDP, economists add the expenditures of 6. _____, the

NIGHTLY BUSINESS REPORT **ECONOMICS & YOU**

Measuring the Economy's Performance

Chapter 20
Disc 1, Side 2

ASK: What is gross domestic product? *the total dollar value of all final goods and services produced in the United States in a single year*

Also available in VHS.

Project Economic Concepts Transparency 13 and have students discuss the accompanying questions.

Economics Online

See the **Web Activity Lesson Plan** at ett.glencoe.com for an introduction, lesson description, and answers to the **Student Web Activity** for this chapter.

Independent Practice

L1 Constructing Graphs Have students locate data and then construct a double line graph showing GDP and NDP for the United States for a recent 10-year period. Direct students to write a caption for the graph that explains which of the two measures more accurately reflects the actual productivity of the economy.

ELL

Visual Instruction
FIGURE 13.3

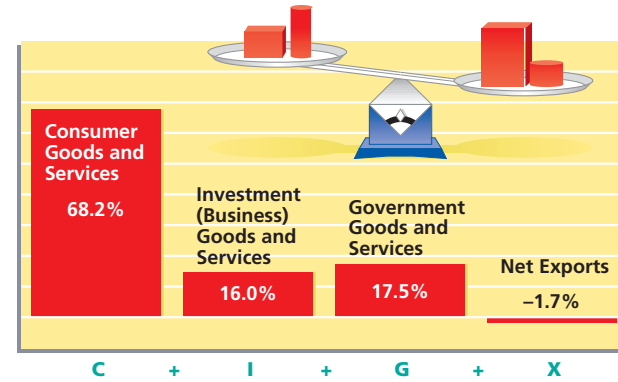
Have students study Figure 13.3. **ASK: Which sector of the economy receives disposable personal income? consumer sector**

L2 Applying Ideas Point out to students that economists refer to the unpaid work that is not included in GDP as *nonmarket transactions*. Have students record the nonmarket activities they see over a set period of time. Ask students to explain why each of the listed activities is a non-market transaction.

FIGURE 13.3

Four Categories of GDP

To compute GDP, economists add the total amount of expenditures from the consumer sector, the investment sector, the government sector, and net exports.



Source: Statistical Abstract of the United States, 1999



For an online update of this graph, visit et.glencoe.com and click on **Textbook Updates—Chapter 13**.

The *government sector (G)* makes up the third category added to GDP. The goods and services bought by federal, state, and local governments range from paper clips to jets. The final category is **net exports (X)**, or the difference between what the nation sells to other countries (exports) and what it buys from other countries (imports). This figure may be a plus or minus depending on whether the nation sells more or less to other nations than it buys from them. See **Figure 13.3**.

net exports: difference between what the nation sells to other countries and what it buys from other countries

Weaknesses of GDP The statistics used in computing GDP are accurate only to a point. Statistics about easily measurable things, such as government purchases, are reliable. Some workers, however, are given food, fuel, or housing as part of their

FIGURE 13.4

Non-GDP Work Unpaid work is not counted as part of GDP, even though it adds to the nation's output. This category includes lawn mowing, maintenance work on a home, baby-sitting, and so on. The government cannot estimate the value of this work accurately.



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Extending the Content

Weaknesses of GDP as a Measurement Tool Another weakness of GDP is that it measures only the value of quantity, not quality. For example, people buy lightbulbs, but what they really want is light. Lightbulbs can be counted in GDP, but the light they produce is not figured in. Because of technological developments, the quality of light has increased and, therefore, the price of light has fallen. However, GDP measures show a doubling in the price of lightbulbs. As a result, GDP figures may be inaccurate.

wages. GDP can include only an estimate of the value of such goods and services. Moreover, as **Figure 13.4** shows, GDP omits certain areas of economic activity such as unpaid work.

Net Domestic Product

The loss of value because of wear and tear to durable goods, such as automobiles and refrigerators, is called **depreciation**. The same concept applies to capital goods—machines and equipment. GDP disregards depreciation. It does not take into account that some production merely keeps machines and equipment in working order and replaces them when they wear out.

Net domestic product (NDP)—another way of measuring the economy—accounts for the fact that some production is only due to depreciation. NDP takes GDP and subtracts the total loss in value of capital goods caused by depreciation.

depreciation: loss of value because of wear and tear to durable goods and capital goods

net domestic product (NDP): value of the nation's total output (GDP) minus the total value lost through depreciation on equipment

Global Economy

Per Capita GDP

One picture of a country's standard of living comes from computing its real GDP per capita—or GDP divided by the total population. This is a measure of the average GDP per resident of a country. Listed below are the 10 nations with the highest per capita GDP.

Luxembourg	\$33,119
United States	\$29,326
Norway	\$26,771
Switzerland	\$25,902
Denmark	\$25,514
Iceland	\$24,836
Japan	\$24,574
Canada	\$23,761
Belgium	\$23,242
Austria	\$23,077

Measurements of Income

So far, you've learned about GDP and NDP—two major measurements of the nation's output. Three additional measurements look at income—national income, personal income, and disposable personal income.

National Income The total amount of income earned by everyone in the economy is called **national income (NI)**. NI includes those who use their own labor to earn an income as well as those who make money through the ownership of the other factors of production. NI is equal to the sum of all income resulting from five different areas of the economy. These include wages and salaries, income of self-employed individuals, rental income, corporate profits, and interest on savings and other investments.

If you look again at **Figure 13.1** on page 344, you'll see that national income is equal to NDP minus indirect business taxes, which includes such items as sales taxes and license fees.

national income (NI): total income earned by everyone in the economy

Measuring the Economy's Performance 347

Relevant Issues in Economics

GDP and Depreciation In recent years, the amount used by economists to account for depreciation has been a little more than 10 percent. In 1998, for example, GDP was about \$8.3 trillion. Subtracting some \$950 billion for depreciation produced an NDP of about \$7.4 trillion. Because NDP accounts for depreciation, it is a better measure of the economy's actual productivity than GDP.

3 Assess

Meeting Lesson Objectives

Assign Section 1 Assessment as homework or an in-class activity.

Use Interactive Tutor Self-Assessment Software to review Section 1.

Section Quiz 13-1

QUIZ Chapter 13, Section 1

NATIONAL INCOME ACCOUNTING

Match: Place a letter from Column B in the blank in Column A. (10 points each)

Column A	Column B
1. national income accounting	a. total dollar value of all final goods and services produced in a nation in a single year
2. gross domestic product	b. total income that individuals receive before personal taxes are paid
3. net domestic product	c. measurement of the national economy's performance
4. national income	d. value of the nation's total output minus the total value lost through depreciation on equipment
5. personal income	e. total income earned by everyone in the economy

Multiple Choice: In the blank at the left, write the letter of the choice that best completes the statement or answers the question. (10 points each)

6. In determining the GDP:

a. a dollar is used as the common measure.	b. the quantity of items produced is added up.
c. the quality of goods is considered.	d. both new and used goods are included.

7. In computing the GDP, which category of the economy represents expenditures on tools, machines, and buildings used to produce goods?

a. consumer sector	b. investment sector
c. government sector	d. net exports

Did You Know

Remind students that the study of the economy as a whole is known as *macroeconomics*. When analyzing macroeconomics, economists essentially are looking at the "big picture" of the economy.

Reteach

Have students write summary paragraphs on each of the following subjects: National Income Accounting, Measuring GDP, Net Domestic Product, Measurements of Income.

Reading Essentials and Study Guide 13-1

STUDY GUIDE Chapter 13, Section 1

NATIONAL INCOME ACCOUNTING

KEY TERMS

national income accounting: Measures the economy's output and income to help judge its overall performance (page 343)

gross domestic product (GDP) Reports the combined dollar value of all final goods and services produced in a nation during a single year (page 346)

net exports This figure is found by subtracting the value of goods bought from other countries from the amount of goods sold to other countries (page 346)

depreciation Loss of value in durable and capital goods caused by wear and tear (page 347)

net domestic product (NDP) Reports a nation's total output (GDP) minus the total value lost through depreciation on machines and equipment (page 347)

national income (NI) Total amount of income earned by everyone in the economy (page 347)

personal income (PI) Total income received by individuals before paying personal taxes (page 348)

transfer payments Welfare and other supplementary payments made by a state or federal government to individuals. These payments include unemployment compensation, Social Security, and Medicaid (page 348)

disposable personal income (DI) Amount of income remaining for people to spend or save after all taxes are paid (page 348)

4 Close

Have students discuss why economists consider the practice of national income accounting so important.

personal income (PI): total income that individuals receive before personal taxes are paid

transfer payments: welfare and other supplementary payments that a state or the federal government makes to individuals

disposable personal income (DI): income remaining for people to spend or save after all taxes have been paid

Personal Income The total income that individuals receive before personal taxes are paid is called **personal income (PI)**. PI can be derived from NI through a two-step process. First, several items are subtracted: corporate income taxes, profits that businesses reinvest in business to expand, and Social Security contributions employers make. These items are subtracted because they represent income that is not available for individuals to spend.

Then transfer payments are added to NI. **Transfer payments** are welfare payments and other assistance payments—unemployment compensation, Social Security, and Medicaid—that a state or the federal government makes to individuals. These transfer payments add to an individual's income even though they are not exchanged for any current productive activity.

Disposable Personal Income The income that people have left after taxes, including Social Security contributions, is called **disposable personal income (DI)**. DI equals PI minus personal taxes. DI is an important indicator of the economy's health because it measures the actual amount of money income people have available to save and spend.

Practice and assess key skills with **Skillbuilder Interactive Workbook, Level 2.**

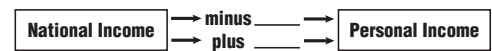
SECTION 1 Assessment

Understanding Key Terms

1. **Define** national income accounting, GDP, net exports, depreciation, NDP, NI, PI, transfer payments, DI.

Reviewing Objectives

- What four categories of economic activity are used to measure GDP?
- Graphic Organizer** Create a diagram like the one below to show what must be subtracted from and added to national income to determine personal income.



Applying Economic Concepts

4. **Gross Domestic Product** List five items you have recently purchased. Explain why they should or should not be counted in GDP. Use the terms *value*, *final*, and *double counting* in your explanations.

Critical Thinking Activity

5. **Synthesizing Information** Reconstruct **Figure 13.1** on page 344 in the form of a spreadsheet. Start with the dollar figure for GDP, then subtract the dollar figure of depreciation to get NDP. Continue until you have tabulated DI.



Study & Writing Skills

Taking Notes

Effective note taking involves more than just writing facts in short phrases. It involves breaking up much of the information into meaningful parts so that it can be understood and remembered.

Learning the Skill

To learn how to take good notes, follow the steps listed on the left.

Practicing the Skill

Suppose you are writing a research report on the United States GDP. First, identify main-idea questions about this topic, such as “What does GDP measure?” “What components make up GDP?” and “What are the weaknesses of using GDP to measure the economy?” Then find material about each main-idea question.

Using this textbook as a source, read the material in Section 1 and prepare notes like this:

Main Idea: What does GDP measure?

- GDP is prt of nat'l inc. acct.
- NIC measrs amt of gds & serv prdcd yrly
- GDP = tot \$ vlu of final gds & srvs prdcd in U.S. in 1 yr.

Main Idea: What components make up GDP?

-
-
-

- When taking notes on material presented in class, write the key points and important facts and figures in a notebook.
- Writing quickly and neatly, use abbreviations and phrases.
- Copy words, statements, or diagrams drawn on the chalkboard.
- Ask the teacher to repeat important points you have missed or do not understand.
- When studying textbook material, organize your notes into an outline (see page 406 for hints on outlining).
- For a research report, take notes on cards. Note cards should include the title, author, and page number of sources.

Practice and assess key skills with **Skillbuilder Interactive Workbook, Level 2.**

Application Activity

Scan a local newspaper for a short editorial or article about the nation's GDP. Take notes by writing the main idea and supporting facts. Summarize the article using only your notes.



Study & Writing Skills

Taking Notes

Review with students the guidelines to taking notes. As you work through the guidelines, call on volunteers to summarize each point. Then have students study the sample notes included in **Practicing the Skill**. Ask them to translate the abbreviations used in the notes. If students have difficulty, point out that note taking is an individual and personal activity. As long as notes are clear to the writer, any system of shorthand is acceptable.

Assist students with the **Practicing the Skill** activity, reviewing their finished notes. Then assign the **Application Activity**.

Reinforcing Economic Skills 26

Reinforcing Economic Skills Chapter 26

TAKING NOTES

Effective note taking involves separating what you read or hear into meaningful parts so that you can understand and remember it. To take good notes, write down the key points and important facts. When taking notes on textbook material include a heading that contains the main idea of the section and then write a few phrases to recall the facts. When taking notes for a research report, use note cards. Be sure to include the title, author, and page number of the source you use.

