GLOBAL EDITION

Economics

Principles, Applications, and Tools

NINTH EDITION

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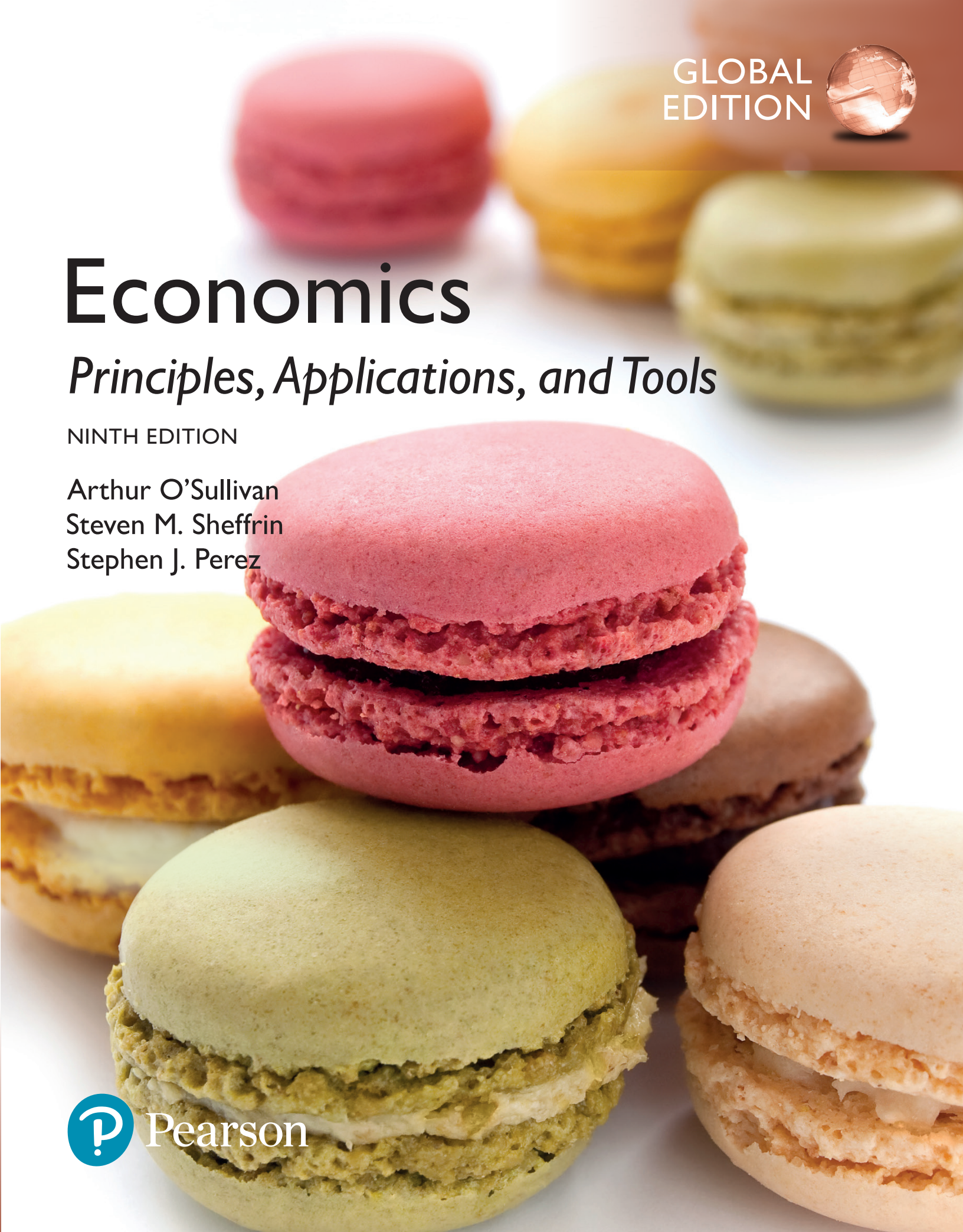

Pearson

Economics

PRINCIPLES, APPLICATIONS, AND TOOLS

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3.6 **What Caused This Recession?** Suppose the economy goes into a recession. The political party in power blames it on an increase in the price of world oil and food. Opposing politicians blame a tax increase that the party in power had enacted. On the basis of aggregate demand and aggregate supply analysis, what evidence should you look at to try to determine what, or who, caused the recession? (Hint: Look at the behavior of both prices and output in each case.) (Related to Application 2 on page 221.)

