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## FROM FREE-FALL TO STAGNATION

**Five years after the start of the Great Recession, extraordinary policy measures are still needed, but are not forthcoming**

BY JOSH BIVENS, ANDREW FIELDHOUSE, AND HEIDI SHIERHOLZ

**W**hat we now call the Great Recession officially began in December 2007 and ended in June 2009, but damage wrought by its severity continues. While the U.S. economy has avoided another recession—in large part due to accommodative federal fiscal policy—growth since mid-2009 has been too sluggish to move the economy out of its depressed state and restore it to full health.<sup>1</sup> Employment (excluding temporary Census hiring) fell in the overall economy as well as in the private sector for eight straight months after the recession's official end in June 2009. Even as of December 2012, five years since the beginning of the recession, the unemployment rate stood at 7.8 percent—more than three percentage points above the annual rate in 2007, the last year before the Great Reces-

sion hit. Further, this 7.8 percent unemployment rate rivals or exceeds the peak unemployment rates reached in the wake of recessions in the early 1990s and early 2000s.

This paper provides an overview of the state of the U.S. economy—with a particular focus on the labor market—five years after the onset of the Great Recession. It also analyzes why the U.S. economy has failed to fully recover and argues for much more ambitious, sustained federal fiscal support to achieve full employment.

The paper begins by outlining the extent of the economic damage inflicted by the Great Recession and explaining that the anemic nature of the recovery stems from a lack of demand for goods and services. Next, the paper draws upon contemporary, historical, and international lessons

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to argue that policy inaction—or worse, contractionary fiscal policy—is the greatest risk to full recovery. It then explores how the recent “fiscal cliff” debate and subsequent lame-duck budget deal signal that government action to spur recovery is unlikely, and that contractionary fiscal policy will actually undermine recovery in the coming years. Following this, the paper analyzes what it would take to move the economy back to health—and argues that the alternative of continued economic stagnation is hugely wasteful and will exacerbate projected medium- and long-term budget deficits that have been a focal point of public debate in recent years.

Key findings include:

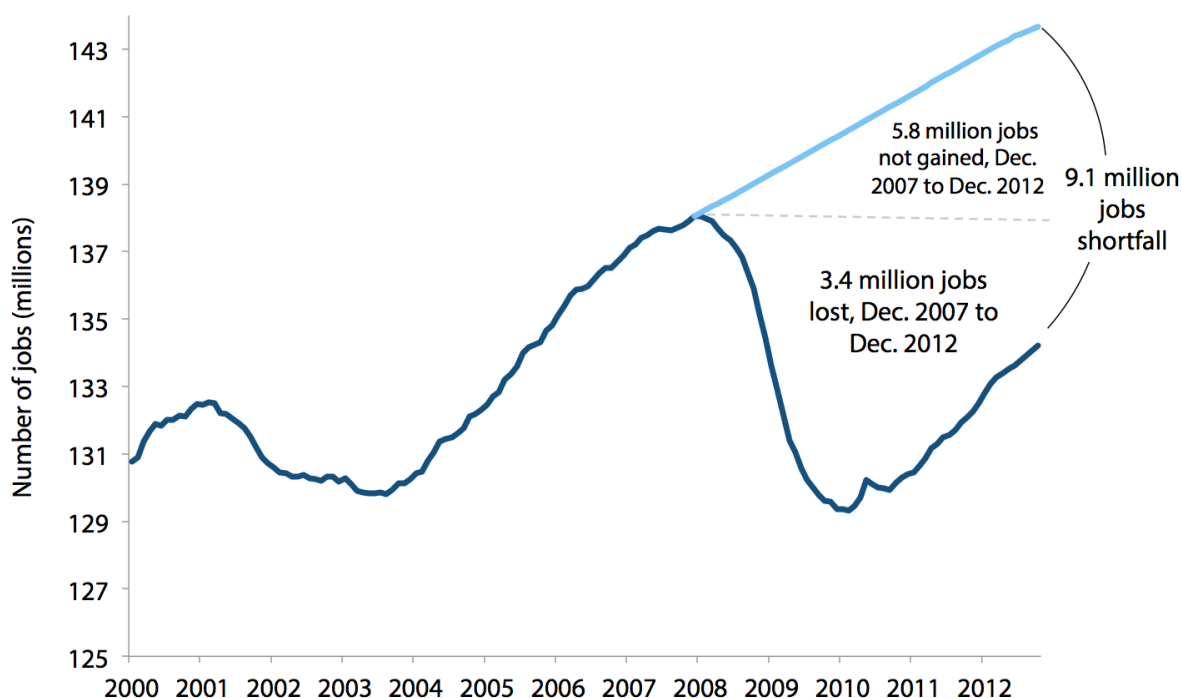
- The economy, particularly the labor market, remains far from normal. At the end of 2012, national output was roughly \$1 trillion below what it could have been if the economy were at full employment. Furthermore, as of December 2012, 9.1 million jobs needed to be created to restore prerecession labor market health.
  - The gap between actual and potential economic output and labor market health is almost entirely a function of deficient economic demand—households, businesses, and governments are not spending enough to keep all workers and productive capacity employed. This diagnosis is the only one consistent with the economic evidence—particularly the failure of long-term interest rates and measures of core inflation to rise even as federal budget deficits have increased sharply.
  - The large rise in federal budget deficits beginning in 2008 is mainly a symptom of the weak economy, and has actually supported and sustained the return to economic growth. In fact, a swifter return to full employment will require policymakers to use larger deficits in the near term to finance job-creation measures.
- Too many near- and medium-term economic forecasts assume a return to full employment relatively quickly. It is a deeply risky economic strategy to rely on these forecasts, which have consistently proved overly optimistic, instead of ensuring a return to full employment through policy measures (particularly fiscal policy).
  - The debate about the proper resolution of the “fiscal cliff” largely ignored the danger inherent in failing to spur near-term economic growth to ensure full recovery. It instead fixated on the theoretical danger posed by projected medium- and long-term budget deficits and on ensuring just enough growth to avoid another recession. This is exactly the wrong policy-making focus.
  - Even with the lame-duck budget deal, the U.S. economy is projected to remain depressed, with GDP between \$941 billion and over \$1.0 trillion below full employment output at the end of 2013 (depending on how Congress handles the remainder of scheduled sequestration cuts). Furthermore, real growth rates in 2013 are projected to slow below 2.0 percent, to the point of renewed labor market deterioration.
  - Guaranteeing a return to full employment by the end of 2015 would require policymakers to fund economic stimulus of roughly an additional \$650 billion in 2013 and somewhere in the range of \$1.5 trillion to \$2.2 trillion over the next three years. That these amounts are so far outside the current bounds of political viability indicates how divorced from economic reality the fiscal policymaking debate has become.

## **Five years from its beginning, Great Recession’s shadow remains**

The economy has gone five years since the beginning of the Great Recession without remotely approaching a full recovery. The recession inflicted enormous, long-lasting economic damage, particularly on the labor market

FIGURE A

Payroll employment and the number of jobs needed to keep up with growth in the potential labor force, 2000–2012



Source: Authors' analysis of Bureau of Labor Statistics Current Employment Statistics public data series and Congressional Budget Office data (CBO 2012a)

and on the living standards of low- and moderate-income Americans. However, at the root of this damage is a shortfall in households' and businesses' lack of demand for goods and services—an eminently solvable problem.

***The extent of the economic damage inflicted by the Great Recession***

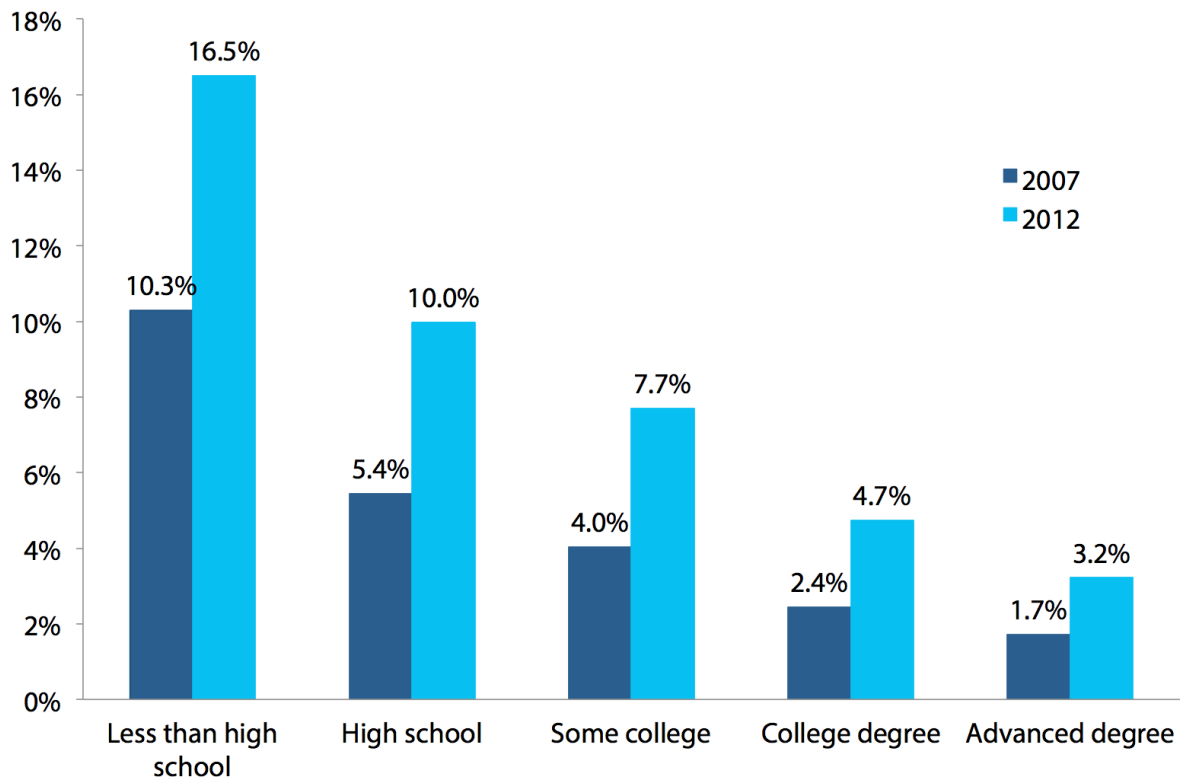
While there are many ways to document just how abnormal today's economy is, arguably the best summary measure is the "jobs gap"—the number of jobs necessary to restore prerecession labor market health. Even five years since the beginning of the Great Recession, the jobs gap remains dismayingly large, at 9.1 million jobs as of December 2012, as shown in **Figure A**. This number combines the net 3.4 million jobs lost between December 2007 and December 2012 and the 5.8 million jobs that should have been created during this time to absorb new

potential labor market entrants. (As a rule of thumb, slightly more than 100,000 new jobs are needed every month to absorb population and labor force growth and prevent the unemployment rate from rising.) Filling the jobs gap would take more than three years of annual economic growth averaging at least 5 percent—growth rates that will not materialize without an abrupt change in fiscal policy. If the average monthly gains of 181,000 jobs throughout 2012 persist, this jobs gap would not close until 2019. In short, five years after the onset of the Great Recession, full economic recovery still remains years and years away.

