

### Lesson Description

In this lesson, students learn about data used to measure an economy's health—inflation/deflation measured by the Consumer Price Index (CPI), output measured by Gross Domestic Product (GDP) and unemployment measured by the unemployment rate. Students analyze graphs of these data, which provide snapshots of the economy during the Great Depression. These graphs help students develop an understanding of the condition of the economy, which is critical to understanding the Great Depression.

### Concepts

Consumer Price Index  
Deflation  
Depression  
Inflation  
Nominal Gross Domestic Product  
Real Gross Domestic Product  
Unemployment rate

### Objectives

Students will:

- Define inflation and deflation, and explain the economic effects of each.
- Define Consumer Price Index (CPI).
- Define Gross Domestic Product (GDP).
- Explain the difference between Nominal Gross Domestic Product and Real Gross Domestic Product.
- Interpret and analyze graphs and charts that depict economic data during the Great Depression.

### Content Standards

#### National Standards for History

##### Era 8, Grades 9-12:

- **Standard 1:** The causes of the Great Depression and how it affected American society.
- **Standard 1A:** The causes of the crash of 1929 and the Great Depression.

#### National Standards in Economics

- **Standard 18:** A 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.
  - Benchmark 1, Grade 8: Gross Domestic Product (GDP) is a basic measure of a nation's economic output and income. It is the total market value, measured in dollars, of all final goods and services produced in the economy in a year.

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- **Standard 19:** Unemployment imposes costs on individuals and nations. Unexpected inflation imposes costs on many people and benefits some others, because it arbitrarily redistributes purchasing power. 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.
  - Benchmark 1, Grade 12: The unemployment rate is the percentage of the labor force that is willing and able to work, does not currently have a job, and is actively looking for work.
  - Benchmark 6, Grade 12: The consumer price index (CPI) is the most commonly used measure of price-level changes. It can be used to compare the price level in one year with price levels of earlier or later periods.
  - Benchmark 8, Grade 12: The costs of inflation are different for different groups of people. Unexpected inflation hurts savers and people on fixed incomes; it helps people who have borrowed money at a fixed rate of interest.
  - Benchmark 9, Grade 12: Inflation imposes costs on people beyond its effects on wealth distribution because people devote resources to protect themselves from expected inflation.

### National Council for the Social Studies Strands

- Time, continuity and change
- Production, distribution and consumption

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## Time Required

120 minutes

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## Materials

- Seven sets of colored markers
- Seven pieces of flip-chart paper
- Masking tape
- Chalkboard
- A copy of Handouts 1.1, 1.3, 1.4, 1.5, 1.6 and 1.7 for each student
- A copy of Handout 1.2, cut apart
- Visuals 1.1, 1.2, 1.3, 1.4, 1.5, 1.6 and 1.7
- A copy of Visuals 1.2, 1.3, 1.5 and 1.6 for each student
- A copy of *The Great Depression: An Overview* from the introduction section of this unit for each student

## Procedures

1. Write **depression** on the chalkboard and have students brainstorm synonyms. (*despair, sadness, gloominess and misery*) Write “great” on the chalkboard and have the students brainstorm synonyms. (*huge, immense, enormous, vast and grand*) Write “Great Depression” on the board, and ask students to draw conclusions about the meaning of the two words together. Tell the students that the class is beginning a unit on the Great Depression.
2. Distribute a copy of the *Great Depression: An Overview* and tell students to read the first five paragraphs. Ask students, based on their reading, why people should study the Great Depression. (*It was the worst economic catastrophe of the 20th century. The collapse involved every aspect of the economy and every region of the country. It dramatically changed the role of government, particularly the federal government.*)
3. Distribute a copy of *Handout 1.1: Notes for Measuring the Great Depression* to each student and display *Visual 1.1: Economic Definitions*. Tell the students that these terms will be introduced as they study the Great Depression. Review the definitions with the students and have the students fill out the term and definition columns using the information on the visual. Explain that the students will be completing the examples and notes columns throughout this lesson.
4. Divide the students into seven groups. Provide each group with a piece of flip-chart paper, multiple colored markers and masking tape. Ask each group to select a reporter. Assign each group a definition from Handout 1.1. Have the students draw the definition on the paper by using symbols or images of the words. Tell them they have five minutes to complete the task. When the groups have finished, have the group reporters (with the help of the other group members) explain their drawings to the class. When all groups have finished, discuss the process of illustrating the definitions. Talk about the difficulty of translating these words and concepts into images.
5. Point out that economists express these important economic concepts in numbers (i.e., data) and transfer these numbers into a type of picture (e.g., graphs and charts). Tell the students that each graph paints a picture in time, and each graph has limitations.
6. Refer to Visual 1.1. Remind the students that they should use Handout 1.1 to take notes. Explain inflation and deflation as follows:
  - **Inflation** is defined as a general upward movement in the price of goods and services in an economy.
  - Prices of individual goods and services rise (and fall) at different rates. Inflation and deflation measure the average or general tendency of price changes. The prices of some things may fall during periods of inflation (e.g., computers in the 1980s) even though the prices of the majority of goods and services are rising.
  - Ask the students if they have ever heard their parents or grandparents mention concern about inflation. (*Answers will vary.*) Point out that although the U.S. economy has not experienced a significant period of high inflation during students’ lifetimes, their parents or

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grandparents may be concerned about inflation because they lived through a time when the economy was experiencing high inflation during the 1970s.

- During a period of inflation, if prices increase at a faster rate than people's salaries or wages, people aren't able to buy as many goods and services.
- **Deflation** is a general downward movement in the prices of goods and services in an economy.
- Point out that there have also been periods when the U.S. economy experienced deflation. Although falling prices may seem appealing because people could buy more goods and services with their incomes than they could before, there are reasons to be concerned about deflation.
- Deflation is often accompanied by falling wages and increasing unemployment. Also, during periods of deflation, debtors have to repay their loans with dollars that are more valuable (i.e., dollars that have greater purchasing power). So, in essence, debtors have borrowed cheap dollars and are repaying with dollars that will buy more. In addition, consumers and producers who are in debt may suffer; as their incomes drop, their loan payments remain the same.

7. Display *Visual 1.2: Effects of Deflation and Inflation Venn Diagram* and give each student a copy of Visual 1.2. Distribute numbered strips from *Handout 1.2: Effects of Deflation and Inflation Statements*. Call on individual students by number to read their statements. As a class, decide where to place the information on the Venn diagram.
8. Have a student read the first strip. Ask the class where class members think this information belongs in the Venn diagram. (*deflation circle*) Discuss the statement and write a summary such as "increases purchasing power of the dollar" in the deflation circle of the diagram. Instruct students to do the same. (*Answers in the deflation circle of Visual 1.3 may include increases purchasing power of a dollar; can cause people to postpone spending; may cause firms to lay off workers, causing unemployment to rise; or may cause wages to fall. Answers in the inflation circle may include decreases purchasing power of a dollar, discourages saving, reduces the value of savings or may cause people to spend rather than hold cash in order to buy before prices go up.*)
9. Ask students to work in pairs and fill in the area of the Venn diagram where the two circles overlap with characteristics that deflation and inflation share. Call on students to provide answers for the intersection area. Fill in the Venn diagram on the visual when valid answers are given. (*Answers may include price level changes, price instability, difficult to make financial decisions for future spending, affects spending behavior, and creates winners and losers.*) Instruct students to keep the Venn diagram handout for future reference.
10. Remind the students that inflation is defined as a general upward movement in the prices of goods and services in an economy, and deflation is a general downward movement in the prices of goods and services in an economy. Tell students that changes in the price of a single good or service or even a few goods and services do not indicate that the economy is experiencing deflation or inflation. Milton Friedman, Nobel Laureate economist, stated, "The high price of cars doesn't cause inflation any more than a drop in the price of hand calculators causes deflation."