3.7 **Reducing Investment Spending.** In early 2015 after the decline in oil prices, major U.S. oil companies announced that they planned to cut back their investment spending for at least several years. Explain their reasoning. Draw a picture to illustrate the effects on aggregate demand. (Related to Application 3 on page 225.)

3.8 **Slower Growth in China.** In 2014 China decided to cut back on its economic growth in order to prevent imbalances from occurring in their economy. How did China's actions affect aggregate demand in the rest of the world?

3.9 **Long-Run Effects of a Shock to Demand.** Suppose consumption spending rose quickly and then fell back to its normal level. What do you think would be the long-run effect on real GDP of this temporary shock? (Related to Application 2 on page 221.)

From the Short Run to the Long Run

Explain how the short-run aggregate supply curve shifts over time.

4.1 Suppose the supply of money increases, causing output to exceed full employment. Prices will _____ and real GDP will _____ in the short run, and prices will _____ and real GDP will _____ in the long run.

4.2 Consider a decrease in the supply of money that causes output to fall short of full employment. Prices will _____ and real GDP will _____ in the short run, and prices will _____ and real GDP will _____ in the long run.

4.3 In a recession, real GDP is _____ potential GDP. This implies that unemployment is _____ the natural rate, driving wages _____. This results in a(n) shift of the short-run aggregate supply curve.

4.4 When output falls below full employment output, we expect that the wages and prices _____ (increase/decrease) as short run aggregate supply curve shifts _____ (upward/downward) over time.

4.5 **The Internet Crashes.** Suppose that computer hackers managed to crash the Internet in the United States for a week and no one had computer access. Explain why this might be considered a negative supply shock.

4.6 **Shifts in Aggregate Demand and Cost-Push Inflation.** When wages rise and the short-run aggregate supply curve shifts up, the result is "cost-push" inflation. If the economy was initially at full employment and the aggregate demand curve was shifted to the right, explain how "cost-push" inflation would result as the economy adjusts back to full employment.

4.7 **Removing the Restriction on Oil Exports.** Under U.S. law, it is not legal for firms to export crude oil from domestic wells. Assuming the U.S. has now developed a large oil-producing industry, how would removing the export restriction affect aggregate demand? Who do you think might benefit from the export ban?

Fiscal Policy

CHAPTER
10

Economists generally believe that permanent tax cuts will stimulate the economy and lead to higher output, but disagree about why this happens.

Some advocates for tax cuts stress how they lead to increases in spending and aggregate demand. Others suggest that the main effect comes from changes in incentives and aggregate supply.

Can we tell which view is correct by looking back at U.S. fiscal history? The tax cuts proposed by President John F. Kennedy and enacted after his death are typically viewed as triumphs of the aggregate demand view. Kennedy's economic advisers believed that tax cuts worked through changing aggregate demand. On the other hand, President Ronald Reagan is famously known for his "supply-side" economics. His economic advisers placed great emphasis on how cutting tax rates would create a better economic climate through improved economic incentives.

But the economic policy world is not that simple. Kennedy's tax cuts included incentives to increase aggregate supply, including cutting the top income tax rate and providing specific tax incentives for business investments. While Reagan's tax cuts lowered tax rates for everyone, they also directly increased household incomes, which led to more spending. A careful look at actual policies suggests that tax cuts are always a mixture of demand and supply elements.

Today, proponents of permanent tax cuts typically cite *both* the Kennedy and Reagan administrations as evidence that tax cuts work, regardless of their own view. By associating themselves with past successes, proponents of tax cuts hope to benefit from the favorable glow of history.

CHAPTER OUTLINE AND LEARNING OBJECTIVES

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When the U.S. economy began to slow in late 2007 and early 2008, it was not long before policymakers and politicians from both major parties were calling for government action to combat the downturn. Common prescriptions included increasing government spending or reducing taxes, although specific recommendations differed sharply among those making them. Even after the recession ended and the slow recovery began, there were still some calls for additional action to stimulate the economy.

fiscal policy
Changes in government taxes and spending that affect the level of GDP.

In this chapter, we study how governments can use **fiscal policy**—changes in taxes and spending that affect the level of GDP—to stabilize the economy. We explore the logic of fiscal policy and explain why changes in government spending and taxation can, in principle, stabilize the economy. However, stabilizing the economy is much easier in theory than in actual practice, as we will see.

The chapter also provides an overview of spending and taxation by the federal government. These are essentially the tools the government uses to implement its fiscal policies. We examine the federal deficit and begin to explore the controversies surrounding deficit spending.