Another symptom of the Great Recession's lingering impact is the elevated unemployment rate. As previously mentioned, it stood at 7.8 percent in December 2012, more than three percentage points higher than the 4.6 percent average of 2006 and 2007. That is also higher

FIGURE B

Unemployment rates by educational attainment, 2007 and 2012



Source: Authors' analysis of Current Population Survey microdata

than the peak unemployment rate following the recession of 2001, and equal to the peak rate following the recession of 1990–1991. Though some groups have been hit harder than others since the beginning of the Great Recession, unemployment is significantly elevated across the board—among all age groups, both genders, all racial and ethnic groups, and for workers in all major industries, occupations, and education groups. To help illustrate this point, **Figure B** presents the unemployment rate in 2007 and 2012 by education category. It shows that unemployment is lower for workers with higher levels of education, but this is always true. Strikingly, however, workers with a college degree or more still have unemployment rates roughly *twice as high* as before the recession began—approximately the same relative increase experienced by workers with less education. The figure underscores that elevated unemployment is not restricted to

certain types of workers; the burst of the housing bubble caused a broad-based drop in demand for goods and services (as will be discussed in more detail shortly), in turn causing a broad-based drop in demand for workers. Only a small portion of that decline has been restored in the three-and-a-half years since the official end of the Great Recession, and unemployment remains extremely elevated across the board.

Furthermore, the unemployment rate currently understates weakness in the labor market. This is because so many people have dropped out of—or never entered—the labor market due to weak employment opportunities, and are thus not counted among the unemployed. The labor force participation rate—the share of the working-age population either employed or looking for work—dropped from 66.0 percent when the Great Recession began in December 2007 to 63.6 percent

in December 2012. This decline represents nearly 6 million fewer workers in the labor force. It is important to note that some of this drop is due to structural changes that would have occurred even without the Great Recession, notably baby boomers entering retirement and the increasing college enrollment of young people. However, roughly two-thirds of this drop is due to the lack of job opportunities (Shierholz 2012). Thus, the pool of “missing workers”—workers who would currently be in the labor force if job opportunities were strong—is nearly 4 million. If these workers were in the labor force and were unemployed, the unemployment rate would currently be almost 10.0 percent.

With the labor force not growing “normally,” arguably a better gauge than the unemployment rate for assessing recent labor market trends is the employment-to-population ratio (EPOP) of “prime-age” workers, which is simply the share of the age 25–54 population with a job. (Restricting to prime-age workers provides more certainty that any trends we see are driven by demand for workers and not previously mentioned structural factors such as retiring baby boomers or increased college enrollment.) The EPOP for prime-age workers is shown in **Figure C**. It depicts a dramatic plunge from about 80 percent near the start of the recession to under 75 percent in the fourth quarter of 2009. It made essentially no progress for the next two years. By December 2012, it had improved modestly to 75.9 percent, only slightly above its post-recession lows. This demonstrates that the vast majority of the improvement in the unemployment rate from its peak of 10.0 percent in October 2009 to 7.8 percent in December 2012 is due to people dropping out of (or not entering) the labor force—not to a larger share of potential workers finding employment. Such improvement in the unemployment rate is clearly not satisfactory.

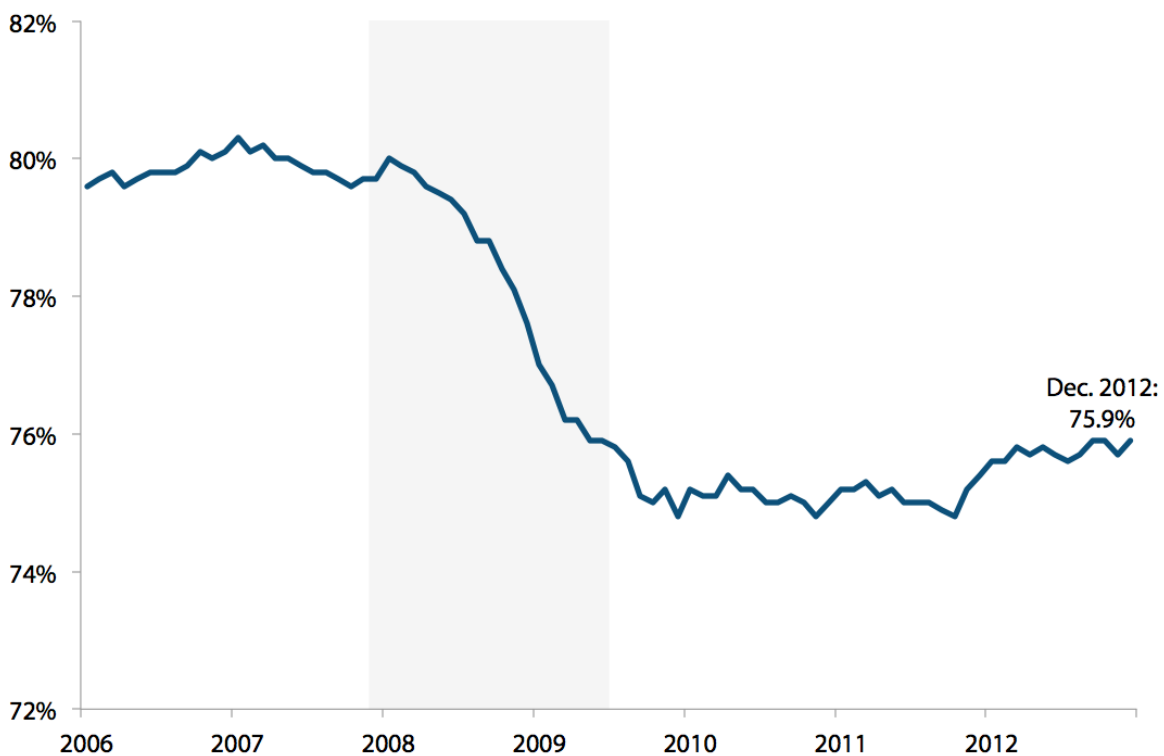
Widespread employment declines since the beginning of the Great Recession, along with both underemployment and the strong downward pressure that persistent high unemployment exerts on wages, have led to massive drops

in household income. **Figure D** shows the inflation-adjusted median income of working-age households (those where the household head is under age 65) from 2000 through 2011. Between 2007 and 2011 alone, the typical income of working-age households dropped by \$5,715, or 9.3 percent. This figure also reveals that the United States has *already* experienced more than a “lost decade.” The business cycle expansion from 2001 to 2007 was the weakest on record for job growth and was the first business cycle on record where median household incomes did not grow. Indeed, income of the typical working-age household dropped by \$2,180 between 2000 and 2007. All told, income of the typical working-age household in 2011 was nearly \$8,000 (12.4 percent) lower than in 2000—and had fallen below inflation-adjusted 1994 levels.

Unfortunately, this trend of declining typical incomes is likely to continue for the foreseeable future. In EPI’s recently released *The State of Working America, 12th Edition* (Mishel et al. 2012), a projection based on the past statistical relationship between unemployment and income growth of the middle fifth of families, and on macroeconomic forecasts of unemployment, shows that a full two decades will almost certainly pass from the year 2000 without a noticeable increase in family incomes near the middle of the income distribution.<sup>2</sup> This is illustrated in **Figure E**, which depicts the decline in average real family income for the middle fifth of the income distribution between 2000 and 2010. The dotted lines are the result of an exercise that models the relationship between income growth and the unemployment rate between 1948 and 2010, and then uses the findings to predict the trajectory of incomes if unemployment projections for the next several years actually come to pass. Using the Congressional Budget Office’s (CBO) unemployment projections, average income for families in the middle income fifth in 2018 will be 10.9 percent below its 2000 level. Using Moody’s Analytics unemployment rate projections, which are somewhat more optimistic, average incomes of families in the middle income fifth will be 6.5 percent lower

FIGURE C

Employment-to-population ratio of workers age 25–54, 2006–2012



**Note:** Shaded area denotes recession.

**Source:** Authors' analysis of Bureau of Labor Statistics Current Population Survey public data series

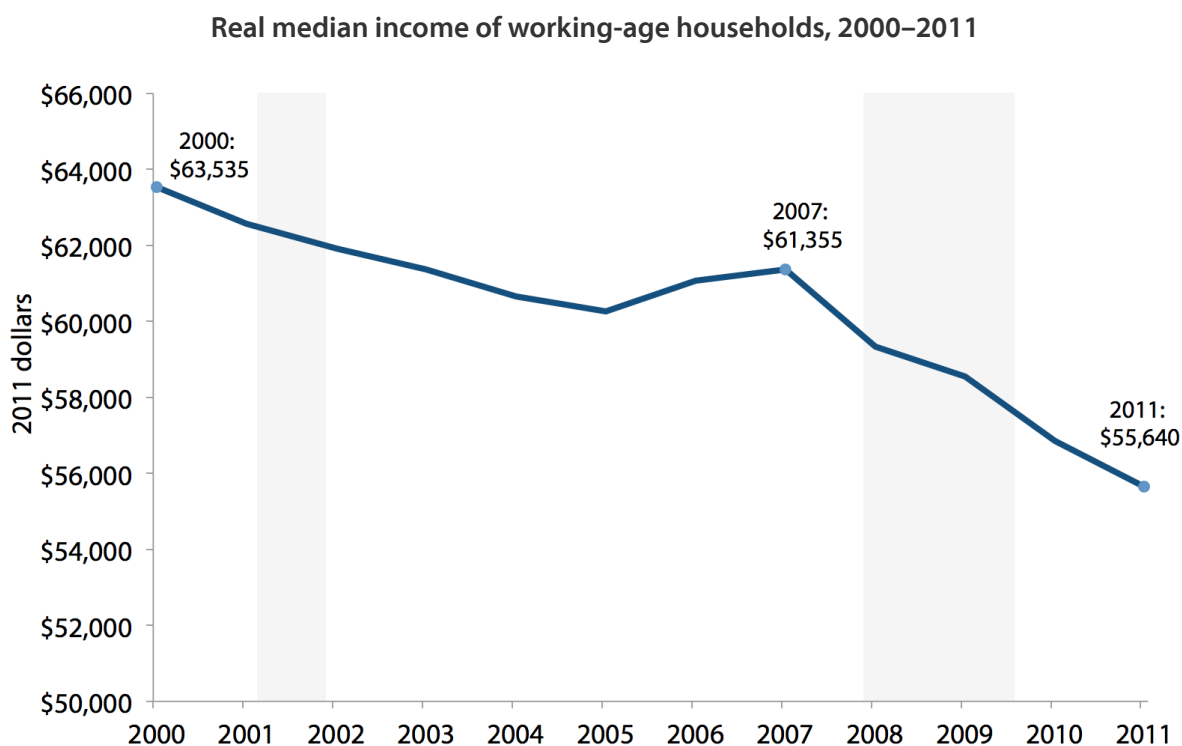
in 2018 than in 2000. This is an unmitigated economic disaster. Stagnating or declining inflation-adjusted typical incomes in the context of rising real national income directly implies greater income inequality. Persistent, sizable slack in the labor market has exacerbated income inequality—and will continue to do so.

**Root of today's economic woes remains demand shortfall**

Despite the troublesome trends just discussed, there is some good news: The U.S. economy's present predicament stems from a collapse in households' and businesses' *demand* for goods and services, not a collapse in our *ability to supply* these goods and services. Essentially, the burst of the housing bubble erased trillions of dollars of wealth from household balance sheets and left home-

builders with a massive unsold inventory. The pullback in consumer spending (households spent less because they were much less wealthy) and construction (companies stopped building, as even their existing inventory could not be sold) then cascaded throughout the rest of the economy. Businesses stopped investing in new factories; since they were producing more than they could sell with existing capacity, they did not need to invest in increased capacity. Lastly, the chaos in financial markets sparked by the bursting bubble provided an extra spur to businesses and households to hoard liquid assets at the expense of consumption. It also impeded plans by those rare businesses and households that wanted to expand spending by denying them needed credit. In short, the burst housing bubble led to sharp reductions in private-sector spending by households and businesses.

FIGURE D



**Note:** Working-age households are those where the household head is less than 65 years old. Shaded areas denote recessions.

