CONCEPT REVIEW

The business cycle is the series of growing and shrinking periods of economic activity.

CHAPTER 15 KEY CONCEPT

Fiscal policy uses taxes and government spending in an effort to smooth out the peaks and troughs of the business cycle.

WHY THE CONCEPT MATTERS

In history classes, you’ve probably read about instances of rampant inflation when people needed bags and bags of cash to pay for their groceries. Or you might have read about periods of economic depression when millions of workers lost their jobs. By using a combination of spending and taxation, the federal government tries to reduce the impact of such economic extremes.
What Is Fiscal Policy?

Fiscal Policy Tools

KEY CONCEPTS

In Chapter 14, you learned that the government puts the tax dollars it collects to a variety of uses. The term fiscal refers to anything related to government revenue, spending, and debt. Fiscal policy is the federal government’s use of taxes and government spending to affect the economy. Fiscal policy has one of two goals: to increase aggregate demand or to fight inflation.

To stabilize or strengthen the economy, the government may use one of two basic policies. When the economy slows, the government may use expansionary fiscal policy, a plan to increase aggregate demand and stimulate a weak economy. When the economy is in an inflationary period, the government may use a contractionary fiscal policy, a plan to reduce aggregate demand and slow the economy in a period of too-rapid expansion. The federal government has two basic fiscal tools to influence the economy: taxation and government spending.

Discretionary Fiscal Policy

As you learned in Chapter 14, discretionary spending is spending that the government must authorize each year. In other words, the government must make a choice about this type of spending. Similarly, discretionary fiscal policy involves actions taken by the government by choice to correct economic instability. This type of policy involves an active government response, through choices about taxes or government spending, to help stabilize the economy. Congress must enact legislation for these policies to be implemented. This type of fiscal policy is discussed in more depth later in this section and in Section 2.
Automatic Stabilizers

Unlike discretionary fiscal policy, automatic stabilizers are features of fiscal policy that work automatically to steady the economy. Both of these approaches use taxes and government spending to influence the economy. Discretionary fiscal policy involves government choices about whether an expansionary or contractionary policy is needed and how the chosen policy should be put into action. Automatic stabilizers, such as public transfer payments and progressive income taxes, may work in an expansionary or contractionary manner, but they work automatically rather than through active policy choices.

Public Transfer Payments As you recall from Chapter 14, public transfer payments include programs such as unemployment compensation, food stamps, and other entitlements. These payments automatically set up a flow of money into the economy. Therefore, this form of government spending helps stabilize the economy automatically.

For example, during a recession more people are unemployed and qualify to receive unemployment compensation and other government benefits, such as food stamps or welfare payments. When people receive these benefits, they gain a certain amount of income to spend, and the effects of the recession are less severe than they would be without the transfer payments.

When the economy improves, fewer people qualify for food stamps, unemployment compensation, and other entitlements, and government spending automatically decreases. This automatic decrease keeps the economy from growing too fast. By helping to control aggregate demand, this automatic stabilizer keeps prices from rising too quickly and leading to inflation.

Progressive Income Taxes The individual income tax is progressive. As income increases, so do the tax rate and the amount of taxes paid. The progressive nature of the income tax allows it to act as an automatic stabilizer to the economy without additional government action.

For example, during prosperous times, individual incomes rise, and some individuals move into higher tax brackets. These taxpayers pay more in taxes and do not have all of their increased income to spend or save. By preventing some of the increased income from entering the economy, this automatically higher taxation keeps the economy from growing too quickly and helps keep inflation in check. On the other hand, during a recession, individuals earn less income and may move into lower tax brackets. Therefore, lower incomes result in lower taxes, which automatically reduce the impact of the recession.

APPLICATION Applying Economic Concepts

A. Programs such as unemployment insurance ensure that people experiencing economic hardship have a basic level of income. How does this help to stabilize the economy?
KEY CONCEPTS

Fiscal policy can be used for expansionary or contractionary purposes. The choice of policy depends on whether the economy is weak or strong. Expansionary fiscal policy is designed to stimulate a weak economy to grow. Contractionary fiscal policy is used to slow the economy down in order to control inflation.

POLICY 1 Expansionary Fiscal Policy

Government may use expansionary policy to increase the level of aggregate demand so that growth occurs in the economy. As you recall from Chapter 13, increased aggregate demand causes prices to rise, providing incentives for businesses to expand and causing GDP to increase. Expansionary fiscal policy also reduces the rate of unemployment, as there are more jobs available when businesses are expanding. Expansionary fiscal policy may involve increased government spending, decreased taxes, or both.

For example, suppose the economy is in recession and, in response, the government decides to increase spending for highways. The government spends the money by contracting with private firms in many cities to build new roads. This spending creates additional jobs as the contractors hire more and more construction workers to complete the projects. If employment increases, more people will have income to spend, and aggregate demand increases for all goods and services in the economy.

The government may also choose to cut taxes to stimulate the economy. By lowering individual and corporate income tax rates, the government allows individuals and businesses to have more income left after taxes. Individuals may spend their increased income and thereby increase demand for numerous goods and services. Increased income may allow them to increase their savings, which makes more money available to businesses to invest. Lower taxes also leave businesses with more money to invest in new equipment or plants, or in additional workers to produce more goods and services to meet increased demand.