Directions: Read the excerpt below and take notes on a separate sheet of paper that summarize its main ideas.

U.S. Trade in Information Technology (IT) Goods and Services

Between 1993 and 1998, IT-producing industries accounted for an increasing share of U.S. foreign trade. Combined exports and imports of goods by IT-producing industries rose 11.7 percent annually against 8.1 percent for goods from all other industries, raising the IT-producing share of the nation's U.S. trade commodity trade from 16.1 to 19 percent. Exports and imports of services by IT-producing industries grew even faster, raising the IT share of U.S. trade in private services to just over 5 percent.

Goods Trade

Between 1993 and 1998, exports of goods by IT-producing industries registered 11.9 percent annual growth against 7.6 percent for all other types of goods. U.S. firms have continued to make a strong showing in the high-tech segments of the IT product market (e.g., computers, semiconductor devices, and peripherals). IT goods exports rose at about the same rate as exports, increases in both exports and imports caused the negative balance in goods trade by IT-producing industries from \$19 billion in 1993 to \$25 billion in 1998. Current data indicate that as much as one-half of the “exports” and “imports” of IT equipment actually represent sales between related parties, in effect, intracompany and intranational transfers.

Services Trade

SECTION 1 Assessment Answers

- All definitions can be found in the Glossary.
- consumer sector, investment sector, government sector, net exports
- To derive personal income from national income, corporate income taxes, reinvested business profits, and Social Security contributions made by employers are subtracted; and transfer payments—welfare and other assistance payments—are added.
- Answers will vary. Call on volunteers to present and discuss their lists.
- Encourage students to display and compare their spreadsheets.

Answers to Practicing the Skill

Notes and note-taking styles will vary. Encourage students to use their notes to write a summary of Section 1.

Application Activity Summaries will vary. Call on volunteers to share their notes and summaries with the rest of the class.

1 Focus

Overview

Section 2 describes the effect of inflation on purchasing power and explains how consumer and producer price indexes and real GDP are used to measure changes in average prices.

BELLRINGER

Motivational Activity

Project Daily Focus Transparency 54 and have students answer the questions. This activity is also available as a blackline master.

Daily Focus Transparency 54

FOCUS ACTIVITIES

Transparency 54

INFLATION

Records of Inflation		
The World Record		
Time	Place	Description
1922–1923	Germany	Between August 1922 and November 1923, inflation ran at an average rate of 3 trillion percent. The economic crisis was a factor in Adolf Hitler's rise to power.
The United States Record		
Time	Place	Description
1918	United States	A 20.4 percent inflation rate this year remains the highest rate since the CPI was instituted in 1913.

1. What type of inflation is each example listed in the table?
2. What is the highest inflation rate ever recorded in the United States?

READER'S GUIDE

Answers to the Reading Objectives questions are on page 354.

Preteaching Vocabulary

Have students use the Terms to Know to create two word webs, one titled “Inflation and Purchasing Power” and the other titled “Measuring Inflation.”

Vocabulary PuzzleMaker

SECTION 2

Correcting Statistics for Inflation

READER'S GUIDE

Terms to Know

- inflation
- purchasing power
- deflation
- consumer price index (CPI)
- market basket
- base year
- producer price index (PPI)
- GDP price deflator
- real GDP

Reading Objectives

1. What is the relationship between the purchasing power of money and the rate of inflation?
2. How do the consumer price index and the producer price index differ in what they measure?

inflation: prolonged rise in the general price level of goods and services

COVER STORY

BUSINESS WEEK, MAY 31, 1999

In Wall Street's galaxy, the Phantom Menace is inflation. It's the Dark Side of the economy's Force. The financial markets know that [nonexistent] inflation is the single most important factor supporting the economy's amazing performance of recent years. . . .

That's why the May 14 news of an unexpected 0.7% jump in the April consumer price index, the largest monthly rise in more than nine years, looked as scary as Darth Maul wielding his light saber.



In Section 1, you learned how GDP statistics measure the economy. You also learned that GDP figures can be unreliable because they do not measure unpaid work or depreciation. Another factor that skews GDP figures is **inflation**, or a prolonged rise in the general price level of goods and services. As mentioned in the *Cover Story* above, the presence of inflation can pose a threat to the economy. In this section, you'll learn how inflation affects the current dollar value of GDP as well as your ability to purchase goods and services.

SECTION 2 RESOURCE MANAGER

Reproducible Masters

- Reproducible Lesson Plan 13–2
- Reading Essentials and Study Guide 13–2
- Guided Reading Activity 13–2
- Section Quiz 13–2
- Daily Focus Activity 54
- Daily Lecture Notes 13–2

Multimedia

- Daily Focus Transparency 54
- Vocabulary PuzzleMaker
- Interactive Tutor Self-Assessment Software
- ExamView® Pro Testmaker
- MindJogger Videoquiz
- Presentation Plus!

The Purchasing Power of Money

When is a dollar not a dollar? When inflation occurs, the prices of goods and services rise. Therefore, the **purchasing power** of the dollar goes down. A dollar's purchasing power is the real goods and services that it can buy. In other words, a dollar cannot buy the same amount as it did before inflation.

How does a drop in the dollar's purchasing power skew GDP? The higher GDP figures that result from inflation do not represent any increase in output. For example, last year an ice-cream cone may have cost \$1.00. This year it may cost \$1.95. The physical output—in this case, one ice-cream cone—has not changed; only its money value has. To get a true measure of the nation's output in a given year, inflation must be taken into account.

Deflation, a prolonged decline in the general price level, also affects the dollar value of GDP, but deflation rarely happens.

purchasing power: the real goods and services that money can buy; determines the value of money

deflation: prolonged decline in the general price level of goods and services

Measures of Inflation

The government measures inflation in several ways. The three most commonly used measurements are the consumer price index, the producer price index, and the implicit GDP price deflator.

Consumer Price Index (CPI) Every month, the government measures the change in price of a specific group of goods and services that the average household uses. This measurement is the **consumer price index (CPI)**. The group of items that are

consumer price index (CPI): measure of the change in price over time of a specific group of goods and services used by the average household

Economic Connection to... MATH

Compiling the CPI

When compiling the CPI, the Bureau of Labor Statistics (BLS) does not record every price of every product bought by everyone in the United States. The BLS instead tries to get a *representative* picture of the prices paid by consumers for all products. A national sample of some 29,000 families provides the BLS with information on

their spending habits. This enables the BLS to put together the market basket and to “weight” items according to consumer spending. For example, housing items are given more weight, or importance, than recreation items because most consumers spend more on housing than on recreation. ■



2 Teach

Guided Practice

L1 Illustrating Ideas Review the information on inflation and purchasing power. Then ask students to present the relationship between the rate of inflation and the purchasing power of money in a diagram. If students have difficulty, you might suggest that they draw a “shrinking” dollar that gets smaller as prices rise. Or you might suggest that they draw two arrows, one pointing upward, the other pointing downward. Direct students to title, illustrate, and annotate their diagrams. Call on volunteers to present and explain their diagrams to the class. **ELL**

Daily Lecture Notes 13–2

DAILY LECTURE NOTES Lesson 13-2

LECTURE LAUNCHER

In the 1970s the primary goal of the Federal Reserve was to lower inflation. Interest rates went up. Buttons were distributed that said WIN, an acronym for Whip Inflation Now. What is inflation? Why is it considered harmful and how does it skew GDP figures?

PAGE 351

- The Purchasing Power of Money
 - When inflation occurs, the prices of goods and services rise, and the purchasing power of the dollar goes down.
 - Purchasing power of a dollar is equal to the real goods and services the dollar can buy.
 - Inflation can also be defined as the decline in the purchasing power of money.
 - Faster the rate of inflation, greater the drop in purchasing power.
 - Inflation must be taken into account when calculating the GDP.
 - Deflation is a prolonged decline in the general price level.

Discussion Question
Why is it important to take inflation into account when calculating the GDP? (Figures that result from inflation don't reflect an increase in production output. Therefore, inflation gives the appearance that production has increased, and can lead to incorrect economic policies.)

Economic Connection to... MATH

In compiling the CPI, the BLS also uses a national sample of about 24,000 families to find out the kinds of stores where people shop.

Meeting Special Needs

Study Strategy Students with learning problems often have difficulty generalizing the use of strategies from one situation to another. They need to have periodic review of both the steps of the strategy they are using and the procedures that are used in each of the steps. Tell students that in this section they will use the study strategy independently. Have each student draw a chart with grids to self-evaluate each one of the following: Did I skim for titles, headings, and main ideas? Did I ask questions? Did I answer my questions?

Refer to *Inclusion for the Social Studies Classroom Strategies and Activities* for students with different learning styles.

Visual Instruction
FIGURE 13.5

Discuss with students how increases in the CPI often mean that people have more money, because prices and wages often rise at the same time. However, this extra money has less purchasing power.

Guided Reading Activity 13-2

GUIDED READING Activity 13-2

CORRECTING STATISTICS FOR INFLATION

RECALLING THE FACTS

Directions: Use the information in your textbook to answer the questions.

1. What is inflation?
2. What is a dollar's purchasing power?
3. How does a drop in the dollar's purchasing power affect GDP?
4. How are deflation and inflation similar and different? Similarities:
Differences:
5. What does the consumer price index (CPI) measure?

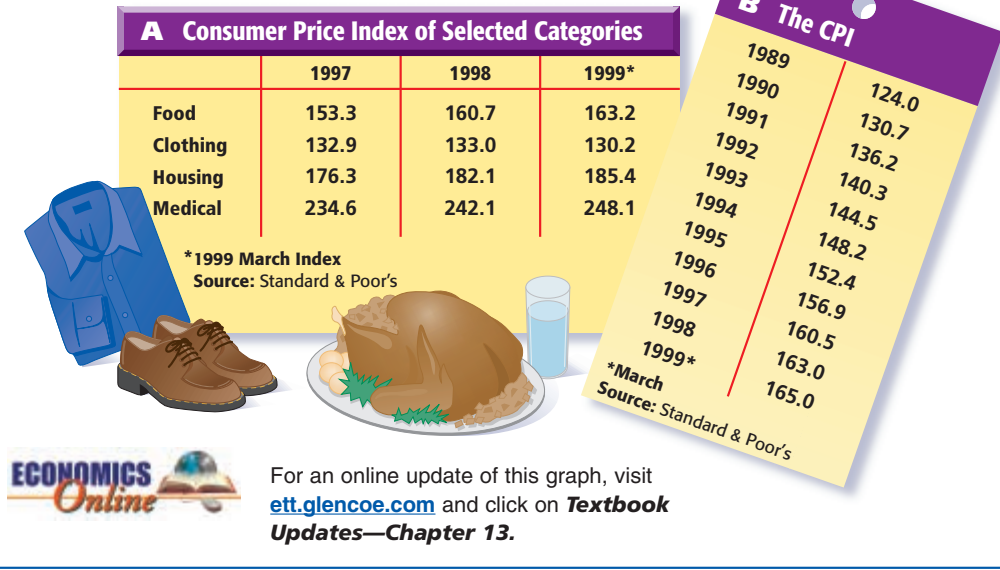
Independent Practice

L2 Analyzing Trends Have students consult the most recent editions of the *Statistical Abstract of the United States* and the *Economic Report of the President* to find CPI and PPI statistics for the 1990s. Have them use their findings to write a paragraph on inflation trends during the decade. Suggest that students illustrate their paragraphs with charts and graphs.

BLOCK SCHEDULING

FIGURE 13.5

Selected Consumer Prices Price indexes allow you to compare price levels from year to year. When the CPI rises, there is inflation.



For an online update of this graph, visit ett.glencoe.com and click on **Textbook Updates—Chapter 13**.

market basket: representative group of goods and services used to compile the consumer price index

priced, called a **market basket**, includes about 90,000 specific goods and services under general categories such as food, housing, transportation, apparel, education, recreation, medical care, and personal care. About every 10 years, the market basket is updated to include new products and services and to reflect more current spending patterns. Part A of Figure 13.5 has broken down the CPI into several major categories, whereas Part B shows the overall CPI for several years.

Employees at the federal Bureau of Labor Statistics (BLS) compile the CPI monthly. They start with prices from a **base year** so that they have a point of comparison for current-day prices. For example, if you paid \$1.00 for an ice-cream cone in 1998, and the price of the cone increased to \$1.95 in 2001, the cost of an ice-cream cone has risen 95 cents (and in this case, 95 percent) since 1998 (\$1.95 - 1.00 = .95).

In compiling the CPI, the BLS's base year is really the average of prices that existed for the three years 1982 to 1984. This base is given a value of 100. CPI numbers for later years indicate the percentage that the market basket price has risen since the base year.