**Source:** Current Population Survey Annual Social and Economic Supplement *Historical Income Tables*, "Table H-5: Race and Hispanic Origin of Householder--Households by Median and Mean Income: 1967-2011"

That the Great Recession was caused by this shock to demand is important to acknowledge. American workers did not lose their skills at the onset of the recession in December 2007. American factories did not become obsolete that month, nor did American managers forget how to efficiently organize production. In fact, there is no evidence of any present disruption in our ability to supply goods and services, but only in the private sector's capacity to demand them.<sup>3</sup> In short, the root of the United States' current economic woes is an ongoing and scarcely improving shortfall in aggregate demand relative to the supply of productive resources. Indeed, this shortfall is why Paul Krugman has labeled the present situation the "Lesser Depression" (Krugman 2011).

## Why policy action is necessary to ensure a full recovery

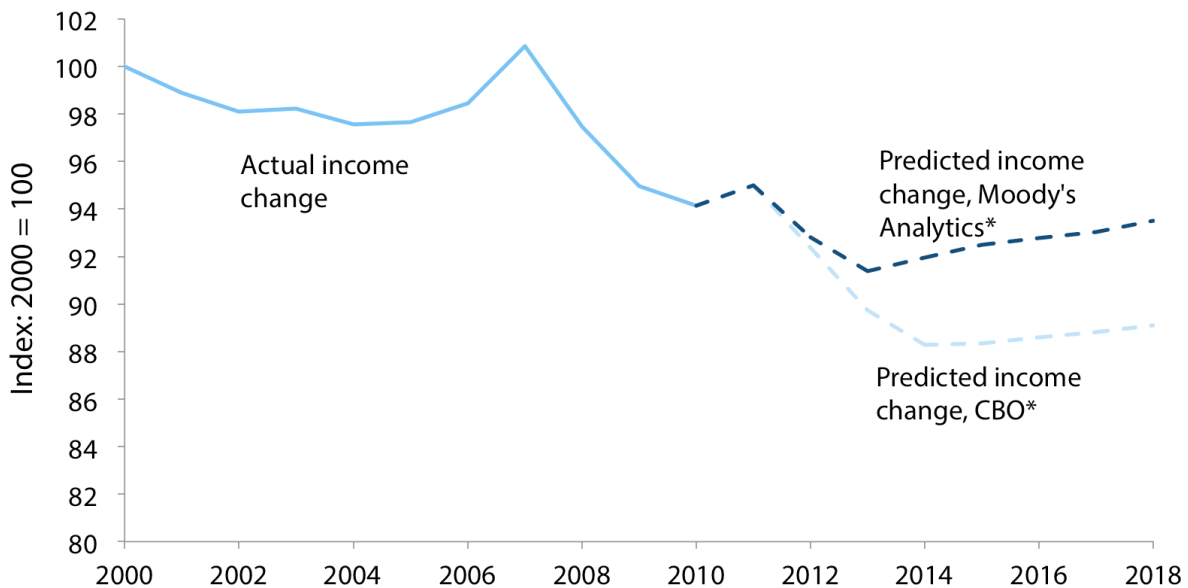
Given that a demand shortfall is central to the economic damage inflicted by the Great Recession, ambitious policy action is necessary to fill this shortfall and ensure a full recovery. Lessons from the U.S. response thus far to the Great Recession, historical lessons from the 1980s and 1930s, and lessons from Europe's and Japan's economic troubles buttress the case for sustained, large-scale government action to stimulate demand and accelerate growth.

### *Lessons from the U.S. response thus far to the Great Recession*

The U.S. economy's failure to rapidly make up ground once the trough of the Great Recession was reached is too often treated as a vexing puzzle, and has inspired many

FIGURE E

Change in average real family income of the middle fifth, actual and predicted, 2000–2018



\* Path of income growth projected by a model based on the relationship between income growth and the unemployment rate from 1948 to 2010. The top line uses unemployment projections from Moody's Analytics, while the bottom line uses Congressional Budget Office forecasts.

**Note:** Data are for money income.

**Source:** Authors' analysis of Current Population Survey Annual Social and Economic Supplement *Historical Income Tables* (Table F-2, F-3, and F-5) and analysis based on forecasted unemployment rates from Congressional Budget Office (2012b) and Moody's Analytics (2012). Adapted from Mishel et al. (2012), Figure 1E.

(mostly ill-conceived) theories as to just what is holding back the U.S. economy from reaching its pre-Great Recession potential. In fact, the question is not *Why has the economy failed to reach a full recovery yet?* but, *Why would this full recovery be expected at all, given the policy course we have charted?*

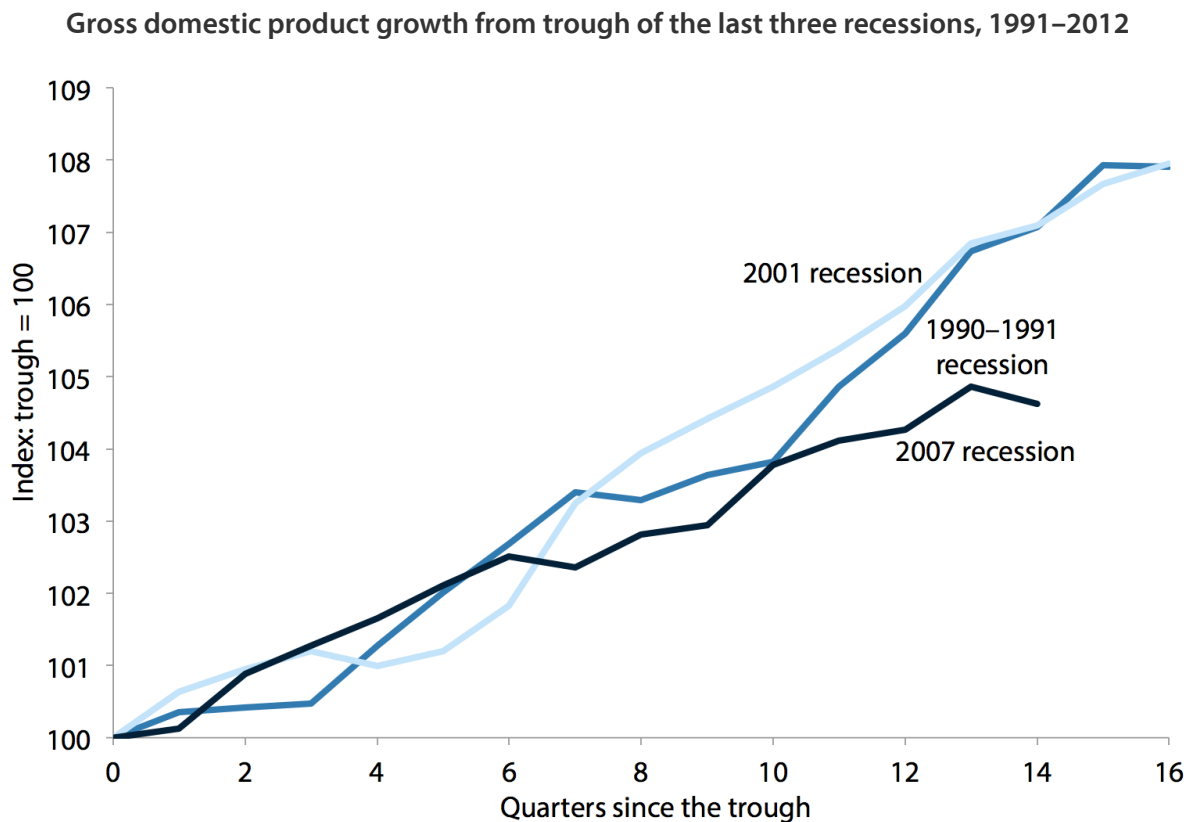
After all, there is a large economics literature on the unique danger posed by steep downturns that persist even as a nation's central bank maximizes the economic support it can provide through conventional means (this generally entails lowering the short-term "policy" interest rates that it essentially controls). In the economics jargon, this is generally referred to as economies being mired in a "liquidity trap," or stuck against the "zero lower bound" of nominal interest rates. And the research on what to do

in such situations is clear: Policymakers should pull every macroeconomic policy lever that can increase aggregate demand *as hard as they can*. This means targeting larger budget deficits to finance job-creating investments and safety net spending, undertaking unconventional monetary policy measures such as announcing higher inflation targets and aggressively buying long-term debt (i.e., buying Treasuries or private-sector asset-backed securities, thereby lowering long-term interest rates), and ensuring that the nation's currency is not being artificially propped up in a way that widens the trade deficit.

While aspects of the Great Recession and global economic slump have made this sort of demand stabilization harder than usual, the most obvious policy failure is that the most effective tool for stabilization—fiscal support



FIGURE F



**Note:** GDP is per capita GDP.

**Source:** Authors’ analysis of Bureau of Economic Analysis National Income and Product Accounts public data series (BEA 2013a; 2013b; 2013c)

provided through increased government spending, investments, and transfer payments—was prematurely abandoned (Bivens 2011).<sup>4</sup>

Initially, large automatic increases in federal budget deficits—partially stemming from increased federal spending on safety net programs, such as unemployment insurance, Medicaid, and food stamps—blunted the negative shock from the burst of the housing bubble. In addition, legislated actions such as the Economic Stimulus Act of 2008 (signed by President George W. Bush) and the American Recovery and Reinvestment Act (ARRA) of 2009 (signed by President Barack Obama) arrested the economic free-fall. In late 2009 and early 2010, ARRA provided an effective counterweight to reduced spending by households and businesses, albeit insufficient to spur full recovery.

And in conjunction with the Federal Reserve’s aggressive monetary policy actions, expansionary federal fiscal policy is widely credited with ending the Great Recession in mid-2009 and thereafter sustaining a tepid recovery (Blinder and Zandi 2010).

Indeed, during the first year of the recovery (from mid-2009 to mid-2010), the economy’s growth rate (as measured by growth in per capita GDP) was actually slightly faster than in the previous two recoveries, as shown in **Figure F**. These recoveries from the 1990–1991 and 2001 recessions—unlike those in the 1960s, 1970s, and 1980s—were also characterized by the bursting of asset market bubbles and resulting financial distress. Federal fiscal support in this first year of the current recovery added roughly 1.3 percentage points to GDP growth.

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However, between the middle of 2010 and the third quarter of 2012, federal fiscal policy turned contractionary, subtracting roughly 0.5 percentage points, on average, from growth rates. And after this first year of recovery, the economy's performance began to seriously lag: Annualized real GDP growth decelerated to 1.5 percent for 2012 and 2.0 percent for 2011, down from 2.4 percent in 2010 and 2.7 percent in the last six months of 2009 (the first half-year of official recovery).<sup>5</sup> In the three-and-a-half years since the recession officially ended, the economy has grown at an average annualized rate of just 2.1 percent. As a rule of thumb, real GDP growth between 2.0 percent and 2.5 percent is needed just to keep the labor market treading water, so growth above this range is what policymakers must target to ameliorate the jobs crisis.

A driving force behind this sluggish growth following the fade of ARRA's economic boost is public-sector austerity, particularly on the part of state and local governments. Unlike the federal government, most states are constrained by balanced budget amendments that forced spending cuts and tax increases as the recession eroded tax collections and increased demands on state safety net spending. Falling state and local government consumption expenditures and gross investment dragged at overall real GDP growth rates for 12 of the 13 quarters up through the end of 2012. As previously noted, since mid-2010, federal fiscal policy has been slightly contractionary, failing to counter the sharp contractionary effect of state and local fiscal policy. Consequently, the net economic impact of federal, state, and local budget policy has dragged on economic growth since the fourth quarter of 2009 (Pollack 2011). Without state and local budget austerity, employment would be roughly 2.3 million jobs higher today (with roughly half these jobs coming from the private sector). These jobs would be enough to close one-fourth of the "jobs gap" depicted in Figure A (Shierholz and Bivens 2012).