11. Explain that because price stability is important to a healthy economy, price levels for the U.S. economy are measured, and there are several measures. One measure of price level changes with which students may be most familiar is the **Consumer Price Index**, or CPI. This is a statistic that is reported monthly and indicates annual percentage changes in price levels. Ask the students to read the definition of the Consumer Price Index (CPI) from Visual 1.1.
  
12. Explain that the CPI measures changes in the price levels as experienced by consumers in their day-to-day purchases and is used by economists to analyze the cost of living. It is a way to compare consumers' purchasing power during different time periods. It also allows people to measure inflation or deflation year-to-year or during different historical periods.
  
13. Display *Visual 1.3: Year-Over-Year Percentage Change in Consumer Price Index* and distribute a copy of the visual to each student. Discuss the following:
  - What information is located on the horizontal or X-axis of both graphs? (*years by decade*)
  - What information is located on the vertical or Y-axis of both graphs? (*rate of inflation—i.e., the percentage change in annual price levels*)
  - What does 0 percent on the vertical axis mean? (*that there is no inflation or deflation—no change in price level from the previous year*)
  - When the bar is above 0 percent, is the economy experiencing inflation or deflation? (*inflation*)
  - When the bar is below 0 percent, is the economy experiencing inflation or deflation? (*deflation*)
  - Compare the decade 1929-1939 with 1989-1999. How would you describe each decade? (*1929-1939 appears to have volatile price level swings, which include years of inflation and years of deflation. 1989-1999 appears to have a high degree of price stability with low and stable inflation.*)
  - Refer to the second graph. During the period 1929-1940, in which years did the price level rise relative to the previous year and during which years did the price level fall relative to the previous year? (*rising: 1933, 1934, 1935, 1937, 1939 and 1940; falling: 1930, 1931, 1932, 1936 and 1938*)
  
14. Display *Visual 1.1: Economic Definitions*, and remind the students to use Handout 1.1 to take notes. Define Gross Domestic Product (GDP) as the market value of all final goods and services produced in an economy in a given year. Discuss the following:
  - Economists use GDP data to measure the growth of the economy by comparing the change in GDP from one year to the next.
  - The U.S. economy has grown on average about 3.0 percent to 3.5 percent annually.
  - "Market value" refers to the value of goods and services in current prices.
  - Only final goods and services are counted. "Final goods and services" are those not used in the production of other goods and services. "Intermediate goods" are those produced and used in the production of another product.
  - For example, tires produced and used by a car manufacturer to assemble new cars are

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intermediate goods. Only the car is counted as part of GDP. The tires are not counted.

- Tires purchased by consumers to replace the tires on the cars they currently own are counted as part of GDP.
  - Only goods produced during the current year are counted as part of GDP for that year.
  - Only goods produced within a country's borders are counted as part of GDP.
  - When GDP is computed using current prices, inflation makes it difficult to determine how much the change in GDP from one year to the next is due to inflation and how much is the result of an increase in production of goods and services.
  - GDP that has not been adjusted for inflation is referred to as **nominal GDP**.
  - If prices have risen and GDP is calculated based on current prices, the change in the size of GDP could be due to the increased prices. To measure growth from year to year, economists adjust nominal GDP for inflation. To do this, they compute GDP in terms of the dollar prices of a base year. This resulting statistic is known as **real GDP**.
  - Because real GDP is adjusted for inflation, a change in real GDP reflects an actual change in production and not a change in prices.
15. Distribute a copy of *Handout 1.3: Nominal vs. Real GDP* to each student. Have students work through the handout in pairs. Display *Visual 1.4: Nominal vs. Real GDP—Answer Key*. Review the answers in class.
16. Display *Visual 1.5: Real Gross Domestic Product* and distribute a copy of the visual to each student. Explain that this is an example of real GDP data displayed pictorially as a line graph. Discuss the following:
- What information is shown on the X-axes of both graphs? On the Y-axes of both graphs? (*years by decades; log of real GDP*)

*Note to the teacher: The numbers on the Y-axes are the natural logarithms of the level of GDP in year 2000 prices. It is common to use logs on graphs because, with the use of logs, a given vertical distance reflects a specific rate of change in GDP regardless of the specific level (amount) of GDP. If logarithms are not used, then recent changes in GDP would appear much larger in proportion to changes in earlier years because the GDP amounts are so much larger now than they were in the past. The use of logs allows for the comparison of growth rates and makes it easier to visualize the difference between recent experiences and those of the 1930s.*

- What does the trend (dotted) line on the graph indicate? (*that the U.S. economy has grown over time—it produced more goods and services over time—or the market value of all final goods and services produced in the country has historically been rising*)
- What period in history is most noticeably below trend in GDP? (*between 1930 and 1940*)
- What does this suggest happened during that time? (*Answers will vary. Some students may suggest that it indicates a very bad recession or a depression, that there was a high level of unemployment or that the economy wasn't producing as many goods and services as in other periods.*)

17. Tell students to look at the second graph on the page. Point out that this is a bar graph which shows GDP growth from 1928 through 1940, which are the years for which GDP was most below trend on the first graph. Explain that during all of these years, GDP growth was below trend. Ask the students during what years GDP growth was the lowest. *(1932, 1933 and 1934)*
  
18. Display *Visual 1.6: Civilian Unemployment Rate* and distribute a copy of the visual to each student. Remind students to use Handout 1.1 to take notes and discuss the following:
  - This graph shows the civilian unemployment rates from 1919-2006. The **unemployment rate** represents the number of unemployed as a percentage of the labor force, and an annual unemployment rate is reported monthly by the Department of Labor's Bureau of Labor Statistics.
  - Civilian, noninstitutional persons 16 years of age or older are classified as unemployed if they do not have jobs, have actively looked for work in the prior four weeks and are currently available for work.
  - Through a monthly survey, the government collects statistics on the unemployed to determine the extent and nature of unemployment. After these statistics are obtained, they have to be interpreted properly so they can be used—together with other economic data—by policymakers to make decisions as to whether measures should be taken to influence the future course of the economy or to aid those affected by joblessness.
  
