

The Damage Done by Recessions and How to Respond

Heather Boushey, *Washington Center for Equitable Growth*

Ryan Nunn, *The Hamilton Project and the Brookings Institution*

Jimmy O'Donnell, *The Hamilton Project*

Jay Shambaugh, *The Hamilton Project, the Brookings Institution, and The George Washington University*

Abstract

From December 2007 to June 2009, the United States experienced the longest and most-severe recession since World War II. Although the Great Recession was particularly damaging, recessions occur frequently and are devastating to workers, families, and the overall economy. Historically, the United States has responded to these downturns with a combination of monetary and fiscal policies, the majority of which are discretionary. In this paper, we discuss some of the concerns about relying too much on discretionary policy, highlighting opportunities to make greater use of automatic fiscal stabilization. Automatic stabilizers are designed to expand during an economic downturn and contract during an expansion—providing timely and temporary fiscal stimulus. This paper assesses the various policy responses available to the federal government and argues that when well designed, automatic stabilizers can be an effective part of the policy tool kit for responding to recessions.

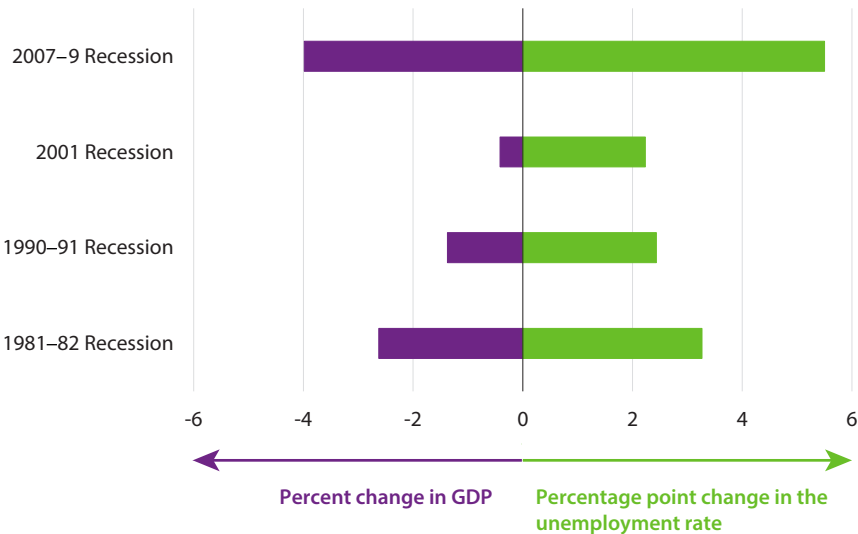
Introduction

Recessions happen frequently—there have been 7 recessions in the last 50 years (National Bureau of Economic Research [NBER] n.d)—and they cause disruption and damage to individuals and communities. The Great Recession of 2007–9 was the most-severe economic downturn since the Great Depression. It did long-term damage to businesses; state, local, and federal budgets; and people's life trajectories. Its effects live on in diminished prosperity for many Americans. In the years since the Great Recession, economists have studied which policy responses worked and which ones did not, and two findings stand out: First, fiscal policy is an important tool to combat a recession; and second, it is crucial to have a quick and effective response to a recession to limit its longest-lasting and most-severe effects.

Recessions cause sizable damage in the short term and lead to millions of lost jobs and hundreds of billions of dollars in lost output. Over the last 4 recessions, as shown in figure 1, the unemployment rate rose 2 to 5 percentage points, leaving millions of workers without jobs. Output also fell on average by about 2 percent (roughly \$400 billion as a share of the current economy).

By several measures, the Great Recession left the labor market in a prolonged period of weakness that lasted many years. In October 2009 the unemployment rate peaked at 10 percent, double the rate in 2007 and a level unmatched since 1983. The unemployment rate did not fall back below 5 percent until late 2016—over seven years after the recession officially ended. The long-term unemployment rate—defined as the fraction of people in the labor force who have been searching for at least 27 weeks—rose well above its December 2007 level of 0.9 percent and its previous high (in June 1983) of 2.6 percent, reaching an April 2010 peak of 4.4 percent. The long-term

FIGURE 1.
Changes in Unemployment and GDP over the Last Four Recessions



Source: Bureau of Economic Analysis (BEA) 1981–2009; Current Population Survey, Bureau of Labor Statistics (BLS) 1981–2009; authors' calculations.

Note: GDP values represent the percent change in real GDP from the peak quarter to the trough quarter surrounding the given recession. Unemployment values represent the percentage-point difference in the seasonally adjusted unemployment rate from the trough quarter to the peak quarter surrounding the given recession. For this reason, the period of percent change may not line up perfectly with the NBER's official recession dates.

unemployment rate did not fall below its prerecession level until March 2018; it currently stands at 0.8 percent (see figure 2).

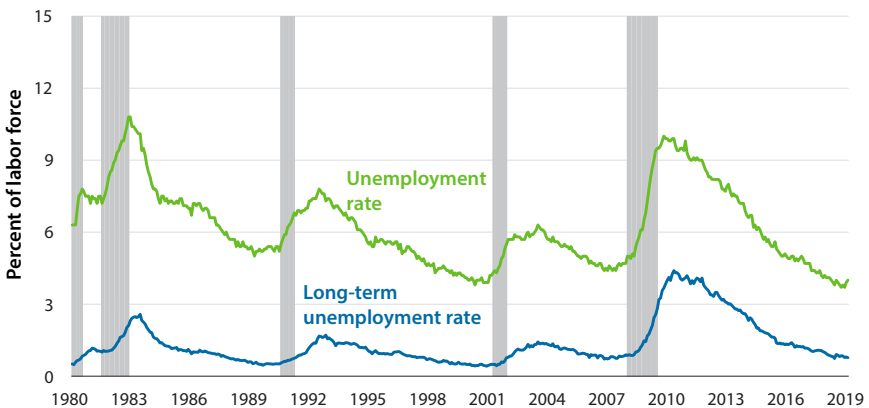
A broader measure of unemployment—which includes those without jobs who are not actively seeking work but who want a job and have searched for one in the past 12 months, and those who are working part time but want a full-time job—peaked at just above 17 percent in late 2009 and early 2010, and remained above 10 percent well into 2015 (Bureau of Labor Statistics [BLS] 2009–15; authors’ calculations).

UNEQUAL EFFECTS OF RECESSIONS

The effects of this broad joblessness impose steep costs on the most-vulnerable individuals. When jobs are harder to come by, they are especially difficult to obtain for workers who face structural disadvantages. Unemployment rates for blacks and Hispanics are higher than for whites in both good and bad economic times, but when a recession strikes, the costs fall even more sharply on minorities. For example, the unemployment rate for blacks tends to be twice the rate for whites, and we can see this in the data: in 2007, the average black unemployment rate was 8.3 percent, more than double the 4.1 percent rate for whites. When the unemployment rate hit its peak of 10 percent in October 2009, white unemployment reached 9.2

FIGURE 2.

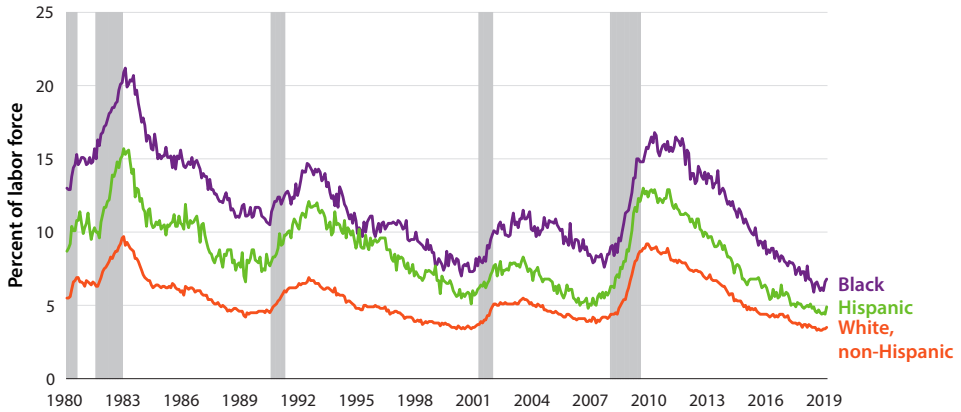
Unemployment and Long-Term Unemployment Rates, 1980–2019



Source: Current Population Survey, BLS 1980–2019; authors’ calculations.

Note: Data are for persons age 16 and over. Long-term unemployed refers to persons who have been unemployed for 27 consecutive weeks or longer. Data are seasonally adjusted. Shaded bars denote recessions.

FIGURE 3.
Unemployment Rates by Race, 1980–2019



Source: Current Population Survey, BLS 1980–2019; authors' calculations.

Note: Data are for persons age 16 and over. Data are seasonally adjusted. Shaded bars denote recessions.

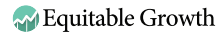
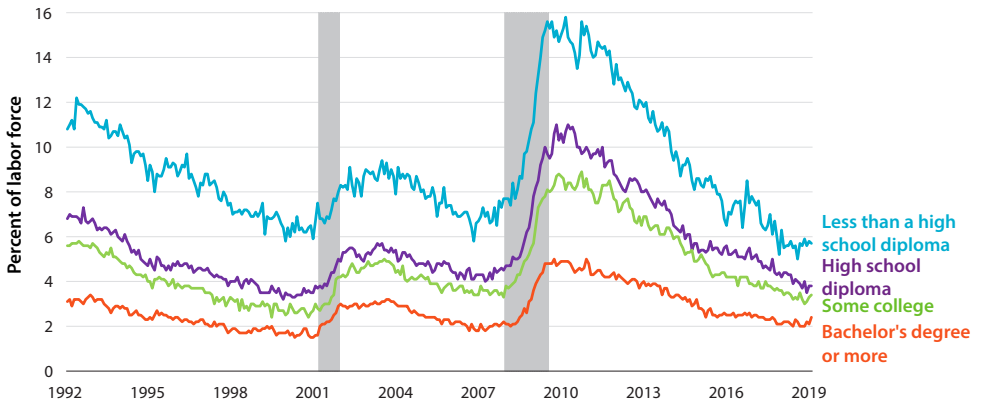


FIGURE 4.
Unemployment Rates by Educational Attainment, 1992–2019



Source: Current Population Survey, BLS 1992–2019; authors' calculations.