Whether the government increases spending, decreases taxes, or uses some combination of the two, the result is somewhat similar. As Figure 15.1 on the opposite page shows, expansionary fiscal policy leads to an increase in aggregate demand (the curve shifts to the right) and, therefore, economic growth.
POLICY 2 Contractionary Fiscal Policy

The federal government may use contractionary policy to decrease the level of aggregate demand so that inflation is reduced. When the economy is growing too rapidly, aggregate demand may increase faster than aggregate supply, leading to demand-pull inflation. This type of inflation, which you read about in Chapter 13, is characterized by a steadily rising price level and a decrease in the purchasing power of people’s incomes.

When the government faces such an economy, it may employ contractionary fiscal policy and use spending and taxes in ways opposite to expansionary fiscal policy. In other words, it may choose to decrease government spending or increase taxes in order to control inflation.

For example, if the economy is growing too rapidly, the government may cut its spending on a variety of programs such as highway construction, education, and health care. By cutting spending, the government takes money out of the economy. This decreased government spending results in less income for individuals or businesses that are directly affected by the cuts in government programs. So these individuals have less money to spend on goods and services, and aggregate demand decreases. Businesses may cut production in response to decreased aggregate demand. As aggregate demand decreases, the rise in the price level is stopped, and inflation is brought under control.
Rather than cut spending, the government may choose to increase taxes. This leads to a decrease in consumer spending and, therefore, a slowdown in the rate of inflation. In other words, when individuals and businesses have to pay higher taxes, they have less income left over to spend or invest. As a result, aggregate demand will decrease. As aggregate demand decreases, businesses may cut back production and lay off workers. This will cause a further decrease in aggregate demand, because workers will have less to spend on goods and services. And as aggregate demand falls, so will the price level.

Whether the government decreases spending or increases taxes or uses some combination of the two, the impact of contractionary fiscal policy on aggregate demand and inflation is somewhat similar. Turn back to Figure 15.2 on page 449. Notice that contractionary fiscal policy results in the aggregate demand curve shifting to the left. This indicates that aggregate demand is decreasing. This decline in aggregate demand, in turn, helps control inflation. (The major fiscal policy tools, and their impact on the economy, are reviewed in Figure 15.3.)

**APPLICATION Analyzing Cause and Effect**

B. What effect does expansionary fiscal policy have on consumer spending? Explain your answer.

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**ECONOMICS ESSENTIALS**

**FIGURE 15.3 Effects of Fiscal Policy on the Economy**

**Expansionary Effects**
- Economic activity increases as businesses increase production, hire more workers, and increase investment
- More workers have more income to spend on goods and services
- Aggregate demand increases, resulting in economic growth

**Contractionary Effects**
- Economic activity decreases as businesses cut production and lay off workers
- Workers have less income to spend on goods and services
- Aggregate demand decreases, bringing inflation under control

**ANALYZE CHARTS**

The government can use a combination of taxing and spending policies to stimulate a sluggish economy or to slow down an overheated economy. At what point in the business cycle do you think the economy is today? What type of fiscal policy do you think the government should apply at this time?
Limitations of Fiscal Policy

KEY CONCEPTS

The purpose of fiscal policy is to reduce economic slowdowns, which result in unemployment, and to curb inflation. The success of fiscal policy, however, is limited by a number of issues, including policy lags and timing.

LIMITATION 1 Policy Lags

Fiscal policy lags behind the economic conditions it is designed to address. This situation is often related to identifying the problem and getting Congress to move on the issue. Months of debate may precede policy change. The lag also may be related to how quickly the change in policy takes effect. For example, the time for tax changes to take effect is shorter than that for government spending. In particular, it may take a long time for public spending programs to get started and money to begin flowing into the economy. Therefore, tax changes may be more effective than policy changes in dealing with short-term recessions.

LIMITATION 2 Timing Issues

The goal of fiscal policy is to provide a stable economic environment. This means that it should coordinate with the business cycle. Fiscal policy is described as countercyclical because the goal is to smooth out the peaks and troughs of the business cycle. If the timing of the policy is good, fluctuations in the business cycle will be less severe, as Figure 15.4 illustrates. If the timing is bad, however, it could make matters worse. For example, if the economy is already moving out of a recession when an expansionary fiscal policy takes effect, the result could be inflation.

ANALYZE GRAPHS

1. What kind of fiscal policy might be used to address rapid movement toward a trough?
2. How does this diagram illustrate that fiscal policy is countercyclical?
LIMITATION 3 Rational Expectations Theory

A second phenomenon affecting timing is explained by the rational expectations theory, which states that individuals and business firms expect that changes in fiscal policy will have particular outcomes, and they take actions to protect their interests against those outcomes. These actions may limit the effectiveness of fiscal policy. For example, expansionary fiscal policy attempts to stimulate aggregate demand to increase employment. An increase in aggregate demand might also pull up the price level, causing inflation. In anticipation of rising inflation, people spend more to keep their buying power from decreasing. However, this increased spending causes more inflation and defeats the aims of the expansionary policy.

LIMITATION 4 Political Issues

Fiscal policy decisions are not always based on economic considerations. Sometimes, political considerations, most notably enhancing the chances of reelection, may influence the kind of fiscal policy that a government follows. The Council of Economic Advisers is a three-member group that advises the President on fiscal policy and other economic issues. Because of political pressures, however, the President may not always follow their advice. Even if the President does accept the council’s guidance, members of Congress—again because of political considerations—may not agree with proposed policies. This is an important issue, since the House of Representatives is where all tax bills originate.