19. Discuss the graph as follows:
  - What information is shown on the X and Y axes of both graphs? *(X—year, and Y—percent of unemployment)*
  - During what years did the economy experience the lowest rates of unemployment? *(1943-1945)*
  - What events were occurring from 1943 to 1945? *(World War II)*
  - Why would unemployment be lowest at this time? *(With so many men in the armed forces and so many workers required to produce war goods, few people were unemployed.)*
  - During what year did the economy experience the highest rate of unemployment? *(1933)*
  - What was the rate? *(25 percent)*
  
20. Tell the students to refer to Handout 1.1 as they review all of the data from this lesson. Display Visual 1.3 and refer students to their copies of the CPI graphs. Discuss the following:
  - What happened to the CPI between 1929 and 1939? *(The CPI fell by as much as 10 percent, rose slightly and then fell again.)*
  - Does this mean that the economy on average was experiencing inflation or deflation? *(deflation)*

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21. Display Visual 1.5 again and refer students to their copies of the real GDP graphs. Ask the students what happened to real GDP between 1929 and 1939. *(It fell and didn't return to its pre-1929 amount until after 1939.)*
22. Display Visual 1.6 again and refer students to their copies of the unemployment rate graphs. Discuss the following:
  - What happened to unemployment between 1929 and 1933? *(It rose significantly, reaching nearly 25 percent in 1933.)*
  - When did the unemployment rate return to its pre-1929 value? *(sometime after 1940)*
23. Define **depression** as a period of severely declining economic activity spread across the economy (not limited to particular sectors or regions) normally visible in a decline in real GDP, real income, employment, industrial production, wholesale-retail credit and the loss of overall confidence in the economy. Point out that the data the students just reviewed illustrates how “great” the Great Depression was. A 25 percent unemployment rate means that one out of every four people was unemployed. Falling prices might seem like a good thing, but falling prices lead to reductions in incomes and contribute to rising unemployment. Declining GDP means that not as many goods and services are being produced. Indeed, the Great Depression was the most significant economic catastrophe in U.S. history.
24. Explain that the remaining lessons in the unit will provide opportunities for students to learn about the causes of the Great Depression and the recovery from it, as well as consider whether such a significant event could happen again.

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## Closure

25. Ask the students why, after all this time, people still study the Great Depression. *(It was the worst economic catastrophe of the 20th century. The collapse involved every aspect of the economy and every region of the country. The Great Depression dramatically changed the role of government in the economy, particularly the federal government.)*
26. Review the important economic content of the lesson by asking the following questions:
  - What is inflation? *(Inflation can be defined as a general upward price movement of goods and services in an economy. An increase in the price of one good, such as oil, does not constitute inflation; inflation occurs when an economy experiences a sustained increase in price levels. Equivalently, inflation is a period of continuously falling value of money, i.e. falling purchasing power.)*
  - What is deflation? *(Deflation can be defined as a general downward price movement of goods and services in an economy. A decrease in the price of one good, such as calculators, does not constitute deflation; deflation occurs when an economy experiences a sustained decrease in price levels. Equivalently, deflation is a period of continuously rising value of money.)*
  - What is the CPI? *(The Consumer Price Index, or CPI, is a measure of the average change*

*over time in the prices paid by urban consumers for a market basket of consumer goods and services.)*

- What was happening to the price level during the Great Depression? *(It fell by roughly one-third, in excess of 10 percent per year.)*
- What is the unemployment rate? *(the percentage of the labor force who are unemployed)*
- What was happening to unemployment during the Great Depression? *(Unemployment rose, reaching 25 percent of the labor force.)*
- What is Gross Domestic Product? *(the market value of all final goods and services produced in an economy in a year)*
- What was happening to GDP during the Great Depression? *(fell 29 percent from 1929 to 1933)*

27. Distribute a copy of *Handout 1.4: Multiple Matching*. Have the students complete the exercise following the instructions on the handout. Some phrases may have multiple answers. Remind the students they are looking for the most appropriate answers.

28. Display *Visual 1.7: Multiple Matching Answer Key* and allow students to correct their answers.

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## Assessment

29. Distribute a copy of *Handout 1.5: Political Cartoon*. Tell students to answer the questions that follow.

*Answers:*

- *Uncle Sam—United States; FDR—Franklin Delano Roosevelt; Air pump—inflation*
- *FDR's efforts to raise prices or inflate prices because of declining price levels*

30. Distribute a copy of *Handout 1.6: What is in the Chairman's Briefcase?* Instruct students to respond to the question, using appropriate terminology for the names of the graphs.

*Answers:*

- *Students would choose the three graphs discussed in this unit—CPI, real GDP and unemployment rate.*
- *CPI indicates that the economy is experiencing deflation in 1933.*
- *The real GDP indicates that the output of goods and services is shrinking.*
- *The unemployment rate indicates that unemployment is increasing significantly.*
- *These three graphs would be chosen because they give an overview of three of the most important aspects of the economy—price levels, output and unemployment.*

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31. Distribute a copy of *Handout 1.7: Glad You Asked Assessment Activity*. Tell students to read the community letters and John's responses. Instruct students to match each of John's responses with the corresponding letter by writing the letter's number on the blank line next to each of John's responses. Next, they should decide whether John's response is accurate and why.

Answers:

- *Response to Letter 2, response to Letter 1, response to Letter 4 and response to Letter 3.*
- *The response to Letter 2 is accurate. If a person receives a 4.2 percent increase in wages or salary, but inflation is 4.2 percent, then the person has no additional purchasing power. The response letter also defines CPI correctly.*
- *The response to Letter 1 is accurate. An increase in the price of one good or service does not indicate that the economy is experiencing inflation. Inflation is an upward movement in the general price level.*
- *The response to Letter 4 is accurate. The connection between being unable to find a job and GDP is described accurately.*
- *The response to Letter 3 is accurate. With inflation or deflation, there are winners and losers. If prices are falling and your income remains constant, then you are able to buy more with the same amount of income.*

*Note: The following data sources were used to create the tables and charts in this lesson:*

Consumer Price Index, 1919-2006: Bureau of Labor Statistics (Department of Labor).

Gross National Product (real GNP), 1919-47: Robert J. Gordon, *Macroeconomics*, 8th ed., Appendix A. Addison-Wesley Publishing Co., 2000.

Gross Domestic Product (real GDP), 1948-2006: U.S. Department of Commerce, Bureau of Economic Analysis.

Unemployment Rate, 1919-30: Christina Romer, "Spurious Volatility in Historical Unemployment Data," *Journal of Political Economy* 94 (1), 1986, pp. 1-37.

Unemployment Rate, 1931-46: *Historical Statistics of the United States, Colonial Times to 1957* (Department of Commerce, 1960).

Unemployment Rate, 1947-2006: Bureau of Labor Statistics (Department of Labor).

*Additional sources for the lesson plans are listed in the "References and Resources" section.*

## Visual 1.1: Economic Definitions

**Consumer Price Index (CPI)** is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

**Deflation** is a general downward movement of prices for goods and services in an economy.

**Depression** is a very severe recession; a period of severely declining economic activity spread across the economy (not limited to particular sectors or regions) normally visible in a decline in real GDP, real income, employment, industrial production, wholesale-retail credit and the loss of the overall confidence in the economy.