Note: Data are for persons age 25 and older. Some college indicates completion of high school and one or more postsecondary courses that did not result in a degree or award beyond an associate degree. Data are seasonally adjusted. Shaded bars denote recessions.



percent while black unemployment hit a shockingly high 15.8 percent (see figure 3).¹

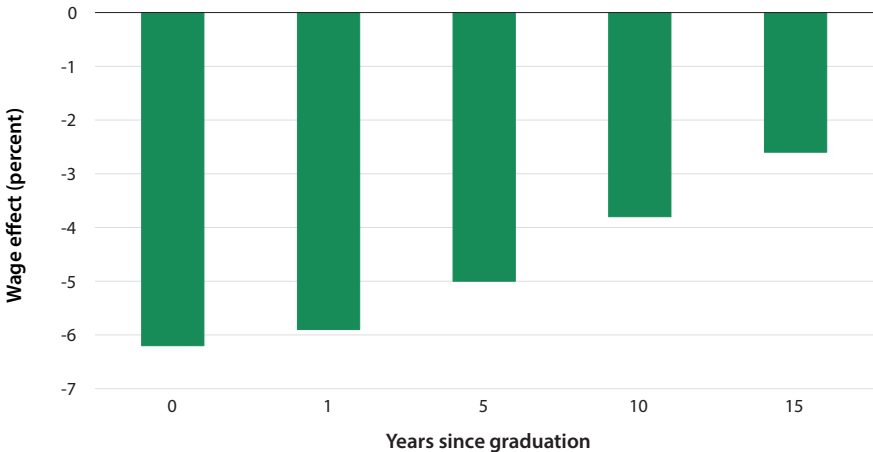
The unemployment gap between the educated and the less educated also widened during the Great Recession (see figure 4). Between 2007 and 2010, the unemployment rate for college graduates rose from 2.0 percent to 4.7 percent. For those with some college experience but not a four-year degree, the unemployment rate rose from 3.6 percent to 8.4 percent. For high school graduates who never attended college, the unemployment rate rose from 4.4 percent to 10.3 percent. And for high school dropouts, the unemployment rate spiked from 7.1 percent to 14.8 percent. The gap in unemployment rates between those with a college degree and those with less than a high school degree rose from 5 to 10 percentage points—evidence that the most vulnerable are most in danger of losing their jobs in a recession.

HARM BEYOND IMMEDIATE JOB LOSSES

Some of the most-compelling evidence for the harm caused by recessions can be found in the experience of those who graduate from college during times of relatively high unemployment (see figure 5; Kahn 2010). These graduates' more-limited job opportunities and lower starting pay indicate

FIGURE 5.

Wages Losses from Graduating College during a Recession



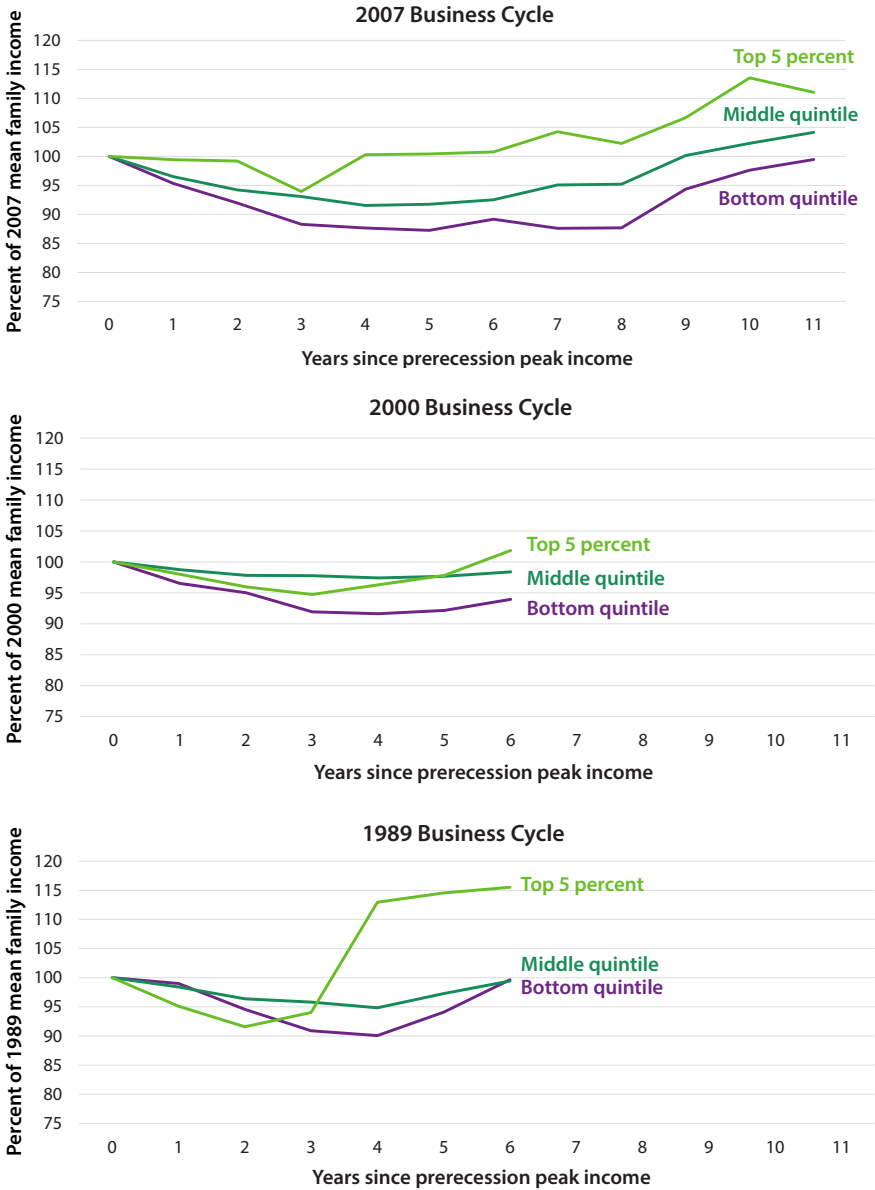
Source: Kahn (2010) using the 1979 National Longitudinal Survey of Youth.

Note: The sample is restricted to white men who graduated from college between 1979 and 1989 and have both nonmissing Armed Forces Qualification Test (AFQT) scores and state identifiers.

Estimates include controls for a quadratic in potential experience, the age-adjusted AFQT score, contemporaneous year effects, and the contemporaneous state unemployment rate.

FIGURE 6.

Change in Mean Income of Selected Income Groups over the Previous Three Business Cycles



Source: Economic Policy Institute (2012) using the Current Population Survey.

Note: Data for each business cycle are indexed to 100 for the business cycle peak year in terms of income preceding the recession. The 1989 business cycle ran through 1995, the 2000 business cycle ran through 2006, and the 2007 business cycle ran through 2017.

not only poor-quality job matches, but also a persistence of these poor matches as these individuals move up the job ladder over time. Many in the millennial generation graduated from college and entered the workforce around the time of the Great Recession, which the evidence suggests will cause large, negative, and persistent effects on their incomes. Today's young workers and their families are still living with the consequences of the Great Recession.

Although incomes across the distribution declined during the Great Recession, figure 6 shows a deeper decline and slower recovery for those outside the top—a pattern that applies to all three recent recessions. Middle-class mean incomes took nine years to recover to the prerecession levels of 2007, much longer than the four years it took for the top 5 percent to recover to their prerecession level of \$384,000. Incomes for the bottom quintile have still not recovered. In addition to income gaps, wealth inequality widened as well. Compared with the top 10 percent, wealth of the bottom 90 percent fell more steeply during the Great Recession (principally due to the important role homeownership plays in their total wealth) and has failed to make any progress in recovering (Dettling, Hsu, and Llanes 2018).

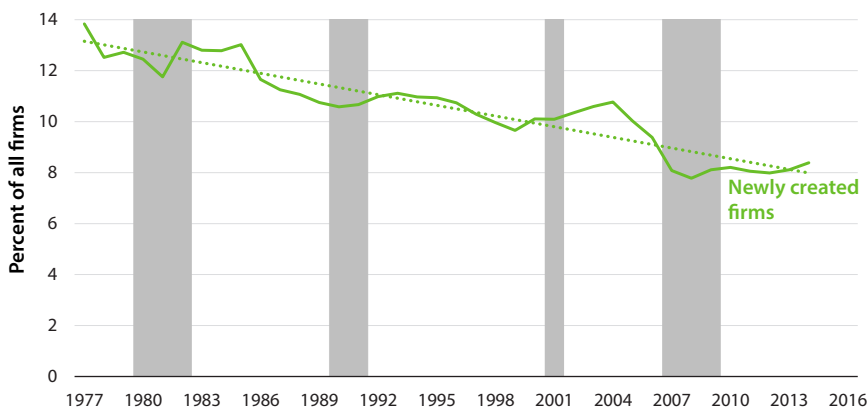
Even though millennials have a higher propensity to save for retirement and to avoid credit card debt, they have fewer assets, a level of debt that is similar to those of previous generations at the same age, and are less well off. Recent cohorts suffered larger wealth losses (in percent terms) and rebounded more slowly from the Great Recession, making it even more difficult to accumulate the assets to eventually buy a home, pay for their children's college tuition, and finance their own retirement (Emmons, Kent, and Ricketts 2018; Kurz, Li, and Vine 2018).