One of the best ways to really understand fiscal policy is to see it in action. In the last part of the chapter, we trace the history of U.S. fiscal policy from the Great Depression in the 1930s to the present. As you will see, the public's attitude toward government fiscal policy has not been constant but has instead changed over time.

Learning Objective 10.1
Explain how fiscal policy works using aggregate demand and aggregate supply.

The Role of Fiscal Policy

In the last chapter, we discussed how output and prices are determined where the aggregate demand curve intersects the short-run aggregate supply curve. In this section, we explore how the government can shift the aggregate demand curve.

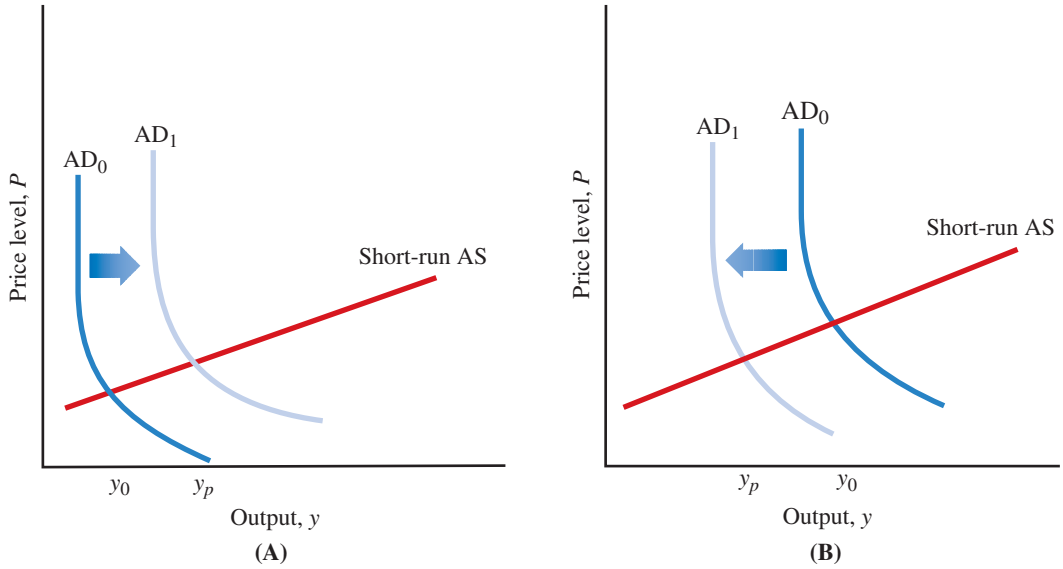
Fiscal Policy and Aggregate Demand

As we discussed in the last chapter, government spending and taxes can affect the level of aggregate demand. Increases in government spending or decreases in taxes will increase aggregate demand and shift the aggregate demand curve to the right. Decreases in government spending or increases in taxes will decrease aggregate demand and shift the aggregate demand curve to the left.

Why do changes in government spending or taxes shift the aggregate demand curve? Recall from our discussion in the last chapter that aggregate demand consists of four components: consumption spending, investment spending, government purchases, and net exports. These four components are the four parts of aggregate demand. Thus, increases in government purchases directly increase aggregate demand because they are a component of aggregate demand. Decreases in government purchases directly decrease aggregate demand.

Changes in taxes affect aggregate demand indirectly. For example, if the government lowers taxes consumers pay, consumers will have more income at their disposal and will increase their consumption spending. Because consumption spending is a component of aggregate demand, aggregate demand will increase as well. Increases in taxes will have the opposite effect. Consumers will have less income at their disposal and will decrease their consumption spending. As a result, aggregate demand will decrease. Changes in taxes can also affect businesses and lead to changes in investment spending. Suppose, for example, that the government cuts taxes in such a way as to provide incentives for new investment spending by businesses. Because investment spending is a component of aggregate demand, the increase in investment spending will increase aggregate demand.