It is important to note, however, that while state-level austerity has been a net drag on the economy, states that received more fiscal aid from the federal government had better outcomes—showing again that spending cutbacks in the face of a depressed economy worsen the damage. (See Wilson 2011 and Chodorow-Reich et al. 2012 for particularly good analyses of the cross-state effects of fiscal expansion.)

The trajectory of economic activity in the aftermath of the Great Recession indicates that the damage inflicted by the recession is historically deep and broad, and that policymakers should have proposed solutions matching the scale of the crisis. But it is important to realize that when policy responses were closer to the scale of the problem—particularly when fiscal policy substantially boosted economic growth rather than dragging on it—the recovery proceeded more rapidly. Thus, the disappointing performance over the past two-and-a-half years is no puzzle that needs explanation; rather, it is exactly what textbook macroeconomics predicts. In short, in situations such as the aftermath of the Great Recession, failing to ensure a full economic recovery before withdrawing policy support can counterproductively lead to entire decades of lost income growth and avertable depression. To avoid this fate, sustained, large-scale policy action to stimulate demand and boost economic growth should be policymakers' foremost priority.

As explained in the following subsections, lessons drawn from U.S. economic history and from recent downturns in Japan and Europe further highlight the risks to prematurely withdrawing economic support before full recovery is achieved.

### ***Historical lessons for why policy action is needed***

The U.S. recovery from the 1981–1982 recession demonstrates that economic growth rapid enough to reliably pull down unemployment is possible, so long as policymakers strive to boost demand. In the three-and-a-half years fol-

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lowing the recession that ended in the last quarter of 1982, the economy grew at an average annualized rate of 5.4 percent—about two-and-a-half times faster than in the current recovery. The explanation is simple: Policymakers aggressively used both fiscal and monetary policy to spur growth. On the fiscal side, government consumption and investment spending rose 18.9 percent over the first 14 quarters of recovery following the 1981–1982 recession, while such spending fell 5 percent in the first 14 quarters following the Great Recession. Had government consumption and investment spending in the current recovery matched the trajectory after the 1981–1982 recession, growth since the recession’s end in 2009 would have averaged 3.7 percent instead of 2.1 percent.<sup>6</sup>

On the monetary side, the Federal Reserve was able to pull down short-term policy interest rates by nearly 11 percentage points between the beginning of the 1981–1982 recession and the first three-and-a-half years of the recovery, including a reduction of more than two percentage points between the end of the recession and the first three-and-a-half years of recovery. In contrast, the Federal Reserve only had room to cut these rates by four percentage points between the beginning of the Great Recession and the first three-and-a-half years of the recovery. Furthermore, it has been impossible to lower these rates since the end of the recession, as they are bound by the zero nominal interest rate.

It is clearly the case that both the character of the Great Recession (it was driven by an asset bubble bursting) as well as its severity (it was the largest shock to private-sector spending since the Great Depression) have made it more difficult to counteract with macroeconomic policy—particularly monetary policy, which has become the economic stabilizer of choice for policymakers over the last few decades. Yet this is no excuse for not trying to use macroeconomic policy as aggressively as possible to spur demand. For when demand is boosted by policy, past experience shows that rapid recovery and restoration of labor market health is possible.

A lesson from earlier in U.S. economic history reinforces this point, albeit by serving as a cautionary example. In the second half of 2010—as the unemployment rate remained close to 10 percent, the boost from ARRA was fading, and the current law budget trajectory implied steep fiscal contraction in 2011—a number of economic observers began raising concerns about repeating the “Mistake of 1937.” This refers to the decision in 1937 to begin ramping down fiscal and monetary support, as policymakers were confident that a durable recovery from the Great Depression was ensured. Due to spending reductions and tax increases, the federal budget swung from a deficit of 3.8 percent of GDP in 1936 to a small surplus in 1937. Combined with a tightening of monetary policy, this led to a contraction of 3.4 percent of real GDP in 1938. This is a steeper contraction than registered even in the worst year of the recent Great Recession, and is the second-worst post-1932 year on record (the worst post-1932 year being the very rapid but very steep contraction in 1946 associated with the drawdown of defense spending after World War II).

Luckily, the “Mistake of 2011” never happened, largely because the Obama administration agreed to delay one of its highest policy priorities—ending the upper-income Bush-era tax cuts—in exchange for House Republicans extending some fiscal support measures for 2011 and 2012. Economic growth, although slow, would have been weaker without the continuation of emergency unemployment benefits and the two-percentage-point cut in employee payroll taxes contained in this deal. We project these measures boosted real GDP growth by 1.3 percentage points by the end of 2012, increasing employment by roughly 1.5 million jobs (Bivens and Fieldhouse 2012a). Without this fiscal support, trend growth would almost certainly have decelerated below 1 percent, meaning the labor market would have lost ground instead of roughly holding steady.

Yet at the beginning of 2013, with current law again calling for steep fiscal contraction in the face of still-elev-

ated unemployment (as will be discussed in greater detail shortly), the lessons of 1937 should be heeded: Periods of severe economic weakness need to be fought by policymakers until full health is restored. This full health will likely be signaled by the Federal Reserve *raising* interest rates to cool down demand-side inflationary pressures. The U.S. economy remains far from this point, as the Federal Reserve projects inflation will remain at or below its target level for price stability for the foreseeable future.

### ***International lessons for why policy action is needed***

International evidence also points to risks from prematurely abandoning the fight against economic downturns. Japan fell into a steep recession in the early 1990s as a result of the bursting of stock market and housing price bubbles. While the recession was painful, recovery had begun by 1994. Over the next three years the economy nearly reached its underlying growth potential, with expansion being led by private consumption and investment. In late 1996, however, the Japanese government began steep cuts to public investment. By the end of 1997, the economy was in a much more serious recession than in even the early 1990s, and the Japanese economy did not sustain acceptable growth rates again until the 2002–2007 period before the Great Recession. According to a close observer of the Japanese economy:

“[T]hese recoveries in Japan in the 1990s...could have been sustainable, but were cut off by macroeconomic policy mistakes. ... Whether in Japan in the 1990s or in the U.S. in 2008-2010, heated discussions take place as though the short-run effects of fiscal policy were in dispute. They should not be. Fiscal policy works when it is tried. ... This is conclusively demonstrated in Japan.”  
(Posen 2010)

This claim that fiscal policy works when tried is buttressed by international evidence. **Figure G** shows the relationship in developed countries between changes in

government spending (a crude proxy for how aggressively countries have fought the global downturn with activist fiscal policy) and economic performance. The relationship is clear—countries that have resisted austerity have performed better.

We should be clear that while federal policymakers in the United States have enacted some austerity—much of which had yet to take effect as of the fourth quarter of 2012—the United States has so far avoided the extraordinarily damaging austerity embraced in many other countries. This can be seen in comparisons with the eurozone countries and the United Kingdom. As **Figure H** shows, the recoveries, particularly in the United States and United Kingdom, looked broadly similar until mid-2010. At that time, a newly elected Conservative Party–led coalition government in the United Kingdom immediately undertook sharp fiscal austerity. The results are clear—the United Kingdom reentered recession in the fourth quarter of 2011 and, after a brief respite in the third quarter of 2012, registered a 1.2 percent annualized contraction in the fourth quarter of last year. As of the end of 2012, the U.K. economy had contracted in five of the past nine quarters.

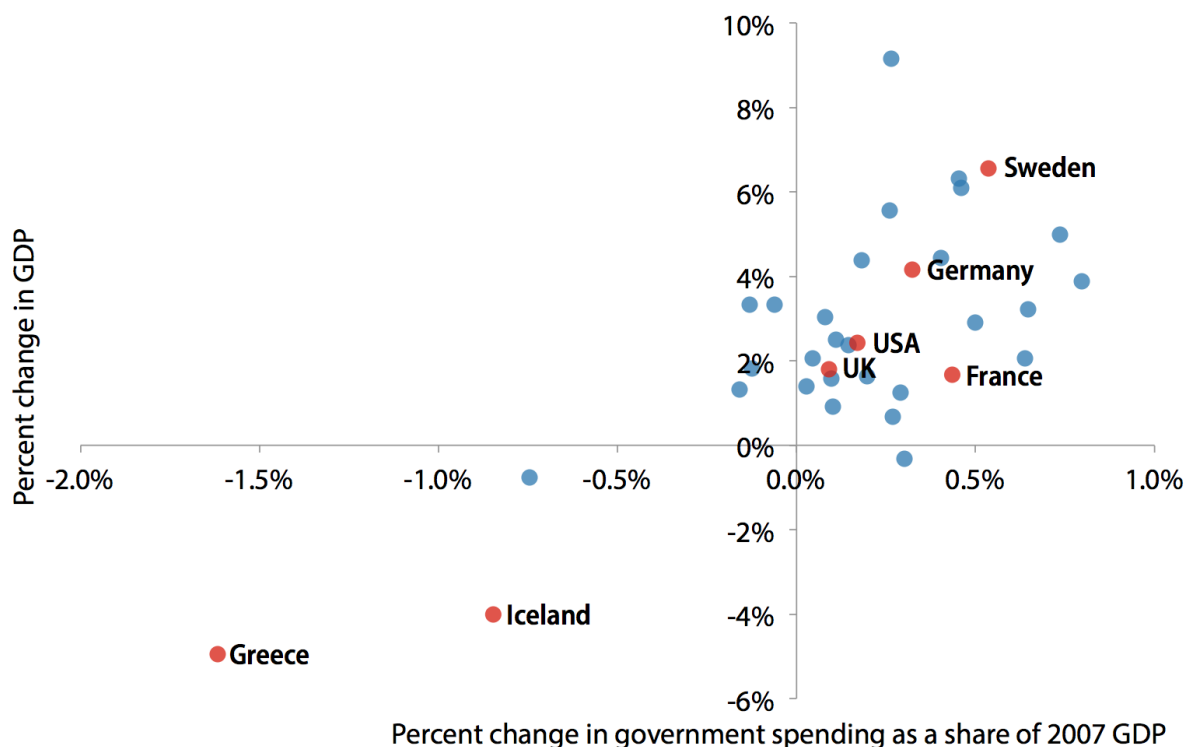
Of course, “not as bad as the eurozone and the United Kingdom” is far too generous a curve on which to grade U.S. federal policymakers. The appropriate policy stance is not one that allows the United States to avoid outright economic contraction, but one that rapidly pushes the economy back to full employment. This will require ambitious policy action aimed at spurring demand and accelerating growth. (See the section “What it would take to ensure a full recovery” for a discussion of the scale of policy action required.)

### **“Fiscal cliff” debate should have been laser-focused on full employment**

On the whole, the current U.S. economic debate has failed to acknowledge the lessons previously outlined that

FIGURE G

Change in government spending in developed countries as a share of 2007 GDP, and change in GDP, 2009–2010



Source: Organisation for Economic Co-operation and Development, *OECD.StatExtracts* public data series

demonstrate a clear need for large-scale policy action. This is reflected in the unproductive debate over the so-called fiscal cliff of scheduled spending cuts and tax increases that policymakers only partially mitigated during the “lame-duck” session at the end of the 112th Congress. It is also reflected in the partial resolution of the “fiscal cliff,” which entails more recovery-undermining austerity.