Recessions also tend to slow business formation. The firm start-up rate in the United States has been on a long downward trend for the last four decades, but there is also a cyclical pattern given that fewer new firms are formed during a downturn. Figure 7 shows the start-up rate over time as well as a trendline. Shortly before, during, and shortly after recessions, firm formation tends to be below the trend, recovering to the trend during longer expansions.

THE LASTING SCARS FROM RECESSIONS

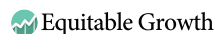
There are a variety of ways that the recent recession likely had a lasting impact on the economy's long-term economic potential as well. On the firm side, recessions diminish private investments that yield long-run payoffs. When the economy is in a recession, investment falls as firms see little demand for the goods and services they might otherwise produce. During the Great Recession, investment fell by 21 percent, which was more than

FIGURE 7.
Start-up Rates for U.S. Firms, 1977–2014



Source: U.S. Census Bureau 1977–2014; authors' calculations.

Note: Dashed line is the linear trend. Shaded bars denote recessions.



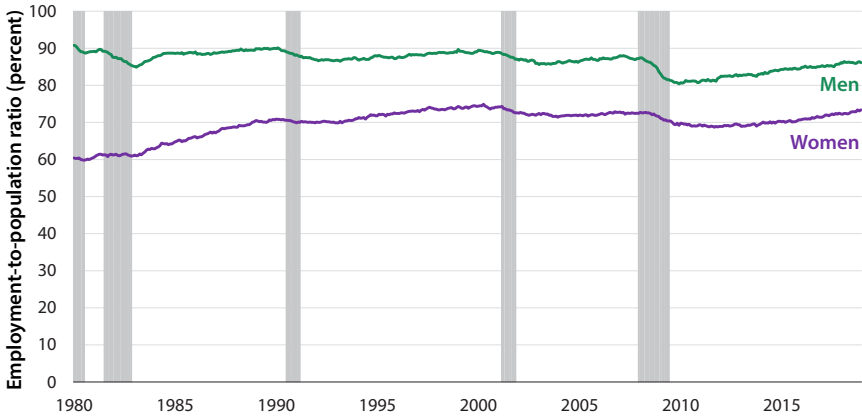
in previous, shallower recessions (Martin 2016). A reduction in investment leads to less capital per worker, and hence to lower labor productivity; but it can also mean fewer investments in the new technologies that can lift overall productivity over time. Combined, the effect can be to lower the trend of output—unless the decline in investment is made up for by higher investment levels during a sufficiently long expansion after the recession.

At the same time, the decline in tax revenue as incomes fall makes it harder to sustain public investment, especially at the state and local levels. During recessions, the federal government often steps in with deficit-financed investments, while at the state and local levels, public investment slows because most states are required to balance their budgets annually. Since 2008 states have mainly closed their budget gaps by reducing spending on public investments—such as education, health care, and employee compensation (Gordon 2012). Combined, these cuts threaten long-term productivity. Federal debt held by the public as a share of GDP jumped from 35 percent in 2006 to 72 percent by 2013 as the recession diminished both tax revenue and GDP and led to more spending. This higher debt level may compromise productive investments going forward.

On the labor market side, prolonged periods of labor market slack lead to dysfunctional job ladders and poor matches between workers and employers. A weak job market makes it harder for people to find jobs that will match their skills and will put them on a career ladder toward higher pay and more responsibility. Instead, many end up jobless, underemployed,

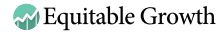
FIGURE 8.

Prime-Age Employment-to-Population Ratio, 1980–2019



Source: Current Population Survey, BLS 1980–2019; authors' calculations.

Note: Population is restricted to prime-age (age 25–54) persons. Shaded bars denote recessions.



or stuck in jobs for which they are overqualified. Involuntary part-time work, often used as a measure of underemployment, only recovered to its prerecession low of 2.8 percent of the labor force in July 2018, more than a decade after the recession began (BLS 2007–18; authors' calculations).

Furthermore, one of the outcomes of a recession—especially a deep and protracted one like the Great Recession—is that people can end up completely leaving the labor force. We can see this in the share of prime-age Americans who are employed, which only recovered to its December 2007 prerecession level of 79.7 percent in late 2018 and is still well below its peak in 2000 of 81.9 percent (BLS 2000–18; see figure 8 for male and female employment rates).² Adjusting for demographic shifts such as the aging of the population, women's employment rate recovered to its prerecession level only in 2017, while men's employment rate remains below its prerecession level as of early 2019. Though the post-Great Recession expansion has been sufficiently long to lift the overall demographically adjusted employment-to-population ratio back to pre-crisis levels, a recovery can be incomplete if an expansion is too short-lived before another recession hits. This was the case after the 2001 recession. Moreover, the fact that the demographically adjusted employment rate is back to 2007 levels does not necessarily mean that the economy is at full employment in early 2019; if the labor market in 2007 was not fully healed from the 2001 recession, reaching this baseline reflects a labor market still below full employment.

All told, the most-recent recession had a lasting impact on people's economic outcomes, including employment, income, wealth, economic security, and business formation, as well as the capacity of government to make much-needed investments.

Why and How to Use Fiscal Policy during Economic Downturns

There is no tool in the current policy arsenal that can fully eliminate recessions and the damaging effects described above. But 20th-century economists, most notably John Maynard Keynes, developed a theory of the business cycle that provides a powerful framework for understanding recessions and points to a certain set of policy tools (Keynes 1936; Samuelson 1948). It has consequently come to guide the practical implementation of macroeconomic policy (Stein 1969).

Rather than seeing recessions as exclusively resulting from declines in productive potential (e.g., a deterioration in technology or an adverse shift in international terms of trade), Keynes' theory and its modern descendants have emphasized the role of aggregate demand: the sum of consumer consumption, business investment, government purchases, and net exports to the rest of the world. Aggregate demand falls when incomes fall or consumers, businesses, and government all try to save (rather than spend) at the same time. Because one person's spending is another's income, if there is too little spending relative to production, firms' sales decline, they cut back production, and employment falls, depressing demand. If individuals and financial institutions become more risk averse and if there is an abrupt shift toward saving or away from lending for investment, this can push the economy into a recession. Recessions can have many root causes—including falls in asset prices, shifts in risk tolerance, spikes in commodity prices, interest rate increases by the central bank, and global shocks—but they consistently involve a decline in the demand for goods and services in the economy.

As discussed above, output falls and the unemployment rate rises during a recession. The Great Recession of 2007–9 was unusual in its intensity (there was a 4.1 percent cumulative GDP loss; by contrast, the previous 10 recessions ranged from 0.3 to 3.7 percent cumulative GDP loss) and in its duration (it lasted 18 months rather than the previous range of 6 to 16 months; Labonte 2010). Recessions also differ in their aftereffects. Some recessions have been followed by quick, powerful recoveries (e.g., the recessions of the early 1980s) and others by slow, drawn-out recoveries (e.g., both recessions of the 2000s).

In part, these differences reflect both the different proximate causes of downturns and the different responses of policymakers. The recessions of the early 1980s were prompted by the Federal Reserve's monetary tightening, which was intended to bring inflation under control. The 2001 recession followed the bursting of an equity asset bubble. And the Great Recession was fundamentally connected to weaknesses of the financial and housing markets.

Effectively responding to a recession requires dealing with its idiosyncratic causes. For example, policymakers responded to the Great Recession by reforming financial and housing regulations, including new requirements for mortgage lenders and servicers (Silberman 2019).

These responses are aimed at long-run patterns in the economy—not a recession's immediate aftermath, when consumers are reluctant to spend, businesses reduce hiring and investments, and investors retreat to the safest assets. It is in these times that policy responses are often targeted at overall demand in the economy. Strong, coordinated monetary and fiscal measures are needed by the Federal Reserve and the federal government, respectively, to counterbalance the private-sector's reluctance or inability to spend and the procyclical spending behavior by states and localities.

We will return to the prospects for recession-fighting monetary policy in a later section, but here we focus on the evidence that some fiscal policies can mitigate recessions and support recoveries (see box 1). These fiscal policies are often referred to as stimulus, and in the simplest analysis, they all work in roughly the same fashion: the government cuts taxes and raises spending in some combination to replace a shortfall in private aggregate demand (Blinder 2016). Of course, the details of the government's actions (and their effectiveness as stimulus) vary considerably: governments may cut taxes to low- or high-income taxpayers or to businesses, and governments may spend by making purchases directly or by transferring resources to others.

Macroeconomic theory yields insights into the expected efficacy of different types of fiscal stimulus. For example, one core insight is that getting money into the hands of those most likely to spend it immediately is likely to be especially effective in combating a recession. Ultimately, however, these questions must be resolved by looking at the relevant data. Such research has been ongoing for many decades, but the unusual magnitude and duration of the Great Recession—along with the large fiscal actions undertaken to combat it—present a unique opportunity for researchers to learn more about what does and does not work as fiscal stimulus.

BOX I.

Discretionary and Automatic Fiscal Policy

Governments run surpluses or deficits, and in the United States, the budget is rarely balanced. Fiscal stimulus typically means raising spending or cutting taxes—via either discretionary policy choices or automatic stabilizers—both of which increase the deficit. (This change in the deficit, in addition to its level, is often the object of study.) Discretionary policy is put into place by policymakers after the need for stimulus is identified. For example, Congress responded to the Great Recession by enacting the American Recovery and Reinvestment Act of 2009 (ARRA), which included a wide range of fiscal stimulus, from infrastructure spending to tax cuts (see box 2 for further discussion). A series of additional discretionary measures were undertaken with an estimated nearly \$700 billion in spending or tax cuts from 2009–12 (Council of Economic Advisers [CEA] 2014a). Box table 1 gives a sense of the range of post-ARRA discretionary policies.