In Panel A of Figure 10.1 we show a simple example of fiscal policy in action. The economy is initially operating at a level of GDP, y_0, where the aggregate demand curve AD_0 intersects the short-run aggregate supply curve AS. This level of output is below the level of full employment or potential output, y_p. To increase the level of output,



▲ **FIGURE 10.1** Fiscal Policy in Action

Panel A shows that an increase in government spending shifts the aggregate demand curve from AD_0 to AD_1, restoring the economy to full employment. This is an example of expansionary policy. Panel B shows that an increase in taxes shifts the aggregate demand curve to the left, from AD_0 to AD_1, restoring the economy to full employment. This is an example of contractionary policy.

the government can increase government spending—say, on military goods—which will shift the aggregate demand curve to the right, to AD_1. Now the new aggregate demand curve intersects the aggregate supply curve at the full-employment level of output. Alternatively, instead of increasing its spending, the government could reduce taxes on consumers and businesses. This would also shift the aggregate demand curve to the right. Government policies that increase aggregate demand are called **expansionary policies**. Increasing government spending and cutting taxes are examples of expansionary policies.

expansionary policies
Government policy actions that lead to increases in aggregate demand.

The government can also use fiscal policy to decrease GDP if the economy is operating at too high a level of output, which would lead to an overheating economy and rising prices. In Panel B of Figure 10.1, the economy is initially operating at a level of output, y_0, that exceeds full-employment output, y_p. An increase in taxes can shift the aggregate demand curve from AD_0 to AD_1. This shift will bring the economy back to full employment.

Alternatively, the government could cut its spending to move the aggregate demand curve to the left. Government policies that decrease aggregate demand are called **contractionary policies**. Decreasing government spending and increasing taxes are examples of contractionary policies.

contractionary policies
Government policy actions that lead to decreases in aggregate demand.

Both examples illustrate how policymakers use fiscal policy to stabilize the economy. In these two simple examples, fiscal policy seems very straightforward. But as we will soon see, in practice it is more difficult to implement effective policy.

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The Fiscal Multiplier

Let's recall the multiplier we developed in the last chapter. The idea is that the final shift in the aggregate demand curve will be larger than the initial increase. For example, if government purchases increased by $10 billion, that would initially shift the aggregate demand curve to the right by $10 billion. However, the total shift in the aggregate demand curve will be larger, say, $15 billion. Conversely, a decrease in purchases by $10 billion may cause a total shift of the aggregate demand curve to the left by $15 billion.

This multiplier effect occurs because an initial change in output will affect the income of households and thus change consumer spending. For example, an increase in government spending of $10 billion will initially raise household incomes by $10 billion and lead to increases in consumer spending. As we discussed in the last chapter, the precise amount of the increase will depend on the marginal propensity to consume and other factors. In turn, the increase in consumer spending will raise output and income further, leading to further increases in consumer spending. The multiplier takes all these effects into account.

As the government develops policies to stabilize the economy, it needs to take the multiplier into account. The total shift in aggregate demand will be larger than the initial shift. As we will see later in this chapter, U.S. policymakers have taken the multiplier into account as they have developed policies for the economy. MyLab Economics Concept Check

The Limits to Stabilization Policy

We've seen that the government can use fiscal policy—changes in the level of taxes or government spending—to alter the level of GDP. If the current level of GDP is below full employment or potential output, the government can use expansionary policies, such as tax cuts and increased spending, to raise the level of GDP and reduce unemployment.

stabilization policies
Policy actions taken to move the economy closer to full employment or potential output.

Both expansionary and contractionary policies are examples of **stabilization policies**, actions to move the economy closer to full employment or potential output.

It is very difficult to implement stabilization policies for two big reasons. First, there are lags, or delays, in stabilization policy. Lags arise because decision makers are often slow to recognize and respond to changes in the economy, and fiscal policies and other stabilization policies take time to operate. Second, economists simply do not know enough about all aspects of the economy to be completely accurate in all their forecasts. Although economists have made great progress in understanding the economy, the difficulties of forecasting the precise behavior of human beings, who can change their minds or sometimes act irrationally, place limits on our forecasting ability.

LAGS Poorly timed policies can magnify economic fluctuations. Suppose that (1) GDP is currently below full employment but will return to full employment on its own within 1 year, and that (2) stabilization policies take a full year to become effective. If policymakers tried to expand the economy today, their actions would not take effect until a year from now. One year from now, the economy would normally be back at full employment by itself. But if stabilization policies were enacted, 1 year from now the economy would be stimulated unnecessarily, and output would exceed full employment.

