CHAPTER

36

Six Debates over Macroeconomic Policy

It is hard to open up the newspaper without finding some politician or editorial writer advocating a change in economic policy. The president should raise taxes to reduce the budget deficit, or he should stop worrying about the budget deficit. The Federal Reserve should cut interest rates to stimulate a flagging economy, or it should avoid such moves in order not to risk higher inflation. Congress should reform the tax system to promote faster economic growth, or it should reform the tax system to achieve a more equal distribution of income. Such economic issues are central to the continuing political debate in the United States and other countries around the world.

Previous chapters have developed the tools that economists use to analyze the behavior of the economy as a whole and the impact of policies on the economy. This final chapter considers six classic questions about macroeconomic policy. Economists have long debated these questions, and they will likely continue to do so for years to come. The knowledge you

have accumulated in this course provides the foundation upon which we can discuss these important, unsettled issues. It should help you choose a side in these debates or, at least, help you see why choosing a side is so difficult.

36-1 Should Monetary and Fiscal Policymakers Try to Stabilize the Economy?

In the preceding three chapters, we saw how changes in aggregate demand and aggregate supply can lead to short-run fluctuations in production and employment. We also saw how monetary and fiscal policy can shift aggregate demand and, thereby, influence these fluctuations. But even if policymakers *can* influence short-run economic fluctuations, does that mean they *should?* Our first debate concerns whether monetary and fiscal policymakers should use the tools at their disposal in an attempt to smooth the ups and downs of the business cycle.

36-1a Pro: Policymakers Should Try to Stabilize the Economy

Left on their own, economies tend to fluctuate. When households and firms become pessimistic, for instance, they cut back on spending, and this reduces the aggregate demand for goods and services. The fall in aggregate demand, in turn, reduces the production of goods and services. Firms lay off workers, and the unemployment rate rises. Real GDP and other measures of income fall. Rising unemployment and falling income help confirm the pessimism that initially generated the economic downturn.

Such a recession has no benefit for society—it represents a sheer waste of resources. Workers who lose their jobs because of declining aggregate demand would rather be working. Business owners whose factories are idle during a recession would rather be producing valuable goods and services and selling them at a profit.

There is no reason for society to suffer through the booms and busts of the business cycle. The development of macroeconomic theory has shown policymakers how to reduce the severity of economic fluctuations. By "leaning against the wind" of economic change, monetary and fiscal policy can stabilize aggregate demand and, thereby, production and employment. When aggregate demand is inadequate to ensure full employment, policymakers should boost government spending, cut taxes, and expand the money supply. When aggregate demand is excessive, risking higher inflation, policymakers should cut government spending, raise taxes, and reduce the money supply. Such policy actions put macroeconomic theory to its best use by leading to a more stable economy, which benefits everyone.

36-1b Con: Policymakers Should Not Try to Stabilize the Economy

Monetary and fiscal policy can be used to stabilize the economy in theory, but there are substantial obstacles to the use of such policies in practice.

One problem is that monetary and fiscal policy do not affect the economy immediately but instead work with a long lag. Monetary policy affects aggregate demand primarily by changing interest rates, which in turn affect spending, particularly residential and business investment. But many households and firms set their spending plans in advance. As a result, it takes time for changes in interest rates to alter the aggregate demand for goods and services. Many studies

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indicate that changes in monetary policy have little effect on aggregate demand until about six months after the change is made.

Fiscal policy works with a lag because of the long political process that governs changes in spending and taxes. To make any change in fiscal policy, a bill must go through congressional committees, pass both the House and the Senate, and be signed by the president. It can take years to propose, pass, and implement a major change in fiscal policy.

Because of these long lags, policymakers who want to stabilize the economy need to look ahead to economic conditions that are likely to prevail when their actions will take effect. Unfortunately, economic forecasting is highly imprecise, in part because macroeconomics is such a primitive science and in part because the shocks that cause economic fluctuations are intrinsically unpredictable. Thus, when policymakers change monetary or fiscal policy, they must rely on educated guesses about future economic conditions.

Too often, policymakers trying to stabilize the economy end up having the opposite effect. Economic conditions can easily change between the time a policy action begins and the time it takes effect. Because of this, policymakers can inadvertently exacerbate rather than mitigate the magnitude of economic fluctuations. Some economists have claimed that many of the major economic fluctuations in history, including the Great Depression of the 1930s, can be traced to destabilizing policy actions.

One of the first rules taught to physicians is "do no harm." The human body has natural restorative powers. Confronted with a sick patient and an uncertain diagnosis, often a doctor should do nothing but leave the patient's body to its own devices. Intervening in the absence of reliable knowledge merely risks making matters worse.

The same can be said about treating an ailing economy. It might be desirable if policymakers could eliminate all economic fluctuations, but that is not a realistic goal given the limits of macroeconomic knowledge and the inherent unpredictability of world events. Economic policymakers should refrain from intervening often with monetary and fiscal policy and be content if they do no harm.

Quick Quiz *Explain why monetary and fiscal policy work with a lag. Why do these lags matter in the choice between active and passive policy?*

IN THE NEWS

How Long Will the Fed Keep Interest Rates at Zero?

In the aftermath of the financial crisis of 2008–2009, the Federal Reserve reduced its target for the federal funds rate to about zero, where it remained as this book was going to press in 2013. This article discusses the Fed's policy.

In Defense of the Fed's New Interest-Rate Policy

By Frederic S. Mishkin and Michael Woodford

At the most recent meeting of its Federal Open Market Committee, the Federal Reserve broke new ground by announcing the explicit criteria it would use to begin raising its target for the federal-funds rate. The FOMC said it will keep the rate near zero as long as the unemployment rate remains above 6.5%, and the inflation rate one to two years ahead is projected to be no higher than 2.5%.

The Fed's increased clarity about its intentions is highly desirable. This is especially so now, when the current funds-rate target cannot be further lowered, yet aggregate demand remains insufficient. A commitment not to raise rates in the future as soon as might have been expected is an obvious way the FOMC can loosen current financial conditions. Yet the new approach has downsides that the Fed needs to address.

Providing policy criteria to the public is a significant improvement over the Fed's previous guidance to markets—in which the FOMC stated that near-zero rates were "likely to be warranted at least through mid-2015." Pledging to keep rates unchanged for more than two years, regardless of what happens in the meantime, would be reckless—and of course was not what the central bank intended. But date-based guidance runs the risk that announcement of a distant date will be taken to indicate that the Fed has pessimistic information about the economy's future prospects. This gives households and firms a reason to sit on their cash rather than spend or invest it—which will hold the economy back.

Still, the Fed's new approach has invited confusion about its longer-run policy

36-2 Should the Government Fight Recessions with Spending Hikes Rather Than Tax Cuts?

When George W. Bush became president in 2001, the economy was slipping into a recession. He responded by cutting tax rates. When Barack Obama became president in 2009, the economy was again in recession, the worst in many decades. He responded with a stimulus package that offered some tax reductions but also included substantial increases in government spending. The contrast between these two policies illustrates a second classic question of macroeconomics: Which instrument of fiscal policy—government spending or taxes—is better for reducing the severity of economic downturns?

36-2a Pro: The Government Should Fight Recessions with Spending Hikes

John Maynard Keynes transformed economics when he wrote *The General Theory of Employment, Interest and Money* in the midst of the Great Depression of the 1930s, the worst economic downturn in U.S. history. Since then, economists have understood that the fundamental problem during recessions is inadequate aggregate demand. When firms are unable to sell a sufficient quantity of targets. Many have read the FOMC statement as an important departure from the policy framework codified as recently as January 2012: The Fed is now taken to have a numerical target for unemployment alongside its inflation target, and the inflation target appears to have increased from 2% to 2.5%.