BOX TABLE I.

Discretionary Fiscal Policies Enacted after ARRA, 2009–12

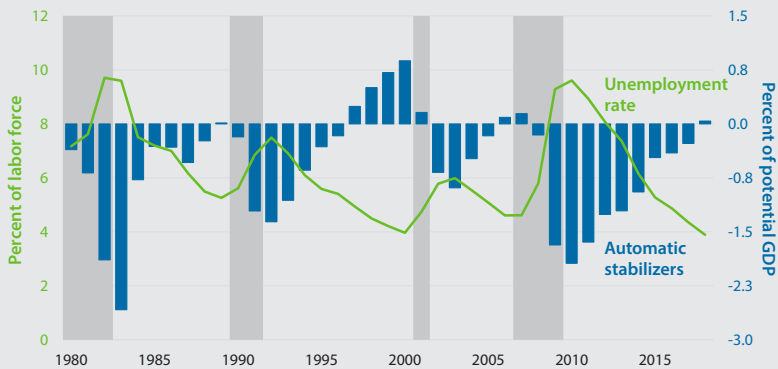
	Billions of dollars
<i>Enacted in 2009</i>	
Worker, Homeownership, and Business Assistance Act (HR 3548)	35
Supplemental Appropriations Act of 2009 (HR 2346) (Cash for Clunkers)	3
Defense Appropriations Act of 2010 (HR 3326) (Unemployment Insurance and COBRA)	18
<i>Enacted in 2010</i>	
Temporary Extension Act of 2010 (HR 4691)	9
Hiring Incentives to Restore Employment Act (HR 2847)	13
Continuing Extension Act of 2010 (HR 4851)	16
Unemployment Compensation Act of 2010 (HR 4213)	33
FAA Safety Improvement Act (HR 1586) (Education Jobs/FMAP Extension)	26
Small Business Jobs Act (HR 5297)	68
Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act (HR 44853)	309
<i>Enacted in 2011</i>	
Temporary Payroll Tax Cut Continuation Act (HR 3765)	28
<i>Enacted in 2012</i>	
Middle Class Tax Relief and Job Creation Act of 2012 (HR 3630)	98
American Taxpayer Relief Act of 2012 (HR 8)	17
Total	674

Source: Council of Economic Advisers 2014a.

Note: "ARRA" refers to the American Recovery and Reinvestment Act of 2009. Routine tax extenders have been removed from the cost estimates.

In contrast, an automatic stabilizer expands in response to an economic downturn and contracts in an expansion without the need for policymakers to take additional action. This may happen in one of two ways: a program might expand naturally as eligibility for the program increases, as with the Supplemental Nutrition Assistance Program (SNAP; formerly known as Food Stamps); or it may have explicit “triggers” that increase stimulus when predetermined conditions are satisfied and then decrease it when the economy recovers. For example, Extended Benefits trigger on and become available to UI recipients in states where the unemployment rate exceeds specific thresholds and then trigger off as conditions improve (or cease to worsen, in some cases). In addition, tax revenue rises when more people have jobs and falls when employment drops, also shifting the fiscal balance. Box figure 1 shows the Congressional Budget Office’s (CBO) estimates for how much automatic stabilizers have shifted the budget over time—providing more fiscal stimulus in downturns like the 2008–11 period; and pushing the budget toward a surplus when the economy was booming in the late 1990s, reducing the amount of demand coming from the government sector when the economy was at or past full employment.³

BOX FIGURE 1.
The Automatic Stabilizer Component of the Federal Budget Surplus or Deficit and the Unemployment Rate, 1980–2018



Source: Congressional Budget Office (CBO) 19980–2018; Current Population Survey, BLS 1980–2019; authors’ calculations.

Note: CBO defines automatic stabilizers as “automatic changes in revenues and outlays that are attributable to cyclical movements in GDP and unemployment.” CBO defines potential GDP as “the economy’s maximum sustainable output.” Shaded bars denote recessions.

THE EFFECTIVENESS OF DIFFERENT TYPES OF FISCAL STIMULUS

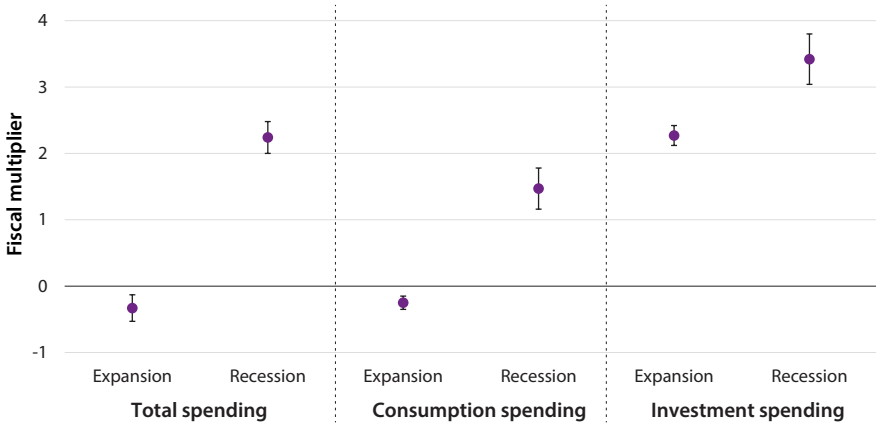
A simple metric for the effectiveness of stimulus—the fiscal multiplier—relates \$1 in net government spending (i.e., either a tax reduction or a spending increase) to the amount of additional economic activity it causes. A multiplier of 0 would indicate that the stimulus had no impact on total economic activity (thus, its effect either is negligible or is offset by additional private sector saving), while a multiplier of 2 would indicate that \$1 in stimulus yielded \$2 in increased economic output. These effects are inclusive of the direct and indirect consequences of stimulus; for instance, an individual tax cut would directly lead to more spending by households, which would indirectly lead businesses to maintain or expand their operations.

Regardless of the vehicle used for fiscal stimulus—household or business tax cuts, infrastructure spending, transfers to state governments, and so forth—the prevailing macroeconomic conditions play a key role in determining how effective the stimulus will be. As suggested by the theory of the business cycle, fiscal stimulus likely has higher multipliers during recessions and other times when labor and capital are underutilized. Auerbach and Gorodnichenko (2012); Fazzari, Morley, and Panovska (2015); and Whalen and Reichling (2015) find that fiscal policy is more effective during a downturn.⁴ Ramey and Zubairy (2018) find more-mixed results, concluding that differences in multipliers are only apparent when using certain methodological approaches, with multipliers generally below 1 in all circumstances. Figure 9 reports results from Auerbach and Gorodnichenko (2012), showing their estimates of fiscal multipliers in economic expansions and recessions, both for consumption and investment stimulus. They find that multipliers overall are substantially higher during recessions, with this difference apparent both for stimulus aimed at consumption (e.g., spending on community services) and for stimulus aimed at investment (e.g., infrastructure spending).

Fiscal multipliers also tend to be much larger when nominal interest rates are close to or at the zero lower bound (Christiano, Eichenbaum, and Rebelo 2011; DeLong and Summers 2012), in part because fiscal multipliers depend on how the Federal Reserve responds to stimulus. If the Federal Reserve tightens monetary policy in response to fiscal stimulus, it offsets some or all of the positive effect of the stimulus. This observation may be part of what underlies the gap in multipliers just discussed: during downturns, the Federal Reserve could be less eager to offset fiscal stimulus, particularly when the federal funds rate—a benchmark short-term interest rate controlled by the Federal Reserve—is close to zero and monetary policymakers would have preferred to reduce interest rates.

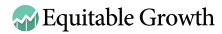
FIGURE 9.

Fiscal Multipliers by Type of Spending and Stage of Business Cycle



Source: Auerbach and Gorodnichenko 2012.

Note: The point estimates represent the range of output multipliers for a \$1 increase in government spending. Bars show one standard error above and below a given point estimate.



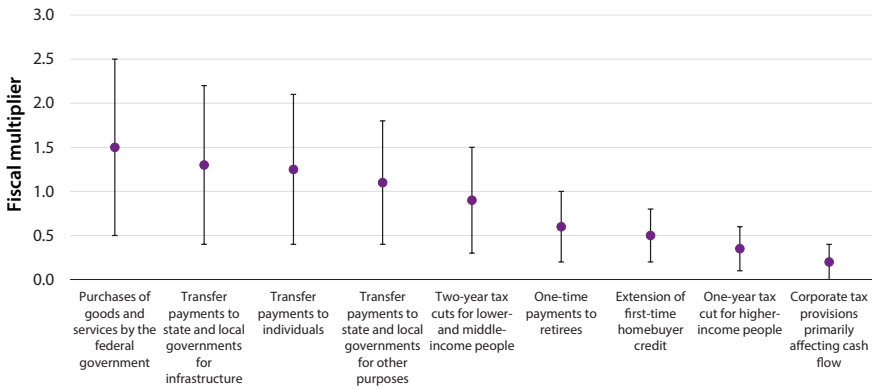
DeLong and Summers (2012) also emphasize that if there is considerable slack in the economy—posing a danger of permanently lowered output if it persists—then stimulus can effectively be self-funding by increasing output in the long run by more than any associated budgetary cost. Even if the precise conditions they discuss do not hold, their result highlights the importance of reemploying workers and moving toward potential output quickly if there is the potential for long-term damage to an economy from a protracted recession.