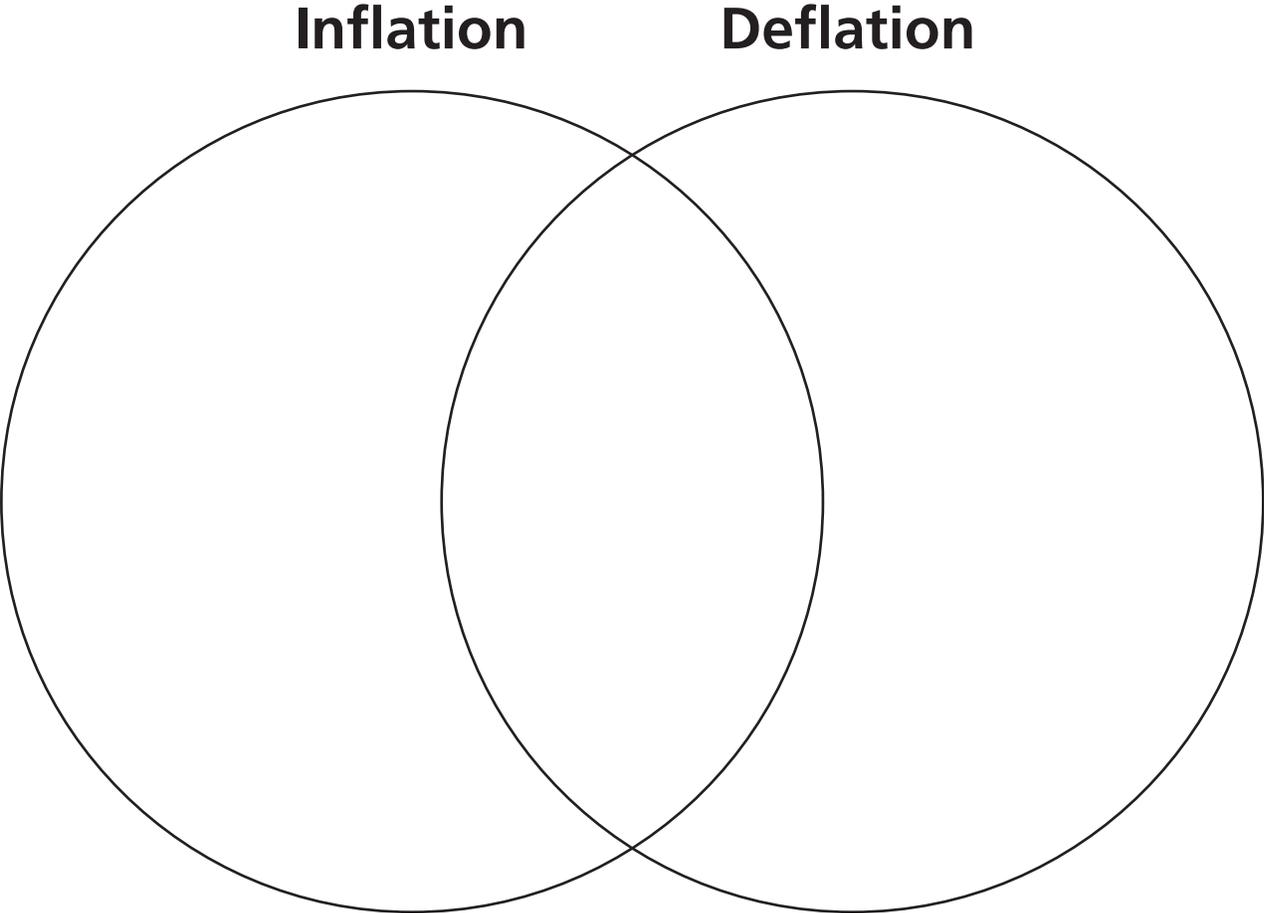
**Inflation** is a general upward movement of prices for goods and services in an economy.

**Nominal Gross Domestic Product (GDP)** is the market value of all final goods and services produced within a country in a year.

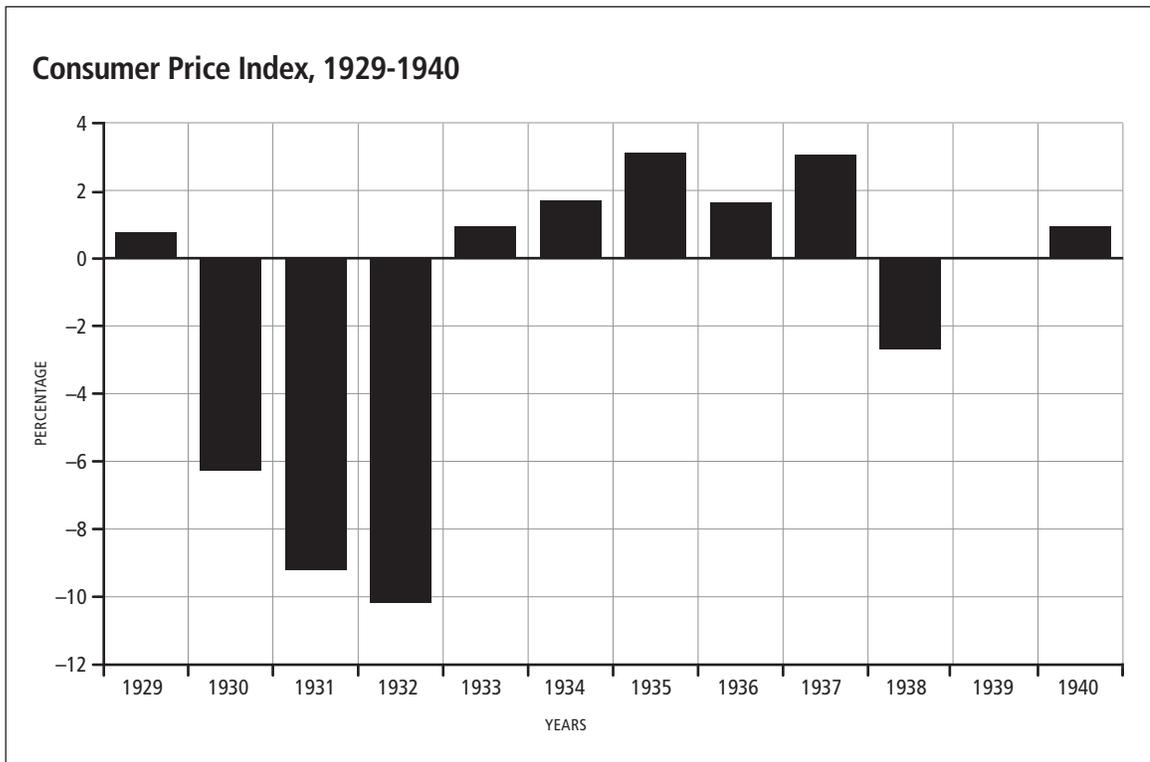
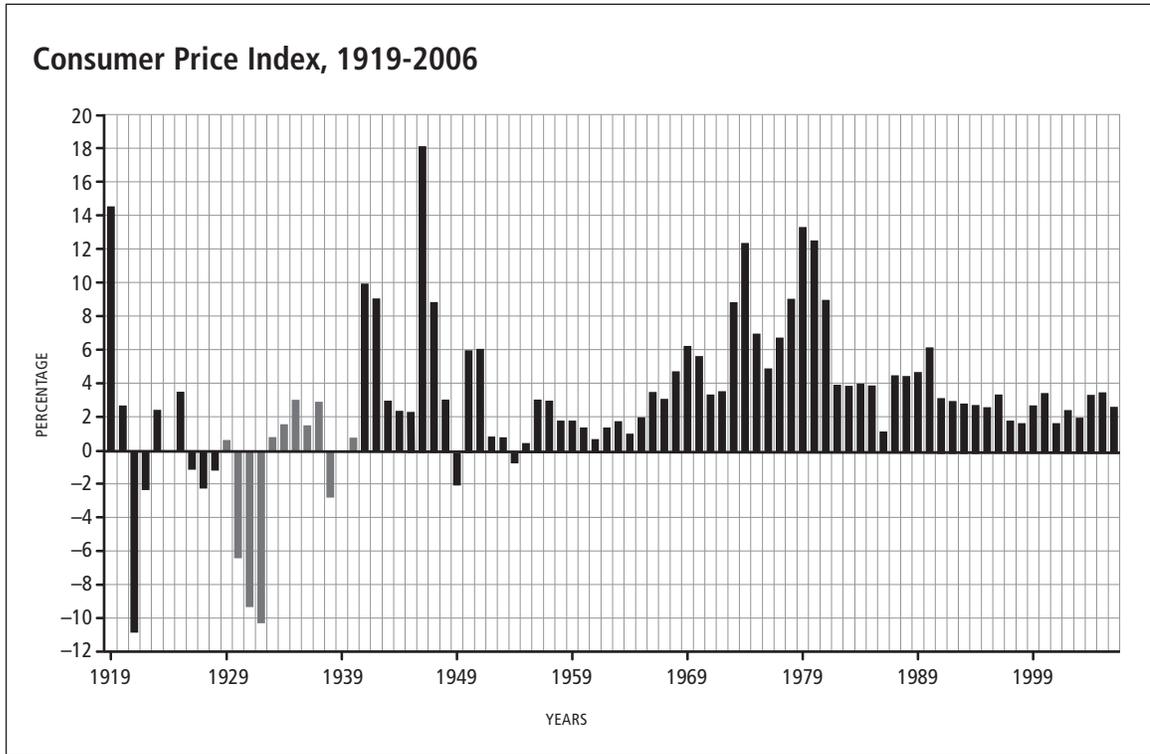
**Real Gross Domestic Product (GDP)** is the production of all final goods and services within a country valued at constant prices (i.e., adjusted for inflation or deflation).