In fact, the Fed stated in its Jan. 25, 2012 policy statement that it would not be appropriate to specify a fixed goal for employment, because the maximum level of sustainable employment is difficult to estimate and is not something that can be controlled by the Federal Reserve.

This is a very important clarification. The central bank needs to reiterate that it does not have a "target" unemployment rate and is not determined to achieve a specific unemployment rate regardless of the amount of monetary stimulus required to reach it. That type of overreaching ended badly in the 1970s, with rising inflation and unemployment.

The Fed also needs to clarify that the threshold of 2.5% for the inflation rate in no way suggests that it is weakening its commitment to its long-run inflation target of 2%. It would be dangerous to weaken this commitment, as it would lead to a permanent ratcheting up of inflationary expectations and inflation.

Instead, the Fed's new approach is a temporary policy to keep interest rates low for longer, to make up for the inadequate nominal GDP growth that has occurred since 2008. Once the nominal GDP growth shortfall has been eliminated, it will be appropriate to again conduct policy much as was done before the crisis. That means ensuring a long-run inflation rate of 2% in terms of the PCE (personal consumption expenditure) deflator, and an average unemployment rate that is consistent with price stability.

It would have been better if the FOMC had explained its temporary policy by describing the size of the nominal growth shortfall that needed to be made up. A stated intention to "catch up" to a particular nominal GDP path would have clarified that how long interest rates will remain low will depend on economic outcomes, while emphasizing the central bank's intention to return to a path consistent with its long-run inflation target.

It is too late to change the way that the FOMC has chosen to talk about the conditions that will determine the duration of the near-zero funds rate. Still, future Fed statements or speeches are needed to clarify the nature of the policy regime toward which the current transitional policy is expected to lead.

Doing so can help reduce the uncertainty about future financial conditions that may otherwise be created by the new communications policy.

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goods and services, they reduce production and employment. The key to ending recessions is to restore aggregate demand to a level consistent with full employment of the economy's labor force.

To be sure, monetary policy is the first line of defense against economic downturns. By increasing the money supply, the central bank reduces interest rates. Lower interest rates in turn reduce the cost of borrowing to finance investment projects, such as new factories and new housing. Increased spending on investment adds to aggregate demand and helps to restore normal levels of production and employment.

Fiscal policy, however, can provide an additional tool to combat recessions. When the government cuts taxes, it increases households' disposable income, which encourages them to increase spending on consumption. When the government buys goods and services, it adds directly to aggregate demand. Moreover, these fiscal actions can have multiplier effects: Higher aggregate demand leads to higher incomes, which in turn induces additional consumer spending and further increases in aggregate demand.

Fiscal policy is particularly useful when the tools of monetary policy lose their effectiveness. During the economic downturn of 2008 and 2009, for example, the Federal Reserve cut its target interest rate to almost zero. The Fed cannot reduce interest rates below zero, because people would hold onto their cash rather than lending it out at a negative interest rate. Thus, once interest rates are at zero, the Fed loses its most powerful tool for stimulating the economy. In this circumstance,

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President Barack Obama delivers remarks at the groundbreaking of a road project funded by the American Recovery and Reinvestment Act, Friday, June 18, 2010, in Columbus, Ohio.

it is natural for the government to turn to fiscal policy—taxes and government spending—to prop up aggregate demand.

Traditional Keynesian analysis indicates that increases in government purchases are a more potent tool than decreases in taxes. When the government gives a dollar in tax cuts to a household, part of that dollar may be saved rather than spent. (That is especially true if households view the tax reduction as temporary rather than permanent.) The part of the dollar that is saved does not contribute to the aggregate demand for goods and services. By contrast, when the government spends a dollar buying a good or service, that dollar immediately and fully adds to aggregate demand.

In 2009, economists in the Obama administration used a conventional macroeconomic model to calculate the magnitude of these effects. According to their computer simulations, each dollar of tax cuts increases GDP by $0.99, whereas each dollar of government purchases increases GDP by $1.59. Thus, increases in government spending offer a bigger "bang for the buck" than decreases in taxes. For this reason, the policy response in 2009 featured fewer federal tax cuts and more increases in federal spending.

Policymakers focused on three kinds of spending. First, there was spending on "shovel-ready" projects. These were public works projects such as repairs to highways and bridges on which construction could begin immediately, putting the unemployed back to work. Second, there was federal aid to state and local governments. Because many of these governments are constitutionally required to run balanced budgets, falling tax revenues during recessions can make it necessary for them to lay off teachers, police, and other public workers; federal aid prevented that outcome or, at least, reduced its severity. Third, there were increased payments to the jobless through the unemployment insurance system. Because the unemployed are often financially stretched, they were thought to be likely to spend rather than save this extra income. Thus, these transfer payments were thought to contribute more to aggregate demand—and thereby production and employment—than tax cuts would. According to the macroeconomic model used by the Obama administration, the $800 billion stimulus package would create or save more than 3 million jobs by the end of the president's second year in office.

It is impossible to know for sure what effect the stimulus in fact had. Because we get only one run at history, we cannot observe the counterfactual—what would have happened without the stimulus package. One thing is clear: While the economic downturn of 2008–2009 was severe, it could have been worse. In the Great Depression of the 1930s, real GDP fell by 27 percent and unemployment reached 25 percent. In the recent recession, real GDP fell by only 4 percent and unemployment reached only 10 percent. As judged by either GDP or unemployment, the downturn of 2008–2009 did not approach the magnitude of the Great Depression.

36-2b Con: The Government Should Fight Recessions with Tax Cuts

There is a long tradition of using tax policy to stimulate a moribund economy. President Kennedy proposed a tax reduction as one of his major economic initiatives; it eventually passed under President Johnson in 1964. President Reagan also signed into law significant tax cuts when he became president in 1981. Both of these tax reductions were soon followed by robust economic growth.

Tax cuts have a powerful influence on both aggregate demand and aggregate supply. They increase aggregate demand by increasing households' disposable income, as emphasized in traditional Keynesian analysis. But they can also increase aggregate demand by altering incentives. For example, if the tax reductions take the form of an expanded investment tax credit, they can induce increased spending on investment goods. Because investment spending is the most volatile component of GDP over the business cycle, stimulating investment is a key to ending recessions. Policymakers can target investment specifically with well-designed tax policy.

At the same time that tax cuts increase aggregate demand, they can also increase aggregate supply. When the government reduces marginal tax rates, workers keep a higher fraction of any income they earn. As a result, the unemployed have a greater incentive to search for jobs, and the employed have a greater incentive to work longer hours. Increased aggregate supply, along with the increased aggregate demand, means that the production of goods and services can expand without putting upward pressure on the rate of inflation.

There are various problems with increasing government spending during recessions. First of all, consumers understand that higher government spending, together with the government borrowing needed to finance it, will likely lead to higher taxes in the future. The anticipation of those future taxes will induce consumers to cut back spending today. Moreover, like most taxes, those in the future will likely cause a variety of deadweight losses. As businesses look ahead to a more highly distorted future economy, they may reduce their expectations of future profits and reduce investment spending today. Because of these various effects, government-spending multipliers may be smaller than is conventionally believed.

It is also far from clear whether the government can spend money both wisely and quickly. Large government spending projects often require years of planning, as policymakers and voters weigh the costs and benefits of the many alternative courses of action. By contrast, when unemployment soars during recessions, the need for additional aggregate demand is immediate. If the government increases spending quickly, it may end up buying things of little public value. But if it tries to be careful and deliberate in planning its expenditures, it may fail to increase aggregate demand in a timely fashion.