ESTIMATES OF FISCAL MULTIPLIERS FOR DIFFERENT TYPES OF STIMULUS

There are many ways for governments to cut taxes and spend money, some of which are more likely to yield increased economic activity. Governments can make transfer payments to individuals and households (and, in the case of the federal government, to state and local governments). Governments can purchase goods and services, either as investment or consumption. And governments can cut taxes for individuals, families, and businesses.

A core finding is that stimulus targeted to those more likely to spend it (a population that overlaps with but is not identical to the low-income population) has higher multipliers (Coenon et al. 2012; Johnson, Parker, and Souleles 2006; Oh and Reis 2011). By this standard, tax cuts or transfers aimed at lower-income households tend to have relatively high multipliers.

FIGURE 10.
Fiscal Multipliers by Type of Program in ARRA



Source: Whalen and Reichling 2015; authors' calculations.
 Note: "ARRA" refers to the American Recovery and Reinvestment Act of 2009. These estimates were produced for CBO's analysis of the American Recovery and Reinvestment Act of 2009. The point estimates represent the midpoint of the CBO's high and low estimates. Bars represent the high and low estimates.



Reflecting these findings, Whalen and Reichling's (2015) assessment of evidence on fiscal stimulus finds a range of estimated multipliers for different types of government activity (see figure 10).⁵ Purchases of goods and services by the federal government, transfer payments to state and local governments for infrastructure, and transfer payments to individuals tend to be the most-effective forms of stimulus, with multiplier estimates ranging from 0.4 to 2.5. Within the set of potential tax cuts, reductions for lower- and middle-income taxpayers are most effective, with multiplier estimates ranging from 0.3 to 1.5. Cashin et al. (2018) and the Hutchins Center on Fiscal and Monetary Policy's Fiscal Impact Measure are two examples of attempts to systematically assess the combined effects of fiscal policies on aggregate demand using these and other fiscal multipliers estimated in the larger research literature.

Most types of fiscal stimulus can be administered at both the federal and state levels. However, fiscal multipliers, even those for the same program, can vary depending on the geographic scope of the stimulus. On the one hand, stimulus that is delivered in a single state will typically have positive spillovers for other states, such that any multipliers at the state level would be underestimates of the total impact. On the other hand, stimulus delivered in a single state is less likely to generate a monetary policy response if it is targeted and does not measurably move national aggregate data. Economists are therefore careful to distinguish between findings that

derive from cross-state variation (e.g., Chodorow-Reich 2019; Nakamura and Steinsson 2014; Serrato and Wingender 2016; Wilson 2012) and those that derive from changes in national policy (Blinder and Zandi 2015; Owyang, Ramey, and Zubairy 2013). In a recent survey, Chodorow-Reich (2019) assesses the empirical and theoretical bodies of literature on both cross-sectional and national fiscal multipliers, finding a preferred estimate of 1.8 for the former and a lower bound of 1.7 for the latter (assuming no monetary policy response).

What Have We Learned about Fiscal Stimulus from the Great Recession and Its Aftermath?

It is vital that policymakers extract the relevant lessons from the Great Recession and the fiscal policies that were implemented to counteract it, even if it is not likely that the next recession will be as severe or prolonged. Assessed as a package, did the major fiscal programs go into effect at the appropriate times? Who did the programs assist? And what were the economic effects of the fiscal stimulus?

The bulk of the U.S. fiscal response was discretionary, much of which was contained in ARRA (see box 2 for a summary of its chief components). This policy response was largely effective (CBO 2011; Chodorow-Reich et al. 2012; Conley and Dupor 2013; Dupor and McCrory 2018; Dupor and Mehkari 2016; Feyrer and Sacerdote 2011; Wilson 2012). It played an important role in softening the recession and speeding up the economic recovery (Blinder and Zandi 2016), but it was not perfect—in particular, it was not sufficiently large and prolonged to exhaust all useful stimulus opportunities.

By the CBO's estimate, ARRA caused an increase in real GDP of between 1.5 and 4.2 percent in 2010 above what it otherwise would have been without ARRA (CBO 2011). Primarily through enhancements to the federal share of Medicaid spending, ARRA also replaced 24 percent of the shortfall in state budgets from 2008 through fiscal year 2012 (McNichol 2012).

As part of ARRA, Congress stipulated that the CEA had to produce reports evaluating ARRA's effects. CEA's estimates suggest that ARRA generated 6 million job-years through the end of 2012, with a peak impact on employment of about 2.5 million in the third quarter of 2010, and that GDP was roughly 2.5 percent higher in mid-2010 due to ARRA. These estimates are consistent with those of CBO and outside forecasters (CEA 2014b).

As noted in box 1, though, a series of discretionary measures were passed in addition to ARRA. In early 2008, Congress and the Bush administration passed a sizable direct payment to individuals (see Sahm 2019 for summary

BOX 2.

Highlights of the American Recovery and Reinvestment Act

On February 17, 2009, President Barack Obama signed the American Recovery and Reinvestment Act (ARRA) into law. This massive bill sought to stimulate the U.S. economy, which was mired in the worst economic recession since World War II. As shown in box table 2, ARRA injected stimulus into the U.S. economy through a variety of channels, including tax cuts and spending increases. The lion's share of these spending increases was in the form of transfers to individuals through social safety net programs (e.g., expanded unemployment insurance or increased SNAP benefits), transfers to state and local governments (e.g., increased federal shares of state Medicaid spending), or increased infrastructure spending.

BOX TABLE 2.

Fiscal Impact of ARRA, FY 2009–13

	2009	2010	2011	2012	2013	Total through 2013
	(Billions of dollars)					
Individual tax cuts	42.9	91.3	46.6	0.4	0.4	181.7
AMT relief	13.8	69.6	-14.4	0.0	0.0	69.0
Business tax incentives	23.1	18.2	-5.9	-3.7	-2.9	28.8
State fiscal relief	43.8	63.3	26.0	6.0	4.0	143.0
Aid to directly impacted individuals	31.8	49.5	15.5	8.8	5.9	111.5
Public investment outlays	25.1	94.0	82.0	39.9	29.6	270.5
Total	180.5	385.8	149.9	51.4	37.0	804.6

Source: Council of Economic Advisers 2014b.

Note: "ARRA" refers to the American Recovery and Reinvestment Act of 2009. "AMT Relief" refers to Alternative Minimum Tax relief. Items may not add to total due to rounding.

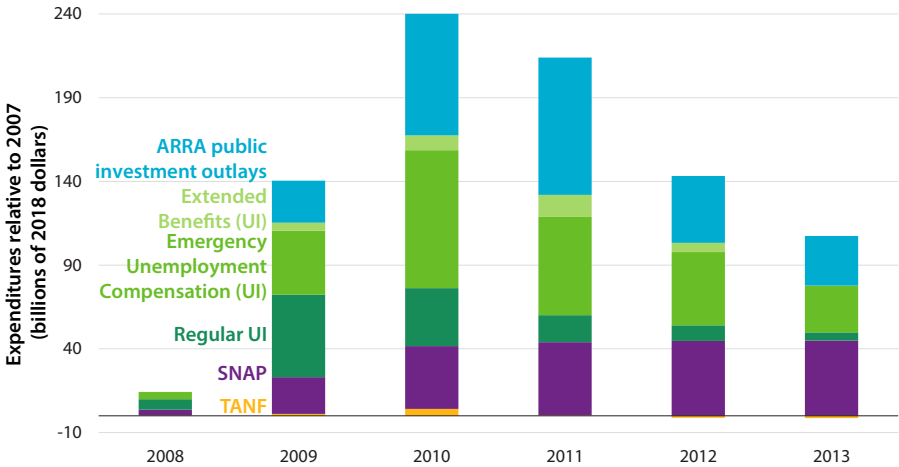


of direct payments and their effects). After ARRA, a series of additional measures were implemented—ranging from cuts in the Social Security tax, to aid to states to hire teachers, to hiring credits, to broader tax cuts, to a series of extensions of the unemployment insurance program.⁶

TARGETING AND TIMELINES

Countercyclical fiscal policies—discretionary or automatic—operate on different timelines in the wake of a recession. Though it is vital that fiscal stimulus be timely and temporary, it is also important that it be sustained as long as the need remains. With this in mind, we examine in figure 11 how spending varied over the 2007–13 period on UI (broken out into regular UI, Emergency Unemployment Compensation [EUC], and Extended Benefits [EB]), SNAP, and Temporary Assistance for Needy Families (TANF); we also show the public outlays for investment that were part of ARRA. Some of this spending was automatic (e.g., the increase in regular UI compensation), while other spending was part of ARRA or other discretionary measures (e.g., EUC and some of the SNAP increase). As another chapter in this volume by Louise Sheiner and Michael Ng (2019) documents, fiscal policy turned contractionary in the United States on net

FIGURE II.
Cumulative Change in Spending on Selected Federal Programs, 2007–13



Source: CEA 2014a; U.S. Department of Health and Human Services 2007–13; U.S. Department of Agriculture 2007–13; U.S. Department of Labor 2007–13a; U.S. Department of Labor 2007–13b; authors' calculations.

Note: Values represent change in spending relative to their 2007 levels. "ARRA" refers to the American Recovery and Reinvestment Act of 2009. Data are for the fiscal year. Values are adjusted to 2018 dollars using the CPI–U–RS. EUC officially ended in December of calendar year 2013.

after 2011, even as the unemployment rate was still quite elevated. This is reflected within the set of programs we examine in the annualized spending declines following 2010. Thus, while fiscal policy in these programs was providing more economic support relative to 2007, steady reduction in stimulus represented a drag on growth.