**Unemployment rate** is the percentage of the labor force who are unemployed.

**Visual 1.2: Effects of Deflation and Inflation Venn Diagram**



Visual 1.3: Year-Over-Year Percentage Change in Consumer Price Index



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### Visual 1.4: Nominal vs. Real GDP—Answer Key

You are a government statistician and have been asked to report on the GDP of Miniland, a small economy which produces only hot dogs and haircuts. Calculate the nominal GDP for year 1 and year 2 by multiplying the price of each good or service by the quantity of each good or service and adding the total production per year in dollars.

Price X Quantity = GDP							
Year 1				Year 2			
Item	Price	Quantity	GDP	Item	Price	Quantity	GDP
Hot Dogs	\$1	10	\$10	Hot Dogs	\$3	20	<b>\$60</b>
Haircuts	\$5	4	\$20	Haircuts	\$12	5	<b>\$60</b>
<b>Nominal GDP = \$30</b>				<b>Nominal GDP = \$120</b>			

If you looked at information that stated that GDP in year 1 was \$30 and in year 2 was \$120, you might conclude that the economy produced 4 times as many goods and services in year 2 compared with year 1.

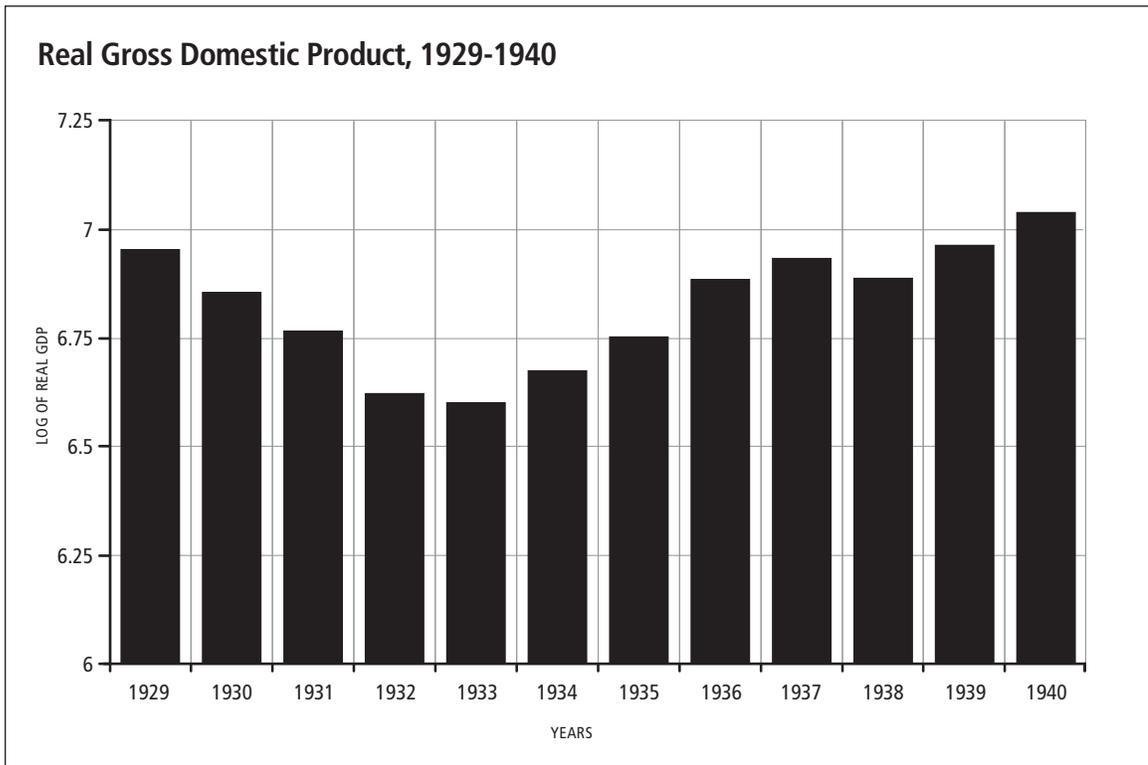
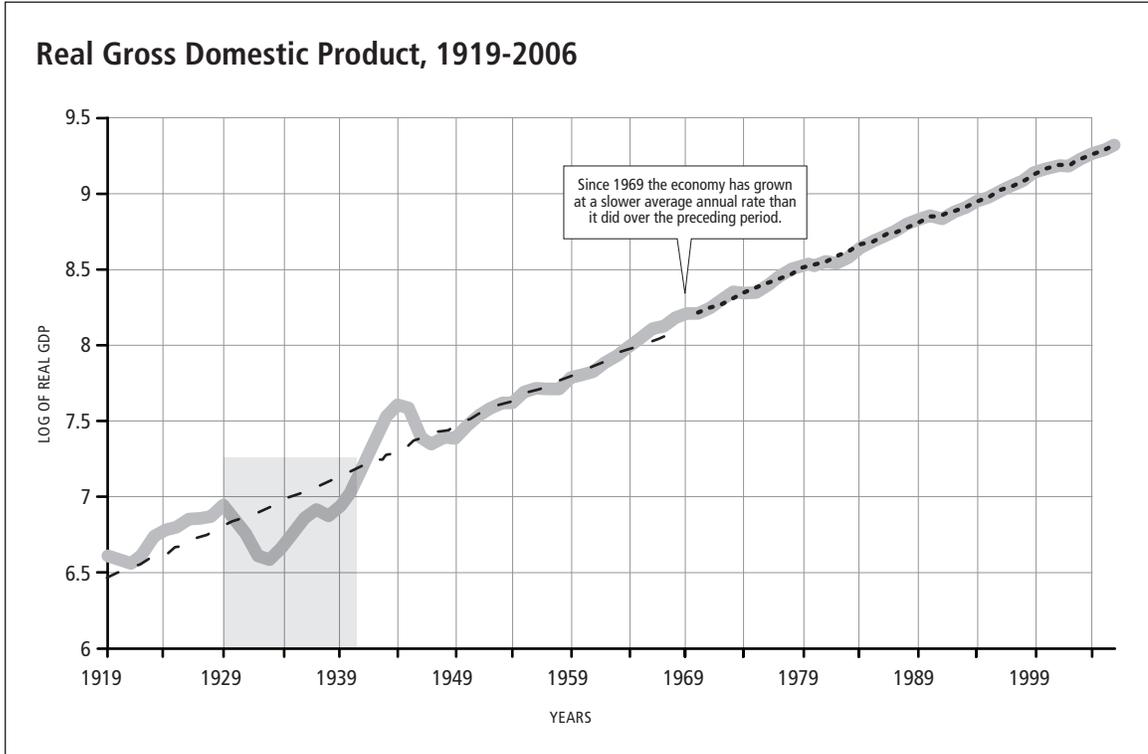
To compare GDP over time, however, you need to determine real GDP. Being a professional statistician, you know that it's possible that part of the increase in GDP from year 1 to year 2 could be due to inflation (rising prices), rather than increased output. Calculate real GDP for year 2 using year 1 as the base year.