### ***The unproductive nature of the “fiscal cliff” debate***

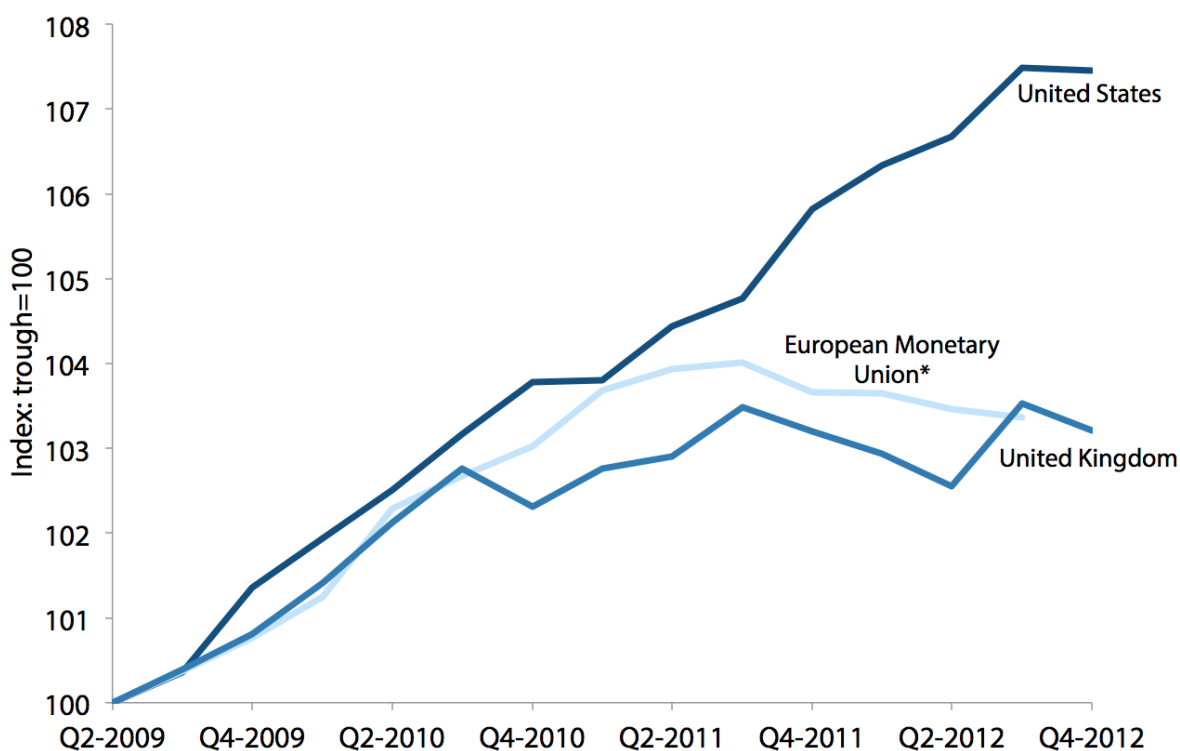
Throughout the “fiscal cliff” debate, policymakers were focused on the too modest goal of avoiding a return to outright recession through fiscal tightening. At the most basic level, the “fiscal cliff” would have closed budget deficits *too quickly*—meaning public debt would have risen *too slowly*—thereby pushing the economy into an

austerity-induced recession. If the scheduled budget changes had taken effect and been sustained far into 2013, they would have shaved 3.7 percentage points from real GDP growth by the end of 2013, relative to mitigating all major fiscal drags (Bivens and Fieldhouse 2012b). In addition, CBO was forecasting the economy would have shrunk an annualized 2.9 percent in the first half of the year, pushing unemployment back above 9 percent (CBO 2012c). Contrary to recent years’ misplaced but pervasive hand-wringing about rising public debt, this fear of the “fiscal cliff” implied that sizable budget deficits and debt accumulation have actually sustained growth and economic recovery, not slowed them, in recent years.

The “cliff” metaphor was a misguided framing of the actual economic challenge at hand that likely exacerbated the unproductive nature of the surrounding debate. Policymakers did not face a binary choice, as the pending

FIGURE H

Recoveries from the trough in the United States, United Kingdom, and European Monetary Union, 2009Q2 to 2012Q4



\* Data for European Monetary Union only available through 2012Q3

Source: Organisation for Economic Co-operation and Development, *OECD.StatExtracts* public data series

fiscal restraint was composed of fully separable policies.<sup>7</sup> But the most striking aspect of the debate was many policymakers' failure to appreciate that the economic context surrounding the "fiscal cliff" was an economic depression being perpetuated by austerity, despite the previously described evidence counseling against forcing austerity on a depressed economy.

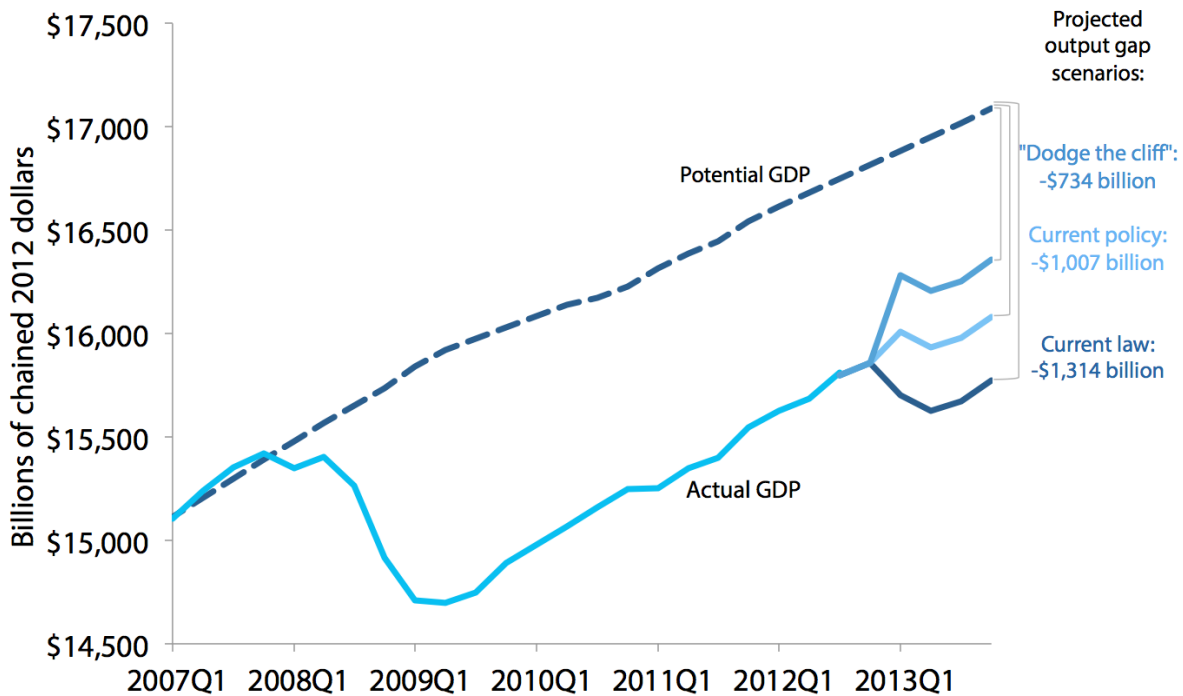
The budget deficit has already shrunk from 10.1 percent of GDP in fiscal 2009 to 7.0 percent of GDP in the recently ended 2012 fiscal year, and is projected to shrink to 5.3 percent of GDP in the current 2013 fiscal year (CBO 2013b). This is the most rapid rate of fiscal consolidation since the demobilization from World War II (Graham 2013). Beyond the wind-down of ARRA and even ignoring the Budget Control Act's (BCA) sequester, since

2011 Congress has already enacted \$1.5 trillion of discretionary spending cuts over the next decade (Kogan 2012). Again ignoring the sequester, the BCA reduced discretionary spending for the current 2013 fiscal year by \$107 billion (0.7 percent of GDP) relative to inflation-adjusted 2010 discretionary spending levels. This is a bigger cut than the sequester scheduled for fiscal 2013 by the BCA. In short, discretionary federal fiscal policy is joining state and local budgets on the austerity path.

Of the resolutions to the "fiscal cliff" under serious consideration, all would have exacerbated federal fiscal policy's economic drag.<sup>8</sup> For example, if the deficit reduction scheduled at the end of 2012 had fully taken effect—i.e., if the "current law" scenario had come to pass—the budget deficit would have continued contract-

FIGURE I

How various proposed resolutions to the “fiscal cliff” would have affected the output gap at the end of 2013



**Note:** See endnote 10 for a description of EPI’s current policy baseline.

**Source:** Authors’ analysis of CBO’s August 2012 economic baseline (CBO 2012c) and Bivens and Fieldhouse (2012a; 2012b)

ing rapidly, reaching 4.0 percent of GDP in fiscal 2013 and 2.4 percent in fiscal 2014 (CBO 2012d). Under this scenario, real GDP would have fallen 0.5 percent by the end of 2013, resulting in an output gap of about \$1.3 trillion (CBO 2012e), or 7.7 percent below potential output, as shown in **Figure I**.<sup>9</sup> (The output gap is the difference between potential economic output—what the economy could produce with higher, but noninflationary, levels of employment and industrial capacity utilization—and actual economic output.) If Congress had instead adhered to the “current policy” baseline (i.e., assuming sequestration would not occur and the Bush-era tax cuts and routinely renewed provisions would be continued), the budget deficit would still have contracted rapidly, to 6.4 percent of GDP in fiscal 2013 and 5.4 percent in fiscal 2014. Under this current policy scenario, real GDP growth would have further decelerated to just 1.4 percent,

and the output gap would have registered above \$1.0 trillion by the end of 2013, as depicted in Figure I (Fieldhouse 2012a).<sup>10</sup>

If Congress had instead “deactivated” all the major components of the “fiscal cliff” (i.e., additionally continuing the payroll tax cut and emergency unemployment benefits, as well as repealing the BCA discretionary spending caps), real GDP growth would have risen to 3.1 percent for 2013. This is certainly an improvement, but as Figure I depicts, the output gap would have been projected at \$734 billion—or 4.3 percent below potential output—by year’s end (Fieldhouse 2012a).<sup>11</sup>

In essence, the “fiscal cliff” debate was focused on whether the U.S. economy would end 2013 at 7.7 percent below potential output, 4.3 percent below potential output, or somewhere in between. A more productive debate

would have been based on concrete estimates of what it would take to achieve a full economic recovery. Yet the implicit policy question in today's fiscal debate remains centered on deciding just what level of depressed economic activity should be targeted in 2013.

### ***“Fiscal cliff” resolution entails more austerity***

The American Taxpayer Relief Act of 2012 (ATRA), the partial resolution to the “fiscal cliff” signed into law in early January 2013, failed to adequately moderate the pace of deficit reduction. This is because Congress gave more emphasis to dodging policies looming large in budgetary terms than policies looming large in economic terms.<sup>12</sup> Ahead of the deal, merely adhering to the current policy baseline implied overly rapid deficit reduction and increased economic weakness; ATRA further shrank the projected budget deficit for 2013 relative to current policy. Relative to fully mitigating the “fiscal cliff” components, we estimate ATRA implies 2.1 percentage points shaved from real GDP growth and more than 2.4 million fewer jobs in 2013, if the sequester materializes (Fieldhouse 2013a; CBO 2013c).<sup>13</sup>

CBO's subsequently published February 2013 economic forecast estimates real GDP growth of just 1.4 percent for 2013, and an output gap of more than \$1.0 trillion, or 6.0 percent of GDP, persisting in the fourth quarter (CBO 2013d). This current law economic forecast assumes that sequestration will take effect on March 1, as currently scheduled (the cuts were delayed for two months by ATRA). We estimate sequestration would reduce real GDP growth by 0.6 percentage points (Fieldhouse 2013a). So even if the entire sequester were repealed without offsets—the optimal but seemingly unlikely policy outcome—average real GDP growth would be expected at roughly 2.0 percent for the year. More likely, the sequester will be replaced with a mix of revenue increases and spending cuts; this would imply real GDP growth between 1.4 percent and 2.0 percent, depending on timing (i.e., how much austerity is scheduled for 2013)

and the balance between less economically harmful revenue increases and more damaging spending cuts.<sup>14</sup> Again, real GDP growth in this range would likely mean deterioration in the labor market and, at best, negligible progress toward restoring full employment.