Cooperative Learning

Inform students that economists use the term *hyperinflation* to describe a situation where the rate of inflation is so high that prices change weekly or daily. Organize students into several groups, and have groups research an example of hyperinflation. If students have difficulty finding an example, you might suggest Germany after World War I or Latin America in the 1980s. Have groups use their findings to create an illustrated report. Direct groups to cover such topics as what caused hyperinflation, what was the impact of hyperinflation on the economy, and how hyperinflation was brought under control.

3 Assess

Meeting Lesson Objectives

Assign Section 2 Assessment as homework or an in-class activity.

Use Interactive Tutor Self-Assessment Software to review Section 2.

producer price index (PPI): measure of the change in price over time that United States producers charge for their goods and services

GDP price deflator: price index that removes the effect of inflation from GDP so that the overall economy in one year can be compared to another year

real GDP: GDP that has been adjusted for inflation by applying the price deflator

For example, the 1999 March CPI of 165.0 means that the average price of goods and services in the market basket has risen 65.0 percent since the period 1982–1984 (165.0 - 100 = 65.0). The price level, therefore, rose 65 percent since 1982–1984. The CPI can also be used to calculate inflation for any period, as shown in Figure 13.6.

Producer Price Index Another important measure of inflation is the **producer price index (PPI)**. The PPI is actually a group of indexes that measures the average change in prices that United States producers charge their customers—whether these customers are other producers buying crude materials for further processing or wholesalers who will sell the products to retailers or directly to consumers. Most of the producer prices included in the PPIs are in mining, manufacturing, and agriculture.

The PPIs usually increase before the CPI. Apple producers, for example, may experience a weak harvest. Because of the shortage of apples, the price of apples rises. A bakery that buys apples will eventually increase the price of its apple pies to cover the higher price of apples. Eventually the CPI will increase because consumers will have to pay more for the final products—in this case, apple pies. Therefore, changes in the PPIs often are watched as a hint that inflation and the CPI are going to increase.

GDP Price Deflator Government economists account for inflation by issuing another measure of price changes in GDP, called the **GDP price deflator**. This index removes the effects of inflation from GDP so that the overall economy in one year can be compared to another year. When the price deflator is applied to GDP in any year, the new figure is called **real GDP**.

The federal government uses 1992 as its base year to measure real GDP. Each year the price deflator is used to change current, or inflated, GDP to real GDP. For example, GDP in current dollars for 1998 was \$8,511.0 billion. To find real GDP for 1998, the government divides 1998 GDP by the 1992 price deflator (112.7) and multiplies the result by 100:

$$\$8,511.0 \div 112.7 \times 100 = \$7,551.9$$

Real GDP for 1998 was \$7,551.9 billion. This figure may now be compared to 1992 GDP of \$6,244.4 billion. This is a more meaningful comparison than comparing 1998 GDP in inflated dollars to 1992 GDP. Figure 13.7 on page 354 shows both current GDP and real GDP (in chained [1992] dollars).

FIGURE 13.6

Calculating Inflation At the end of 1991, the CPI was 136.2. In March 1999 it was 165.0, which is a difference of 28.8 (165.0 - 136.2 = 28.8). If we now use 1991 as the base year, we can find out by what percentage consumer prices on average rose from 1991 to 1999. We do this by dividing 28.8 by 136.2, which gives us 0.2114 (28.8 ÷ 136.2). When we multiply by 100 to give the result as a percent, we get 21.14 percent.



Section Quiz 13-2

QUIZ Chapter 13, Section 2

CORRECTING STATISTICS FOR INFLATION

Directions: Place a letter from Column B in the blank in column A. (10 points each)

- | | |
|---|--|
| <p>A</p> <ol style="list-style-type: none"> 1. inflation 2. purchasing power 3. consumer price index 4. market basket 5. producer price index | <p>B</p> <ol style="list-style-type: none"> a. real goods and services that money can buy b. measure of the change in price over time that U.S. producers charge for goods and services c. percentage rise in the general price level of goods and services d. representative group of goods and services used to compile the consumer price index e. measure of the change in price over time of a specific group of goods and services used by the average household |
|---|--|
- Multiple Choice:** In the blank at the left, write the letter of the choice that best completes the statement or answers the question. (10 points each)
6. When inflation occurs, the purchasing power of the dollar
 - a. goes down
 - b. goes up
 - c. is not affected
 - d. cannot be measured
 7. Which of the following provides a point of comparison for current prices?
 - a. market basket
 - b. price deflator
 - c. base year
 - d. price index
 8. The consumer price index compares
 - a. quality of goods
 - b. income levels
 - c. price levels
 - d. quantity of goods
 9. Which of the following is likely to follow an increase in the producer price index?
 - a. deflation
 - b. increase in the consumer price index
 - c. shortage of goods
 - d. increase in purchasing power
 10. Gross domestic product that has been adjusted for inflation is called
 - a. base year
 - b. a price deflator
 - c. real GDP
 - d. deflation

Relevant Issues in Economics

The CPI and Product Quality Economists and policy makers who analyze price indexes to forecast inflation and determine the cost of living know that these indexes are not perfect. Price indexes do not always measure real change because they cannot fully account for changes in quality. For example, prices of color printers may rise 5 percent from one year to the next. However, the level of improvement in the quality of the printers may be much greater than 5 percent. Thus, the cost of living may not have risen much at all.

Reteach

Have students write summary paragraphs explaining the consumer price index, the producer price index, and the GDP price deflator.

Reading Essentials and Study Guide 13–2

STUDY GUIDE Chapter 13, Section 2

CORRECTING STATISTICS FOR INFLATION

KEY TERMS
inflation A prolonged rise in the general price of goods and services (page 350)
purchasing power The value of money as determined by measuring the amount of real goods and services that money can purchase (page 351)
deflation A lengthy decline in the general price of goods and services (page 351)
consumer price index (CPI) Measures the change in price over time for a specific group of goods and services used by the average household (page 351)
base year In a series of statistics, this is the year used as a point of comparison (page 352)
market basket A group of goods and services used to compile the consumer price index (page 352)
producer price index (PPI) Measures the change in price over time that producers charge for their goods and services (page 352)
GDP price deflator A price index that permits the comparison of one year's economic performance to another by removing the impact of inflation (page 353)
real GDP GDP that has been adjusted for inflation by applying the price deflator (page 353)

DRAWING FROM EXPERIENCE

How much did you pay for your favorite good, such as a video game or music CD, last year? Did you pay the same price for similar goods this year? If your income stayed the same as last year, could you buy more or less of your favorite good? Economists ask similar questions when they try to judge the impact of inflation on your purchasing power.

ORGANIZING YOUR THOUGHTS

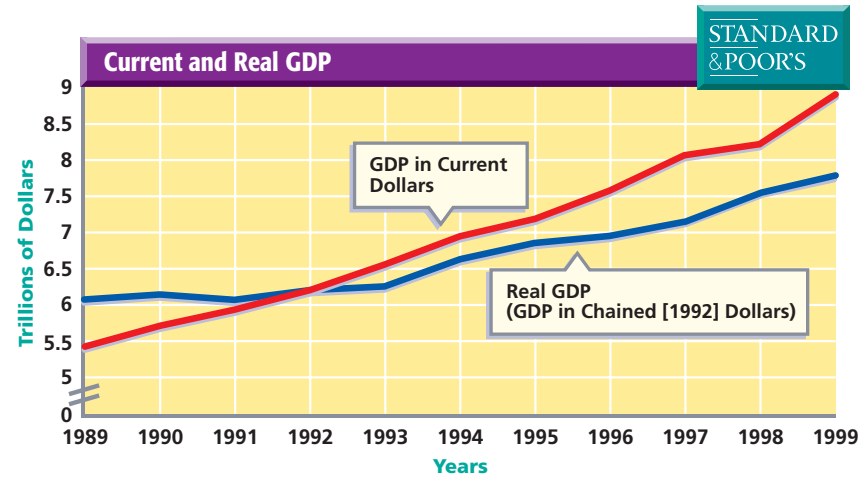
Use the diagram below to help you take notes as you read the summaries that follow. Think about how inflation affects the current dollar value of GDP as well as your ability to purchase goods and services.

TERMS	DESCRIPTION
Inflation	
CPI	
PPI	
GDP Price Deflator	

4 Close

Discuss with students why indicators such as CPI, PPI, and the GDP price deflator are useful to businesses, government, and consumers.

FIGURE 13.7 GDP in Current and Chained (1992) Dollars Real GDP has been adjusted for inflation using 1992 as a base year.



Source: Standard & Poor's



For an online update of this graph, visit ett.glencoe.com and click on **Textbook Updates—Chapter 13**.



Practice and assess key skills with **Skillbuilder Interactive Workbook, Level 2**.

SECTION 2 Assessment

Understanding Key Terms

1. **Define** inflation, purchasing power, deflation, consumer price index, market basket, base year, producer price index, GDP price deflator, real GDP.

Reviewing Objectives

- What is the relationship between the purchasing power of money and the rate of inflation?
- Graphic Organizer** Use a chart like the one in the next column to show the difference between what the CPI and the PPI measure.

Index	What It Measures

Applying Economic Concepts

4. **Market Basket** If you were to construct a market basket of goods and services that students typically consume, what would you select?

Critical Thinking Activity

5. **Making Predictions** If the PPIs measuring crude oil, agricultural products, and lumber decrease for three months in a row, what prediction could you make about the CPI?

SECTION 2 Assessment Answers

- All definitions can be found in the Glossary.
- The purchasing power of money declines as inflation increases.
- CPI measures change in price over a specified period of time of a group of specific goods and services that the average household uses; PPI measures the average change in prices that United States producers charge their customers.
- Answers will vary. Have students share and compare their market baskets.
- Since the PPIs tend to lead the CPI, there will be a decrease in the CPI.

SPOTLIGHT ON THE ECONOMY

Unveiling the Secrets of the CPI

Check It Out! In this chapter you learned about the consumer price index (CPI). In this article, read to learn about several weaknesses of the CPI and how the Bureau of Labor Statistics (BLS) tries to overcome these weaknesses.

The government tracks inflation in various forms. For instance, the producer price index (PPI) captures changes in prices charged by U.S. goods producers. . . . For the best inflation reading, however, markets look to the CPI. It is the most comprehensive indicator because it covers all goods and services purchased by households. It's the timeliest because the report is released . . . about two weeks after the end of each month. The CPI does include sales and excise taxes.

The CPI is not perfect. The elderly complain that the CPI, although used for adjusting Social Security checks, misses price hikes on drugs. Increases in property taxes show up only indirectly when the BLS calculates rents. And if your employer increases your health-insurance premium, the CPI won't reflect it.

The BLS counters that the consumer price index's aim is to measure prices for a specific basket of goods and services that the average household buys, according to surveys done from 1993 to 1995. This set basket leads to the biggest rap on the CPI: It



does not allow for substitution. Say, a drought in Washington means a price jump for Red Delicious apples. Consumers might buy cheaper Granny Smiths. But the CPI would still give more weight to the price of Red Delicious apples.

In the mid-1990s, economists criticized the CPI for overestimating inflation. . . . For one thing, said economists, the BLS took too long to include new products, and thus the CPI failed to capture the price reductions that take place in the first years of a product's lifetime. Cell phones, for instance, were costly to use when they were introduced in the 1980s. But competition brought the connection fees down rapidly. However, the BLS did not include cellular phones in the CPI until 1998.

Quality adjustment is another problem. How does the BLS account for air bags in cars, which add costs but save lives?

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Think About It

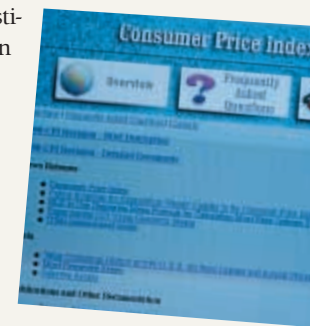
- What does the CPI measure?
- What are three criticisms of the CPI?

Answers to Think About It

- changes in prices for a specific basket of goods and services that the average household buys
- Criticisms include: Certain price increases—on drugs, property taxes, and health insurance premiums, for example—are not reflected in the CPI. The CPI does not allow for substitutions—consumers often substitute when prices of certain goods rise. It overestimates inflation by taking too long to include new products in the market basket. CPI does not account for quality adjustment.

Teach

Work through the criticisms of the CPI with students. When discussing substitution, point out that the CPI may be thrown off by consumers switching stores. The CPI compares prices in the same stores over time. If, when prices rise, consumers switch to discount stores that charge lower prices, the CPI will exaggerate what shoppers are actually paying. **ASK: Why are people concerned that the CPI might be overestimating inflation? Most students will point out that Social Security payments and some pay raises are tied to inflation.**



BusinessWeek ONLINE

To find up-to-date news and analysis on the economy, business, technology, markets, entrepreneurs, investments, and finance, have students search feature articles and special reports on the *Business Week* Web site.

www.businessweek.com

Sidelight

The Boskin Commission, set up by the United States Senate Finance Committee in 1996 to examine the CPI, found that the index overestimated inflation by about 1.1 percentage points.