Tax cuts have the advantage of decentralizing spending decisions, rather than relying on a centralized and highly imperfect political process. Households spend their disposable income on things they value. Firms spend their investment dollars on projects they expect to be profitable. By contrast, when the government tries to spend large sums of money fast, subject to various political pressures, it may end up building "bridges to nowhere." Ill-conceived public projects may employ some workers, but they create little lasting value. Moreover, they will leave future generations of taxpayers with significant additional debts. In the end, the short-run benefits of additional aggregate demand from increased government spending may fail to compensate for the long-run costs.

Quick Quiz *According to traditional Keynesian analysis, which has a larger impact on GDP—a dollar of tax cuts or a dollar of additional government spending? Why?*

36-3 Should Monetary Policy Be Made by Rule Rather Than by Discretion?

As we learned in the chapter on the monetary system, the Federal Open Market Committee (FOMC) sets monetary policy in the United States. The committee meets about every six weeks to evaluate the state of the economy. Based on this evaluation and forecasts of future economic conditions, it chooses whether to raise, lower, or leave unchanged the level of short-term interest rates. The Fed then adjusts the money supply to reach that interest-rate target, which will normally remain unchanged until the next meeting.

The FOMC operates with almost complete discretion over how to conduct monetary policy. The laws that created the Fed give the institution only vague recommendations about what goals it should pursue. A 1977 amendment to the 1913 Federal Reserve Act said the Fed "shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates." But the act does not specify how to weight these various goals, nor does it tell the Fed how to pursue whatever objective it might choose.

Some economists are critical of this institutional design. Our third debate over macroeconomic policy, therefore, focuses on whether the Fed should have its discretionary powers reduced and, instead, be committed to following a rule for how it conducts monetary policy.

36-3a Pro: Monetary Policy Should Be Made by Rule

Discretion in the conduct of monetary policy has two problems. The first is that it does not limit incompetence and abuse of power. When the government sends police into a community to maintain civic order, it gives them strict guidelines about how to carry out their job. Because police have great power, allowing them to exercise that power however they wanted would be dangerous. Yet when the government gives central bankers the authority to maintain economic order, it gives them few guidelines. Monetary policymakers are allowed undisciplined discretion.

One example of the abuse of power is that central bankers are sometimes tempted to use monetary policy to affect the outcome of elections. Suppose that the vote for the incumbent president is based on economic conditions at the time he is up for reelection. A central banker sympathetic to the incumbent might be tempted to pursue expansionary policies just before the election to stimulate production and employment, knowing that the resulting inflation will not show up until after the election. Thus, to the extent that central bankers ally themselves with politicians, discretionary policy can lead to economic fluctuations that reflect the electoral calendar. Economists call such fluctuations the *political business cycle*.

The second, subtler problem with discretionary monetary policy is that it might lead to more inflation than is desirable. Central bankers, knowing that there is no long-run trade-off between inflation and unemployment, often announce that their goal is zero inflation. Yet they rarely achieve price stability. Why? Perhaps it is because, once the public forms expectations of inflation, policymakers face a short-run trade-off between inflation and unemployment. They are tempted to renege on their announcement of price stability to achieve lower unemployment. This discrepancy between announcements (what policymakers *say* they are going to do) and actions (what they subsequently in fact do) is called the *time inconsistency of policy*. Because policymakers are so often time inconsistent, people are skeptical when central bankers announce their intentions to reduce the rate of inflation. As a result, people always expect more inflation than monetary policymakers claim they are trying to achieve. Higher expectations of inflation, in turn, shift the short-run Phillips curve upward, making the short-run trade-off between inflation and unemployment less favorable than it otherwise might be.

One way to avoid these two problems with discretionary policy is to commit the central bank to a policy rule. For example, suppose that Congress passed a law requiring the Fed to increase the money supply by exactly 3 percent per year. (Why 3 percent? Because real GDP grows on average about 3 percent per year and because money demand grows with real GDP, 3 percent growth in the money supply is roughly the rate necessary to produce long-run price stability.) Such a law would eliminate incompetence and abuse of power on the part of the Fed, and it would make the political business cycle impossible. In addition, policy could no longer be time inconsistent. People would now believe the Fed's announcement of low inflation because the Fed would be legally required to pursue a low-inflation monetary policy. With low expected inflation, the economy would face a more favorable short-run trade-off between inflation and unemployment.

Other rules for monetary policy are also possible. A more active rule might allow some feedback from the state of the economy to changes in monetary policy. For example, a more active rule might require the Fed to increase monetary growth by 1 percentage point for every percentage point that unemployment rises above its natural rate. Regardless of the precise form of the rule, committing the Fed to some rule would yield advantages by limiting incompetence, abuse of power, and time inconsistency in the conduct of monetary policy.

36-3b Con: Monetary Policy Should Not Be Made by Rule

There may be pitfalls with discretionary monetary policy, but there is also an important advantage to it: flexibility. The Fed has to confront various circumstances, not all of which can be foreseen. In the 1930s, banks failed in record numbers. In the 1970s, the price of oil skyrocketed around the world. In October 1987, the stock market fell by 22 percent in a single day. From 2007 to 2009, house prices dropped, home foreclosures soared, and the financial system experienced significant problems. The Fed must decide how to respond to these shocks to the economy. A designer of a policy rule could not possibly consider all the contingencies and specify in advance the right policy response. It is better to appoint good people to conduct monetary policy and then give them the freedom to do the best they can.

Moreover, the alleged problems with discretion are largely hypothetical. The practical importance of the political business cycle, for instance, is far from clear. In some cases, just the opposite seems to occur. For example, President Jimmy Carter appointed Paul Volcker to head the Fed in 1979. Nonetheless, in October of that year, Volcker switched to a contractionary monetary policy to combat the high rate of inflation that he had inherited from his predecessor. The predictable result of Volcker's decision was a recession, and the predictable result of the recession was a decline in Carter's popularity. Rather than using monetary policy to help the president who had appointed him, Volcker took actions he thought were in the national interest, even though they helped to ensure Carter's defeat by Ronald Reagan in the November 1980 election.

The practical importance of time inconsistency is also far from clear. Although most people are skeptical of central-bank announcements, central bankers can achieve credibility over time by backing up their words with actions. In the 1990s and 2000s, the Fed achieved and maintained a low rate of inflation, despite the

FYI

Inflation Targeting

Over the past few decades, many central banks around the world have adopted a policy called *inflation targeting*. Sometimes this takes the form of a central bank announcing its intentions regarding the inflation rate over the next few years. At other times it takes the form of a national law that specifies an inflation goal for the central bank.

Inflation targeting is not a commitment to an ironclad rule. In all the countries that have adopted inflation targeting, central banks are left with a fair amount of discretion. Inflation targets are usually set as a range—an inflation rate of 1 to 3 percent, for example—rather than a particular number. Thus, the central bank can choose where in the range it wants to be. Moreover, the central bank is sometimes allowed to adjust its target for inflation, at least temporarily, if some event (such as a shock to world oil prices) pushes inflation outside the target range.

Although inflation targeting leaves the central bank with some discretion, the policy does constrain how that discretion is used. When a central bank is told simply to "do the right thing," it is hard to hold the central bank accountable, because people can argue forever about what is right. By contrast, when a central bank has an inflation target, the public can more easily judge whether the central bank is meeting its goals. Inflation targeting does not tie the hands of the central bank, but it does increase the transparency and accountability of monetary policy. In a sense, inflation targeting is a compromise in the debate over rules versus discretion.