LIMITATION 5 Regional Issues

Another limitation of the effectiveness of fiscal policy is related to geography. Not every state or region of the country may be experiencing the same economic issues. For example, the Gulf Coast region may be recovering from the economic effects of hurricane damage. At the same time, the West Coast may be experiencing a high tech boom that is causing inflation. The Gulf Coast might benefit from expansionary policies, while contractionary policies might be best for the West Coast. In such circumstances, broad fiscal-policy solutions may not be appropriate.

APPLICATION Making Inferences

C. How do policy lags and timing issues work together to limit the effectiveness of fiscal policy?
SECTION 1 Assesment

REVIEWING KEY CONCEPTS

1. Use each of the three terms below in a sentence that illustrates the meaning of the term.
   a. expansionary fiscal policy
   b. discretionary fiscal policy
   c. rational expectations theory

2. What are the two basic goals of fiscal policy?

3. How do expansionary fiscal policy and contractionary fiscal policy use the same fiscal policy tools in different ways?

4. What is the difference between discretionary fiscal policy and automatic stabilizers?

5. What is the role of the Council of Economic Advisers?

6. Using Your Notes What are the limitations of fiscal policy? Refer to your completed cluster diagram.
   Use the Graphic Organizer at Interactive Review @ ClassZone.com

7. Making Inferences Between 2001 and 2004, Congress passed a series of tax cuts and increased government spending. Do these actions reflect expansionary or contractionary fiscal policy? Explain your answer.

8. Applying Economic Concepts Agricultural price supports provide farmers with government subsidies when market prices of certain crops are low. What kind of fiscal policy is at work in this situation and how does it work?

9. Drawing Conclusions Federal government officials want to prevent a slowing economy from going into recession. They debate whether to increase spending on new public transit systems or decrease individual and corporate income tax rates.
   a. How would an understanding of policy lags help them decide which government action would be most effective?
   b. What other issues might affect their decision?

10. Challenge Make a copy of Figure 15.4 on page 451 and label the part of line F that might represent expansionary fiscal policy and the part that might represent contractionary fiscal policy.

CRITICAL THINKING

Analyzing Economic Conditions
Consider what you’ve learned about economic instability and fiscal policy. Then complete the following activities.

Propose Fiscal Policies For each situation listed in the chart, identify the problem and decide whether the fiscal policy should be expansionary or contractionary.

<table>
<thead>
<tr>
<th>Economic Situation</th>
<th>Problem/Fiscal Policy Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business investment spending declines for six straight months</td>
<td></td>
</tr>
<tr>
<td>Consumer Price Index rises for four straight months</td>
<td></td>
</tr>
<tr>
<td>Unemployment rate increases from 4% to 6.5% over six months</td>
<td></td>
</tr>
<tr>
<td>Consumer confidence falls for five straight months</td>
<td></td>
</tr>
</tbody>
</table>

Challenge Choose one situation and give examples of how fiscal policy might be applied to it.
Demand-Side and Supply-Side Policies

**OBJECTIVES**
In Section 2, you will
- describe how demand-side fiscal policy can be used to stimulate the economy
- describe how supply-side fiscal policy can be used to stimulate the economy
- identify the role that fiscal policy has in changing the economy

**KEY TERMS**
- Keynesian economics, p. 454
- demand-side fiscal policy, p. 454
- spending multiplier effect, p. 455
- supply-side fiscal policy, p. 458
- Laffer Curve, p. 459

**TAking NOTES**
As you read Section 2, complete a chart to show the major features of demand-side and supply-side policies. Use the Graphic Organizer at Interactive Review @ ClassZone.com

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**Demand-Side Economics**

**KEY CONCEPTS**
Economists have not always supported the idea of discretionary fiscal policy. Historically, most think that the national government should have a limited role in the economy. When the country experienced financial panics and depressions, the government did little to help the economy get back on track.

The Great Depression of the 1930s changed many people’s minds about the role of the government. High unemployment and low production persisted for several years. Many economists concluded that the old ways were ineffective in this situation. One economist, John Maynard Keynes, proposed a new way to address the problem.

The theories that Keynes put forward are called Keynesian economics, the idea that in times of recession aggregate demand needs to be stimulated by government action. Keynes believed that such an approach would lower unemployment. Keynesian economics forms the basis of demand-side fiscal policy, fiscal policy to stimulate aggregate demand.

**Demand-Side Policies** The Civilian Conservation Corps (CCC), an employment program for young men, was one government action aimed at stimulating the economy during the Great Depression.
Keynes argued that changes in aggregate demand influence the business cycle, and he expressed this idea in an equation. His equation states that the GDP equals the total market value of all consumer goods (C), investment goods (I), government goods (G), and net exports (F). The equation looks like this: \( GDP = C + I + G + F \).

Keynes believed that net exports played only a small role in the economy and that government and consumer expenditures were fairly stable. He reasoned that it was investment that caused the economy to fluctuate and that investment creates a greater than one-for-one change in national income. That is, one dollar spent in investment has a **spending multiplier effect**, meaning that a change in spending is multiplied into a larger change in GDP. (See Figure 15.5.)

**APPLICATION Making Inferences**

A. How did Keynes’s equation help him conclude that if investment declined, government needed to increase spending or cut taxes to stimulate aggregate demand?

---

**Math Challenge**

*Figure 15.5 Spending Multiplier Effect*

If Zain receives a $100 raise and spends $60 of it to buy products from Joan, Joan’s income increases too. Similarly, if Joan uses $36 of her increased income to buy products from Ravi, Ravi’s income increases. Ravi then buys from Sarah, and so on. Each increase in income contributes to the GDP, so the total effect of Zain’s spending is multiplied. To quantify how spending increases GDP, economists use the spending multiplier.