1 Focus

Overview

Section 3 provides an analysis of aggregate demand and aggregate supply in the economy.

BELLRINGER

Motivational Activity

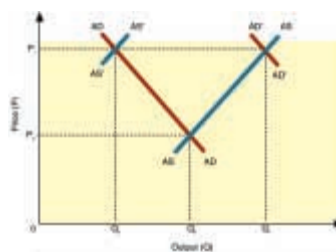
Project Daily Focus Transparency 55 and have students answer the questions. This activity is also available as a blackline master.

Daily Focus Transparency 55

FOCUS ACTIVITIES

Transparency 55

AGGREGATE SUPPLY AND AGGREGATE DEMAND



1. What is the effect of an increase in income caused by a world economic recovery on a nation's aggregate demand, output, and price?
2. What is the effect of an increase in oil prices on a nation's aggregate supply, output, and price?

READER'S GUIDE

Answers to the Reading Objectives questions are on page 359.

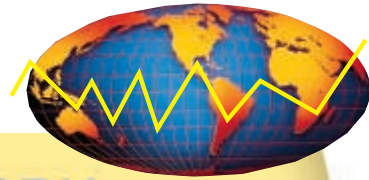
Preteaching Vocabulary

On the board, draw a simplified sketch of Figure 13.10. Have students copy the sketch into their notebooks and label the aggregate demand curve and aggregate supply curve.

Vocabulary PuzzleMaker

SECTION 3

Aggregate Demand and Supply



READER'S GUIDE

Terms to Know

- aggregates
- aggregate demand
- aggregate demand curve
- aggregate supply
- aggregate supply curve

Reading Objectives

1. Why is there an inverse relationship between aggregate quantity demanded and the price level?
2. What causes the aggregate supply curve to slope upward?
3. How do you use aggregate demand and supply analysis to determine the equilibrium price level?

aggregates: summation of all the individual parts in the economy

aggregate demand: total quantity of goods and services in the entire economy that all citizens will demand at any single time

COVER STORY

KIPLINGER'S PERSONAL FINANCE MAGAZINE, NOVEMBER 1998

It will take a few years for the global economy to achieve a new equilibrium between manufacturing production and consumer demand. Many goods are now in oversupply, and consumer demand is impaired by falling currencies and growth-inhibiting governmental policies. . . . But these are cyclical imbalances of the sort that have occurred for decades and will keep recurring from time to time.

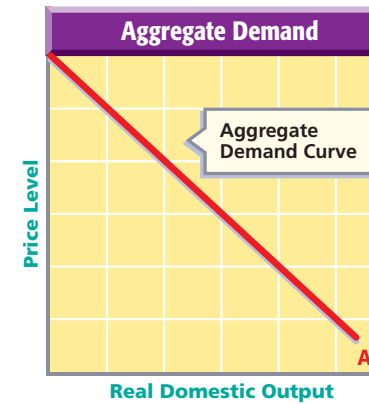
As mentioned in the *Cover Story* above, the laws of supply and demand can be applied to the economy as a whole, as well as to individual consumer decisions. Economists are interested in the demand by all consumers for all goods and services, and the supply by all producers of all goods and services. When we look at the economy as a whole in this way, we are looking at **aggregates**—the summing up of all the individual parts in the economy. As you'll learn in this section, we call these sums aggregate demand and aggregate supply.

Aggregate Demand

Aggregate demand is the total quantity of all goods and services in the entire economy demanded by all people. How can we find out the aggregate quantity of goods and services that all citizens will demand at any single point in time? To answer this

FIGURE 13.8

Aggregate Demand Curve Although the curve for aggregate demand resembles that for simple demand, it is for the entire economy, not just one good or service. Aggregate demand may increase (curve shifts to the right) if consumers collectively spend more and save less or if better economic conditions are forecast. Aggregate demand may decrease (curve shifts to the left) if higher taxes are imposed on the overall economy or if bleak economic conditions are forecast.



question, we have to relate aggregate demand to something else. As you remember from Chapter 7, the basic law of demand relates the quantity demanded of a specific product to its price. When discussing aggregates, however, we are talking about all products. Because there are millions of different prices for all products, aggregate demand cannot be related to prices.

Instead, aggregate demand is related to the *price level*—the average of all prices as measured by a price index. If we use the implicit GDP price deflator as our index, our measure of aggregate demand will be based on real (adjusted for inflation) domestic output. You can see this relationship in **Figure 13.8**. It is called the **aggregate demand curve**.

Notice the similarity between the aggregate demand curve labeled AD in **Figure 13.8** and the individual demand curve you studied in Chapter 7 (page 179). Both of these curves slope downward, showing an inverse relationship. As the price level in the nation's economy goes down, a larger quantity of real domestic output is demanded per year. This change in quantity demanded is shown as a movement *along* the AD curve.

There are two main reasons for this inverse relationship. One involves the real purchasing power of your cash, and the other concerns the relative price of goods and services sold to other countries.

Consider the first reason. Inflation causes the purchasing power of your cash to go down. Deflation causes your purchasing power to go up. Therefore, when the price level goes down, the purchasing power of any cash that you hold will go up. You and everyone else will feel slightly richer because you are able to buy more goods and services.

aggregate demand curve: a graphed line showing the relationship between the aggregate quantity demanded and the average of all prices as measured by the implicit GDP price deflator

2 Teach

Guided Practice

L2 Understanding Ideas Have students review Figure 13.8 on page 357 and Figure 13.9 on page 358.

ASK: What might happen to the aggregate demand curve if consumers collectively save less and spend more? *The curve would shift to the right, indicating an increase in aggregate demand.* What would happen to the aggregate supply curve if there were a substantial increase in the cost of foreign oil? *The curve would shift to the left, indicating a decrease in aggregate supply.*

Daily Lecture Notes 13-3

DAILY LECTURE NOTES Lesson 13-3

LECTURE LAUNCHER

The Institute for the Future is a marketing firm that predicts trends in consumer demand. They are specifically interested in sophisticated consumers which they define as having three of the four following characteristics: 1) one year of college, 2) works as a manager, professional, or technician in an information-intensive job, 3) lives in a household with spending power of more than \$50,000, and 4) has access to high-speed, interactive, multimedia communication devices at home. Sophisticated consumers accounted for 20% of all households in 1980, 45% in 1999, and are expected to reach 60% by the year 2020. How might the above changes in demographics impact aggregate demand and supply curves?

PAGES 356-358

1. Aggregate Demand
 - A. Aggregate demand is the total quantity of goods and services demanded by all people in the economy.
 - B. Aggregate demand is related to the price level or the average of all prices as measured by a price index.
 - C. If the price level goes down, a larger quantity of real domestic output is demanded per year.
 - D. The relationship on the aggregate demand curve occurs because of the effect of inflation on the purchasing power of cash and the relative price of goods and services sold to other countries.

Guided Reading Activity 13-3

GUIDED READING Activity 13-3

AGGREGATE SUPPLY AND DEMAND

RECALLING THE FACTS

Directions: Use the information in your textbook to answer the questions.

1. When economists look at the economy as a whole, what are they looking at?
2. What is aggregate demand?
3. Why does aggregate demand have to be related to the price level, or the total average of all the prices as measured by a price index?
4. How are the aggregate demand curve and individual demand curve similar?
5. What are the two reasons there is an inverse relation shown on the aggregate demand curve?
 - a.
 - b.

SECTION 3 RESOURCE MANAGER

Reproducible Masters

- Reproducible Lesson Plan 13-3
- Reading Essentials and Study Guide 13-3
- Guided Reading Activity 13-3
- Section Quiz 13-3
- Daily Focus Activity 55
- Daily Lecture Notes 13-3

Multimedia

- Daily Focus Transparency 55
- Economic Concepts Transparencies 14, 15
- Vocabulary PuzzleMaker
- Interactive Tutor Self-Assessment Software
- ExamView® Pro Testmaker
- MindJogger Videoquiz
- Interactive Economics!
- Presentation Plus!

Meeting Special Needs

Language Disability Restating is difficult for students with language problems. They often have trouble finding synonyms for words in the text. Explain that the point of restating is for them to use common language and not to make it sound like the textbook. Have students read through the section for words that might be somewhat complex and restate them in their own words.

Refer to *Inclusion for the Social Studies Classroom Strategies and Activities* for students with different learning styles.

Project Economic Concepts Transparencies 14 and 15 and have students discuss the accompanying questions.

Independent Practice

L2 Analyzing Ideas Have students write a short essay that discusses the value to businesses and government of knowing the nation’s aggregate demand, aggregate supply, and equilibrium price level. Call on volunteers to read their essays to the class.



LESSON 6: MACROECONOMIC EQUILIBRIUM

Have students click on “The Aggregate Supply Curve.” **ASK:** What do the vertical and horizontal axes show on the aggregate supply curve? The vertical axis shows an overall price level such as the consumer price level. The horizontal axis shows real GDP.

Supplied in both CD-ROM and disk formats.

3 Assess

Assign Section 3 Assessment as homework or an in-class activity.

Use Interactive Tutor Self-Assessment Software to review Section 3.

As for the second reason, when the price level goes down in the United States, our goods become relatively better deals for foreigners who want to buy them. Foreigners then demand more of our goods as exports.

Aggregate Supply

Aggregate demand is only one side of the picture. Let us look at aggregate supply. As the price of a specific product goes up, and if all other prices stay the same, producers of that product find it profitable to produce more. The same is true for all producers in the economy over a short period of time. If the price level goes up and wages do not, overall profits will rise. Producers will want to supply more to the marketplace—they offer more real domestic output as the price level increases. The reverse is true as the price level falls. This is called **aggregate supply**. You can see this positive relationship in **Figure 13.9**—the **aggregate supply curve**.

aggregate supply: real domestic output of producers based on the rise and fall of the price level

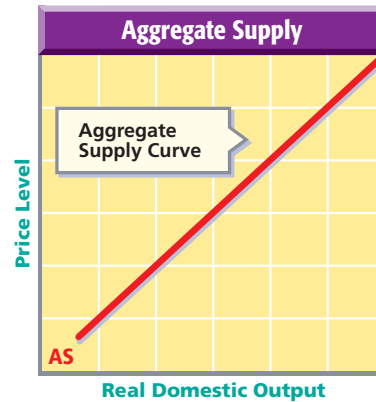
aggregate supply curve: a graphed line showing the relationship between the aggregate quantity supplied and the average of all prices as measured by the implicit GDP price deflator

Putting Aggregate Demand and Aggregate Supply Together

Just as we are able to compare demand and supply for a given product to find an equilibrium price and quantity, we can

FIGURE 13.9

Aggregate Supply Curve Similar to the individual supply curve, the aggregate supply curve shows the amount of real GDP that could be produced at various price levels. Aggregate supply increases (curve shifts to the right) when all firms experience lower costs of production due to lower taxes or interest rates or lower prices for foreign oil, for example. Aggregate supply decreases (curve shifts to the left) for the opposite reasons: higher taxes, higher interest rates, higher prices for foreign oil.



▼ Producers



358

Cooperative Learning

Organize students into several groups. Have groups use library resources to locate discussions of the factors that might cause changes in aggregate supply and aggregate demand. Then have groups find and clip photographs from current newspapers and magazines that illustrate these factors. Direct groups to use these clippings to create an annotated collage on aggregate supply and demand. Have groups display their collages around the classroom. **ELL** **BLOCK SCHEDULING**

Section Quiz 13-3

QUIZ Chapter 13, Section 3

AGGREGATE DEMAND AND SUPPLY

Matching: Place a letter from Column B in the blank in Column A. (10 points each)

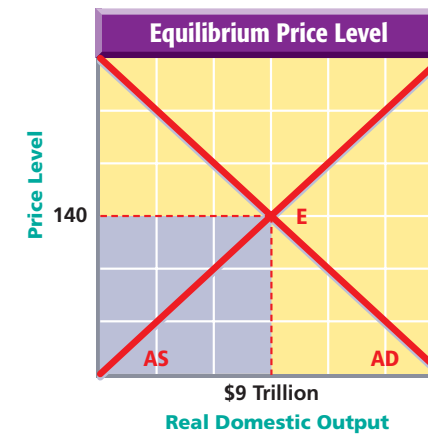
<p>A</p> <ol style="list-style-type: none"> aggregate aggregate demand aggregate demand curve aggregate supply aggregate supply curve 	<p>B</p> <ol style="list-style-type: none"> total quantity of goods and services in the entire economy that all citizens will demand at any single time sum of all the individual parts in the economy graph showing the relationship between aggregate quantity supplied and the average of all prices real domestic output of producers based on the rise and fall of the price level graph showing the relationship between the aggregate quantity demanded and the average of all prices
---	--

Multiple Choice: In the blank at the left, write the letter of the choice that best completes the statement or answers the question. (10 points each)

- Aggregate demand is related to
 - price
 - price level
 - supply
 - scarcity
- As the price level in the nation's economy increases,
 - aggregate demand increases.
 - aggregate demand decreases.
 - aggregate supply increases.
 - aggregate supply decreases.