Compared with other central banks around the world, the Federal Reserve was slow to adopt a policy of inflation targeting, although some commentators had long suggested that the Fed had an implicit inflation target of about 2 percent. In January 2012, the Federal Open Market Committee made the policy more explicit. Its press release read as follows:

> *The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. Communicating this inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances.*

ever-present temptation to take advantage of the short-run trade-off between inflation and unemployment. This experience shows that low inflation does not require that the Fed be committed to a policy rule.

Any attempt to replace discretion with a rule must confront the difficult task of specifying a precise rule. Despite much research examining the costs and benefits of alternative rules, economists have not reached consensus about what a good rule would be. Until there is consensus, society has little choice but to give central bankers discretion to conduct monetary policy as they see fit.

Quick Quiz *Give an example of a monetary policy rule. Why might your rule be better than discretionary policy? Why might it be worse?*

36-4 Should the Central Bank Aim for Zero Inflation?

One of the *Ten Principles of Economics* discussed in Chapter 1, and developed more fully in the chapter on money growth and inflation, is that prices rise when the government prints too much money. Another of the *Ten Principles of Economics* discussed in Chapter 1, and developed more fully in the preceding chapter, is that society faces a short-run trade-off between inflation and unemployment. Put together, these two principles raise a question for policymakers: How much inflation should the central bank be willing to tolerate? Our fourth debate is whether zero is the right target for the inflation rate.

36-4a Pro: The Central Bank Should Aim for Zero Inflation

Inflation confers no benefit on society, but it imposes several real costs. As we have discussed, economists have identified six costs of inflation:

- Shoeleather costs associated with reduced money holdings
- Menu costs associated with more frequent adjustment of prices
- Increased variability of relative prices
- Unintended changes in tax liabilities due to nonindexation of the tax code
- Confusion and inconvenience resulting from a changing unit of account
- Arbitrary redistributions of wealth associated with dollar-denominated debts

Some economists argue that these costs are small, at least for moderate rates of inflation, such as the 3 percent inflation experienced in the United States during the 1990s and 2000s. But other economists claim these costs can be substantial, even for moderate inflation. Moreover, there is no doubt that the public dislikes inflation. When inflation heats up, opinion polls identify inflation as one of the nation's leading problems.

The benefits of zero inflation have to be weighed against the costs of achieving it. Reducing inflation usually requires a period of high unemployment and low output, as illustrated by the short-run Phillips curve. But this disinflationary recession is only temporary. Once people come to understand that policymakers are aiming for zero inflation, expectations of inflation will fall and the short-run trade-off will improve. Because expectations adjust, there is no trade-off between inflation and unemployment in the long run.

Reducing inflation is, therefore, a policy with temporary costs and permanent benefits. Once the disinflationary recession is over, the benefits of zero inflation persist into the future. If policymakers are farsighted, they should be willing to incur the temporary costs for the permanent benefits. This was precisely the calculation made by Paul Volcker in the early 1980s, when he tightened monetary policy and reduced inflation from about 10 percent in 1980 to about 4 percent in 1983. Although in 1982 unemployment reached its highest level since the Great Depression, the economy eventually recovered from the recession, leaving a legacy of low inflation. Today, Volcker is considered a hero among central bankers.

Moreover, the costs of reducing inflation need not be as large as some economists claim. If the Fed announces a credible commitment to zero inflation, it can directly influence expectations of inflation. Such a change in expectations can improve the short-run trade-off between inflation and unemployment, allowing the economy to reach lower inflation at a reduced cost. The key to this strategy is credibility: People must believe that the Fed is actually going to carry through on its announced policy. Congress could help in this regard by passing legislation that makes price stability the Fed's primary goal. Such a law would decrease the cost of achieving zero inflation without reducing any of the resulting benefits.

One advantage of a zero-inflation target is that zero provides a more natural focal point for policymakers than any other number. Suppose, for instance, that the Fed were to announce that it would keep inflation at 3 percent—the rate experienced during much of the previous two decades. Would the Fed really stick to that 3 percent target? If events inadvertently pushed inflation up to 4 or 5 percent, why wouldn't it just raise the target? There is, after all, nothing special about the number 3. By contrast, zero is the only number for the inflation rate at which the Fed can claim that it has achieved price stability and fully eliminated the costs of inflation.

36-4b Con: The Central Bank Should Not Aim for Zero Inflation

Price stability may be desirable, but the benefits of zero inflation compared to moderate inflation are small, whereas the costs of reaching zero inflation are large. Estimates of the sacrifice ratio suggest that reducing inflation by 1 percentage point requires giving up about 5 percent of one year's output. Reducing inflation from, say, 4 percent to zero requires a loss of 20 percent of a year's output. People might dislike inflation of 4 percent, but it is not at all clear that they would (or should) be willing to pay 20 percent of a year's income to get rid of it.

The social costs of disinflation are even larger than this 20 percent figure suggests, for the lost income is not spread equitably over the population. When the economy goes into recession, all incomes do not fall proportionately. Instead, the fall in aggregate income is concentrated on those workers who lose their jobs. The vulnerable workers are often those with the least skills and experience. Hence, much of the cost of reducing inflation is borne by those who can least afford to pay it.

Economists can list several costs of inflation, but there is no professional consensus that these costs are substantial. The shoeleather costs, menu costs, and others that economists have identified do not seem great, at least for moderate rates of inflation. It is true that the public dislikes inflation, but the public may be misled into believing the inflation fallacy—the view that inflation erodes living standards. Economists understand that living standards depend on productivity, not monetary policy. Because inflation in nominal incomes goes hand in hand with inflation in prices, reducing inflation would not cause real incomes to rise more rapidly.

Moreover, policymakers can reduce many of the costs of inflation without actually reducing inflation. They can eliminate the problems associated with the nonindexed tax system by rewriting the tax laws to take account of the effects of inflation. They can also reduce the arbitrary redistributions of wealth between creditors and debtors caused by unexpected inflation by issuing indexed government bonds, as in fact the Clinton administration did in 1997. Such an act insulates holders of government debt from inflation. In addition, by setting an example, the policy might encourage private borrowers and lenders to write debt contracts indexed for inflation.

Reducing inflation might be desirable if it could be done at no cost, as some economists argue is possible. Yet this trick seems hard to carry out in practice. When economies reduce their rate of inflation, they almost always experience a period of high unemployment and low output. It is risky to believe that the central bank could achieve credibility so quickly as to make disinflation painless.

Indeed, a disinflationary recession can potentially leave permanent scars on the economy. Firms in all industries reduce their spending on new plants and equipment substantially during recessions, making investment the most volatile component of GDP. Even after the recession is over, the smaller stock of capital reduces productivity, incomes, and living standards below the levels they otherwise would have achieved. In addition, when workers become unemployed in recessions, they lose job skills, permanently reducing their value as workers.

A little bit of inflation may even be a good thing. Some economists believe that inflation "greases the wheels" of the labor market. Because workers resist cuts in nominal wages, a fall in real wages is more easily accomplished with a rising price level. Inflation thus makes it easier for real wages to adjust to changes in labor market conditions.

IN THE NEWS

What Is the Optimal Inflation Rate?

In the aftermath of the financial crisis and recession of 2008–2009, economists started wondering whether higher inflation might be desirable.

Low-Inflation Doctrine Gets a Rethink, But Shift Is Unlikely

By Jon Hilsenrath

For the past quarter century, inflation has been a bogeyman that eats wealth and causes instability. But lately some smart people—including the chief economist at the International Monetary Fund and a senior Federal Reserve researcher—have been wondering aloud if a little more of it might actually be a good thing.