**Step 1:** Determine the percentage of the money that is spent on domestic goods and services each time the money is reused. In the example, this is 60 percent.

**Step 2:** Use this equation, where \( A \) is the percentage, to calculate the spending multiplier.

\[
\frac{1}{1 - A} = \text{Spending multiplier}
\]

\[
\frac{1}{1 - 0.60} = \frac{1}{1 - 60\%} = 2.5
\]

**Step 3:** Use the spending multiplier to calculate the total increase in GDP.

\[
\text{Initial investment} \times \text{Spending multiplier} = \text{Total increase in GDP}
\]

\[
$100 \times 2.5 = $250
\]

If businesses invest less, the spending multiplier effect means that the decrease in overall spending is greater than the initial decrease in business investment. Because this effect touches the entire economy, the government may need to step in to offset changes in investment. This idea became the basis of demand-side fiscal economics, which favors the use of fiscal policy to stimulate aggregate demand.
Many Americans are accustomed to the idea that the government plays an active role in the market economy. However, when John Maynard Keynes proposed his ideas in the 1930s, they were considered revolutionary. He questioned the principles of economics that had been accepted since the time of Adam Smith. How did Keynes’s work change the way that people viewed the role of government in the economy?

### Using Government Action to Stimulate Demand

The economic situation of the 1920s led John Maynard Keynes to question the classical economic theories of supply and demand. Classical economists believed that a free market would eventually correct any imbalances. However, as aggregate demand fell, businesses invested and produced less, which led to layoffs. As a result, consumers had even less money to spend, and businesses cut back production even further.

As early as 1929, Keynes proposed that the British government spend money on public works projects to help ease unemployment. However, he had no theoretical backing for his proposal until he read an article in 1931 about the spending multiplier. This concept proved to be the key to his new economic theory, which he published in *The General Theory of Employment, Interest, and Money* (1936). This ground-breaking book marked the beginning of the field of macroeconomics.

Keynes’s first revolutionary idea was to define aggregate demand as the sum of investment, consumer spending, government spending and net exports. He further stated that only government intervention could break the business cycle patterns that caused so much economic suffering. Even more revolutionary, however, was his argument that it was better for the government to spend money to help stabilize the economy than to have a balanced budget.

### Application: Contrasting Economic Information

B. What made Keynes’s ideas different from those of classical economists?
Government and Demand-Side Policies

**KEY CONCEPTS**

Discretionary fiscal policy involves choices about how to use government spending and taxation to increase aggregate demand or control inflation. Demand-side policies advocate use of these fiscal policy tools to control aggregate demand and stabilize the economy.

**The Role of Government**

Keynes proposed an active role for government in the economy. He argued that the federal government ought to step into the economy using expansionary fiscal policy to promote full employment. The Great Depression had shown that the economy could reach equilibrium with less than full employment and that business was unable to break out of this cycle because of insufficient aggregate demand. Therefore, Keynes advocated increased government spending and decreased taxation to end recessions. Increased government spending helps create jobs and increases income, and decreased taxation encourages consumers to spend more, which prompts businesses to invest more. Such actions help increase aggregate demand.

On the other hand, Keynes thought that when inflation was high the government should use contractionary fiscal policy to keep prices from rising. The government would take an active role through decreasing government spending or increasing taxes. Both of these actions help decrease aggregate demand and control inflation.

**Demand-Side Policies—Analysis**

In some circumstances, an increase in government spending may lead to economic recovery. For example, government spending on public works programs and on production related to World War II brought the United States out of the Great Depression. However, it is not easy to limit such spending to times of recession, because federal programs seem to take on a life of their own and are difficult to terminate. Politicians are often reluctant to discontinue programs that are popular.

Excessive aggregate demand due to government or consumer spending can lead to inflation. Contractionary fiscal policy requires decreases in government spending or increases in taxation. Just as it is difficult to decrease government spending, it is difficult to enact the tax increases. Politicians must often choose between doing what is best for the economy and doing what is most likely to ensure their reelection. Furthermore, when the economy experiences stagflation—slow economic growth with high unemployment and inflation—as it did in the 1970s, demand-side policies seem to be ineffective.

**APPLICATION Drawing Conclusions**

C. Why are demand-side policies more effective against recession than against inflation?
Supply-Side Economics

**KEY CONCEPTS**

Some economists believe that the best way to influence the economy is through the supply side rather than through the demand side. Supply-side fiscal policy is designed to provide incentives to producers to increase aggregate supply. In other words, demand-side economics uses fiscal policy to encourage consumers to spend more, while supply-side economics focuses on cutting the cost of production to encourage producers to supply more. Figure 15.6 compares supply-side economics to demand-side economics.

**The Role of Government**

As you have learned, the role of the government in the economy falls into three categories: taxation, spending, and regulation. For the most part, supply-side economists favor less government involvement in these three areas.

Supply-side economists favor cutting the tax rates on individual and corporate income because they believe that high tax rates slow economic growth by discouraging working, saving, and investing. Lower tax rates, on the other hand, encourage individuals and businesses to work, save, and invest more. Specifically, reducing the highest tax brackets provides more available income to the people most likely to invest in new business activities. Spending cuts are another way that supply-side economics seeks to stimulate aggregate supply. Cuts in spending are related to tax cuts. If the government spends less, it needs to take in less in revenue and, therefore, is able to lower taxes. Finally, decreased government regulation can also stimulate business production. Government regulations add to the costs of production and make it harder for businesses to grow. Deregulation, however, cuts costs and leads to increases in aggregate supply.