Price X Quantity = GDP							
Year 1				Year 2			
Item	Price	Quantity	GDP	Item	Price	Quantity	GDP
Hot Dogs	\$1	10	\$10	Hot Dogs	\$1	20	<b>\$20</b>
Haircuts	\$5	4	\$20	Haircuts	\$5	5	<b>\$25</b>
<b>Real GDP = \$30</b>				<b>Real GDP = \$45</b>			

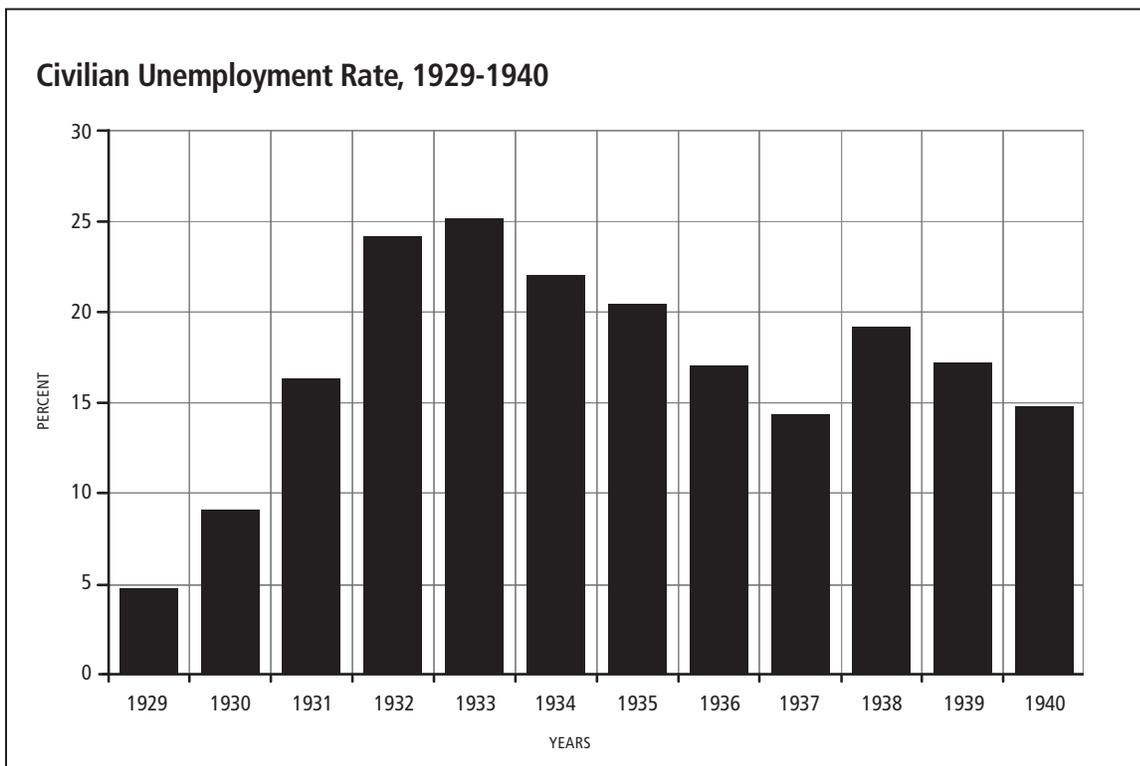
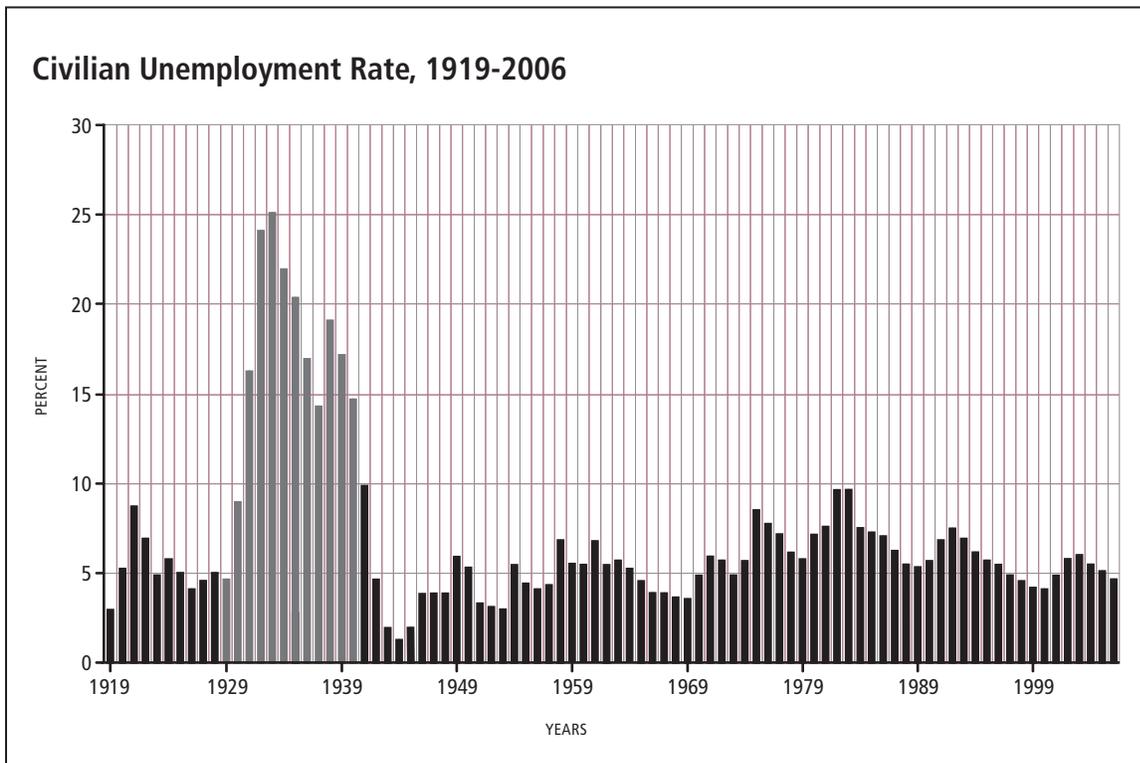
To complete your report, explain whether you would use nominal GDP or real GDP in your report and give your reasons.