For several reasons, however, the idea isn't likely to gain traction any time soon.

The new argument for inflation goes like this: Low inflation and the low interest rates that accompany it leave central banks little room to maneuver when shocks hit. After Lehman Brothers collapsed in 2008, for example, the U.S. Federal Reserve quickly cut interest rates to near zero, but couldn't go any lower even though the economy needed a lot more stimulus.

Economists call this the "zero bound" problem. If inflation were a little higher to begin with, and thus interest rates were a little higher, the argument goes, the Fed would have had more room to cut interest rates and provide more juice to the economy.

Right now, the Fed and other big central banks have their sights set on inflation of around 2%. Economists had used a "Three Bears" approach to come up with this number—for a long time it seemed like it was not too hot and not too cold. But low and stable inflation could in theory mean something steady at a slightly higher rate.

IMF chief economist Olivier Blanchard, in a recent paper, said maybe the U.S. central bank's future inflation goal should be 4% instead. John Williams, head of the San Francisco Fed's research department, argued last year that higher targets might be needed to provide a cushion for future crises. . . .

There are other reasons some would welcome a little more inflation now. Governments in the U.S. and elsewhere, and many U.S. households, are sitting on mountains of debt. A little more inflation could in theory reduce the burden of servicing and paying that off, because while debt payments are often fixed, the revenue and income that households and governments generate to pay it off would rise with inflation.

But there are problems with the welcome-more-inflation argument.

The first is that it isn't yet clear that the "zero bound" on interest rates that Mr. Blanchard worries about is the economy's biggest problem. Thus addressing it might not be worth the costs that would be associated with higher inflation.

After the Fed pushed interest rates to near zero in December 2008, Chairman Ben Bernanke found alternatives to more interest-rate cuts: buying mortgage-backed securities and Treasury bonds and funneling credit to auto-loan, student-loan and credit-card markets. Those additional steps were no panacea, but they helped end the recession even if they didn't produce growth fast enough to bring unemployment down quickly. . . .

There is also a thornier problem. Suppose for a moment that Mr. Blanchard is right, and central banks around the world would be better prepared to fight future crises with a little higher inflation. Getting from 2% to 4% could be a very messy process. Investors, businesses and households might well conclude a one-time shift to a higher inflation target actually means less commitment to stable inflation. Expectations of higher inflation could become a self-fulfilling prophecy. Instead of getting 4% inflation, central banks could end up with 5%, or 6% or 7%.

A higher inflation goal "would have a fairly immediate and disruptive effect" on markets, said Bruce Kasman, chief economist at J.P. Morgan Chase.

Mr. Bernanke has acknowledged the allure of a higher inflation goal. In written answers to lawmakers in December, he said a higher inflation target could in theory make it possible for the Fed to push inflation-adjusted interest rates lower, stimulating borrowing and economic growth.

But the opposite could happen, too. The prospect of higher inflation could cause interest rates to shoot up and make the burden of future borrowing even heavier. This is a particular problem for countries, like the U.S., that issue a lot of short-term debt and for people with adjustable-rate mortgages.

Mr. Bernanke concluded he didn't want to mess with people's fragile expectations. He said switching to a higher target would risk causing "the public to lose confidence in the central bank's willingness to resist further upward shifts in inflation, and so undermine the effectiveness of monetary policy going forward."

The 2% inflation goal that is so popular with central bankers around the world might not have been the ideal target in retrospect. But it looks like everybody is tied to it, for better or worse, for the foreseeable future.

In addition, inflation allows for the possibility of negative real interest rates. Nominal interest rates can never fall below zero, because lenders can always hold on to their money rather than lending it out at a negative return. If inflation is zero, real interest rates can also never be negative. However, if inflation is positive, then a cut in nominal interest rates below the inflation rate produces negative real interest rates. Sometimes the economy may need negative real interest rates to provide sufficient stimulus to aggregate demand—an option ruled out by zero inflation.

In light of all these arguments, why should policymakers put the economy through a costly and inequitable disinflationary recession to achieve zero inflation? Economist Alan Blinder, who was once vice chairman of the Fed, argued in his book *Hard Heads, Soft Hearts* that policymakers should not make this choice:

> The costs that attend the low and moderate inflation rates experienced in the United States and in other industrial countries appear to be quite modest—more like a bad cold than a cancer on society. . . . As rational individuals, we do not volunteer for a lobotomy to cure a head cold. Yet, as a collectivity, we routinely prescribe the economic equivalent of lobotomy (high unemployment) as a cure for the inflationary cold.

Blinder concludes that it is better to learn to live with moderate inflation.

Quick Quiz *Explain the costs and benefits of reducing inflation to zero. Which are temporary and which are permanent?*

36-5 Should the Government Balance Its Budget?

A persistent macroeconomic debate concerns the government's finances. Whenever the government spends more than it collects in tax revenue, it covers this budget deficit by issuing government debt. In our study of financial markets, we saw how budget deficits affect saving, investment, and interest rates. But how big a problem are budget deficits? Our fifth debate concerns whether fiscal policymakers should make balancing the government's budget a high priority.

36-5a Pro: The Government Should Balance Its Budget

The U.S. federal government is far more indebted today than it was three decades ago. In 1980, the federal debt was $712 billion; in 2012, it was $11.3 trillion. If we divide today's debt by the size of the population, we learn that each person's share of the government debt is about $36,000.

The most direct effect of the government debt is to place a burden on future generations of taxpayers. When these debts and accumulated interest come due, future taxpayers will face a difficult choice. They can choose some combination of higher taxes and less government spending to make resources available to pay off the debt and accumulated interest. Or, instead, they can delay the day of reckoning and put the government into even deeper debt by borrowing once again to pay off the old debt and interest. In essence, when the government runs a budget deficit and issues government debt, it allows current taxpayers to pass the bill for some of their government spending on to future taxpayers. Inheriting such a large debt cannot help but lower the living standard of future generations.

In addition to this direct effect, budget deficits have various macroeconomic effects. Because budget deficits represent *negative* public saving, they lower national saving (the sum of private and public saving). Reduced national saving causes real interest rates to rise and investment to fall. Reduced investment leads over time to a smaller stock of capital. A lower capital stock reduces labor productivity, real wages, and the economy's production of goods and services. Thus, when the government increases its debt, future generations are born into an economy with lower incomes as well as higher taxes.

ANA BLAZIC PAVLOVIC/SHUTTERSTOCK.COM

"What?!? My share of the government debt is $36,000?"

There are, nevertheless, situations in which running a budget deficit is justifiable. Throughout history, the most common cause of increased government debt has been war. When a military conflict raises government spending temporarily, it is reasonable to finance this extra spending by borrowing. Otherwise, taxes during wartime would have to rise precipitously. Such high tax rates would greatly distort the incentives faced by those who are taxed, leading to large deadweight losses. In addition, such high tax rates would be unfair to those generations of taxpayers who already have to make the sacrifice of fighting the war.

Similarly, it is reasonable to allow a budget deficit during a temporary downturn in economic activity. When the economy goes into a recession, tax revenue falls automatically because the income tax and the payroll tax are levied on measures of income. If the government tried to balance its budget during a recession, it would have to raise taxes or cut spending at a time of high unemployment. Such a policy would tend to depress aggregate demand at precisely the time it needed to be stimulated and, therefore, would tend to increase the magnitude of economic fluctuations.