**FIGURE 15.6 Supply-Side and Demand-Side Economics**

<table>
<thead>
<tr>
<th>Supply-Side Economics</th>
<th>Demand-Side Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Focuses on stimulating production (supply) to increase business output</td>
<td>• Focuses on stimulating consumption (demand) to increase business output</td>
</tr>
<tr>
<td>• Lower taxes + decreased government spending + deregulation = greater incentives for business investment</td>
<td>• Increased government spending results in more money in people’s hands</td>
</tr>
<tr>
<td>• Businesses expand and create jobs; people work, save, and invest more</td>
<td>• People spend more</td>
</tr>
<tr>
<td>• Greater investment and productivity cause businesses to increase output</td>
<td>• Increased demand causes business to increase output</td>
</tr>
</tbody>
</table>

**ANALYZE CHARTS**

1. What is similar about supply-side and demand-side tax policies?
2. Which system favors less government involvement in the economy?
The Laffer Curve

Supply-side economists refer to the Laffer Curve, a graph developed by economist Arthur Laffer, to illustrate how tax cuts affect tax revenues and economic growth. As Figure 15.7 shows, Laffer theorized that tax revenues increase as tax rates increase up to a certain point. After that point, higher tax rates actually lead to decreased tax revenues. The reasoning behind the curve is that higher taxes discourage people from working, saving, and investing. So, at a tax rate of 100 percent, the government would theoretically collect no tax revenues, because people would have no incentive to earn income if it all went to the government for taxes.

In other words, the higher the tax rate, the likelier it is that people will take some type of action to avoid paying more taxes. When people find alternatives to income-producing activity, total taxable income declines, tax revenues decrease, aggregate supply falls, and economic growth slows. Conversely, as tax rates fall, people are more inclined to undertake income-producing activity because less of their income will go to taxes. Further, they are more likely to save and invest this extra income, which will lead to increasing aggregate supply and greater economic growth.

**ANALYZE GRAPHS**
1. There is no tax revenue at two points on the graph—when the tax rate is 0 percent and when it is 100 percent. Why is this so?
2. How does this graph support the ideas of supply-side economists?

Supply-Side Policies—Analysis

When the principles of the Laffer Curve were applied in the United States in the 1980s, the results were much as Laffer had predicted. Legislation passed in that decade reduced federal income tax rates substantially. For example, the top bracket went from 70 percent to around 30 percent. At the same time, federal government receipts from income taxes over the whole decade were about 13 percent higher than
they had been in the 1970s. Inflation and unemployment rates both fell during the
decade. Further, the economy grew steadily in the 1980s, with real GDP increasing
by about 3 percent each year.

Even so, some of Laffer’s predictions did not hold true. The supply-side approach
suggests that with lower tax rates, people will work more. However, while some people
did choose to work more, others chose to work less, since they could earn the same
amount of after-tax income by working fewer hours. In addition, supply-side theory
states that lower tax rates encourage people to save and invest. In fact, the savings rate
decreased during the 1980s.

Some economists have suggested that the success of supply-side policies depends on
where the economy is located on the Laffer Curve. Look again at Figure 15.7
on page 459. Find the tax rate R0 on the horizontal axis and trace the broken line
from that point to where the line intersects the curve. Tax revenue is maximized
at this point. If the economy is not at this point on the curve, then tax rate cuts
will decrease tax revenue rather than increase it. Supply-side theory offers no meas-
ures for establishing where on the curve an economy might be. Other economists
have argued that it is difficult to isolate the effects of supply-side incentives from
demand-side results to determine what caused unemployment and inflation rates
to fall and the economy to grow during the 1980s. They suggest that tax cuts and
increased government spending on defense drove up aggregate demand, resulting in
economic growth. This increased spending was fueled by deficits, which you’ll learn
more about in Section 3.

APPLICATION Analyzing Causes

D. What fiscal policy techniques do supply-side economists advocate to reduce
unemployment and fight inflation at the same time?
Section 2 Assessment

Reviewing Key Concepts

1. Explain the relationship between the terms in each of these pairs.
   a. Keynesian economics
      demand-side fiscal policy
   b. supply-side fiscal policy
      Laffer Curve

2. How did the Great Depression influence Keynesian economics?

3. How is the spending multiplier effect related to demand-side economics?

4. How are supply-side and demand-side economics different?

5. Which fiscal policy tool does the Laffer Curve address?

6. Using Your Notes  How does the role of government differ in demand-side and supply-side economics? Refer to your completed flow chart.
   Use the Graphic Organizer at Interactive Review @ ClassZone.com

Critical Thinking

7. Creating Graphs  Create a graph showing aggregate demand and aggregate supply in the economy. Then add new curves to show the expected shifts based on expansionary demand-side policies and supply-side policies. What happens to price level and GDP as a result of each type of policy?
   Use SMARTGapher @ ClassZone.com to complete this activity.

8. Applying Economic Concepts  Suppose that the federal government decides to increase its spending on highway construction by $5 billion to keep the economy from falling into a recession. Explain the real impact on GDP of this spending.