Similarly, the output gap under a continuation of current policy would be projected at between \$941 billion and more than \$1.0 trillion by the fourth quarter of 2013, or 5.4 percent and 5.9 percent below potential output, respectively, depending on how much of the sequester is offset in 2013.<sup>15</sup> This is squarely in line with the \$995 billion output gap (5.9 percent of potential output) that prevailed in the fourth quarter of 2012 (CBO 2013a; BEA 2013a) and again suggests negligible progress in restoring the economy to full health—*regardless of how Congress handles sequestration*. Short of sharply reorienting fiscal policy to accommodate accelerated recovery, in 2013 U.S. trend economic growth will likely be insufficient to keep the labor market from deteriorating.

### **What it would take to ensure a full recovery**

As just discussed, in 2013 federal fiscal policy will likely make no progress in shrinking the output gap. However, closing the gap by boosting aggregate demand remains the key to restoring full employment, which should be the top economic policy priority. Conventional monetary policy has been exhausted, and neither unconventional monetary policy nor other channels of currency depreciation seem capable of cushioning fiscal drags, let alone spurring faster growth rates than those experienced since mid-2009. Closing the output gap entirely through expansionary fiscal policy would likely require roughly \$650 billion of deficit-financed fiscal stimulus in 2013, as well as substantial stimulus in 2014 and 2015 to avoid recurring “fiscal cliffs” in those years. All in all, we estimate policymakers truly committed to a full and durable recovery would need to target roughly \$1.5 trillion to



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\$2.2 trillion in additional fiscal support over the next three years.

### ***Closing the output gap***

While the United States officially entered a business cycle expansion in July 2009, the economy has operated 5 percent or more below potential output since the fourth quarter of 2008. And to close the roughly \$1 trillion output gap, actual economic growth must outpace growth in the economy's potential output (growth in potential productive capacity from rising productivity and labor force growth). CBO projects that growth in the economy's real potential output will average 2.2 percent over 2012–2022—whereas real GDP growth has averaged a lesser 2.1 percent since recovery began in mid-2009, and the economy has slowed further below trend growth in productive capacity to an annualized 1.9 percent since mid-2010 (BEA 2013a; CBO 2013a). Markedly faster growth is needed to restore full employment. However, as previously discussed, the trajectory for federal fiscal policy implies a continuation of anemic growth below potential and under levels necessary to improve the labor market—absent an abrupt, much-needed change of policy.

Dropping all political constraints, EPI's budget roadmap, *Investing in America's Economy: A Budget Blueprint for Economic Recovery* (Bivens et al. 2012), identified and actually budgeted for what we estimated it would take to absolutely ensure full and sustained economic recovery.<sup>16</sup> Our budget initially increased non-interest government spending in fiscal 2013 by \$761 billion relative to pre-ATRA current policy. We estimated this would provide roughly enough cost-effective discretionary fiscal stimulus (more efficient on average than, say, the payroll tax holiday in effect in 2011 and 2012) to close the output gap.<sup>17</sup> Bigger budget deficits to boost aggregate demand would also have been required relative to current policy in 2014 and 2015 to avoid setting up future “fiscal cliffs.” Our budget financed a total of \$2.2 trillion of increased non-interest spending over fiscal 2013–2015, relative to current policy. Net of phasing in progressive tax increases, our budget

would have increased deficits by \$1.2 trillion over fiscal 2013–2015, relative to current policy. We would have pushed the budget deficit to \$1.6 trillion (10.3 percent of GDP) in fiscal 2013 and \$1.3 trillion (8.0 percent of GDP) in fiscal 2014. This represented an increase of \$610 billion and \$438 billion, respectively, relative to pre-ATRA current policy. These increases in deficits, however, ignore the positive budgetary feedback effect of higher economic output, as projected near-term cyclical budget deficits would dissipate with a rapidly accelerated return to full employment.<sup>18</sup>

After we released our budget blueprint, ATRA was passed and the CBO revised its economic forecast (CBO 2013d); however, the requisite fiscal push to restore the economy to full health is roughly the same. Adjusting CBO's forecast for current policy, closing the roughly \$1.0 trillion output gap for 2013 would require roughly \$650 billion in deficit-financed efficient economic support in 2013 alone, with additional stimulus needed in subsequent years to generate a self-sustaining recovery. CBO's current law forecast shows cumulative output gaps of \$2.6 trillion over 2013–2015, and alternative output gap projections based on trend economic performance (discussed below) suggest cumulative output gaps of as much as \$3.1 trillion over this period. Adjusting for current policy, we estimate that ensuring the closure of these output gaps with deficit-financed efficient fiscal support would require somewhere in the ballpark of \$1.5 trillion to \$2.2 trillion of government spending over the next three years, assuming sequestration does not occur.<sup>19</sup> The higher end of this range assumes that every penny of near-term output gaps must be closed through additional fiscal support, while the lower end allows for some renewed positive influence of monetary policy support in the later years.

### ***Why fiscal policy is the answer***

It could be argued that this proposal is too economically ambitious (it is clearly too *politically* ambitious) because it essentially assumes the entire output gap must be closed through fiscal policy. This seems a prudent assumption,

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however. Conventional monetary policy has had little effect on the economy for nearly four years now, with short-term policy interest rates standing at ostensibly zero since December 2008. Indeed, the Fed has publicly assured that its short-term policy rates will remain at their current near-zero levels until at least mid-2015, and will certainly not change until either the unemployment rate falls below 6.5 percent or near-term inflation expectations exceed 2.5 percent (FOMC 2012a; FOMC 2012b).

Further, monetary policy is only likely to regain traction and help boost the economy if expectations are that inflation rates are not likely to fall in coming years (falling inflation rates are to be expected during times of very low interest rates and large output gaps). However, a crucial determinant of these inflation expectations is the degree of fiscal support and expectations of future output growth. More simply, even if we reach, say, 6.5 percent unemployment, it seems far from clear that monetary policy alone could sustain the economy's growth in the face of rapid fiscal contraction. By far the most *risk-averse* policy is to assume that the entire output gap must be filled through fiscal expansion, with monetary policy being used to perpetuate growth in the face of fiscal consolidation after full employment is achieved.

If instead fiscal contraction begins *before* this return to full employment, the current adverse equilibrium of large output gaps, anemic growth, big cyclical budget deficits, low interest rates, and subdued inflationary pressure could persist for years to come, at a staggering opportunity cost. And between low interest rates and reducing costly long-run "economic scarring" from underutilized productive resources, there is compelling evidence that such fiscal expansion would be more than self-financing over the long run (DeLong and Summers 2012).

Given the misplaced political emphasis since 2010 on deficit reduction, adding roughly \$600–700 billion in deficit-financed stimulus to next year's budget is obviously politically impossible. This demonstrates that poli-

cymakers are essentially refusing to discuss a guaranteed return to full employment.

## **Long-term consequences of failing to guarantee a return to full employment**

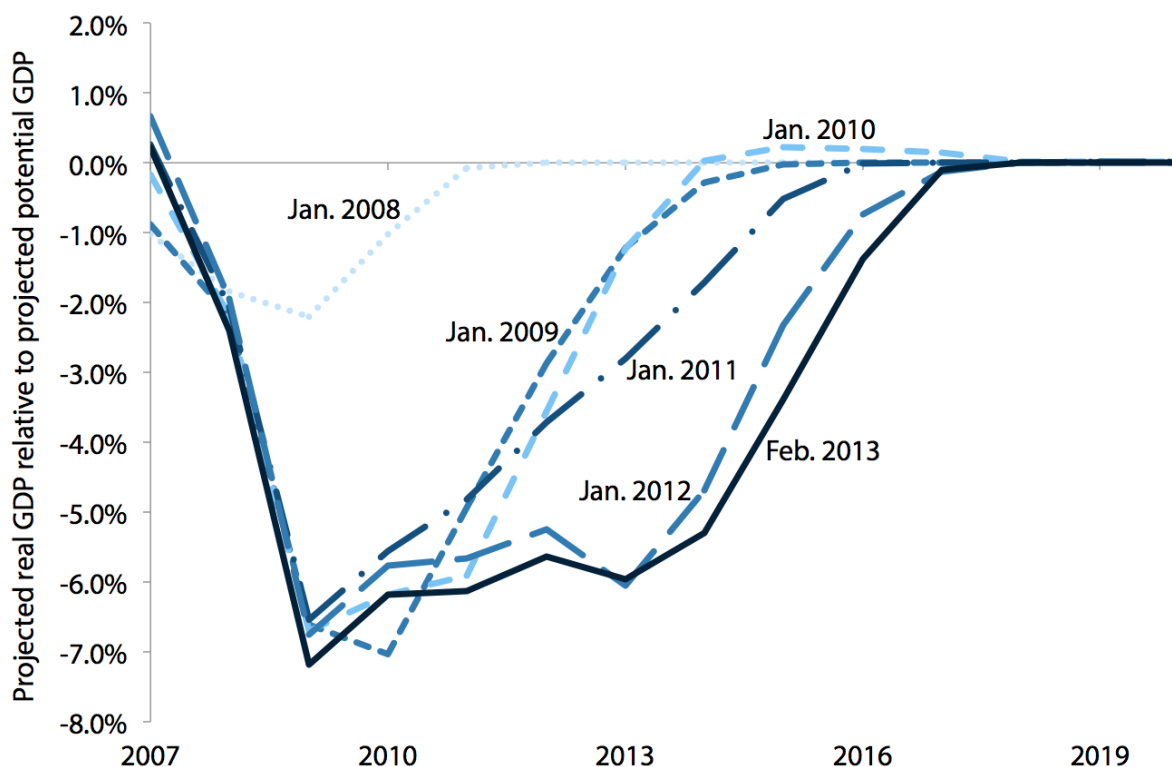
The U.S. economy has already forfeited trillions of dollars in national output because policymakers have failed to prioritize a return to full employment. And the corollary to trillions of dollars of forgone output is essentially trillions of dollars of lost national income. The longer this failure persists, the more damage the economy will sustain. As alluded to previously, knock-on effects of this policy failure include damage to future potential income from economic "scarring." Put simply, allowing productive economic resources (both people and capital) to sit idle and atrophy is an exceptionally inefficient economic policy decision (Irons 2009; CBO 2012d; Fieldhouse 2012b). It is also one that will lead to larger deficits over the medium and long term. Indeed, far too many self-proclaimed deficit hawks fail to realize that a rapid recovery would do much to reduce long-term budget deficits (the ones that pose theoretical risks), largely by ensuring against larger cyclical budget deficits than are currently being projected.

### ***Expanding output gaps over the medium and long term***

Output gaps to date show that the United States has cumulatively forgone \$4.5 trillion of national income between 2008 and the end of 2012, and CBO current law economic projections imply another \$2.8 trillion worth of cumulative output gaps over 2013–2017.<sup>20</sup> These forecasts are likely overstated in the near term given that Congress will probably repeal sequestration, either without offsets or with offsetting spending cuts and revenue increases phased in over a decade. Still, CBO's current economic forecast indicates a decade-long slump in which the United States will forgo \$7.3 trillion of national

FIGURE J

CBO's projections for full economic recovery continue to be pushed back



**Note:** CBO's various projections for when full economic recovery will be achieved are illustrated by where the line for each projected GDP trend (identified by the month and year the projection was made) intersects the horizontal axis.

**Source:** Authors' analysis of Congressional Budget Office data (CBO 2008a; 2008b; 2009a; 2009b; 2010a; 2010b; 2011a; 2011b; 2012a; 2012b; 2013a; 2013b)

income. Even if slightly overstated in the short term, this is a staggeringly large number.