Yet not all budget deficits can be justified as a result of war or recession. U.S. government debt as a percentage of GDP increased from 26 percent in 1980 to 50 percent in 1995. During this period, the United States experienced neither a major military conflict nor a major economic downturn. Yet the government consistently ran a sizable budget deficit, largely because the president and Congress found it easier to increase government spending than to increase taxes.

The budget deficits that the U.S. government has run in recent years can, perhaps, be rationalized by the wars in Iraq and Afghanistan and the effects of the recessions in 2001 and 2008–2009. But it is imperative that this deficit not signal a return to the unsustainable fiscal policy of an earlier era. As the economy recovers from the most recent recession and unemployment returns to its natural rate, the government should bring spending in line with tax revenue. Compared to the alternative of ongoing budget deficits, a balanced budget means greater national saving, investment, and economic growth. It means that future college graduates will enter a more prosperous economy.

36-5b Con: The Government Should Not Balance Its Budget

The problem of government debt is often exaggerated. Although the government debt does represent a tax burden on younger generations, it is not large compared to the average person's lifetime income. The debt of the U.S. federal government is about $36,000 per person. A person who works 40 years for $50,000 a year will earn $2 million over his lifetime. His share of the government debt represents less than 2 percent of his lifetime resources.

Moreover, it is misleading to view the effects of budget deficits in isolation. The budget deficit is just one piece of a large picture of how the government chooses to raise and spend money. In making these decisions over fiscal policy, policymakers affect different generations of taxpayers in many ways. The government's budget deficit or surplus should be considered together with these other policies.

For example, suppose the government reduces the budget deficit by cutting spending on public investments, such as education. Does this policy make younger generations better off? The government debt will be smaller when they enter the labor force, which means a smaller tax burden. Yet if they are less educated than they could be, their productivity and incomes will be lower. Many estimates of the return from schooling (the increase in a worker's wage that results from an additional year in school) find that it is quite large. Reducing the budget deficit rather than funding more education spending could, all things considered, make future generations worse off.

Single-minded concern about the budget deficit is also dangerous because it draws attention away from various other policies that redistribute income across generations. For example, in the 1960s and 1970s, the U.S. federal government raised Social Security benefits for the elderly. It financed this higher spending by increasing the payroll tax on the working-age population. This policy redistributed income away from younger generations toward older generations, even though it did not affect the government

IN THE NEWS

What Would an American Fiscal Crisis Look Like?

In recent years, the governments of several European nations have experienced fiscal crises as they have had to cope with ballooning government debt and dwindling investor confidence. Here is what such a crisis might look like in the United States.

It's 2026, and the Debt Is Due

By N. Gregory Mankiw

The following is a presidential address to the nation — to be delivered in March 2026.

My fellow Americans, I come to you today with a heavy heart. We have a crisis on our hands. It is one of our own making. And it is one that leaves us with no good choices.

For many years, our nation's government has lived beyond its means. We have promised ourselves both low taxes and a generous social safety net. But we have not faced the hard reality of budget arithmetic.

The seeds of this crisis were planted long ago, by previous generations. Our parents and grandparents had noble aims. They saw poverty among the elderly and created Social Security. They saw sickness and created Medicare and Medicaid. They saw Americans struggle to afford health insurance and embraced health care reform with subsidies for middle-class families.

But this expansion in government did not come cheap. Government spending has taken up an increasing share of our national income.

Today, most of the large baby-boom generation is retired. They are no longer working and paying taxes, but they are eligible for the many government benefits we offer the elderly.

Our efforts to control health care costs have failed. We must now acknowledge that rising costs are driven largely by technological advances in saving lives. These advances are welcome, but they are expensive nonetheless.

If we had chosen to tax ourselves to pay for this spending, our current problems could have been avoided. But no one likes paying taxes. Taxes not only take money out of our pockets, but they also distort incentives and reduce economic growth. So, instead, we borrowed increasing amounts to pay for these programs.

Yet debt does not avoid hard choices. It only delays them. After last week's events in the bond market, it is clear that further delay is no longer possible. The day of reckoning is here.

This morning, the Treasury Department released a detailed report about the nature of the problem. To put it most simply, the bond market no longer trusts us.

For years, the United States government borrowed on good terms. Investors both at home and abroad were confident that we would honor our debts. They were sure that when the time came, we would do the right thing and bring spending and taxes into line.

But over the last several years, as the ratio of our debt to gross domestic product reached ever-higher levels, investors started getting nervous. They demanded higher interest rates to compensate for the perceived risk. Higher interest rates increased the cost of servicing our debt, adding to the upward pressure on spending. We found ourselves in debt. Thus, the budget deficit is only a small part of the larger issue of how government policy affects the welfare of different generations.

To some extent, forward-looking parents can reverse the adverse effects of government debt. Parents can offset the impact simply by saving and leaving a larger bequest. The bequest would enhance their children's ability to bear the burden of future taxes. Some economists claim that people do in fact behave this way. If this were true, higher private saving by parents would offset the public dissaving of budget deficits; as a result, deficits would not affect the economy. Most economists doubt that parents are so farsighted, but some people probably do act this way, and anyone could. Deficits give people the opportunity to consume at the expense of their children, but deficits do not require them to do so. If the government debt were actually a great problem facing future generations, some parents would help to solve it.

Critics of budget deficits sometimes assert that the government debt cannot continue to rise forever, but in fact, it can. Just as a bank evaluating a loan application

a vicious circle of rising budget deficits and falling investor confidence.

As economists often remind us, crises take longer to arrive than you think, but then they happen much faster than you could have imagined. Last week, when the Treasury tried to auction its most recent issue of government bonds, almost no one was buying. The private market will lend us no more. Our national credit card has been rejected.

So where do we go from here?

Yesterday, I returned from a meeting at the International Monetary Fund in its new headquarters in Beijing. I am pleased to report some good news. I have managed to secure from the I.M.F. a temporary line of credit to help us through this crisis.

This loan comes with some conditions. As your president, I have to be frank: I don't like them, and neither will you. But, under the circumstances, accepting these conditions is our only choice.

We have to cut Social Security immediately, especially for higher-income beneficiaries. Social Security will still keep the elderly out of poverty, but just barely.

We have to limit Medicare and Medicaid. These programs will still provide basic health care, but they will no longer cover many expensive treatments. Individuals will have to pay for these treatments on their own or, sadly, do without.

DAVID KLEIN

We have to cut health insurance subsidies to middle-income families. Health insurance will be less a right of citizenship and more a personal responsibility.

We have to eliminate inessential government functions, like subsidies for farming, ethanol production, public broadcasting, energy conservation and trade promotion.

We will raise taxes on all but the poorest Americans. We will do this primarily by broadening the tax base, eliminating deductions for mortgage interest and state and local taxes. Employer-provided health insurance will hereafter be taxable compensation.

We will increase the gasoline tax by $2 a gallon. This will not only increase revenue, but will also address various social ills, from global climate change to local traffic congestion.

As I have said, these changes are repellant to me. When you elected me, I promised to preserve the social safety net. I assured you that the budget deficit could be fixed by eliminating waste, fraud and abuse, and by increasing taxes on only the richest Americans. But now we have little choice in the matter.

If only we had faced up to this problem a generation ago. The choices then would not have been easy, but they would have been less draconian than the sudden, nonnegotiable demands we now face. Americans would have come to rely less on government and more on themselves, and so would be better prepared today.

What I wouldn't give for a chance to go back and change the past. But what is done is done. Americans have faced hardship and adversity before, and we have triumphed. Working together, we can make the sacrifices it takes so our children and grandchildren will enjoy a more prosperous future.