9. Analyzing Effects  Tom, Cia, and Julie were all in the 50 percent tax bracket. When a tax cut program reduced their tax bracket to 28 percent, they all made changes in their lives. Tom decided to work fewer hours so he could begin training to run in a marathon. Cia bought the new sports car she’d been wanting. Julie chose to work more hours so she could save extra money for her daughter’s college education. Explain the effects of the tax cut for each individual. Use supply-side or demand-side economics reasoning in your answer.

10. Challenge  Why is it difficult for demand-side economics to solve the problems of high unemployment and high inflation when they occur at the same time?
The Federal Deficit and Debt

**Key Concepts**

Governments have frequently made efforts to balance their budgets so that spending equals the revenues collected. In reality, however, all levels of government often struggle to achieve a balanced budget. As you recall, Congress and state legislatures make budget decisions with both economic and political considerations in mind.

Federal government spending falls into one of three categories: a balanced budget; a **budget surplus**, when the government takes in more than it spends; or a **budget deficit**, when government spends more than it takes in. In recent years, the federal government has rarely achieved a budget surplus. Since 1970, a surplus was recorded only between 1998 and 2001. Figure 15.8 on the opposite page shows the pattern of budget deficits and surpluses since 1980.

It is important to note that a budget surplus or budget deficit refers to only one year. **Deficit spending** occurs when a government spends more than it collects in revenue for a specific budget year. Annual deficits contribute to the **national debt**, which is the total amount of money that the government owes. In effect, the national debt is equal to the sum of annual budget deficits minus any budget surpluses or other payments against the debt.

**Quick Reference**

A **budget surplus** occurs when the government takes in more than it spends.

A **budget deficit** occurs when government spends more than it takes in.

**Deficit spending** is a government practice of spending more than it takes in for a specific budget year.

The **national debt** is the money that the government owes.
Causes of the Deficit

There are four main causes of deficit spending: national emergencies, a desire for more public goods, stabilization of the economy, and the role of government in society. Many times a budget deficit may be the result of more than one of these causes.

National Emergencies
Generally speaking, national emergencies are wars in which the United States is involved. Deficit spending has been used in wartime from the Revolutionary War to the war in Iraq that began in 2003. The terrorist attacks of September 11, 2001, and catastrophic weather events are other examples of national emergencies. All may require massive spending beyond the normal outlay of funds.

Need for Public Goods and Services
Public goods and services benefit many different people and groups. The interstate highway system, dams, flood-control projects, and airports are examples of public goods. Building such infrastructure is expensive and lasts many years. The public expects the government to provide these goods to facilitate commerce, agriculture, and transportation.

Stabilization of the Economy
As you learned earlier in this chapter, fiscal policy can include government spending to stimulate the economy. The classic example of this occurred during the Great Depression. The government spent money on a variety of public works projects to build roads, bridges, schools, and parks, putting millions of unemployed people to work. This government spending led to budget deficits.

Role of Government in Society
As you have seen, people have also come to depend on government programs such as Social Security, Medicare, Medicaid, and unemployment insurance to provide help for those in need. These programs are expensive, and because they are entitlement programs, they require funding each year.

ANALYZE GRAPHS

1. When did the largest deficit occur and about how much was it? The largest surplus?
2. How would the trends shown on this graph affect the national debt?
Raising Money for Deficit Spending

When the federal government does not receive enough revenue from taxes to finance its spending, it can borrow money to expand the economy. In effect, the government pays for its present needs by borrowing money that it will have to repay at some future date. It does this by issuing government bonds, through the Department of the Treasury.

Perhaps the best known type of bond issued by the government is the savings bond. Savings bonds mature in 20 years and are available in both small and large denominations—from $25 up to $10,000. The Department of the Treasury issues three other types of bonds. **Treasury bills** (T bills) are short-term bonds that mature in less than one year. **Treasury notes** are bonds that mature between two and ten years. And finally, **Treasury bonds** are issued for 30 years. Interest is paid on all these bonds, with higher interest rates sometimes being paid on instruments with longer maturity dates.

Individuals, state and local governments, insurance companies, pension funds, financial institutions, the Federal Reserve banks, and foreign investors hold these bonds. Figure 15.9 shows the percentage of federal debt held by different types of investors. A trend in recent years has been an increase in the percentage of the federal debt owned by foreign investors. Most foreign investors in U.S. Treasury bonds are the central banks of other countries. Japan and China hold the largest amount of foreign investors’ share of the debt.

**QUICK REFERENCE**

- **Treasury bills** mature in less than one year.
- **Treasury notes** mature between two and ten years.
- **Treasury bonds** mature in 30 years.

**ANALYZE GRAPHS**

1. What percentage of the federal debt is owed to U.S. investors? What percentage is owed to foreign investors?
2. How do savings bonds compare to other government bonds as a form of government borrowing?

**APPLICATION Drawing Conclusions**

**A.** Why do all levels of government often struggle to achieve balanced budgets or budget surpluses?
The National Debt

**KEY CONCEPTS**

As you have seen, the national debt consists of the total accumulation of government deficits and surpluses over time. The money is owed to savers for the bonds they purchase and the interest paid on them. However, the actual debt situation is somewhat more complicated. The government also borrows from **trust funds**, which are funds being held for specific purposes to be expended at a future date. Examples of government trust funds include Social Security, Medicare, Medicaid, and government pension funds. When the trust funds accumulate surpluses by taking in more tax revenue than is needed for annual benefit payments, the surplus is invested in government bonds until the specific programs need the funds. In essence, therefore, the government borrows from itself to cover some deficit spending.