Moreover, even this bleak outlook presumes the U.S. economy will naturally and rather quickly (once the process begins) attain growth rates sufficient to reach its full economic potential over the next four years or so. CBO's February 2013 economic forecast shows recovery rapidly accelerating starting in late 2013, with real GDP growth averaging 4.0 percent over 2014–2016 (roughly twice trend growth since recovery began). Should it materialize, this spurt of growth exceeding potential GDP growth would close the output gap within roughly the next four years. But as an empirical matter, the CBO projections have consistently issued premature dates for when full

recovery will occur. For example, the 2014 full recovery expected in CBO's January 2010 forecast is now projected for 2017. As depicted in **Figure J**, CBO's forecasts have consistently shown full recovery to be an elusive four years away. It is thus a deeply risky economic strategy to rely on such forecasts instead of ensuring a return to full employment through fiscal policy.

On a more theoretical level, the CBO projections basically assume that the economy has natural mechanisms that push it back toward its potential after experiencing negative shocks. This is a standard modeling assumption, and a reasonable one when the economy is not mired in a liquidity trap. Such mechanisms do exist, although the most powerful mechanisms are not market forces, but

rather institutional forces. For example, when the economy experiences a negative shock, falling tax collections and rising safety net spending—i.e., bigger budget deficits—automatically serve as shock absorbers. Similarly, the Federal Reserve deliberately loosens monetary policy when the economy is depressed.

However, these mechanisms for pushing the economy back toward full employment today are clearly too weak. Automatic fiscal stabilization helps, but it must be supplemented with discretionary stimulus. As noted previously, this stimulus has now completely faded—and state and local governments have been a consistent drag on growth throughout the whole crisis. Furthermore, while monetary policy has clearly helped, it has only been sufficient to moderate the downturn. This can be seen in how utterly dependent recovery has been on fiscal policy changes (as illustrated in a previous section).

Assuming expansionary fiscal policy continues to be the only mechanism capable of pushing the economy to full employment, what will occur over the next decade if fiscal policy becomes as contractionary as is forecast under current policy? One way to extrapolate trend economic performance over the next decade is to hold the output gap constant at 5.9 percent of potential GDP (where it stood in the fourth quarter of 2012) from 2013 to 2022. This is a possible outcome of current budget policy (albeit a slightly conservative estimate, given the trajectory for fiscal policy) without an exogenous boost to growth (e.g., an improvement in the trade deficit or a spike in residential investment). Alternatively, one can model what happens if real GDP from 2013 to 2022 continues to grow at the 2.1 percent annualized rate that has characterized recovery to date. Both projections show comparable, mammoth economic losses—all without the economy ever entering official recession—and an average of these two extrapolations is our preferred projection for sustained trend economic performance. Under this alternative growth projection, the U.S. economy would be \$1.1 trillion smaller than under CBO's forecast in

2017, when CBO assumes full recovery. The cumulative output gap would increase by roughly \$8.4 trillion over fiscal 2013–2022 in addition to the \$7.3 trillion in forgone output to date. The economy would be 6.5 percent smaller by the end of fiscal 2022 than under CBO's projection, as depicted in **Figure K**. This risk is of greatest concern for broad-based living standards, but for those professing concern about the sustainability of public debt, it would also mean the debt-to-GDP ratio would be 7.0 percent higher, everything else being equal.

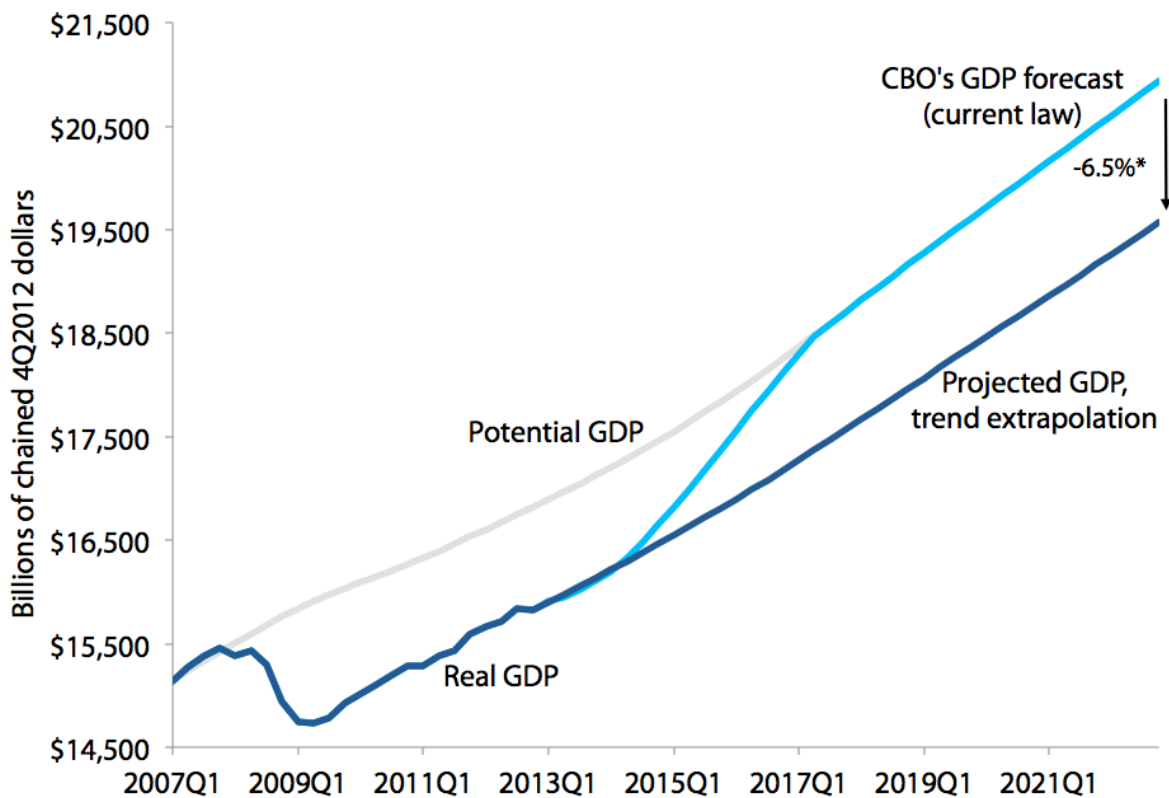
### ***Bigger deficits due to economic stagnation***

Budget hawks should have an additional reason to be concerned about expanding output gaps: As a rule of thumb, every dollar the economy moves away from potential GDP adds \$0.37 to the cyclical budget deficit through decreased tax receipts and increased automatic safety net spending (Bivens and Edwards 2010). This implies that adding \$8.4 trillion to the output gap between fiscal 2013 and 2022 would increase primary budget deficits (deficits that exclude interest payments) by roughly \$3.1 trillion over that period. Adjusting from chained 2012 dollars to the nominal dollars used in CBO's February 2013 budget forecasts (to comport with budget scorekeeping conventions), this would represent a \$3.5 trillion increase in cyclical budget deficits over the CBO's baseline forecast—perhaps better thought of as a \$3.5 trillion “failure to restore full recovery tax.”<sup>21</sup> (This compares with primary deficits of \$2.2 trillion and total cumulative deficits of \$7.2 trillion projected under current policy over the same period.)

However, much worse than these budgetary effects are the implications of continued stagnation for joblessness, economic stress on American families, and future long-run growth. Regarding the latter point, CBO has lowered its estimate of potential output in 2022 by 1.5 percent as a result of the recession (CBO 2012b). For an economy projected to then be approaching \$25 trillion, that amounts to a \$382 billion loss in productive potential in

FIGURE K

Alternative projection for sustained trend economic performance versus CBO's forecast of actual and potential GDP, 2007–2022



\* By the end of fiscal 2022, GDP would be 6.5 percent smaller under the trend extrapolation scenario than under CBO's GDP forecast.

Source: Authors' analysis of CBO's February 2013 economic baseline (CBO 2013d) and Bivens and Fieldhouse (2012d)

a single year.<sup>22</sup> Without markedly faster growth, potential output will continue reverting toward depressed actual output through economic scarring. This is an exceptionally inefficient waste of human and economic potential—and one that adds to budget deficits.

## Conclusion

During the Great Depression, the U.S. economy grew when policymakers provided monetary and fiscal support (mostly between 1933 and 1936), but faltered when this support was withdrawn. It only fully recovered when external events (i.e., the defense boom spurred by World War II) demanded a huge fiscal expansion. As discussed previously, Japan in the 1990s and early 2000s followed

a similar pattern of erratic growth due to inconsistent monetary and fiscal support, with the United Kingdom appearing to be stuck in the same pattern today. The United States must avoid similar self-inflicted and thoroughly counterproductive economic damage.

The top policy priority must be ensuring a rapid return to full employment. It is time to stop taking for granted the automatic return to full employment presumed by the policymaking elite, and instead use proven policy levers to force its return. The most effective of these remains deficit-financed government spending to close the shortfall in aggregate demand. Over each of the next few years, policymakers should target budget deficits roughly

\$600–700 billion larger than projected under current policy. Only by doing so can the United States guarantee that decades of rising income and living standards are not needlessly forfeited. The opportunity cost of sustained economic weakness in terms of living standards, inequality, the fiscal outlook, and economic scarring to potential productive resources is simply too high to jettison 80 years' worth of hard-earned economic knowledge. In contrast to the conventional wisdom that big budget deficits are immoral and economically damaging, big budget deficits have ended a recession and sustained anemic recovery. Continuing to close them too quickly risks a second recession and continued economic weakness.

Preferences of the policymaking elite and the broader economic policy discourse are far removed from such an acknowledgement—and an aggressive reorientation of fiscal policy, such as the one proposed in this paper, is often brushed off as politically infeasible. Sadly, the thoroughly inadequate policy response of this same political elite also explains why, five years after the onset of the Great Recession, the U.S. economy remains extraordinarily weak and risks a second lost decade of deteriorating—or, at best, stagnant—living standards for lower- and middle-income households.

Conventional fiscal policy debates inside the Beltway in recent years have focused mostly on the dangers posed by unhealthily large structural budget deficits projected to be run when the economy has returned to full employment. (Again, this concern ignores the likelihood of additional cyclical budget deficits if the return to full employment does not materialize as soon as projected.)

Besides noting how remote these dangers are, we should also point out that even if the economy rebounded much, much faster than anybody is currently predicting, there is little danger our policy recommendations would be damaging. If, for example, our policy recommendations were followed and budget deficits exceeded those projected under current policy in 2014 and 2015 even in an economy that had staged a strong return to full employ-

ment, the only cost would be higher interest rates that threatened to crowd out some private-sector investments.<sup>23</sup> But since so much of our plan relies on expanded public-sector investments, the economy's overall capital stock would still register strong growth. And given much research showing that the marginal return to U.S. public investment probably exceeds that of private investment, it is very hard to argue that our policy recommendations would inflict any economic damage, even in the unlikely case that the economy staged a very strong recovery on its own (Bivens 2012a).

In short, the real policy risk here is inaction and failure to ensure a return to full employment. Unfortunately, this risk seems all but certain of coming to pass.

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— **Heidi Shierholz** joined the Economic Policy Institute as an economist in 2007. She does research on employment, unemployment, and labor force participation; the wage, income, and wealth distributions; the labor market outcomes

of young workers; unemployment insurance; the minimum wage; and the effect of immigration on wages in the U.S. labor market. She previously worked as an assistant professor of economics at the University of Toronto, and she holds a Ph.D. in economics from the University of Michigan-Ann Arbor.

— The authors thank **Hilary Wething** for research assistance.