Source: *New York Times*, March 27, 2011.

would compare a person's debts to his income, we should judge the burden of the government debt relative to the size of the nation's income. Population growth and technological progress cause the total income of the U.S. economy to grow over time. As a result, the nation's ability to pay the interest on the government debt grows over time as well. As long as the government debt grows more slowly than the nation's income, there is nothing to prevent the government debt from growing forever.

Some numbers can put this into perspective. The real output of the U.S. economy grows on average about 3 percent per year. If the inflation rate is 2 percent per year, then nominal income grows at a rate of 5 percent per year. The government debt, therefore, can rise by 5 percent per year without increasing the ratio of debt to income. In 2012, the federal government debt was $11.3 trillion; 5 percent of this figure is $565 billion. As long as the federal budget deficit is smaller than $565 billion, the policy is sustainable.

To be sure, very large budget deficits cannot persist forever. From 2009 to 2012, the federal budget deficit was over $1 trillion every year, but this astonishing number was driven by extraordinary circumstances: a major financial crisis, a deep economic downturn, and the policy responses to these events. No one suggests that a deficit of this magnitude can continue. But zero is the wrong target for fiscal policymakers. As long as the deficit is only moderate in size, there will never be a day of reckoning that forces government borrowing to end or the economy to collapse.

Quick Quiz *Explain how reducing a government budget deficit makes future generations better off. What fiscal policy might improve the lives of future generations more than reducing a government budget deficit?*

36-6 Should the Tax Laws Be Reformed to Encourage Saving?

A nation's standard of living depends on its ability to produce goods and services. This was one of the *Ten Principles of Economics* in Chapter 1. As we saw in the chapter on production and growth, a nation's productive capability, in turn, is determined largely by how much it saves and invests for the future. Our sixth debate is whether policymakers should reform the tax laws to encourage greater saving and investment.

36-6a Pro: The Tax Laws Should Be Reformed to Encourage Saving

A nation's saving rate is a key determinant of its long-run economic prosperity. When the saving rate is higher, more resources are available for investment in new plant and equipment. A larger stock of plant and equipment, in turn, raises labor productivity, wages, and incomes. It is, therefore, no surprise that international data show a strong correlation between national saving rates and measures of economic well-being.

Another of the *Ten Principles of Economics* presented in Chapter 1 is that people respond to incentives. This lesson should apply to people's decisions about how much to save. If a nation's laws make saving attractive, people will save a higher fraction of their incomes, and this higher saving will lead to a more prosperous future.

Unfortunately, the U.S. tax system discourages saving by taxing the return to saving quite heavily. For example, consider a 25-year-old worker who saves $1,000 of his income to have a more comfortable retirement at the age of 70. If he buys a bond that pays an interest rate of 10 percent, the $1,000 will accumulate at the end of 45 years to $72,900 in the absence of taxes on interest. But suppose he faces a marginal tax rate on interest income of 40 percent, which is typical for many workers once federal and state income taxes are added together. In this case, his after-tax interest rate is only 6 percent, and the $1,000 will accumulate at the end of 45 years to only $13,800. That is, accumulated over this long span of time, the tax rate on interest income reduces the benefit of saving $1,000 from $72,900 to $13,800—or by about 80 percent.

The tax code further discourages saving by taxing some forms of capital income twice. Suppose a person uses some of his saving to buy stock in a corporation. When the corporation earns a profit from its capital investments, it first pays tax on this profit in the form of the corporate income tax. If the corporation pays out the rest of the profit to the stockholder in the form of dividends, the stockholder pays tax on this income a second time in the form of the individual income tax. This double taxation substantially reduces the return to the stockholder, thereby reducing the incentive to save.

The tax laws again discourage saving if a person wants to leave his accumulated wealth to his children (or anyone else) rather than consuming it during his lifetime. Parents can bequeath some money to their children tax-free, but if the bequest becomes large, the estate tax rate can be as high as 40 percent. To a large extent, concern about national saving is motivated by a desire to ensure economic prosperity for future generations. It is odd, therefore, that the tax laws discourage the most direct way in which one generation can help the next.

In addition to the tax code, many other policies and institutions in our society reduce the incentive for households to save. Some government benefits, such as welfare and Medicaid, are means-tested; that is, the benefits are reduced for those who in the past have been prudent enough to save some of their income. Colleges and universities grant financial aid as a function of the wealth of the students and their parents. Such a policy is like a tax on wealth and, as such, discourages students and parents from saving.

There are various ways in which the tax code could provide an incentive to save, or at least reduce the disincentive that households now face. Already the tax laws give preferential treatment to some types of retirement saving. When a taxpayer puts income into an Individual Retirement Account (IRA), for instance, that income and the interest it earns are not taxed until the funds are withdrawn at retirement. The tax code gives a similar tax advantage to retirement accounts that go by other names, such as 401(k), 403(b), and profit-sharing plans. There are, however, limits to who is eligible to use these plans and, for those who are eligible, limits on the amount that can be put in them. Moreover, because there are penalties for withdrawal before retirement age, these retirement plans provide little incentive for other types of saving, such as saving to buy a house or pay for college. A small step to encourage greater saving would be to expand the ability of households to use such tax-advantaged savings accounts.

A more comprehensive approach would be to reconsider the entire basis by which the government collects revenue. The centerpiece of the U.S. tax system is the income tax. A dollar earned is taxed the same whether it is spent or saved. An alternative advocated by many economists is a consumption tax. Under a consumption tax, a household pays taxes only on the basis of what it spends. Income that is saved is exempt from taxation until the saving is later withdrawn and spent on consumption goods. In essence, a consumption tax automatically puts all saving into a tax-advantaged savings account, much like an IRA. A switch from income to consumption taxation would greatly increase the incentive to save.

36-6b Con: The Tax Laws Should Not Be Reformed to Encourage Saving

Increasing saving may be desirable, but it is not the only goal of tax policy. Policymakers also must be sure to distribute the tax burden fairly. The problem with proposals to increase the incentive to save is that they increase the tax burden on those who can least afford it.

It is undeniable that high-income households save a greater fraction of their income than low-income households. As a result, any tax change that favors people who save will also tend to favor people with high income. Policies such as tax-advantaged retirement accounts may seem appealing, but they lead to a less egalitarian society. By reducing the tax burden on the wealthy who can take advantage of these accounts, they force the government to raise the tax burden on the poor.

Moreover, tax policies designed to encourage saving may not be effective at achieving that goal. Economic theory does not give a clear prediction about whether a higher rate of return would increase saving. The outcome depends on the relative size of two conflicting forces, called the *substitution effect* and the *income effect*. On the one hand, a higher rate of return raises the benefit of saving: Each dollar saved today produces more consumption in the future. This substitution effect tends to increase saving. On the other hand, a higher rate of return lowers the need for saving: A household has to save less to achieve any target level of consumption in the future. This income effect tends to reduce saving. If the substitution and income effects approximately cancel each other, as some studies suggest, then saving will not change when lower taxation of capital income raises the rate of return.

There are ways to increase national saving other than by giving tax breaks to the rich. National saving is the sum of private and public saving. Instead of trying to alter the tax code to encourage greater private saving, policymakers can simply raise public saving by reducing the budget deficit, perhaps by raising taxes on the wealthy. This offers a direct way of raising national saving and increasing prosperity for future generations.

Indeed, once public saving is taken into account, tax provisions to encourage saving might backfire. Tax changes that reduce the taxation of capital income reduce government revenue and, thereby, lead to a larger budget deficit. To increase national saving, such a change in the tax code must stimulate private saving by more than the decline in public saving. If this is not the case, so-called saving incentives can potentially make matters worse.