Some economists do not consider this to truly be debt. The money is transferred from one part of the government to another. This borrowing does not place a burden on the current economy because the current budget is not used to pay for it.

**The Size of the National Debt**

In August 2006, the total national debt was about $8.4 trillion. About $4.8 trillion was privately owned by the creditors shown in Figure 15.9, and about $3.6 trillion was in government trust funds.

There were only five years from 1962 to 2005 in which the federal government had a surplus of funds. In all the other years of that period, the government borrowed money to cover its deficits. Each time it borrowed money, it increased the size of the national debt. From 1980 to 1994 alone, the national debt grew by more than five times, from about $930 billion in 1980 to about $4.7 trillion in 1994.

Economists often look at the country’s debt as a percentage of GDP. That perspective allows them to see how the burden of borrowing compares to the strength of the overall economy. The national debt was 33 percent of GDP in 1981. By 2006, it had doubled to nearly 68 percent of GDP. However, in 1981 about 80 percent of the debt was privately owned. In 2006, less than 60 percent was privately owned.
The Effect of the Debt on the Economy

The national debt can have positive or negative effects on the economy. When government spending stimulates the economy, jobs are created and public goods such as the infrastructure may be improved. These improvements benefit everyone. However, when the government competes with the private sector to raise money by paying higher interest rates to get the savers’ dollars, the results often are negative. The crowding-out effect is what happens when the government outbids private bond interest rates to gain loanable funds. Money leaves the private sector, and interest rates increase.

Repaying the interest on government bonds, or servicing the debt, also can have a negative impact on the economy. The 2007 federal budget estimate showed interest payments to be nearly 10 percent of all federal spending. Constant borrowing raises the amount of interest to be paid. This, in turn, increases the need for taxes to service the debt. Higher taxes mean less spending by consumers and less investment by businesses, both of which may hurt the economy.

Attempts To Control Deficits and Debt

Sharp increases in deficits and the debt in the 1980s led government officials to look for ways to control deficit spending. (These efforts are summarized in Figure 15.10 above.) One measure set annual deficit targets with the goal of eliminating the deficit completely within five years. Another set limits on discretionary spending and mandated that new spending required cuts elsewhere in the budget, an approach known as “pay-as-you-go” financing. A third attempted to trim the deficit with a combination of tax increases and spending cuts. Still another sought to balance the budget through spending cuts in entitlement programs. Some of these measures failed, and deficits actually increased. Others enjoyed only limited success. As a result, the government continues to struggle to control the national debt.

APPLICATION Making Inferences

B. Why is paying interest on the national debt considered mandatory spending?
1. Explain the difference between the terms in each of these pairs.
   a. budget surplus
   b. national debt
   c. Treasury bills
      budget deficit
      deficit spending
      Treasury bonds

2. How do budget deficits affect the national debt? Why?

3. What do Treasury bills, Treasury notes, and Treasury bonds have in common?

4. Why is government borrowing from trust funds different from privately-owned debt?

5. How is the crowding-out effect related to the national debt?

6. Using Your Notes What are the four causes of budget deficits? Refer to your completed chart.
   Use the Graphic Organizer at Interactive Review @ ClassZone.com

7. Applying Economic Concepts In 2007, the federal government was expected to have tax revenue of $2,350.8 billion. Total federal spending was estimated at $2,592.1 billion. Would the government have a budget deficit or a budget surplus that year? How much would it be?

8. Analyzing Causes Each of the following headlines reflects an example of deficit spending. Which of the causes of budget deficits is suggested by each headline?
   a. President Proposes Tax Cut Extensions to Keep Economy on Track
   b. Baby Boomers’ Retirement Will Strain Social Security and Medicare
   c. Hurricane Recovery Effort to Require Massive Federal Aid

9. Analyzing Data Assume that the privately-owned part of the debt is $4,900 billion and the amount held by government trust funds is $3,500 billion. Use the percentages shown in Figure 15.9 to calculate the dollar amounts held by different creditors.

10. Challenge The Social Security Administration estimates that annual revenue from payroll taxes will be insufficient to meet annual benefit payments beginning in 2018. The Social Security trust fund will be used to make up the difference. How will this change affect the nature of the national debt?
Is the Federal Deficit Too Large?

**Background** The federal deficit is a matter of interest not only to economists but also to the average American, because it is the taxpayer who ultimately pays the interest on the country’s debt. This debt was created by pursuing a policy of deficit spending that requires the government to borrow money to make up the difference between how much it takes in and the amount it spends.

There are several reasons for using deficit spending. One major reason is the need to deal with national emergencies, such as the September 11 terrorist attacks or natural disasters like Hurricane Katrina. Another is to implement expansionary fiscal policies during periods of recession. Regardless of the reasons for deficit spending, the larger the deficit grows, the more controversial it becomes.

**What’s the issue?** Is the federal deficit too large? Study these sources offering various opinions regarding what is a manageable federal deficit.

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**Federal Budget Deficit Sparks Worries**

**Higher Borrowing Costs Could Slow Economic Activity**

. . . Here’s the worry: Persistent deficits will lead to higher borrowing costs for consumers and companies, slowing economic activity. As Uncle Sam seeks to borrow . . . to finance those deficits, rates on Treasury securities would rise to entice investors. That would push up other interest rates, such as home mortgages, many auto loans, some home equity lines of credit and some credit cards. . . . For businesses, rates on corporate bonds would climb. It would become more expensive to borrow to pay for new plants and equipment and other capital investments.