## Endnotes

1. The National Bureau of Economic Research (NBER) Business Cycle Dating Committee dates U.S. business cycle peaks and troughs by month, based on aggregate economic activity measured across a number of economic indicators, notably “real GDP, real income, employment, industrial production, and wholesale-retail sales” (NBER 2013). Two consecutive quarters of real GDP contraction is a common proxy for recessions, and this rule of thumb is typically used in assessing recessions in Europe and much of the rest of the world. A depression, on the other hand, refers to actual economic output being depressed substantially below potential output regardless of whether the economy is in a recession or business cycle expansion. Often, economies oscillate between recessions and expansions while mired in depression (e.g., Japan in the 1990s and the United Kingdom since 2008).
2. This paragraph examines the average income of the middle fifth of families instead of median incomes because the former measure is available for a much longer period of time (from 1948 to 2011). This provides the statistical power to convincingly test the relationship between unemployment and income changes.
3. Note that *demand* here is defined the economists’ way: desire backed by purchasing power. Nobody doubts that the desire for goods and services still exists in American households and businesses. What is lacking is purchasing power, which has been dramatically reduced as home prices collapsed, unemployment rose, and real wages fell for the vast majority.
4. In particular, the fact that short-term interest rates controlled by the Federal Reserve have remained at ostensibly zero since December 2008 (nearly halfway through the recession)

was—and remains—an impediment to interest rate cuts serving as the main recession-fighting tool. Fiscal expansion is more effective when conventional monetary policy is maxed out.

5. Annualized real GDP growth measured fourth quarter over fourth quarter. The 2.7 percent figure for the second half of 2009 is measured as two times the fourth quarter over second quarter growth for the second half of 2009.
6. For a full explanation of how this counterfactual level of government spending would have boosted overall growth, see Bivens and Finio (2013).
7. A more apt metaphor was that of a “fiscal obstacle course,” with the obstacles in question impeding, to varying degrees, faster recovery and lower unemployment. As such, adeptly moderating the pace of deficit reduction would require enacting cost-effective policies to spur demand (not necessarily constrained to “deactivating” various components of legislated restraint) while jettisoning economically ineffective policies. See Bivens and Fieldhouse (2012b) for a decomposition of the budgetary versus economic impacts of each of the major fiscal drags that had been legislated for 2013 prior to enactment of the American Taxpayer Relief Act of 2012 (ATRA), the partial resolution to the “fiscal cliff” signed into law in early January 2013.

A common misperception reinforced by the dominant “cliff” narrative was that the economy would “go over a cliff” on January 1, 2013. The fallacy of this concern was underscored by enactment of a stop-gap budget deal *after* this date had passed, with no catastrophic economic impacts to show for it. Economist Chad Stone of the Center on Budget and Policy Priorities offered the more apt moniker of a “fiscal slope,” because if no action were taken by the end of 2012, the economy would gradually decelerate in early 2013 (Stone 2012). Indeed, the problem of federal budget deficits shrinking too quickly began years ago—as reflected in the deceleration of growth since mid-2010. This deceleration was forecast to compound month-after-month into 2013, but policymakers could have averted a recession by taking action in the first few months of the year (Stone 2012). Tax filers newly falling into the alternative minimum tax for 2012 *if* it had not been patched would have owed no additional tax liability until April. Furthermore, Treasury Secretary Timothy Geithner could have delayed changing

income tax withholding tables, so that most households' disposable income would not have fallen even if all the Bush-era tax cuts lapsed for a few months before being partially reinstated retroactively. Sequestration cuts could also have been delayed later into 2013, but not indefinitely (Goldfarb 2012). The one major downward shift in annualized growth rates poised for the beginning of 2013 was the scheduled expiration of both emergency unemployment benefits and the payroll tax cut. Regrettably, this ad hoc stimulus was largely ignored in the policy debate, and the majority of this drag is now taking effect, as expiration of the payroll tax cut is decreasing disposable income.

8. Note that all calculations and numbers in the remainder of this section are based on CBO's August 2012 budgetary and economic baseline forecast (CBO 2012c), the benchmark guiding policymakers during the "fiscal cliff" debate and enactment of ATRA.
9. In Figure I, CBO's quarterly forecast of annualized GDP has been adjusted for the net impact of policy alternatives as we projected for the end of calendar year 2013. The GDP spike in the first quarter of 2013 followed by contraction reflects a deepening economic contraction in the second quarter of 2013 under CBO's August 2012 current law economic forecast. A smoother trajectory to the same fourth quarter of 2013 end point would be expected in the first half of the year under the alternative policy scenarios.
10. EPI's pre-ATRA current policy baseline assumed extension of the 2001, 2003, and 2009 tax cuts; the 2010 estate and gift tax cuts; the AMT patch; and business tax extenders (roughly 80 expiring tax provisions routinely extended on an annual basis). The only temporary tax policy assumed to expire on schedule was the two-percentage-point employee-side payroll tax cut enacted for 2011 and extended for 2012. EPI's current policy baseline also assumed that scheduled reductions to Medicare physician reimbursement rates would be prevented (i.e., the "doc fix" would be continued), the automatic sequester from the Budget Control Act of 2011 would not take effect, and force deployment and supplemental appropriations for overseas contingency operations would gradually decrease instead of growing with inflation. Note that in addition to assuming the payroll tax cut would expire on schedule, the current

policy baseline assumed that the emergency unemployment compensation program would expire as scheduled at the end of 2012 and the phase-one discretionary spending caps from the BCA would remain in place, thereby dragging on growth (see Bivens and Fieldhouse 2012b).

11. Note that nearly half (47 percent) of the projected fiscal drag was projected to hit *even under a continuation of current policy*, because emergency unemployment benefits, the payroll tax cut, and discretionary spending caps loom relatively large in economic impact per dollar, unlike temporary income tax cuts and routinely extended provisions among the current policy adjustments.
12. Relative to current policy, ATRA ended the Bush-era income tax rate cuts for households with annual taxable income over \$400,000 (\$450,000 for joint filers), raised the top statutory capital gains and dividends rates to 20 percent for households above this threshold, reinstated the personal exemption phaseout and the limitation on itemized deductions for households with annual adjusted gross income above \$250,000 (\$300,000 for joint filers), and slightly raised the top estate tax rate to 40 percent. Below these cutoffs, ATRA permanently extended the Bush-era tax cuts. It also extended through 2017 the ARRA expansions of the refundable Earned Income Tax Credit, Child Tax Credit, and American Hope and Opportunity Tax Credit. Of the provisions typically renewed on an annual basis, most of the business tax extenders and the Medicare "doc fix" (which prevents cuts to physician reimbursement rates scheduled by the Sustainable Growth Rate formula) were continued for 2013, while the Alternative Minimum Tax parameters were permanently indexed to inflation. Additionally, the budget deal continued the Emergency Unemployment Compensation program for 2013, delayed the implementation of the sequester for two months, and enacted offsets—a mix of mandatory savings, downwardly revised discretionary spending caps, and revenue—to pay for the "doc fix" and the postponement of sequestration.
13. ATRA left in place sizable fiscal headwinds, most notably the expiration of the payroll tax cut, which is projected to shave 0.9 percentage points from real GDP growth and lower employment by nearly 1.1 million jobs, relative to 2012 fiscal policy. The sequester scheduled for the remaining ten months of the year implies a drag of 0.6 percentage



points of real GDP and the loss of 660,000 jobs if it materializes, or if it is replaced with other spending cuts of comparable magnitude and timing (Fieldhouse 2013a; CBO 2013c). The phase-one BCA discretionary spending caps will ratchet down, shaving 0.4 percentage points from real GDP growth and reducing employment by roughly 530,000 jobs relative to pre-BCA law. The Emergency Unemployment Compensation program was extended, but only for a maximum duration of 73 weeks and to the cost of \$30 billion in 2013, down from \$39 billion in inflation-adjusted outlays for 2012 (when a maximum duration of 99 weeks was in effect for much of the year). This will result in a projected drag of 0.1 percentage point and 100,000 fewer jobs, relative to 2012 fiscal policy. Lastly, partial expiration of the upper-income Bush-era tax cuts is projected to shave less than 0.1 percentage point from real GDP growth and reduce employment by roughly 80,000 jobs, relative to 2012 fiscal policy.

14. For more on the way the composition of deficit reduction affects economic recovery, particularly the impact of revenue versus spending cuts, see Fieldhouse (2013b).
15. Current policy adjustments for GDP in the fourth quarter of 2013 are made for 25 percent of the fiscal 2014 budgetary cost of the “doc fix,” emergency disaster relief funding, and business tax extenders occurring in the fourth quarter of 2013 (CBO 2013b). Fiscal multipliers of 1.0, 1.4, and 0.32 are applied, respectively (following the precedent in Bivens and Fieldhouse 2012b). The range of estimates is based on sequestration occurring in full (hence no adjustment to current law forecasts) and sequestration being repealed in full (adjusting for the remaining fiscal year 2013 and 25 percent of the fiscal 2014 budgetary cost of sequestration). A fiscal multiplier of 1.4 is applied to sequestration.
16. The latest iteration of EPI’s budget blueprint was adapted for the Peter G. Peterson Foundation’s Solutions Initiative II, which convened five think tanks across the political spectrum to develop plans addressing our nation’s fiscal challenges in the context of the “fiscal cliff.”
17. Efficient fiscal stimulus is assumed to yield a fiscal multiplier of 1.4, Moody’s Analytics chief economist Mark Zandi’s most recent public estimate of the government spending multiplier (Zandi 2011). This is in line with other

robust estimates of the government spending multiplier (Bivens 2012b; Blanchard and Leigh 2012).

Note that *Investing in America’s Economy* was scored relative to CBO’s August 2012 baseline, ignoring legislative changes from ATRA. Most of the difference between then–current law and then–current policy was composed of expiring tax policies and associated debt service, and ATRA largely bridged these differences without changing the current law baseline for primary spending beyond minor changes in 2013. And prior to ATRA, the current law baseline actually overstated primary spending relative to the current policy baseline. Note that economic and technical revisions to baseline projections for fiscal 2013–2022 between CBO’s August 2012 and February 2013 baselines totaled a negligible \$128 billion improvement, leaving these calculations virtually unaffected by non-legislated revisions (CBO 2013e).

18. All dollars are nominal dollars from CBO’s August 2012 baseline (CBO 2012c).
19. Current policy adjustments for calendar years 2014 and 2015 follow the methodology in endnote 15, using 75/25 fiscal year/calendar year splits, and assume sequestration is repealed without offset. The current policy–adjusted CBO output gaps and our alternative output gaps (extrapolating trend performance through the fourth quarter of 2012, as discussed in the subsection “Expanding output gaps over the medium and long term”) are divided by 1.4, our multiplier assumption for efficient fiscal stimulus (see endnote 17), to roughly estimate the degree of fiscal support necessary to close the output gap. All calculations are in nominal dollars from CBO’s February 2013 baseline (CBO 2013a).
20. All estimates are in chained fourth quarter of 2012 dollars.
21. If the economy remained depressed and in a liquidity trap, neither Federal Reserve policy nor market forces would exert nearly as much upward pressure on interest rates as the rise projected in CBO’s economic forecast. Sustained economic weakness and failure to exit the prevailing liquidity trap would keep interest rates depressed along with the rest of the economy. Fixing debt service to keep annual net interest payments at 2.0 percent of nominal public debt (the average of actual and projected debt service as a share of public debt over fiscal 2011–2014, a reasonable proxy for liquidity trap

rates) projected under current policy would reduce debt service by \$1.7 trillion, relative to current policy. But this would still mean a net deterioration in the fiscal outlook of \$1.8 trillion, relative to current policy.

**22.** Nominal dollars are presented to comport with budget scorekeeping conventions. This year is indicative of a broader trend, not an anomaly: CBO's estimate for potential real GDP in 2020 has been downwardly revised by \$809 billion (3.4 percent) between its January 2010 and February 2013 baselines (CBO 2010a; CBO 2013a).

**23.** An unexpectedly rapid return to full employment would also mean smaller near-term cyclical budget deficits and related federal borrowing, somewhat offsetting demand-side interest rate pressures.

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