Quick Quiz *Give three examples of how our society discourages saving. What are the drawbacks of eliminating these disincentives?*

36-7 Conclusion

This chapter has considered six classic debates over macroeconomic policy. For each, it began with a controversial proposition and then offered the arguments pro and con. If you find it hard to choose a side in these debates, you may find some comfort in the fact that you are not alone. The study of economics does not always make it easy to choose among alternative policies. Indeed, by clarifying the inevitable trade-offs that policymakers face, it can make the choice more difficult.

Difficult choices, however, have no right to seem easy. When you hear politicians or commentators proposing something that sounds too good to be true, it probably is. If they sound like they are offering you a free lunch, you should look for the hidden price tag. Few if any policies come with benefits but no costs. By helping you see through the fog of rhetoric so common in political discourse, the study of economics should make you a better participant in our national debates.

Summary

- Advocates of active monetary and fiscal policy view the economy as inherently unstable and believe that policy can manage aggregate demand to offset the inherent instability. Critics of active monetary and fiscal policy emphasize that policy affects the economy with a lag and that our ability to forecast future economic conditions is poor. As a result, attempts to stabilize the economy can end up being destabilizing.
- Advocates of increased government spending to fight recessions argue that because tax cuts may be saved rather than spent, direct government spending does more to increase aggregate demand, which is key to promoting production and employment. Critics of spending hikes argue that tax cuts can expand both aggregate demand and aggregate supply and that hasty increases in government spending may lead to wasteful public projects.
- Advocates of rules for monetary policy argue that discretionary policy can suffer from incompetence, the abuse of power, and time inconsistency. Critics of rules for monetary policy argue that discretionary policy is more flexible in responding to changing economic circumstances.
- Advocates of a zero-inflation target emphasize that inflation has many costs and few if any benefits. Moreover, the cost of eliminating inflation—depressed output and employment—is only temporary. Even this cost can be reduced if the central bank announces a credible plan to reduce inflation, thereby directly lowering expectations of inflation. Critics of a zero-inflation target claim that moderate inflation imposes only small costs on society, whereas the recession necessary to reduce inflation is quite costly. The critics also point out several ways in which moderate inflation may be helpful to an economy.
- Advocates of a balanced government budget argue that budget deficits impose an unjustifiable burden on future generations by raising their taxes and lowering their incomes. Critics of a balanced government budget argue that the deficit is only one small piece of fiscal policy. Single-minded concern about the budget deficit can obscure the many ways in which policy, including various spending programs, affects different generations.
- Advocates of tax incentives for saving point out that our society discourages saving in many ways, such as by heavily taxing capital income and by reducing benefits for those who have accumulated wealth. They endorse reforming the tax laws to encourage saving, perhaps by switching from an income tax to a consumption tax. Critics of tax incentives for saving argue that many proposed changes to stimulate saving would primarily benefit the wealthy, who do not need a tax break. They also argue that such changes might have only a small effect on private saving. Raising public saving by decreasing the government's budget deficit would provide a more direct and equitable way to increase national saving.

Questions for Review

1. What causes the lags in the effect of monetary and fiscal policy on aggregate demand? What are the implications of these lags for the debate over active versus passive policy?
2. According to traditional Keynesian analysis, why does a tax cut have a smaller effect on GDP than a similarly sized increase in government spending? Why might the opposite be the case?
3. What might motivate a central banker to cause a political business cycle? What does the political business cycle imply for the debate over policy rules?
4. Explain how credibility might affect the cost of reducing inflation.
5. Why are some economists against a target of zero inflation?
6. Explain two ways in which a government budget deficit hurts a future worker.
7. What are two situations in which most economists view a budget deficit as justifiable?
8. Some economists say that the government can continue running a budget deficit forever. How is that possible?
9. Some income from capital is taxed twice. Explain.
10. What adverse effect might be caused by tax incentives to increase saving?

Quick Check Multiple Choice

1. Approximately how long does it take a change in monetary policy to influence aggregate demand?
   a. one month
   b. six months
   c. two years
   d. five years
2. According to traditional Keynesian analysis, which of the following will increase aggregate demand the most?
   a. $100 billion increase in taxation
   b. $100 billion decrease in taxation
   c. $100 billion increase in government spending
   d. $100 billion decrease in government spending

3. Advocates for setting monetary policy by rule rather than discretion often argue that
   a. central bankers with discretion are tempted to renege on their announced commitments to low inflation.
   b. central bankers following a rule will be more responsive to the needs of the political process.
   c. fiscal policy is a much better tool for economic stabilization than is monetary policy.
   d. it is sometimes useful to give the economy a burst of surprise inflation.
4. Which of the following is NOT an argument for maintaining a positive rate of inflation?
   a. It permits real interest rates to be negative.
   b. It allows real wages to fall without cuts in nominal wages.
   c. It increases the variability of relative prices.
   d. It would be costly to reduce inflation to zero.
5. Throughout U.S. history, what has been the most common cause of substantial increases in government debt?
   a. recessions
   b. wars
   c. financial crises
   d. tax cuts
6. Advocates of taxing consumption rather than income argue that
   a. a consumption tax is a better automatic stabilizer.
   b. taxing consumption does not cause any deadweight losses.
   c. the rich consume a higher fraction of income than the poor.
   d. the current tax code discourages people from saving.

Problems and Applications

1. The chapter suggests that the economy, like the human body, has "natural restorative powers."
   a. Illustrate the short-run effect of a fall in aggregate demand using an aggregate-demand/aggregate-supply diagram. What happens to total output, income, and employment?
   b. If the government does not use stabilization policy, what happens to the economy over time? Illustrate this adjustment on your diagram. Does it generally occur in a matter of months or a matter of years?
   c. Do you think the "natural restorative powers" of the economy mean that policymakers should be passive in response to the business cycle?
2. Policymakers who want to stabilize the economy must decide how much to change the money supply, government spending, or taxes. Why is it difficult for policymakers to choose the appropriate strength of their actions?
3. The problem of time inconsistency applies to fiscal policy as well as to monetary policy. Suppose the government announced a reduction in taxes on income from capital investments, like new factories.
   a. If investors believed that capital taxes would remain low, how would the government's action affect the level of investment?
   b. After investors have responded to the announced tax reduction, does the government have an incentive to renege on its policy? Explain.
   c. Given your answer to part (b), would investors believe the government's announcement? What can the government do to increase the credibility of announced policy changes?
   d. Explain why this situation is similar to the time inconsistency problem faced by monetary policymakers.
4. Chapter 2 explains the difference between positive analysis and normative analysis. In the debate about whether the central bank should aim for zero inflation, which areas of disagreement involve positive statements and which involve normative judgments?
5. Why are the benefits of reducing inflation permanent and the costs temporary? Why are the costs of increasing inflation permanent and the benefits temporary? Use Phillips-curve diagrams in your answer.
6. Suppose the federal government cuts taxes and increases spending, raising the budget deficit to 12 percent of GDP. If nominal GDP is rising 5 percent per year, are such budget deficits sustainable forever? Explain. If budget deficits of this size are maintained for 20 years, what is likely to happen to your taxes and your children's taxes in the future? Can you personally do something today to offset this future effect?
7. Explain how each of the following policies redistributes income across generations. Is the redistribution from young to old or from old to young?
   a. an increase in the budget deficit
   b. more generous subsidies for education loans
   c. greater investments in highways and bridges
   d. an increase in Social Security benefits
8. What is the fundamental trade-off that society faces if it chooses to save more? How might the government increase national saving?