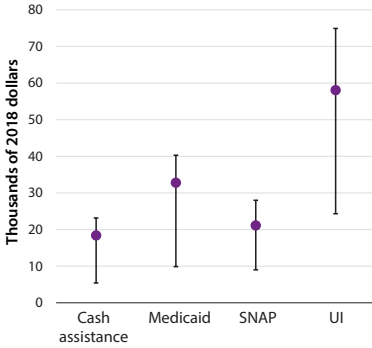
Although spending on regular UI benefits rose in 2009 and then declined, increases in extended UI benefits (EUC and EB) occurred through 2010. Total SNAP expenditures rose continuously through 2013. Throughout this period, TANF expenditures were roughly stable, failing to respond to the recession at all. The increased spending on the safety net programs shown in figure 11 was over \$150 billion at its peak and was in fact larger than the ARRA public investment spending. The safety net is one of the crucial ways in which the government injects spending during an economic slowdown. Real expenditures for Medicaid (not shown) continued to grow since the Great Recession began, although recent research has indicated that the growth rate for Medicaid spending per enrollee has slowed in recent years (Holahan and McMorrow 2019).

These fiscal policies also targeted very different populations. As discussed above, recessions do not affect all groups in the same way—moreover, fiscal stimulus is not equally effective when delivered to all groups. To better explain the likely effects of stimulus, it is necessary to explore the different ways in which people of different incomes, races and ethnicities, gender, and educational attainment were affected by major social safety net programs.

Using the March Supplement to the Current Population Survey (CPS), we focused on recipients' income levels in 2010—just after the Great Recession—to assess who was reached by each program. Though it is well known that the CPS underestimates reciprocity of various benefits (Meyer, Mok, and Sullivan 2009), it can provide a good estimate of the demographics of those who reported receiving different benefits. Figure 12a depicts the mean total family income of program recipients (including cash benefits), showing that UI recipients had average family incomes of nearly \$60,000, whereas cash welfare recipients had average family incomes below \$20,000. Although cash welfare (including state-funded benefits), SNAP, and Medicaid all reach participants with lower incomes than UI does, it is important to remember that UI has a unique ability to reach people who have suffered a job loss and its ensuing unexpected economic difficulties. And income transfers to those individuals can be especially important for maintaining consumption spending (Gruber 1997).

We also explore the racial and gender balance of social safety net programs (not shown). UI is much more likely than other programs to be received by

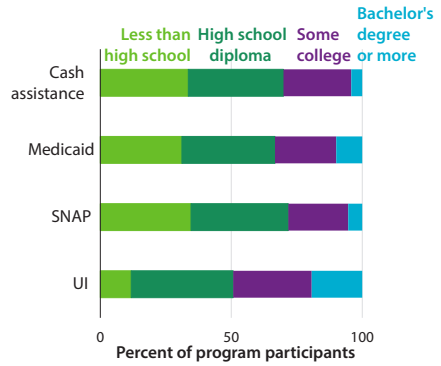
FIGURE 12A.
Mean Family Income for Selected Federal Programs



Source: Current Population Survey Annual Social and Economic Supplement, BLS 2010; authors' calculations.

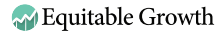
Note: Data are for 2010. The values represent person-weighted total family income for individuals who report a nonzero amount of income for a given safety net program. The point estimates represent the mean total family income, and the tails reflect the 25th and 75th percentile values.

FIGURE 12B.
Educational Attainment of Participants for Selected Federal Programs



Source: Current Population Survey Annual Social and Economic Supplement, BLS 2010; authors' calculations.

Note: Data are from 2010. Respondents identified as recipients of a given program if they reported receiving some income from that program.



white non-Hispanics (66 percent of participants), while slightly below half of SNAP recipients are white non-Hispanics. Similar gaps are apparent in the participation of men and women. Consistent with eligibility requirements that emphasize previous employment, UI is disproportionately taken up by men (63 percent of recipients are male), while other programs are disproportionately taken up by women (especially cash welfare at 85 percent female) who are more likely to qualify by virtue of being custodial parents.

Figure 12b focuses on educational attainment of program recipients, showing again that UI is unusual. SNAP, cash welfare, and Medicaid are all overwhelmingly used by people with less than a four-year college degree, while nearly one in five UI participants have at least a four-year degree, and roughly half have at least some college education. In addition, very few recipients of UI have less than a high school degree, while over 30 percent of recipients in the other programs do.⁷

The Limits of Monetary Policy

Fiscal policy is not the only means of counteracting recessions, and indeed monetary policy is an important tool for stabilization. Monetary policy in the United States is implemented by policymakers with technical expertise

who have a high degree of independence and autonomy (Alesina and Summers 1993), which safeguards their ability to conduct evidence-based policy. Because of this, the Federal Reserve may find it easier to commit to appropriate long-run policy (e.g., raising the federal funds rate when conditions improve), even while implementing aggressive rate reduction in the near term. In contrast, skeptics about fiscal stimulus worry that it will not be fully unwound (e.g., as the 2001 tax cuts were not) when macroeconomic conditions improve.

Another advantage is that monetary policymakers can respond quickly to changing economic conditions; Taylor (2000) shows that historically the Federal Reserve has been able to quickly reduce interest rates during downturns. Deliberating over fiscal stimulus, enacting legislation, and waiting for stimulus to be disbursed usually takes longer than is required for the Federal Reserve to meet and implement monetary easing. Relatedly, Taylor (2000) argues that the Federal Reserve can reverse course more easily as conditions evolve than can Congress and the administration, which must go through a lengthier process to authorize changes in discretionary fiscal policy. Automatic fiscal stabilizers perform better on this score than discretionary policy.

Conversely, monetary policy works with long and variable lags (Friedman 1972; Havranek and Rusnak 2013). Once interest rates change, it takes time for firms and consumers to respond to the changed incentives to borrow or spend. As such, rapidly introduced fiscal policy can in some cases have a more-immediate effect than monetary policy.

Because the Federal Reserve can change course quickly, it is generally considered the “last mover” in any response to economic conditions. Because it can act quickly, the central bank can adjust course after fiscal policy is set. This means that there will always be a possibility that fiscal changes can be offset by monetary policy actions; expansionary fiscal policy can be met with a contractionary monetary policy response if the fiscal policy is pushing the economy past a growth rate that the central bank sees as sustainable. Indeed, fiscal multipliers vary depending on the actions of the central bank (Christiano et al. 2011; Coenen et al. 2012; Davig and Leeper 2011; Hall 2009). However, when the Federal Reserve is constrained by limited monetary space—that is, when the federal funds rate is close to zero and other tools are limited—the magnitude of these offsetting monetary actions will be minimal (Whalen and Reichling 2015).

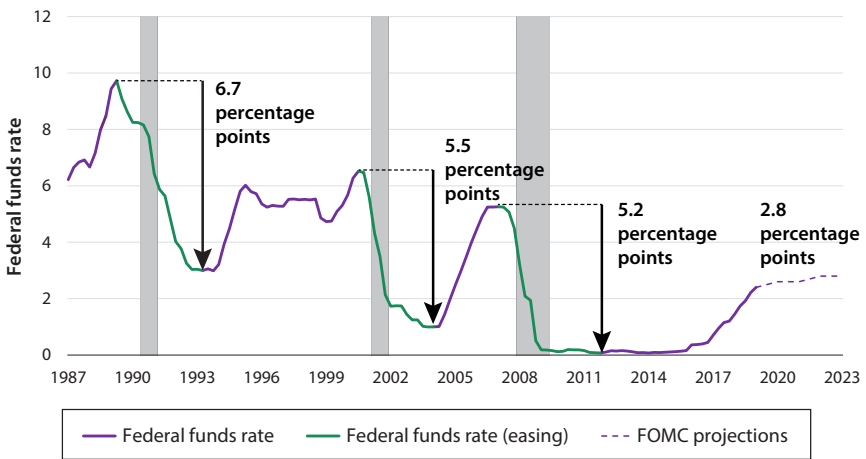
Indeed, low interest rates are likely to be what monetary policymakers will increasingly confront. As shown in figure 13, the Federal Reserve has lowered the federal funds rate by 5.2 to 6.7 percentage points over the

course of the last three recessions. As of March 2019 the effective federal funds rate sits at 2.4 percent, leaving very little room for reductions before the zero lower bound becomes a binding constraint. A number of studies have documented the reasons for the long-run reduction of the equilibrium real interest rate (see Laubach and Williams 2015, and most recently, Rachel and Summers 2019). As of the spring of 2019, policymakers at the Federal Reserve expect the long-run federal funds rate to be between 2.5 and 3.0 percent, suggesting that they expect limited room for rate cuts to be a persistent issue (Federal Open Market Committee 2019). In conditions of low inflation and low interest rates, the monetary policy response prescribed by conventional theory is significantly constrained (Reifschneider and Williams 2000).

In principle, the Federal Reserve could lower nominal interest rates (i.e., interest rates without adjustment for inflation) below zero (Kimball 2015). But in practice, rates well below zero pose a number of serious problems, including risks to financial stability (Arteta et al. 2016; Bech and Malkhozov 2016; Eggertsson, Juelsrud, and Wold 2017). In response to the 2007–9 global financial crisis and again in 2014 and 2015, some European central banks lowered nominal interest rates to levels slightly below zero,

FIGURE 13.

Actual and Projected Federal Funds Rate, 1987–2023



Source: Federal Open Market Committee (FOMC) projections 2019; Board of Governors of the Federal Reserve System 1987–2019; authors' calculations.

Note: The arrows and corresponding values represent the differences in peak to trough for the federal funds rate. Shaded bars denote a recession. The dotted line represents the FOMC's March 2019 projections for the federal funds rate.

without apparent ill effect; but in so doing, they augmented the room for monetary action only slightly (Rognlie 2016).⁸ The Bank of Japan has also experimented with negative rates, but these attempts have either been limited by practicalities or simply not tried at sufficient scale to significantly change the notion of an effective lower bound on nominal interest rates.