FIGURE 13.10

National Output and the Price Level The intersection of aggregate demand and aggregate supply gives the equilibrium price level and national output (real domestic output).



compare aggregate demand and aggregate supply. We do this in **Figure 13.10**.

The equilibrium price level in our example is determined where the aggregate demand curve crosses the aggregate supply curve, or at a GDP price deflator of 140. The equilibrium quantity of real GDP demanded and supplied is \$9 trillion. As long as nothing changes in this situation, the economy will produce \$9 trillion of real domestic output, and the price level will remain at 140—there will be neither inflation nor deflation.

Practice and assess key skills with **Skillbuilder Interactive Workbook, Level 2.**

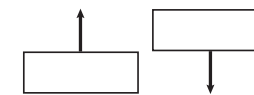
SECTION 3 Assessment

Understanding Key Terms

1. Define aggregates, aggregate demand, aggregate demand curve, aggregate supply, aggregate supply curve.

Reviewing Objectives

2. Graphic Organizer Create a diagram like the one below to show why there is an inverse relationship between aggregate quantity demanded and the price level.



- What causes the aggregate supply curve to slope upward?
- How do you use aggregate demand and supply analysis to determine the equilibrium price level?

Applying Economic Concepts

5. Aggregate Demand What would happen to the aggregate demand curve if there was a massive tax cut?

Critical Thinking Activity

6. Synthesizing Information Draw a graph showing both an aggregate demand curve and an aggregate supply curve. Now assume that the price level increases. What happens to aggregate demand and aggregate supply?

Measuring the Economy's Performance 359

Reteach

Have students summarize the meaning of each of the graphs in this section.

Reading Essentials and Study Guide 13-3

STUDY GUIDE Chapter 13, Section 3

AGGREGATE SUPPLY AND DEMAND

KEY TERMS

aggregate: Sum of all the individual parts in the economy (page 356)
aggregate demand: The total quantity of goods and services in the entire economy that all people will demand at any single time (page 356)
aggregate demand curve: A graphed line showing the relationship between the aggregate quantity demanded and the average of all prices as measured by the implicit GDP price deflator (page 357)
aggregate supply: Real domestic output of producers based on the rise and fall of the price level (page 356)
aggregate supply curve: A graphed line showing the relationship between the aggregate quantity supplied and the average of all prices as measured by the implicit GDP price deflator (page 356)

DRAWING FROM EXPERIENCE

Have you ever wanted to buy something that was expensive? Did you wait until the price came down before you bought it? Have you ever sold something? Were you more likely to sell something when offered a higher price? This section explains the effect of changes in the price level on aggregate supply and demand.

ORGANIZING YOUR THOUGHTS

4 Close

Encourage students to write riddles, proverbs, or one-verse poems that explain the relationship between aggregate demand and price level and aggregate supply and price level.

SECTION 3 Assessment Answers

- All definitions can be found in the Glossary.
- Relationship is inverse because as price level falls, aggregate quantity demanded rises.
- As prices rise, suppliers will produce more because they will enjoy greater profits.
- Overlay aggregate demand and aggregate supply curves—where they intersect represents the equilibrium price level.
- The curve would move to the right, indicating an increase in aggregate demand.
- Aggregate demand would decrease while aggregate supply would increase.

1 Focus

Overview

Section 4 describes the business cycle from peak through contraction or recession, and trough to recovery; and reviews business fluctuations in the United States.

BELLRINGER

Motivational Activity

Project **Daily Focus Transparency 56** and have students answer the questions. This activity is also available as a blackline master.

Daily Focus Transparency 56

FOCUS ACTIVITIES

Transparency 56

B BUSINESS FLUCTUATIONS



1. What does the photograph illustrate about aggregate demand during the Great Depression of the 1930s?
2. Why was the Great Depression so destructive to workers?

READER'S GUIDE

Answers to the Reading Objectives questions are on page 363.

Preteaching Vocabulary

Have students draw a wavy line, similar to the one in Figure 13.11, across a sheet of notepaper. Direct them to enter the terms *peak*, *boom*, *contraction*, *recession*, *depression*, *trough*, *expansion*, and *recovery* in appropriate places on the line. Then have students write the definition of each term below the diagram.

Vocabulary PuzzleMaker

SECTION 4

Business Fluctuations

READER'S GUIDE

Terms to Know

- business fluctuations
- business cycle
- peak
- boom
- contraction
- recession
- depression
- trough
- expansion
- recovery

Reading Objectives

1. What are the phases of a typical business cycle?
2. What have been the three most severe downturns in the United States economy since the 1920s?

business fluctuations: ups and downs in an economy

business cycle: irregular changes in the level of total output measured by real GDP

peak/boom: period of prosperity in a business cycle in which economic activity is at its highest point

contraction: part of the business cycle during which economic activity is slowing down

360 CHAPTER 13

COVER STORY

BUSINESS WEEK, JULY 19, 1999

Happy Birthday. The economic expansion is now 100 months old; six more months, and it will become the longest in U.S. history. But while its longevity gets all the attention, the expansion's most important characteristic may turn out to be its unusual quality. Driven by the kind of technological change that comes along once or twice in a century, this expansion is rewriting a lot of conventional economic wisdom.



Some years inflation is high; other years it is not. The same holds true for unemployment, world trade, and taxes. We have fluctuations in virtually all aspects of our economy. The ups and downs in an economy are called **business fluctuations**. Some people associate these ups and downs in business activity with what has been called the **business cycle**—changes in the level of total output measured by real GDP.

Model of the Business Cycle

Figure 13.11 shows an idealized business cycle. According to this model, the phases of a business cycle begin with growth leading to an economic **peak** or **boom**—a period of prosperity. New businesses open, factories are producing at full capacity, and everyone who wants work can find a job.

Eventually, however, real GDP levels off and begins to decline. During this part of the cycle, a **contraction** of the economy

occurs. Business activity begins to slow down. If the contraction lasts long enough and is deep enough, the economy can continue downward until it slips into a recession.

A **recession** is any period of at least two quarters—six months—during which real GDP does not grow. In a recession, business activity starts to fall at a rapid rate economy-wide. Factories cut back on production and lay off workers. Consumers, with less income, cut back on purchases. Faced with a worsening economy, fewer new businesses open and some existing ones fail. If a recession becomes extremely bad, it deepens into a **depression**. Then millions of people are out of work, many businesses fail, and the economy operates far below capacity.

At some point, the downward direction of the economy levels off in a **trough**. A trough is the lowest point in the business cycle. It occurs when real GDP stops going down, levels off, and slowly begins to increase. The increase in total economic activity that follows is called an **expansion** or **recovery**. Consumer spending picks up, signaling factories to hire workers and increase production to meet demand. New businesses begin to open. The recovery continues until the economy hits another peak, and a new cycle begins.

Ups and Downs of Business

In the real world, as you can see from Figure 13.12 on page 362, the business cycles are not as regular as the model shows. The peaks and troughs are clear, however.

recession: part of the business cycle in which the nation's output (real GDP) does not grow for at least six months

depression: major slowdown of economic activity

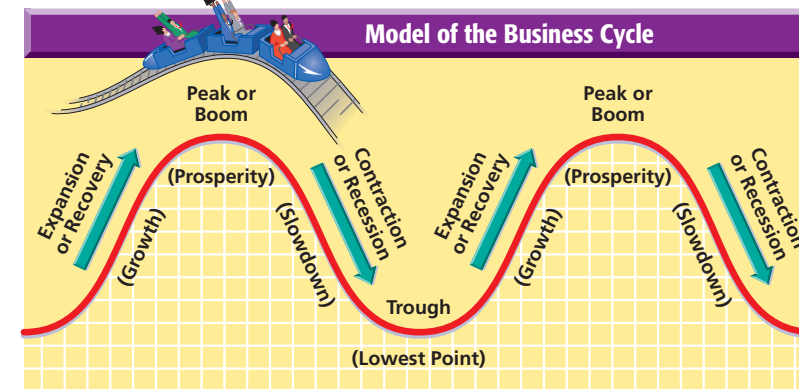
trough: lowest part of the business cycle in which the downward spiral of the economy levels off

expansion/recovery: part of the business cycle in which economic activity slowly increases

FIGURE 13.11

A Model of the Business Cycle

Business cycles fluctuate between peaks and troughs. *What does the word model indicate about the business cycle shown?*



Measuring the Economy's Performance 361

2 Teach

Guided Practice

L2 Applying Ideas List the following on the board: employment, income, spending, GDP. Call on volunteers to identify what happens to each of these during recession, trough, and peak phases of the business cycle.

Daily Lecture Notes 13–4

DAILY LECTURE NOTES Lesson 13-4

LECTURE LAUNCHER
In 1998 Jacob M. Schlesinger, an economics reporter for the Wall Street Journal wrote: "Through the mid-1990s, pundits liked to talk of America's perfectly balanced Goldilocks economy. Like the porridge that the girl of fairy lore devoured, it was not too hot and not too cold, but just right. . . . The boom, it seemed, would never end." What is a boom in the business cycle? How do business fluctuations affect the real GDP?

PAGES 360–361

1. Model of the Business Cycle
- A. Begins with growth that leads to an economic peak, boom, or period of prosperity
- B. Real GDP levels off and begins to decline, while business activity slows down (contraction)
- C. If real GDP doesn't grow for at least 6 months, economy is in a recession (business activity falls at a rapid rate)
- D. If recession continues to get worse, economy goes into a depression.
- E. The downward direction of economy levels off in a trough (lowest point in the cycle) and real GDP stops going down.
- F. Business activity increases and economy begins expansion or recovery.

Discussion Question
How can the model of the business cycle be used to predict the future of the economy?

Guided Reading Activity 13–4

GUIDED READING Activity 13-4

For use with the textbook pages 360–363

B BUSINESS FLUCTUATIONS

FILLING IN THE BLANKS
Directions: Use your textbook to fill in the blanks using the words in the box. Some words may be used more than once.

recession	business fluctuations	boom
business cycle	peak	recession
contraction	trough	depression
recovery		

Introduction/Model of the Business Cycle
The ups and downs in an economy are known as 1. _____—changes in the level of total output measured by real GDP.
Model of the Business Cycle
A business cycle begins with growth leading to an economic 2. _____ or _____—a period of prosperity. When real GDP levels off, a decline or 3. _____ of the economy begins to happen. If a contraction lasts long enough, the economy can fall into a 4. _____ where the real GDP does not grow for at least six months. If a recession becomes extremely bad, it may lead to a 5. _____ which leads to millions of people out of work, numerous business failures, and a 6. _____ for business.

Visual Instruction

FIGURE 13.11

Answer: It is idealized or theoretical.

SECTION 4 RESOURCE MANAGER

Reproducible Masters

- Reproducible Lesson Plan 13–4
- Reading Essentials and Study Guide 13–4
- Guided Reading Activity 13–4
- Section Quiz 13–4
- Daily Focus Activity 56
- Daily Lecture Notes 13–4

Multimedia

- Daily Focus Transparency 56
- Vocabulary PuzzleMaker
- Interactive Tutor Self-Assessment Software
- ExamView® Pro Testmaker
- MindJogger Videoquiz
- Presentation Plus!

Meeting Special Needs

Limited English Proficiency Students who speak English as a second language may have trouble grasping the terminology and concepts of business fluctuations. Help them find resources, such as photo essays and illustrated histories, that show scenes of each stage of the business cycle. Such images can help students to understand what happens to the economy—and businesses and individuals—in a typical business cycle. **ELL**

Refer to *Inclusion for the Social Studies Classroom Strategies and Activities* for students with different learning styles.

Independent Practice

L2 Research Reports Encourage students to conduct research into a major economic depression in the United States. Have them note what caused the depression, how the economy recovered, and what economic changes—if any—came about because of the depression.

Global Economy

International Trade and the Great Depression

In the years after World War I, the United States followed a protectionist trade policy. Because foreign countries found it difficult to sell their products in the U.S., they could not make enough money to buy American exports. The effect on the American economy was made worse by the fact that many foreign countries had borrowed heavily from American banks after World War I. Falling export earnings led many of these countries to default on their loans, and this caused havoc in the American banking system.