Economists are troubled by the prospects of budget deficits as far as the eye can see and want to see them trimmed. But the size of the current budget deficits, while unwelcome, do not signal that a crisis is imminent. . . .

[But] there is more concern about higher borrowing costs over time crimping business investment and ultimately the production of goods and services. . . .


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**Thinking Economically** What negative impact of deficit spending is discussed in this article?
THINKING ECONOMICALLY  Synthesizing

1. Identify the economic cause-and-effect relationships described in Documents A and C.
2. How does Document B illustrate the challenge facing the Bush administration in its efforts to carry out the plan discussed in Document C?
3. Do you think the Bush administration shares the concerns about the deficit expressed in Document A? Use information from the documents to explain your answer.
Choose the key concept that best completes the sentence. Not all key concepts will be used.

1. automatic stabilizers
2. fiscal policy
3. budget deficit
4. budget surplus
5. contractionary fiscal policy
6. Council of Economic Advisers
7. crowding-out effect
8. deficit spending
demand-side fiscal policy
9. discretionary fiscal policy
expansionary fiscal policy

1. fiscal policy is the government’s use of taxes and government spending to affect the economy. 2. budget deficit is a plan to stimulate a weak economy. 3. budget surplus is a plan to slow the economy when it is expanding too rapidly. 4. deficit spending refers to actions chosen by the government to stabilize the economy. Public transfer payments and progressive income taxes are examples of 5. automatic stabilizers.

6. Laffer Curve is the idea that aggregate demand needed to be stimulated by government action. It forms the basis of 7. national debt. The 8. spending multiplier effect means that small changes in income cause a larger change in spending. 9. Keynesian economics is fiscal policy that provides incentives to producers to increase aggregate supply. The 10. national debt illustrates how tax cuts affect tax revenues and economic growth. 11. Laffer Curve occurs when the government takes in more than it spends. When it spends more than it takes in 12. crowding-out effect occurs. The 13. national debt is the total amount of money owed to federal bondholders. The 14. Treasury bills results when the government outbids private bond interest rates.

What Is Fiscal Policy? (pp. 446–453)
1. What is the difference between expansionary fiscal policy and contractionary fiscal policy?
2. How do automatic stabilizers avoid the limitations that affect discretionary fiscal policy?

Demand-Side and Supply-Side Policies (pp. 454–461)
3. Why does Keynesian economics advocate government spending during a recession?
4. What economic problems does supply-side economics try to address simultaneously?

Deficits and the National Debt (pp. 462–469)
5. How does government finance deficit spending?
6. How does deficit spending contribute to the national debt?

APPLYING ECONOMIC CONCEPTS

Look at the bar graph below showing national debt as a percentage of GDP in several countries.

7. Which European countries on this graph have lower ratios of debt to GDP than the United States?
8. How does U.S. debt compare to Japan’s debt as a percentage of GDP?

Source: OECD Factbook 2005
9. **Analyzing Cause and Effect**  In early 2001, the federal budget had shown surpluses for the previous three fiscal years and was predicted to continue to do so. The President and Congress thought the best thing to do was to return some of the surplus to taxpayers through tax cuts. How would supply-side economics describe the expected outcome of these tax cuts?

10. **Applying Economic Concepts**  Suppose that you got a better job that increased your take-home pay each week from $250 to $300. Assume that you spent 80 percent of that increase. Give specific examples to show how your spending would create a multiplier effect.

11. **Drawing Conclusions**  Recessions in 1990–1991 and in 2001 lasted about eight months each and were relatively mild in their effects on the overall economy. Why would policy lags limit the effectiveness of discretionary fiscal policy in bringing the country out of such recessions?

12. **Making Inferences**  Between 1998 and 2001, the annual federal budgets showed surpluses, and the amount of national debt held by the public decreased by about $450 billion, yet the total federal debt grew by about $400 billion during that same time period. What do you think accounts for this difference?

13. **Challenge**  In 1997, some members of Congress proposed a constitutional amendment that would require the federal budget to be balanced each year. Opponents argued that such an amendment would make recessions worse by requiring the government to use contractionary fiscal policy during such times. Why would a balanced budget require that kind of fiscal policy?

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**SIMULATION**

**Advise the President**

**Step 1**  Form a team with two other students. Imagine that you are the Council of Economic Advisers whose job is to advise the president on the best fiscal policy to use in different economic situations. The current state of the economy is indicated by the following facts:

- **a.** The unemployment rate has risen from 4.5 percent to 6 percent.
- **b.** Automobile dealers, home improvement stores, and computer retailers have noted that their sales have dropped off sharply from the previous year.
- **c.** Fewer houses and commercial buildings are being built.

Decide whether an expansionary or contractionary fiscal policy is needed.

**Step 2**  Develop some specific government spending and taxation recommendations to follow through with your decision in Step 1. Think about what kinds of federal spending you would increase or decrease and what kinds of taxes you would cut or increase to achieve your objectives.

**Step 3**  Some economic indicators have improved. However, the unemployment rate has not changed, and high energy costs have led to rapid increases in the Consumer Price Index. In light of this new information, recommend changes in fiscal policy to solve these problems.

**Step 4**  The economy seems to be back on track. However, annual budget deficits are getting larger each year, and there is concern about the growing national debt. Recommend some ways to control deficit spending without harming the economy.

**Step 5**  Present your policy suggestions to the rest of the class. As a class, discuss the differences and similarities among the plans offered by various groups.