In the modern environment of low interest rates, policymakers may increasingly turn to alternative monetary policy tools, such as quantitative easing (i.e., purchases of specified quantities of assets). Though quantitative easing and other strategies were employed during the Great Recession, their effects are still less well understood; furthermore, there are concerns that these unconventional tools may be insufficiently effective relative to their risks (Greenlaw et al. 2018; Summers, Wessel, and Murray 2018). Whether there are limits to the extent a central bank can expand its balance sheet is still relatively untested, as is the long-run consequence of buying a wide range of assets. These tools can be effective in bringing down long-run interest rates, even when the short-run rate is pinned at zero. But in both Japan and Germany, even 10-year rates have approached zero, suggesting there are limits to what monetary policy can achieve.

Given that monetary policy may face constraints, policymakers will need to rely much more than previously on a combination of fiscal stimulus and unconventional monetary policy measures.

The Limits of Discretionary Fiscal Policy

Discretionary fiscal stimulus has played an important role in U.S. stabilization policy for many decades, and its effects have often been positive.⁹ However, discretionary policy relies on politicians to take decisive action, which can be difficult in the quick timeframe required (Blinder 2004). To be most effective, stimulus must be timely, targeted, and temporary (Elmendorf and Furman 2008; Summers 2007).

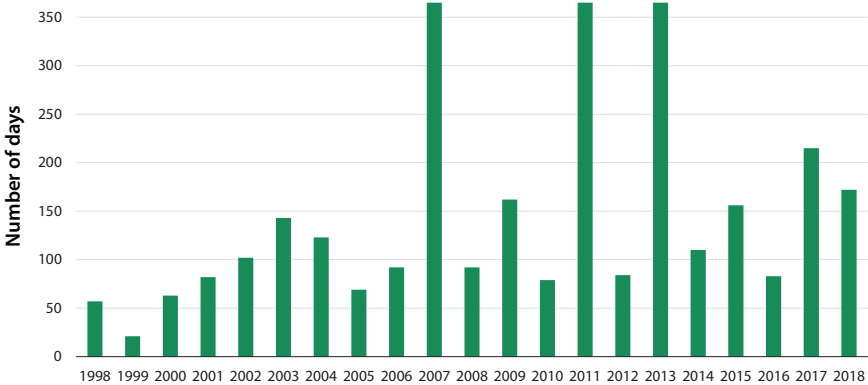
A related concern is that policymakers who oversee discretionary stimulus often do not implement the full range of policies that evidence suggests would be beneficial for macroeconomic stabilization. As Romer and Romer (2019) describe, some policymakers simply do not believe that active fiscal policy will help, and thus they shift too quickly to austerity, especially if public debt is high. Most recently, after the first few years following the Great Recession, there was a considerable pivot to austerity far in advance of what textbook macroeconomics would suggest. Far from acting as the free-spending political agents often assumed in economic models, a wide range of governments (often urged on by the International Monetary Fund

[IMF] and the Organization for Economic Cooperation and Development) shifted to a more-restrictive fiscal policy (Shambaugh 2017).

Further complicating the nation’s ability to take quick action, the U.S. political system is designed to make it difficult to act quickly and forcefully, and this tendency to delay action has become more pronounced in recent years.¹⁰ By one measure, up to three-quarters of salient issues are now in stalemates in Congress (Binder 2014).

The increased tendency toward gridlock is apparent in the increasing number of days when the U.S. federal government has been funded under a continuing resolution, rather than through a normal budget process (see figure 14). Continuing resolutions—which simply extend previous patterns of funding into a new fiscal period—reflect Congress’s inability to appropriate funds through a traditional process that requires compromise and (typically) ultimate agreement between Congress and the administration. By nature, continuing resolutions make it difficult or impossible for the federal government to respond to evolving fiscal challenges.

FIGURE 14.
Days the Federal Budget was Funded by Continuing Resolution, 1998–2018



Source: Saturno and Tollestrup 2016; U.S. Congress 2017–18; authors’ calculations.

Note: Values represent the number of days spent under a continuing resolution (CR) in a given fiscal year. The number of days spent under a CR is calculated as the number of days, beginning October 1, that funding for federal agencies was primarily or fully provided via temporary continuing appropriations in lieu of regular appropriations bills. The day that the CR expired is counted as a day spent under a CR.

SHORTCOMINGS OF ARRA AND THE OVERALL FISCAL RESPONSE

Though discretionary stimulus has played a key role in mitigating the harm caused by recent recessions, the recovery from the Great Recession was relatively slow, and with monetary policy at the zero lower bound, fiscal policy could have been more effective at pushing the economy back to full employment more quickly than it did. After the 2008 stimulus payments at the end of the Bush administration, there was a considerable lag before more fiscal stimulus took effect. ARRA itself was enacted on February 17, 2009, fully 14 months after the beginning of the recession. ARRA was, in retrospect, too small. In the months and years after its passage, it became clear that political constraints would make additional large-scale stimulus difficult or impossible to enact (New York Times Editorial Board 2014). Although there were several additional measures, larger-scale jobs support efforts (e.g., the proposed American Jobs Act in 2011) stalled in Congress, and budget policy pivoted away from stimulus and toward fiscal restraint.

Given the extended duration of the downturn, the phaseout of fiscal stimulus occurred too quickly, creating large fiscal headwinds as early as 2011 (Lucking and Wilson 2012). As Cashin et al. (2018) demonstrate, this withdrawal of stimulus was unusually large at such an early stage of the recovery compared to prior economic recoveries. In subsequent years, programs like EUC were arguably discontinued prematurely when Congress failed to renew them (CEA and Department of Labor [DOL] 2014).

ARRA's magnitude and duration were insufficient in part because it was not initially clear to the public and policymakers that the Great Recession would be as devastating as it proved to be. One key challenge is that policymakers often need to rely on data that are insufficient for indicating conditions in real time. Case in point: ARRA was designed before GDP data for the fourth quarter of 2008 were released to the public. Once available, the original data for that quarter showed an annualized decline of about 3 percent. After many revisions, the data now show a contraction of over 8 percent. Trying in real time to convince policymakers of the severity of the Great Recession—based on partial and unrevised GDP data—was challenging despite the historically high jump in unemployment that was underway. In contrast to a discretionary stimulus, an automatic stabilizer, especially one based on the unemployment rate, would allow policy to respond effectively to economic conditions.

Automatic Stabilizers Are Desirable and Practical

Automatic stabilizers—the tax code, SNAP, and UI, to name just a few examples—have played an important role in softening the harm caused

by the most recent recession. CBO (2013) found that in fiscal year 2012, spending on automatic stabilizers amounted to 2.3 percent of potential GDP beyond their baseline level (with similar or higher amounts in each of the three previous years). Follette and Lutz (2010) assess the effects of this automatic spending, finding that automatic stabilizers reduce the GDP response to a negative shock by 20 percent after 8 quarters. When looking at the Great Recession, they observe a slightly smaller effect, finding that output would have been 0.75 percentage points lower in the absence of automatic stabilizers.

The United States could incorporate many more of these kinds of policies into its policy apparatus. To take just one metric: The United States is an outlier among other advanced economies in that it makes less-extensive use of automatic stabilizers. Dolls, Fuest, and Peichl (2012) find that 47 percent of the demand reduction from a large unemployment increase would be offset by automatic stabilizers in the European Union, but only 34 percent of the same shock would be offset in the United States.¹¹

AUTOMATIC STABILIZERS ARE DESIRABLE

Automatic stabilizers have important advantages over discretionary stimulus.¹² Among the advantages is that fiscal stimulus will likely be more effective if carefully designed in advance of a crisis. There are four main benefits of advance planning for recessions. First, it is administratively easier to implement programs for which preparation has already been made. When federal agencies and state governments understand in advance what will occur, it is easier for them to make necessary programming adjustments and to do other types of capacity building.

Second, a predetermined, automatic policy will likely have beneficial effects on household and firm confidence. Recessions are characterized by widespread pessimism about the prospects for growth in the near future (De Nardi, French, and Benson 2012). Automatic fiscal stimulus (particularly including the social safety net) can mitigate that pessimism by diminishing the risks that motivate households and businesses to reduce consumption and investment (McKay and Reis 2016). Without automatic stabilizers, households may feel it necessary to increase their precautionary savings (Kimball 1990) when a downturn threatens.

Third, automatic stabilizers are credibly timely, targeted, and temporary—an advantage emphasized by Elmendorf and Furman (2008). Though a discretionary stimulus can certainly be removed (or allowed to expire) later, it may be politically difficult to do so. Anticipating this possibility, opponents of a permanently larger government could even oppose stimulus that they agree would be valuable in the near term. Because automatic

stabilizers are well crafted in advance, they can focus on the most-important ways to improve economic outcomes.

Fourth and finally, automatic policies allow policymakers to agree in advance about what should be done to combat recessions. Designing fiscal policy is always a political process, but doing so in advance could reduce the risk that contemporary political hurdles inhibit a timely and effective fiscal stimulus. No policymaker knows whether their constituency will be hit hard in the next recession, so there may be more room to create a shared sense of responsibility for limiting the effects than would exist during an actual crisis.