3 Assess

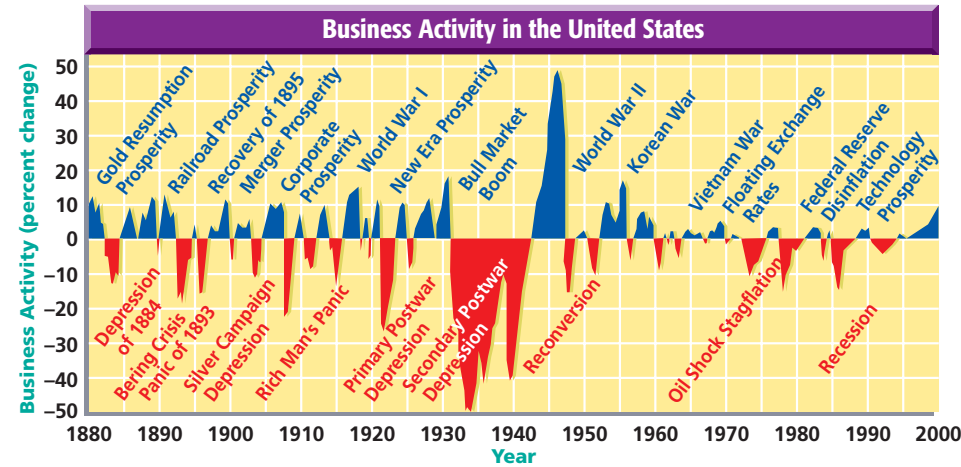
Meeting Lesson Objectives

Assign Section 4 Assessment as homework or an in-class activity.

Use Interactive Tutor Self-Assessment Software to review Section 4.

FIGURE 13.12

Business Activity American business activity declined about 50 percent during the Great Depression, yet bounced back to new highs after World War II.



Sources: American Business Activity from 1790 to Today, 67th ed., AmeriTrust Co., January 1996; plus author's projections

The largest drop that eventually resulted in a depression followed the stock market crash in October 1929. The preceding years had been a time of widespread prosperity, as shown in Part A of Figure 13.13. By September 1929, heavy speculation had driven stock prices to an all-time peak. Then stock prices started to fall in early October and continued to fall. Suddenly, on October 29, there was a stampede to unload stocks. In one day the total value of all stocks fell by \$14 billion.

Not long after the stock market crash, the United States fell into a serious recession. Factories shut down, laying off millions of workers. Businesses and banks failed by the thousands. Real GDP fell sharply over the next few years, pushing the nation into the depths of the Great Depression. See Part B of Figure 13.13. A gradual upward rise climaxed in the boom period after World War II, as shown in Part C of Figure 13.13.

Until the 1980s, small ups and downs occurred. The 1980s started off with a small recession that developed into the most serious economic downturn by some measurements since World War II. This downturn ended in 1982 and was followed by relative prosperity, except for a severe stock market crash in October 1987. A recovery in the mid-1990s developed into one of the most prolonged and robust periods of economic growth in United States history, lasting into the 2000s.

Critical Thinking Activity

Making Predictions Remind students that during a recession people may lose their jobs. Newly unemployed people must conserve their resources—this means that they spend much less than when they were employed. When spending does not take place, a chain reaction is set off that affects the whole economy. Ask students to write a short paragraph describing the chain reaction that is set off when a large factory is closed, throwing hundreds of people out of work.

FIGURE 13.13 Prosperity, Depression, and Boom

Prosperity Before the Crash The 1920s had been a decade in which Americans began buying increasing numbers of radios, stoves, and automobiles. During these years, prices remained stable, and the standard of living rose about 3 percent per year.



Depression Conditions The Great Depression of the 1930s forced millions of Americans out of work. Used to the prosperity of the 1920s, Americans during the bust era of the Depression often relied on handouts.



War Boom The United States economy grew rapidly during World War II. There were 17 million new jobs created, and farmers doubled in the prosperity as crop prices doubled between 1940 and 1945.

Practice and assess key skills with Skillbuilder Interactive Workbook, Level 2.

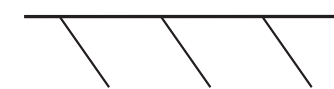
SECTION 4 Assessment

Understanding Key Terms

1. Define business fluctuations, business cycle, peak or boom, contraction, recession, depression, trough, expansion or recovery.

Reviewing Objectives

2. What are the phases of a typical business cycle?
3. Graphic Organizer Create a time line like the one below to describe the three most severe downturns in the United States economy since the 1920s.



Applying Economic Concepts

4. Business Fluctuations Write three headlines that might have appeared in a newspaper during the years of the Great Depression. Then write three headlines that might have appeared during the expansion of the 1990s. Explain why you chose to write those particular headlines for those time periods.

Critical Thinking Activity

5. Understanding Cause and Effect What actions and reactions throughout the economy may cause a recession to deepen into a depression?

SECTION 4 Assessment Answers

- All definitions can be found in the Glossary.
- peak or boom, a period of prosperity; contraction or recession, a period of slowdown or stagnation; trough, the lowest point in the business cycle; expansion or recovery, a period of steady growth toward another peak
- Time lines should include the Great Depression, the serious economic downturn in the early 1980s, and the stock market crash in 1987.
- Headlines will vary. Call on volunteers to read their headlines to the class. After each headline is read, ask students to suggest ideas for an accompanying news story.
- Students may suggest such actions and reactions as consumers cutting their spending, businesses cutting back on production, and businesses laying off large numbers of workers.

Section Quiz 13-4

QUIZ Chapter 13, Section 4

BUSINESS FLUCTUATIONS (10 points each)

Match: Place a letter from Column B in the blank in Column A. (10 points each)

<p>A</p> <ol style="list-style-type: none"> business cycle peak recession depression expansion 	<p>B</p> <ol style="list-style-type: none"> part of the business cycle in which economic activity slowly increases major slowdown of economic activity period of prosperity in which economic activity is at its highest point regular changes in the level of total output measured by real GDP part of the business cycle in which the nation's output does not grow for at least six months
--	--

Multiple Choice: In the blank at the left, write the letter of the choice that best completes the statement or answers the question. (10 points each)

<ol style="list-style-type: none"> An economic boom is <ol style="list-style-type: none"> a period of prosperity. the same thing as a trough. a sudden drop in stock prices. a downward trend in the economy. When GDP levels off and begins to decline, the economy is entering <ol style="list-style-type: none"> a peak part of the business cycle. an economic boom. the contraction part of the cycle. the expansion part of the cycle.
--

Reteach

Have students write a paragraph describing each of the stages of the business cycle.

Reading Essentials and Study Guide 13-4

STUDY GUIDE Chapter 13, Section 4

BUSINESS FLUCTUATIONS

KEY TERMS

Business fluctuations: Ups and downs in an economy (page 362)

Business cycle: Changes in the level of total output measured by real GDP (page 362)

peak: A period in the business cycle where economic activity and property are at their highest point (page 362)

contraction: Same as a "peak" (page 362)

recession: A part of the business cycle in which the nation's output, as measured by real GDP, does not grow for at least six months (page 362)

depression: A major decrease in economic activity during which millions are out of work, many businesses fail, and the economy operates at or below capacity (page 362)

trough: The lowest part of the business cycle. It is where a downward spiral of the economy levels off (page 362)

expansion: A part of the business cycle in which economic activity slowly increases (page 362)

recovery: Same as "expansion" (page 362)

DRAWING FROM EXPERIENCE

Have you ever thought about...

4 Close

Lead students in a discussion of what might happen to a small business during a typical business cycle.

1 Focus

Overview

Section 5 discusses the possible causes of business fluctuations and describes the economic indicators used to predict business fluctuations.

BELLRINGER

Motivational Activity

Project Daily Focus Transparency 57 and have students answer the questions.

This activity is also available as a blackline master.

Daily Focus Transparency 57

FOCUS ACTIVITIES

Transparency 57

CAUSES AND INDICATORS OF BUSINESS FLUCTUATIONS

Economic Indicators	
Gross Domestic Product (GDP)	The dollar value of all final goods, services, and structures produced within the nation's borders in a year.
Housing Starts	The level of activity in the construction sector.
Retail Sales	The value of goods bought in all possible retail outlets.
Unemployment Rate	The percentage of workers without jobs who are actively seeking work.
Consumer Price Index (CPI)	The current cost of a market basket of goods relative to the cost in a base year.
Interest Rate	The cost of borrowing money for investment.
Trade Balance	The dollar value of exports minus the dollar value of imports.
Exchange Rate	The value of the American dollar against other currencies.

- Which three of the economic indicators listed probably provide the most information about the growth rate of the economy?
- Which two of the indicators probably provide the most information about price instability and unemployment?

READER'S GUIDE

Answers to the Reading Objectives questions are on page 367.

Preteaching Vocabulary

Have students write a few sentences explaining the differences among leading, coincidental, and lagging indicators.

Vocabulary PuzzleMaker

SECTION 5

Causes and Indicators of Business Fluctuations

READER'S GUIDE

Terms to Know

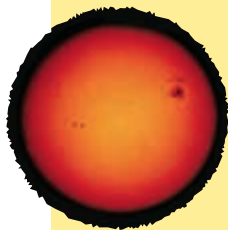
- innovations
- economic indicators
- leading indicators
- coincident indicators
- lagging indicators

Reading Objectives

- What are some of the potential causes of business fluctuations?
- What are the three broad categories of economic indicators?

COVER STORY

COMPTON'S ONLINE ENCYCLOPEDIA, "BUSINESS CYCLE"



Economists, politicians, and others have been puzzled by business cycles since at least the early 19th century. One of the more unusual explanations was proposed by English economist William Stanley Jevons in the 19th century. He believed the ups and downs of an economy were caused

by sunspot cycles, which affected agriculture and caused cycles of bad and good harvests. This hypothesis is not taken seriously today.

For as long as booms and recessions have existed, economists have tried to explain why business fluctuations occur. If they could understand the causes, they reason, then the government could take actions to smooth out business fluctuations. No single theory, however, seems to explain past cycles or to serve as an adequate measure to predict future ones. The difficulty arises because at any given time, several factors are working together to create business fluctuations.

Causes of Business Fluctuations

For many years economists believed that business fluctuations occurred in regular cycles. Later, economists believed that business

fluctuations were related to changes in the rate of saving and investing. Today economists tend to link business fluctuations to four main forces: business investment, government activity, external factors, and psychological factors.

Business Investment Some economists believe that business decisions are the key to business fluctuations. Suppose a firm believes that prospects for future sales are good. Probably it will increase its capital investment: buy new machines, build new factories, expand old ones, and so on. This expansion will create new jobs and more income for consumer spending.

Innovations—inventions and new production techniques—can have a similar effect on the economy. When one firm begins to use an innovation, others must imitate the product or production method in order to become competitive again.

When businesses anticipate a downturn in the economy, they cut back on their capital investment and inventories. Producers, in turn, cut back on production to prevent a surplus. Enough inventory cutbacks could lead to a recession.

Government Activity A number of economists believe that the changing policies of the federal government are a major reason for business cycles. The government affects business activity in two ways: through its policies on taxing and spending, and through its control over the supply of money available in the economy. You'll learn more about these government actions in Chapters 15 and 16.

External Factors Factors outside a nation's economy also influence the business cycle. As you can see from **Figure 13.14**,

FIGURE 13.14

External Factors War, immigration, crop failures, and the changing availability of raw resources are some external factors that affect business cycles.



CAREERS

Statistician

Job Description

- Design surveys and experiments, collect data, and interpret the results
- Use mathematical models to develop economic forecasts

Qualifications

- College degree in statistics
- Strong background in computer science recommended

Average Salary: \$61,030

Job Outlook: Favorable

—Occupational Outlook Handbook, 1998–99

innovations: inventions and new production techniques

2 Teach

Guided Practice

L1 Analyzing Ideas Refer students to **Figure 13.15** on page 366. Discuss the different categories of economic indicators to ensure that students understand them. Then ask students to pick an item from each category and, in a brief paragraph, explain how changes in each might indicate a rise or fall in business activity.

Daily Lecture Notes 13–5

DAILY LECTURE NOTES Lesson 13-5

LECTURE LAUNCHER

Business cycles are difficult for economists to explain, but Jeffrey A. Miron, author of *The Economics of Seasonal Cycles*, says that they might be better understood if we looked more closely at seasonal fluctuations. Since the 1930s macroeconomists have largely focused on business cycles. However, Miron suggests that seasonal and business cycles are driven by similar economic mechanisms and raise many of the same questions for welfare and policy analysis. Why is it difficult to explain business fluctuations? What might it mean to a nation's economy if business fluctuations were more fully understood?

PAGES 364–366

- Causes of Business Fluctuations
 - Business investment—companies expanding or scaling back, or companies using innovations in their business practices.
 - Government activity—taxing and spending policies, and control of money supply in economy.
 - External factors—non-economy related factors, such as wars or raw material costs.
 - Psychological factors—people's optimistic or pessimistic outlook on future and economy can contribute to increased spending or more saving.