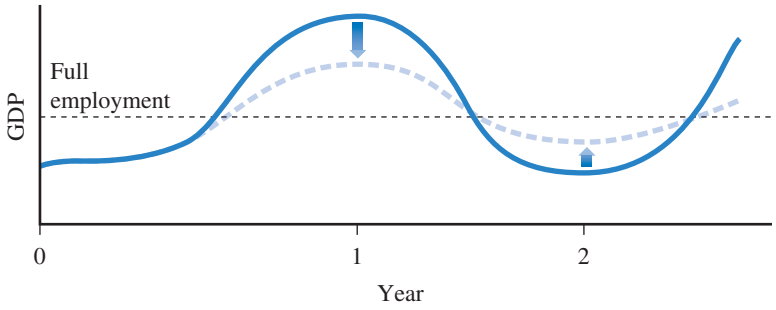
Figure 10.2 illustrates the problem caused by lags. Panel A shows an example of successful stabilization policy. The solid line represents the behavior of GDP in the absence of policies. Successful stabilization policies can dampen, that is, reduce in magnitude, economic fluctuations, lowering output when it exceeds full employment and raising output when it falls below full employment. This would be easy to accomplish if there were no lags in policy. The dashed curve shows how successful policies can reduce economic fluctuations.

Panel B shows the consequences of ill-timed policies. Again, assume that policies take a year before they are effective. At the start of year 0, the economy is below potential. If policymakers engaged in expansionary policies at the start of year 1, the change would not take effect until the end of year 1. This would raise output even higher above full employment. Ill-timed stabilization policies can magnify economic fluctuations.

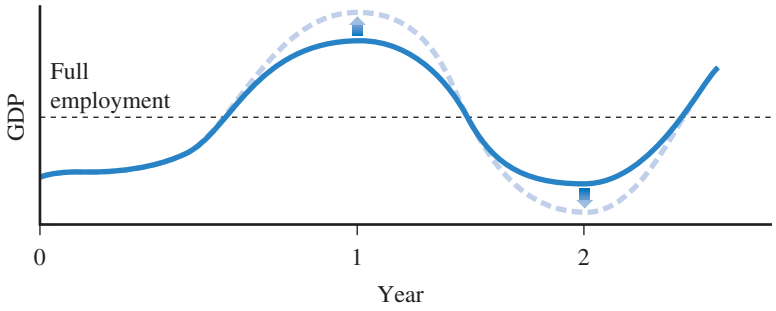
inside lags
The time it takes to formulate a policy.

outside lags
The time it takes for the policy to actually work.

Where do the lags in policy come from? Economists recognize two broad classes of lags: *inside lags* and *outside lags*. **Inside lags** refer to the time it takes to formulate a policy. **Outside lags** refer to the time it takes for the policy to actually work. To help you understand inside and outside lags, imagine that you are steering a large ocean liner and you are looking out for possible collisions with hidden icebergs. The time it takes you to spot an iceberg, communicate this information to the crew, and initiate the



(A) Successful stabilization policy can dampen fluctuations.



(B) Ill-timed policies can magnify fluctuations.

▲ **FIGURE 10.2** Possible Pitfalls in Stabilization Policy

Panel A shows an example of successful stabilization policy. The solid line represents the behavior of GDP in the absence of policies. The dashed line shows the behavior of GDP when policies are in place. Successfully timed policies help smooth out economic fluctuations. Panel B shows the consequences of ill-timed policies. Again, the solid line shows GDP in the absence of policies and the dashed line shows GDP with policies in place. Notice how ill-timed policies make economic fluctuations greater.

process of changing course is the inside lag. Because ocean liners are large and have lots of momentum, it will take a long time before your ocean liner begins to turn; this time is the outside lag.

Inside lags occur for two basic reasons. One is that it takes time to identify and recognize a problem. For example, the data available to policymakers may be poor and conflicting. Some economic indicators may look fine, but others may cause concern. It often takes several months to a year before it is clear that there is a serious problem with the economy.

A good example of an inside lag occurred at the beginning of the Great Depression. Although the stock market crashed in October 1929, we know from newspaper and magazine accounts that business leaders were not particularly worried about the economy for some time. Not until late in 1930 did the public begin to recognize the severity of the depression.

The other reason for inside lags is that once a problem has been diagnosed, it still takes time before the government can take action. This delay is most severe for fiscal policy because any changes in taxes or spending must be approved by both houses of Congress and by the president. In recent years, political opponents have been preoccupied with disagreements about the size of the government and the role it should play in the economy, making it difficult to reach a consensus on action in a timely manner.

For example, soon after he was inaugurated in 1993, President Bill Clinton proposed an expansionary stimulus package as part of his overall budget plan. The package contained a variety of spending programs designed to increase the level of GDP and avert a recession. However, the plan was attacked as wasteful and unnecessary, and it did not survive. As it turned out, the stimulus package was not necessary—the economy