**Although you might provide information on both nominal and real GDP, to compare the growth of output in the economy over time, use real GDP.**

Visual 1.5: Real Gross Domestic Product



### Visual 1.6: Civilian Unemployment Rate



**Visual 1.7: Multiple Matching—Answer Key**

Instructions: Match the statements from Column A with the terms from Column B by placing the letter of the term on the blank line following each statement. The terms from Column B may be used more than once.

**Column A****Column B**

- This is the market value of all final goods and services produced within a country during a year. G
  - This fell 29 percent from 1929 to 1933. D
  - This increased to 25 percent during the Great Depression. F
  - This causes households and firms to postpone spending. B
  - This is a severe period of declining real output and employment across sectors of the economy and regions of the country. C
  - This is a measure of the overall price level of goods and services in the economy. A
  - This is a sustained increase in the general price level. E
  - This is a sustained decrease in the general price level. B
  - This is the percentage of the labor force who are unemployed. F
  - This decreases the purchasing power of the dollar. E
  - This is the market value of all final goods and services produced within a country in a given year adjusted for inflation. D
- Consumer Price Index
  - Deflation
  - Depression
  - Real GDP
  - Inflation
  - Unemployment rate
  - Nominal GDP

### Handout 1.1: Notes for Measuring the Great Depression

Term	Definition	Examples and Other Notes

## Handout 1.2: Effects of Deflation and Inflation Statements

Directions: Cut strips apart and distribute to students.

1. Deflation causes the purchasing power of a dollar to increase, because when prices are lower, a dollar will buy more goods and services.
2. Deflation increases the real cost of borrowing, because when the debt is repaid those dollars will purchase more goods and services than when they were originally borrowed.
3. Deflation can cause households and firms to postpone spending, because they will wait until the price goes down further to buy goods and services.
4. If wages remain the same while prices for goods and services are falling, people are able to purchase more goods and services with the same amount of income. In this case, deflation effectively raises wages.
5. A falling price level implies that firms must sell more goods and services to generate the revenue required to pay their workers. Therefore, firms lay off some employees, causing unemployment to rise and/or firms to decrease workers' wages.
6. Inflation causes the purchasing power of a dollar to decrease, because when prices are higher, a dollar will buy fewer goods and services.
7. Inflation can make it more difficult for businesses to plan for the future. It also causes costs of doing business to increase because of higher input prices (i.e., higher prices of labor, materials, etc.).
8. Because inflation reduces the value of savings, it gives consumers incentives to spend, rather than save. Not everyone's income rises as much as prices do and, therefore, individuals are not able to buy as many goods and services as they did in the past.
9. Inflation reduces the value of people's savings because a dollar saved today will not buy as many goods and services tomorrow.
10. Rather than place their savings in bank accounts where it might be lent to others to produce things that help the economy grow—such as new buildings, machinery, tools and equipment—people may use their savings to purchase jewelry, art or other collectibles that might retain their value in an inflationary period.

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### Handout 1.3: Real vs. Nominal GDP

You are a government statistician and have been asked to report on the GDP of Miniland, a small economy which produces only hot dogs and haircuts. Calculate the nominal GDP for year 1 and year 2 by multiplying the price of each good and service by the quantity of each good or service and adding the total production per year in dollars.

Price X Quantity = GDP							
Year 1				Year 2			
Item	Price	Quantity	GDP	Item	Price	Quantity	GDP
Hot Dogs	\$1	10	\$10	Hot Dogs	\$3	20	
Haircuts	\$5	4	\$20	Haircuts	\$12	5	
<b>Nominal GDP = \$</b>				<b>Nominal GDP = \$</b>			

If you looked at information that stated that GDP in year 1 was \$30 and in year 2 was \$120, you might conclude that the economy produced \_\_\_\_\_ times as many goods and services in year 2 compared with year 1.

To compare GDP over time, however, you need to determine real GDP. Being a professional statistician, you know that it's possible that part of the increase in GDP from year 1 to year 2 could be due to inflation (rising prices), rather than increased output. Calculate real GDP for year 2 using year 1 as the base year.

Price X Quantity = GDP							
Year 1				Year 2			
Item	Price	Quantity	GDP	Item	Price	Quantity	GDP
Hot Dogs	\$1	10	\$10	Hot Dogs	\$1	20	
Haircuts	\$5	4	\$20	Haircuts	\$5	5	
<b>Real GDP = \$</b>				<b>Real GDP = \$</b>			

**To complete your report, explain whether you would use nominal GDP or real GDP and give your reasons.**

## Handout 1.4: Multiple Matching

Instructions: Match the statements from Column A with the terms from Column B by placing the letter of the term on the blank line following each statement. The terms from Column B may be used more than once.

### Column A

1. This is the market value of all final goods and services produced within a country during a year. \_\_\_\_\_
2. This fell 29 percent from 1929 to 1933. \_\_\_\_\_
3. This increased to 25 percent during the Great Depression. \_\_\_\_\_
4. This causes households and firms to postpone spending. \_\_\_\_\_
5. This is a severe period of declining real output and employment across sectors of the economy and regions of the country. \_\_\_\_\_
6. This is a measure of the overall price level of goods and services in the economy. \_\_\_\_\_
7. This is a sustained increase in the general price level. \_\_\_\_\_
8. This is a sustained decrease in the general price level. \_\_\_\_\_
9. This is the percentage of the labor force who are unemployed. \_\_\_\_\_
10. This decreases the purchasing power of the dollar. \_\_\_\_\_
11. This is the market value of all final goods and services produced within a country in a given year adjusted for inflation. \_\_\_\_\_

### Column B

- A. Consumer Price Index
- B. Deflation
- C. Depression
- D. Real GDP
- E. Inflation
- F. Unemployment rate
- G. Nominal GDP

## Handout 1.5: Political Cartoon

Bringing Him Back To Normal



Editorial cartoon by Chase (April 21, 1933), in the Times-Picayune © 2007 the Times-Picayune Publishing Co. All rights reserved. Used with permission of the Times-Picayune.