Discussion Question
Choose two of the factors above. How do they work together to impact the economy?

Guided Reading Activity 13–5

GUIDED READING Activity 13-5

CAUSES AND INDICATORS OF BUSINESS FLUCTUATIONS

OUTLINING

Directions: Locate the heading in your textbook. Then use the information under the heading to help you write each answer.

- Causes of Business Fluctuations
 - Introduction—Today, to what do economists link business fluctuations? _____
- Business Investment
 - What do businesses and producers do when there is anticipated downturn in the economy? _____
 - problems _____
- How do innovations affect the economy? _____
- Government Activity—How does the government affect business activity? _____
- External Factors—What external factors can influence the nation's economy? _____

SECTION 5 RESOURCE MANAGER

Reproducible Masters

- Reproducible Lesson Plan 13–5
- Reading Essentials and Study Guide 13–5
- Guided Reading Activity 13–5
- Section Quiz 13–5
- Daily Focus Activity 57
- Daily Lecture Notes 13–5

Multimedia

- Daily Focus Transparency 57
- Vocabulary PuzzleMaker
- Interactive Tutor Self-Assessment Software
- ExamView® Pro Testmaker
- MindJogger Videoquiz
- Presentation Plus!

Meeting Special Needs

Reading Comprehension Problems Students with reading comprehension problems may have difficulty understanding how certain statistical measures may lag behind others. Give students the example of the Acme Widget Company, producing 20,000 widgets a week. Sales of the widgets begin to slow but production continues at normal levels. After several weeks of declining sales, production is cut because Acme has a large inventory of widgets. Thus, sales figures are a more sensitive indicator of a coming downturn (or upturn) in the economy than production figures.

Refer to *Inclusion for the Social Studies Classroom Strategies and Activities*.

Independent Practice

L2 Oral Report Refer students to the discussion of external factors as a cause of business fluctuations. Then have them use library resources and the Internet to investigate the impact of the OPEC oil embargo of 1973 on the American economy. Suggest that they present their findings in a brief oral report.

Visual Instruction
FIGURE 13.15

Inform students that they can track the latest data on leading indicators by visiting The Dismal Scientist Web site at www.dismal.com/economy/releases/dyn_release.asp?r=usa_leading

Point out that they can use the menu on the left of the page to link to information on coincident and lagging indicators. (Students might be intrigued by the name of the Web site. Inform them that nineteenth-century Scottish writer Thomas Carlyle referred to economics as the “dismal science.”)

3 Assess

Meeting Lesson Objectives

Assign Section 5 Assessment as homework or an in-class activity.

Use Interactive Tutor Self-Assessment Software to review Section 5.

FIGURE 13.15 Major Economic Indicators

Leading Indicators

1. Average weekly hours for production workers in manufacturing
2. Weekly initial claims for unemployment insurance
3. New orders for consumer goods
4. Speed with which companies make deliveries (the busier a company, the longer it will take to fill orders)
5. Number of contracts and orders for plants and equipment
6. Number of building permits issued for private housing units
7. Stock prices
8. Changes in money supply in circulation
9. Changes in interest rates
10. Changes in consumer expectations

Coincident Indicators

1. Number of nonagricultural workers who are employed
2. Personal income minus transfer payments
3. Rate of industrial production
4. Sales of manufacturers, wholesalers, and retailers


Lagging Indicators

1. Average length of unemployment
2. Size of manufacturing and trade inventories
3. Labor cost per unit of output in manufacturing
4. Average interest rate charged by banks to their best business customers
5. Number of commercial and industrial loans to be repaid
6. Ratio of consumer installment debt to personal income
7. Change in consumer price index for services

Economic Indicators

Every day, business leaders are faced with the dilemma of trying to predict what will happen to the economy in the coming months and years. To aid decision makers, government and private economists study a number of economic indicators—listed in **Figure 13.15**—to learn about the current and possible future state

Cooperative Learning

Inform students that the National Bureau of Economic Research (NBER) in Cambridge, Massachusetts, officially tracks the dates of peaks and troughs in the business cycle. Then organize students into groups, and have groups investigate the work of the NBER. Inform groups that a great deal of information may be found on the NBER’s Web site at www.nber.org Suggest that they pay special attention to the NBER’s listing of peaks and troughs in the American economy. Have groups present their findings in a large illustrated and annotated time line.  BLOCK SCHEDULING

wars in particular have an important impact. This impact results from the increase in government spending during wartime.

Another external factor—the availability of raw materials such as oil—may also have an effect on the economy. New sources of raw materials may lower operating costs for certain industries. The sudden loss of raw materials and the resulting higher prices, however, can have the opposite effect.

Psychological Factors

Finally, it is possible that people’s psychological reactions to events also cause business fluctuations. The prospects of peace in a troubled area or the discovery of a new oil field can lead to feelings of confidence and optimism. War or the overthrow of the government of an important trading partner can cause pessimism about the future. These psychological factors sometimes contribute to consumer confidence and increased spending or the lack of confidence and more saving.

of the economy. **Economic indicators** are statistics that measure variables in the economy, such as stock prices or the dollar amount of loans to be repaid. Each month, the U.S. Department of Commerce compiles statistics for 78 economic indicators covering all aspects of the state of the U.S. economy.

Leading Indicators Statistics that point to what will happen in the economy are called **leading indicators**. They seem to lead to a change in overall business activity—whether it is an upward or a downward trend. The Commerce Department keeps track of numerous leading indicators, but the ten listed in **Figure 13.15** are the ones that most concern American economists.

Coincident Indicators Other economic indicators, which usually change at the same time as changes in overall business activity, also help economists. When these **coincident indicators** begin a downswing, they indicate that a contraction in the business cycle has begun. If they begin an upswing, they indicate that the economy is picking up and a recovery is underway.


Lagging Indicators A third set of indicators seems to lag behind changes in overall business activity. For example, it may be six months after the start of a downturn before businesses reduce their borrowing. The amount of change in these **lagging indicators**, whether up or down, gives economists clues as to the duration of the phases of the business cycle.

economic indicators: statistics that measure variables in the economy

leading indicators: statistics that point to what will happen in the economy

coincident indicators: economic indicators that usually change at the same time as changes in overall business activity

lagging indicators: indicators that seem to lag behind changes in overall business activity

 Practice and assess key skills with **Skillbuilder Interactive Workbook, Level 2.**

SECTION 5 Assessment

Understanding Key Terms

1. **Define** innovations, economic indicators, leading indicators, coincident indicators, lagging indicators.

Reviewing Objectives

2. **Graphic Organizer** Create a diagram similar to the one here to explain four of the potential causes of business fluctuations.



3. What are the three broad categories of economic indicators?

Applying Economic Concepts

4. **Business Fluctuations** What innovation do you think has had the most influence on expanding the American economy? Why?

Critical Thinking Activity

5. **Making Predictions** Identify two events that would cause you to predict a contraction of the economy.

SECTION 5 Assessment Answers

1. All definitions can be found in the Glossary.
2. The four potential causes of business fluctuations are business investment, government activity, external factors, and psychological factors.
3. leading indicators, coincident indicators, lagging indicators
4. Many students will suggest the computer or the Internet, because of the impact e-commerce has had on the American economy.
5. Answers will vary but may include: a fall in the average weekly hours for production workers, a rise in the weekly initial claims for unemployment insurance, a fall in new orders for consumer goods, a fall in the number of building permits issued for private housing units, a fall in stock prices, a rise in interest rates.

Section Quiz 13–5

QUIZ Chapter 13, Section 5

CAUSES AND INDICATORS OF BUSINESS FLUCTUATIONS

Match: Place a letter from Column B in the blank in column A. (10 points each)

<p>A</p> <ol style="list-style-type: none"> 1. innovations 2. economic indicators 3. leading indicators 4. coincident indicators 5. lagging indicators 	<p>B</p> <ol style="list-style-type: none"> a. indicators that seem to lag behind changes in overall business activity b. inventors and new production techniques c. indicators that usually change at the same time as changes in overall business activity d. statistics that point to what will happen in the economy e. statistics that measure variables in the economy
--	--

Multiple Choice: In the blank at the left, write the letter of the choice that best completes the statement or answers the question. (10 points each)

6. Which of the following results when businesses increase capital investment?
 - a. more income for consumer spending
 - b. cut back on inventory
 - c. decrease in production
 - d. recession
7. Inventors and production techniques that can affect the economy are
 - a. external factors
 - b. innovations
 - c. leading indicators
 - d. coincident indicators

Reteach

Organize students into groups, and have groups develop visuals that illustrate the four causes of business fluctuations and the three categories of economic indicators. Have groups present and discuss their illustrations.

Reading Essentials and Study Guide 13–5

STUDY GUIDE Chapter 13, Section 5

For use with textbook pages 364–367

CAUSES AND INDICATORS OF BUSINESS FLUCTUATIONS

KEY TERMS

innovations: New production techniques and inventors (page 362)
economic indicators: Statistics measuring variables in the economy (page 362)
leading indicators: Statistics showing what may happen in the economy (page 362)
coincident indicators: Economic indicators that change at the same time as changes in overall business activity (page 362)
lagging indicators: Indicators that seem to lag changes in overall business activity (page 362)

DRAWING FROM EXPERIENCE

Think again about the seasons of a year: How do you know when the seasons are changing? Do all of these changes occur at the same time? This section describes methods used by economists to predict changes in the business cycle.

ORGANIZING YOUR THOUGHTS

Use the diagram below to help you take notes as you read the summaries that follow. Think about the causes of business fluctuations.

4 Close

To close this section, lead students in a discussion of why economic forecasting is so difficult.

People & Perspectives



Janet Yellen

ECONOMIST (1946–)

Background

Inform students that prior to taking positions at the Federal Reserve Board and the President's Council of Economic Advisers, Janet Yellen was an economics professor at the University of California, Berkeley's Haas School of Business. Interestingly, her predecessor as Chair of the Council of Economic Advisers, Laura D'Andrea Tyson, also was a professor at the Haas School of Business.

Teach

Ask for volunteers to read aloud from the excerpt. Have students note Yellen's ideas on controlling unemployment and inflation. **ASK: What does Yellen think is the purpose of economic policy?** (to promote the well-being of American households) Have students discuss whether or not they agree with this view.

- **Chair of President Clinton's Council of Economic Advisers, 1997–99**
- **Member of Federal Reserve Board of Governors, 1994–96**
- **Member of Congressional Budget Office's Panel of Economic Advisers**
- **Professor at the University of California at Berkeley; also held teaching positions at Harvard University and the London School of Economics**

During her career, Janet Yellen has investigated a wide variety of economic issues. She has paid special attention to wages, prices, and unemployment—issues that directly affect ordinary Americans. In her Senate confirmation hearings for the position of governor of the Federal Reserve Board, Yellen stated that she hoped to keep her eye on the people behind the numbers.

“I think stabilization policy is important—to avoid huge swings in unemployment. When you have the kind of recession we had in 1982 and 1983, for example, you can see the visible toll it takes on households. Perhaps because the causes and consequences of unemployment have been a focus of my research, I consider it easy to remain mindful of the people behind the numbers. In order to avoid high unemployment we must be careful not to push

the economy below the NAIRU [Non-Accelerating Inflation Rate of Unemployment—the minimum rate of unemployment consistent with stable inflation], allowing inflation to rise and to become embedded in expectations. Because when that happens, it takes a period of above normal unemployment to lower inflation. That's the painful lesson of the '70s. Even when it comes to inflation we have to remember that prices [in themselves] do not affect social welfare. Inflation matters because of its repercussions on a country's economic performance, which in turn affects the welfare of individuals. Why are we in this business? It seems to me that it's to promote the well-being of American households. That's what it's all about.”

Checking for Understanding

1. According to Yellen, why is stabilization policy important?
2. Why is it dangerous to let inflation get out of hand?

Answers to Checking for Understanding

1. to avoid huge swings in unemployment
2. Because when inflation gets out of hand, it takes a period of above-normal unemployment to bring it under control, and this adversely affects the welfare of American households.

Economics Online

Chapter Overview Visit the *Economics Today and Tomorrow* Web site at ett.glencoe.com and click on **Chapter 13—Chapter Overviews** to review chapter information.

SECTION 1 National Income Accounting

- The measurement of the national economy's performance is called **national income accounting**—and includes five statistical measures.
- **Gross domestic product (GDP)** is the total dollar value of all final goods and services produced in the nation during a single year.
- When **depreciation** is subtracted from GDP, you get a statistic called **net domestic product**.
- Three additional measurements—**national income**, **personal income**, and **disposable personal income**—look at how much money is available to be spent by businesses and individuals.