AUTOMATIC STABILIZERS ARE PRACTICAL

Obtaining the benefits described above requires a workable implementation of automatic stabilizers. In some cases, automatic stabilization flows naturally (and sometimes unintentionally) from the design of a program. Some government programs automatically increase or decrease in size as the economy becomes stronger or weaker. This is true of the social safety net and the tax system. Each additional unemployed person means more spending via the unemployment insurance system and less tax revenue. If family incomes fall due to reduced employment or hours, more people are eligible for SNAP, Medicaid, and other programs. Even if incomes simply rise more slowly, the growth of federal tax revenue slows. Indeed, the federal tax code is an important automatic stabilizer, both because families move down income brackets as their earnings fall and because taxes need not be paid on lost income; individuals' federal taxes are mitigated by as much as 8 percent of initial shocks to GDP (Auerbach and Feenberg 2000).¹³

In other cases, it is necessary for automatic stabilization policies to explicitly trigger on or off at the appropriate moments in the business cycle. This requires accurate, timely assessments of economic conditions. Researchers and policymakers have found that they can rely on a rule of thumb that accurately identifies the onset of a recession using timely data: When the economy has seen an increase in the unemployment rate of more than 0.5 percentage points during the past six months, then the economy is almost certainly in a recession. Table 1 shows that this six-month unemployment trigger measure (referred to in the table as "alternate unemployment") compares favorably with triggers that would either follow the NBER's recession announcements or a GDP-based rule. For example, during the Great Recession, the six-month unemployment trigger would have turned on in June 2008, while the NBER-based trigger would only have turned on in December 2008 and the GDP-based trigger would have turned on at the end of January 2009.

In a companion paper to this chapter, Claudia Sahm (2019) presents a refinement of this rule that is even more accurate; she looks to whether the three-month moving average of the national unemployment rate has exceeded its minimum during the preceding 12 months by at least 0.5 percentage points. As seen in table 1, both unemployment-based rules can identify recessions more quickly than either a GDP-based rule or the NBER. The Sahm rule calls each of the last five recessions within 4 to 5 months of its actual start. The alternate rule (i.e., the six-month trigger described above) calls recessions within 2 to 8 months—somewhat quicker in most earlier recessions, but slower in the last two, indicating another reason that national triggers may improve if they use Sahm’s rule. The Sahm rule would not have generated any incorrect signals in the last 50 years.¹⁴

In the Great Recession, Sahm’s rule would have identified April 2008 (for which estimates were released in May) as the month in which the 3-month moving average of unemployment would have risen sufficiently to trigger stimulus. This was just three months after the Bush administration and Congress agreed to send direct payments to households to buoy the economy. But it was a full nine months before ARRA was enacted to provide infrastructure funds, increases in SNAP and UI, and funds to struggling states, along with additional tax cuts for households.

TABLE 1.
Activation Date of Selected Triggers in Previous Recessions

Recession start date	NBER announcement	Triggers		
		Sahm	Alternate unemployment	GDP
12/1969	-	3/6/1970	6/5/1970	4/17/1970
11/1973	-	4/5/1974	2/1/1974	1/16/1975
1/1980	6/3/1980	5/2/1980	5/2/1980	10/17/1980
7/1981	1/6/1982	12/4/1981	11/6/1981	4/21/1982
7/1990	4/25/1991	12/7/1991	12/7/1990	4/26/1991
3/2001	11/26/2001	7/6/2001	11/2/2001	N/A
12/2007	12/11/2008	5/2/2008	6/6/2008	1/30/2009

Source: Bureau of Economic Analysis (BEA) 1981–2009; Current Population Survey, BLS 1981–2009; NBER n.d.; authors’ calculations.

Note: For all activation dates, we use real-time unemployment data (i.e., not the fully revised data). The NBER did not formally announce business cycle turning points before 1979. “N/A” reflects that the GDP-based trigger was not activated during the 2001 recession. Dates for the Sahm and the Alternative Unemployment triggers were calculated based on the release date of the monthly Employment Situation release. The Employment Situation release always reports on unemployment data for the prior month (e.g., April 2008 data is released in May 2008).

This method is preferable to available alternatives. We cannot rely on the NBER's Business Cycle Dating Committee, which semiofficially dates recessions. This committee's focus is on historical accuracy, not on identifying recessions in real time. Thus, it waits until multiple data sets have been released and revised and there is more certainty as to whether a recession has occurred. In the last five recessions, the NBER's announcement has come 6 to 12 months after the official starting date of the recession, which is far too late to be useful for implementing stabilization policy.¹⁵

Additionally, we cannot rely on economic forecasts, given that economists are notoriously bad at forecasting recessions. As of this writing in early 2019, no major forecast—not the official budget forecast of the administration, the CBO's forecast, or the IMF's forecast for the United States—suggests a period of economic contraction in the next 10 years. Given that the economy has already been growing for 10 years since the last recession, this would amount to a truly unprecedented period of continuous growth. All of these organizations believe there will eventually be another recession, but given the uncertainty of its timing in the future, it would be pointless to guess when it might occur.

Given appropriate design and accurate data, automatic stabilizers that use macroeconomic triggers are feasible.

Conclusion

Recessions are both common and devastating. They damage the economic outcomes of individuals, the communities they live in, the firms they work in, and the overall economy, resulting in a loss of economic activity and a rise in unemployment. Over the last four recessions, GDP fell by an average of about 2 percent (roughly \$400 billion as a share of the current economy), and unemployment rose by 2 to 5 percentage points, leaving millions of workers without a job. The economic costs of recessions are real and harmful for many American families.

Most recently, the U.S. economy experienced the longest and most-severe economic downturn since World War II. The Great Recession of 2007–9 devastated the employment, income, wealth, and economic security of millions of Americans. Furthermore, these effects were not shared equally. Eleven years after the start of the Great Recession, the bottom quintile of American families by income still had not returned to its precession peak of median income. By contrast, it took the top 5 percent only four years from the start of the recession to return to the prerecession level. Unemployment rates rise more during recessions for minorities relative to non-Hispanic whites and for less-educated workers relative to more-educated workers.

Although not all recessions are as devastating as the Great Recession, another economic downturn will inevitably come, and policymakers should do all they can to prepare for its effects.

Historically, the United States has used two main types of policy responses to fight recessions: monetary policy and fiscal policy, much of it discretionary. Both methods have been effective in responding to prior recessions. However, there is reason for concern about how reliable these methods will be in addressing the next recession. Regarding monetary policy, the Federal Reserve has cut the federal funds rate between 5 and 6 percentage points as a response to the past 3 recessions. But as of March 2019 this rate stands at about 2.4 percentage points—greatly limiting the Federal Reserve’s ability to stimulate the economy. Regarding discretionary fiscal policy, concerns about timeliness, magnitude, and duration are important in a gridlocked political environment. Moreover, designing policy responses in the midst of a crisis can lead those responses to be the wrong size—and conducted over the wrong time frame—while also being more difficult to administer.

The United States should therefore implement a more-robust set of automatic stabilizers, designed in advance to adjust to the business cycle. These kinds of countercyclical policies are important because recessions can feed on themselves. With falling consumer confidence comes reduced consumption, which lowers both output and employment. In turn, this lowers consumer confidence even more. These policies may not eliminate the need for discretionary actions but would make economic recovery less dependent on them.

Mindful of these dynamics as well as the human costs of recessions, policymakers should augment existing stabilizers with a set of policies that automatically increase spending (or reduce taxes) during an economic downturn. Given the limits of monetary and discretionary fiscal policy, it is crucial that we strengthen and expand the role of automatic stabilizers to make the most of opportunities for limiting recessions.

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Endnotes

1. See Cajner et al. (2017) and Aaronson et al. (2019) for detailed investigations of these racial gaps.
2. Because of an increase in participation by older workers as the expansion continued, the overall demographically adjusted employment-to-population ratio has also only recently exceeded its pre-crisis level (authors' calculations, not shown).
3. The CBO approach in box figure 1—which decomposes the budget deficit or surplus—differs from that of Cashin et al. (2018) and the Hutchins Center Fiscal Impact Measure, which examine the effects of changes in fiscal policy on aggregate demand.
4. These authors study U.S. data; Baum, Poplawsk-Ribeiro, and Weber (2012) examine international data and find similar results.
5. While CBO's assessment makes use of a broad range of relevant research, fiscal multiplier estimates can vary substantially across studies. For example, see Leduc and Wilson (2013) for public infrastructure multipliers above those shown in figure 10.
6. For an extended discussion, see CEA (2014b).
7. The different educational distribution of UI participation is related to its relatively strict eligibility requirements (including minimum earnings history) and the fact that UI is available to those who previously had high incomes.
8. As a consequence, it is preferable to speak of the “effective lower bound” rather than the “zero lower bound.” Rognlie (2016) shows that negative interest rates can be beneficial as part of a stabilization policy, as long as certain conditions are met (e.g., commitment from the central bank).
9. See the chapter in this volume by Louise Sheiner and Michael Ng (2019) for more detail.
10. Madison (1778) argues that the structure of the U.S. government ought to be intentionally designed to make decisive and forceful action difficult, with each branch of government pitted against the others.
11. Examining income (rather than unemployment) shocks, Auerbach and Feenberg (2000) and Mabbett and Schelkle (2007) find corresponding “stabilization coefficients” of 0.25 to 0.30 for the United States and 0.32 to 0.58 for the EU.
12. See Blanchard (1999) for a comment that explains the benefits of automatic stabilizers and the case for making more use of them. Notably, this comment predates changes in the long-term level of interest rates that have likely strengthened the case.
13. Accordingly, countries in which the public sector is a larger share of the economy tend to have larger automatic stabilizers (Debrun, Pisani-Ferry, and Sapir 2008; Fatás and Mihov 2001).
14. The alternate unemployment rule would have activated at three moments just after recessions formally ended but labor markets remained weak: in 1976, 1992, and 2003. The alternate rule also would have incorrectly activated in 1986 when using real-time data due to spikes in the unemployment rate that are not apparent in the currently revised data. The smoothing in the Sahm rule helps avoid accidental signals that might occur in real-time data. See Sahm (2019) for further discussion as well as Fiedler, Furman, and Powell (2019), which includes a discussion of a state-specific unemployment rate automatic measure.
15. One could also use the rule of thumb that the economy is in a recession after two quarters of negative growth in GDP. Unfortunately, this requires waiting for six months of negative growth in addition to waiting for GDP estimates to be released and revised.

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