Refer to the political cartoon above to answer the questions that follow.

- What images are on the cartoon, and what do they represent?
- Write several sentences explaining what this cartoon is depicting. Use relevant economic terms and concepts in your sentences.

### Handout 1.6: What is in the Chairman’s Briefcase?

Read the following scenario and follow the instructions.

It is a sunny spring day in 1933, but the U.S. economy is far from sunny. The chairman of the Federal Reserve Board of Governors has been summoned to the Capitol to meet with the president of the United States. President Roosevelt has called on the chairman because the Federal Reserve, the central bank of the United States, was created in 1913 to provide an “elastic currency” that would expand and contract, based on public demand. President Roosevelt wants to know what economic data the Fed is looking at and what the Fed thinks about the current state of the economy.

The chairman of the Federal Reserve sits down in the Oval Office and begins his report to President Roosevelt. He opens his briefcase and pulls out three graphs that give an overview of the state of the economy. What three graphs would he choose, what does each indicate about the economy and why did he choose those graphs?

Graph 1: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Graph 2: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Graph 3: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Handout 1.7: Glad You Asked

John is a summer intern at *Word on the Street*, a weekly community newspaper. The assistant editor told him that since he did such a good job last week on his article on the park's mosquito prevention program, he is now being assigned to handle the "Glad You Asked" section of the paper. "Pick several questions and give a thorough answer to each. Our readers like this section because they learn a lot," the editor said.

Read the letters below and John's responses that follow. Decide which response goes with each letter by placing a number on the line next to the response. Explain whether the response letter is accurate and why.

### Letter # 1

I have an upholstery repair shop and use my truck to make deliveries. It seems like every time I fill up my truck with gasoline, it costs more than the last time. And this has been going on all year. How in the world can your paper's business reporters say that we aren't having high inflation in this country?

Martin Emerson  
Martin's Upholstery Shop

### Letter # 2

On the radio today a financial commentator was reporting that the CPI—whatever that stands for—was 4.2 percent last year and that this was high inflation for the U.S. economy. My labor union contract has a COLA clause—cost of living adjustment—so my paycheck went up 4.2 percent, the same as the CPI. I think it's great to get a paycheck for 4.2 percent more than last year. I don't see what all the fuss is about. What's wrong with inflation, and, by the way, what is the CPI?

Earl Bodine  
Plumbers Union

**Letter # 3**

I'm a retired school teacher and live on a fixed pension. I read in the paper last week that prices have fallen for two years in a row. Ed Rather's article described this situation as "significant deflation" and suggested that falling prices was a bad thing. I'm confused because I thought it was bad if prices go up, but good if prices fall. Do you need to send Ed back to school?

Beth O'Malley  
Teacher

**Letter # 4**

I'm a senior in college and will graduate this May with a degree in business. I had hoped to have lots of job interviews or perhaps even a job offer by now. Unfortunately, I'm having trouble even getting interviews. Even the classified help-wanted column has been shrinking. (I'm sure your paper has noticed this also!) My economics professor told us not to take not finding a job personally. He says the economy is mainly to blame because GDP has been falling for the past three quarters. He says that it may take us longer than last year's graduating class to find jobs. I don't know if my professor was just trying to make me feel better or what. What's the connection between my not finding a job and GDP?

Leslie Randall  
Forest Park College

## Lesson 1 | Measuring the Great Depression

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Below are the letters John wrote in response to the letters on the previous pages.

### Response to Letter \_\_\_\_\_

*Cost of Living Adjustments (COLA) clauses are tied to the CPI, so your union contract causes your pay to adjust to price level changes. It's true that a 4.2 percent increase in your paycheck is a good thing; however, that's a nominal increase in your pay. If you take the inflation (increase in price level) out of your paycheck, your real paycheck is no greater than last year. So your standard of living is no higher than last year. Your paycheck may be for a larger amount of money, but the prices you pay for the things you buy on average have increased by the same amount.*

*Certainly the COLA clause gives you some protection against inflation in that at least you receive higher pay to compensate for higher prices in the economy, but don't go out and buy a new ski boat because you think you are better off than last year. And many people are hurt from inflation because the dollars they've saved won't buy as much today as they had planned. So those who have saved for retirement or for their children's education will find that those dollars just won't go as far. Inflation has robbed them of purchasing power.*

**Is this response accurate? Why or why not?**

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### Response to Letter \_\_\_\_\_

*Although the price of gasoline may be going up, that doesn't mean that the price for all goods and services is rising. Within the economy, prices for some goods may be rising, while prices for other goods may be falling. But it's the overall price level that is measured when defining inflation. The CPI (Consumer Price Index) is a measurement of price changes in a market basket of goods and services that consumers regularly buy, including food, gasoline, clothing, medical care, education, rent, etc. Presently, the CPI is around 2 percent, which doesn't indicate that our economy is experiencing high inflation.*

**Is this response accurate? Why or why not?**

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### Response to Letter \_\_\_\_\_

*As they say, timing is everything! If you could have your choice, it would be nice to graduate during a time when the economy is expanding because lots of jobs are being created, so the demand for workers is much higher. Your professor is right: If the economy has slowed down considerably over the past nine months, businesses are seeing sluggish demand for their goods and services and are experiencing declining revenue as a result. Naturally they are going to hesitate to hire new workers under these conditions.*

*GDP measures the output of goods and services and is the best single barometer of the condition of the economy. If it's falling it may make job hunting a challenge in the near term. Because of the dynamic nature of an economy as large as ours, however, I'm sure there are some jobs out there for those with education, skills and a good work ethic.*

**Is this response accurate? Why or why not?**

**Response to Letter \_\_\_\_\_**

*As the saying goes, if you can read this, thank a teacher! So thank you, Beth, for the years you spent in the classroom educating our children. You asked a good question, because both inflation and deflation can have adverse effects on the economy. What we hope for is a Goldilocks economy—one with stable prices.*

*You are right about inflation being bad—it robs people's savings of purchasing power, among other things. Deflation may be like a wolf in sheep's clothing. At first everybody likes the idea of falling prices, until they figure out that falling prices means that demand for goods and services will decline as people delay purchasing things until the price has gone down further. Then businesses' revenues fall, so they lay off workers and/or cut pay. Of course it gets personal when I lose my job!*

*So the domino effect can leave people in dire straits. Since you're on a fixed income, as long as the state retired teachers association can continue to pay your retirement, you may actually benefit. If your income stays the same and things get cheaper, you benefit (although many others don't). Whether you win or lose from unexpected inflation or deflation depends on your situation, but both are bad for the economy as a whole.*

**Is this response accurate? Why?**