SECTION 2 Correcting Statistics for Inflation

- When **inflation** occurs, the **purchasing power** of the dollar declines.
- Inflation skews GDP by making it appear that more output was produced, when in reality only the prices of goods and services have increased.
- To find **real GDP**, the government measures inflation's effect on current GDP.

- Three common measurements of inflation are the **consumer price index**, the **producer price index**, and the **GDP price deflator**.

SECTION 3 Aggregate Demand and Supply

- **Aggregate demand** and **aggregate supply** relate the total quantity of all goods and services in the entire economy to the price level.
- Equilibrium exists where the **aggregate demand curve** intersects the **aggregate supply curve**, thus resulting in neither inflation nor deflation.

SECTION 4 Business Fluctuations

- The economy experiences **business fluctuations**.
- A **business cycle** begins with a **peak** or **boom**, then **contracts** toward a **recession** (and perhaps even a **depression**). The downward spiral hits a **trough**, then increases again in an **expansion** or **recovery**.
- The Great Depression was the worst economic crisis in United States history.

SECTION 5 Causes and Indicators of Business Fluctuations

- Economists link business fluctuations to four main forces: business investment, government activity, external factors, and psychological factors.
- To help business and government leaders in making economic decisions for the future, economists create and update **economic indicators**.

Economics Journal

Economic Forecasting Ask students to record for one week references in the media to unemployment, consumer spending, manufacturing trends, prices, economic recession, and economic expansion. With each entry, have students indicate whether the issue covered is positive or negative for the overall economy. At the end of the recording period, have students write a report summarizing the overall view of the health of the economy presented in the media. Have students conclude their reports by stating whether they are optimistic or pessimistic about the economy and why.



ECONOMICS & YOU

Measuring the Economy's Performance



Chapter 20
Disc 1, Side 2

If you do not have access to a videodisc player, the *Economics & You* programs are also available in VHS.

Use the Chapter 13 Summary to preview, review, condense, or reteach the chapter.

Preview/Review

- Vocabulary PuzzleMaker Software reinforces the key terms used in Chapter 13.
- Interactive Tutor Self-Assessment Software allows students to review Chapter 13 content.

Condense

Have students listen to the Chapter 13 Audio Program (also available in Spanish) in the TCR. Assign the Chapter 13 Audio Program Activity and give students the Chapter 13 Audio Program Test.

Reteach

Have students complete Reteaching Activity 13 in the TCR (Spanish Reteaching Activities are also available).



Have students visit the *Economics Today and Tomorrow* Web site at ett.glencoe.com to review Chapter 13 and take the Self-Check Quiz.

GLENCOE TECHNOLOGY

MindJogger Videoquiz

Use MindJogger to review Chapter 13 content.

Identifying Key Terms

1. d
2. a
3. c
4. f
5. b
6. e

Recalling Facts and Ideas

1. consumer goods, producer goods
2. wages and salaries, income of self-employed individuals, rental income, corporate profits, interest on savings and other investments
3. personal tax payments, including Social Security contributions
4. consumer price index, producer price index
5. Inflation is a prolonged rise in prices, while deflation is a prolonged fall in prices.
6. by applying the GDP price deflator to remove the effects of inflation
7. The aggregate demand curve slopes downward because as prices fall, a larger quantity of real domestic output is

Assessment and Activities



Self-Check Quiz Visit the *Economics Today and Tomorrow* Web site at ett.glencoe.com and click on **Chapter 13—Self-Check Quizzes** to prepare for the Chapter Test.

Identifying Key Terms

Write the letter of the definition in Column B below that correctly defines each term in Column A.

Column A

1. base year
2. trough
3. economic indicators
4. expansion
5. real GDP
6. business cycle

Column B

- a. point when economic activity is at its lowest
- b. figures for the nation's total production that have been corrected for inflation
- c. measurement of specific aspects of the economy such as stock prices
- d. used as a point of comparison for other years in a series of statistics
- e. periodic ups and downs in the nation's economic activity
- f. business recovery period, when economic activity increases

8. equilibrium price level and the equilibrium quantity of real GDP demanded and supplied
9. if consumers save less and spend more, or if better economic conditions are forecast
10. peak, contraction or recession, trough, recovery or expansion

Recalling Facts and Ideas

Section 1

1. Net exports and government goods are two components of GDP. What are the other two components?
2. What five categories of income make up national income?
3. If you were given the statistic on disposable personal income, what other information would you need to derive personal income?

Section 2

4. What are the most commonly used price indexes?
5. What is the difference between inflation and deflation?
6. How would you determine real GDP if you knew only GDP?

Section 3

7. Why does the aggregate demand curve slope downward and the aggregate supply curve slope upward?
8. What is determined at the intersection of the aggregate supply and aggregate demand curves?
9. What would cause the AD curve to shift to the right?

Section 4

10. What are the four main phases of a business cycle?
11. When the economy enters a recession, what normally happens?
12. When was the most serious downturn in economic activity in the United States?

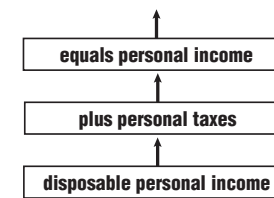
11. Business activity decreases, industry cuts back on production, consumers spend less, workers are laid off, fewer new businesses open, and some existing businesses fail.
12. Great Depression of the 1930s
13. Optimism can lead to increased consumer spending and greater business productivity. Pessimism can make people more cautious, reducing consumer spending.
14. taxing and spending policies and control of the money supply

Section 5

13. How might psychological factors affect the business cycle?
14. What two aspects of government activity affect business cycles?

Thinking Critically

1. **Making Generalizations** How might knowledge of nationwide economic statistics help you?
2. **Summarizing Information** Create a diagram like the one below to summarize national income accounting. Start with the lowest statistic, disposable personal income, and work your way up to GDP—adding and subtracting the appropriate items.



Applying Economic Concepts

Business Cycles Try to analyze what you think occurs throughout the economy during a recession. Make a list of some of the things that business owners may do to react to a recession, such as reduce employees' overtime hours.

Cooperative Learning Project

To make comparisons between the prices of things in the past and those of today, you have to make the distinction between current prices (often called *nominal values*), and prices adjusted for inflation (*real values*). Working with a partner, use the following statistics and equation to find real 1998 GDP.

Thinking Critically

1. Answers may vary. Possible student response: Such knowledge can be useful in determining if it is a good time to change jobs, to make a major investment, or to take on extra debt.

1998 nominal GDP = \$8,511.0 billion
 1998 price deflator = 112.70
 $\text{nominal GDP} \div \text{implicit price deflator} \times 100 = \text{real GDP}$

Reviewing Skills

Taking Notes Research lagging indicators, coincident indicators, and leading indicators. Take notes on your research using the following guidelines:

- For each type of indicator, what are the various subgroups?
- How long has the indicator been reported in the United States?
- Can you find instances when the indicator was wildly inaccurate?

From your notes, write a paragraph describing how useful any of these indicators might be in accurately predicting changes in the nation's overall economic activity.

Technology Activity



Using the Internet Use the Internet to find the latest edition of the *Statistical Abstract of the United States*. Locate the tables in the "Prices" section that give price indexes for consumer goods for selected cities and metropolitan areas. Construct a line graph showing the rise in the index for "all items" over the last six years.

Analyzing the Global Economy

Use the Internet or a source in the library to find out the 10 countries with the highest real GDP. Then compare this list with the 10 countries with the highest real GDP per capita, found in the Global Economy feature on page 347.

Applying Economic Concepts

Answers may vary. Students' responses might include the following actions: freeze hiring, raises, and benefits; reduce inventory; cut prices; and, in extreme cases, close plants and sell off assets.

Cooperative Learning Project

\$7,551.9 billion

Reviewing Skills

Notes and note-taking styles will vary. Call on volunteers to share their notes and paragraphs with the rest of the class.

Technology Activity

Encourage students to display and discuss their line graphs.

Analyzing the Global Economy

Have students share their findings. Then discuss why the two lists are different.

Chapter Bonus Test Question

ASK: What point in the business cycle do the following statements describe?

1. Unemployment is on the rise. *recession*
2. Industrial output reaches new highs. *peak*
3. Consumer spending begins to increase and factories start to hire workers. *recovery*
4. After dipping markedly, real GDP levels off. *trough*

1 Focus

Indexes are an invaluable tool for comparing monthly and yearly statistics. The consumer price index, for example, allows economists to track how prices change over time. In this lab, students are given the opportunity to construct their own price index.

2 Teach

This lab may be stretched over six weeks—one week for preparation, four weeks for pricing items, and one week for constructing the price index. Because such a long time period is involved, establish set times to review students' progress.

As students start the procedures in Step B, ensure that they have a large enough sample survey to get a realistic spread of food types. When students begin to categorize the foods, you might offer some examples of categories used by the Bureau of Labor Statistics (BLS), the agency that develops the CPI—breakfast cereal, coffee, milk, snack foods, chicken, frozen peas, and so on. In Step C, have students present their index in table form.

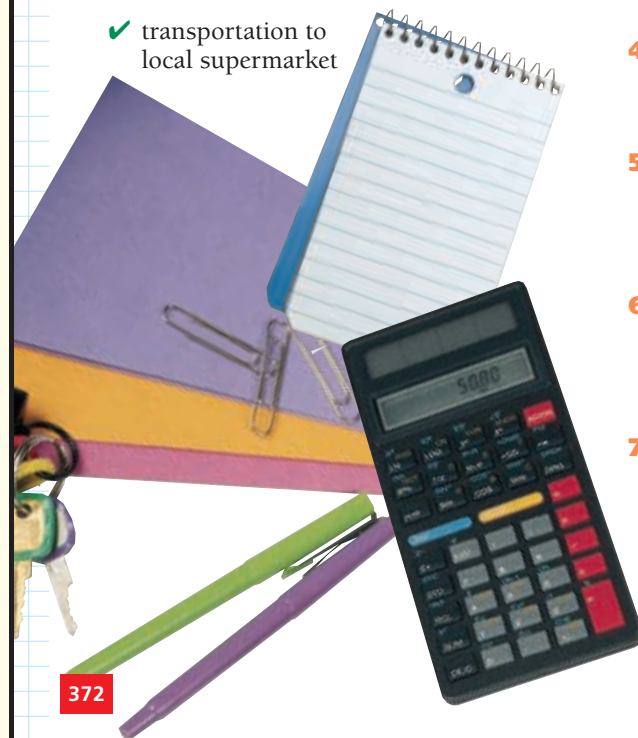
Constructing a Market Basket

From the classroom of Rochelle Tuchman, Shulamith High School, Brooklyn, New York

In Chapter 13 you learned how the consumer price index compares prices for a market basket of about 90,000 goods and services in order to adjust GDP for inflation. In this lab, you'll construct your own market basket and price index.

STEP A Tools Needed

- ✓ notebook
- ✓ pencil
- ✓ calculator
- ✓ transportation to local supermarket



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STEP B Procedures to Follow

1. Survey students in your school to see what kinds of food their families eat the most.
2. Identify five categories of food that are purchased most often (and that are available in a supermarket): frozen pizza, pasta, soda, and so on.
3. Then identify three specific items in each category, including brand name and size (16 ounces, for example).
4. Also identify the locations of supermarkets in your community where the items can be purchased.
5. Now price your specific items on a per-week basis for one month. You must price the same product(s) in the same supermarket on the same day each week.
6. After the first visit to the supermarket, add up the total amount of the 15 items in your market basket. This number will signify your base year.
7. After each of the remaining three visits to the supermarket, add up the total amount of your market basket again, and compare the new totals to your base year.

STEP C Creating an Economic Model

Use your totals to construct a price index. It should begin with a listing of your market basket contents and quantities. Week 1, your base year, will have a value of 100. Index numbers for Weeks 2, 3, and 4 will show the percentage that the market basket price has risen since the "base year." Remember, to calculate the percentage of change, subtract 100 (base year value) from the new figure: $[\text{Week 2 figure}] - 100 =$ percent change of market basket.



STEP D Lab Report Analysis

Study the price index you created in Step C, then answer the questions below.

1. What was the total amount of your market basket in your base year?
2. By how much did your price index change from your base year (Week 1) to Week 4?
3. Were you surprised by the results of your price index? Explain.

3 Assess

Have students answer the Lab Report Analysis questions.

4 Close

To conclude, you might have students discuss what trends in prices are shown in their indexes.

? Did You Know

The thousands of items used for the consumer price index are organized into about 200 categories. These categories, in turn, are arranged in 8 major groups. The major groups are: food and beverages; housing; apparel; transportation; medical care; recreation; education and communication; and other goods and services.



Teacher's Notes

Answers to Lab Report Analysis

1. Answers will vary.
2. Answers will vary. Students should express their answers as a percentage.
3. Answers will vary. Ensure that students fully explain their answers.