

The Importance of Strong Labor Demand

Jared Bernstein



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Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

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Center on Budget and Policy Priorities

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BROOKINGS

Abstract

By conventional measures, the U.S. job market has suffered some degree of slack for about 70 percent of the time since 1980. The absence of persistent, strong labor market demand has a significant negative impact on wages and incomes, with these costs falling disproportionately on the least advantaged. In this paper, I offer a four-part proposal to increase labor demand along with earnings and employment opportunities: (1) reform our monetary policy framework to accommodate more monetary stimulus and reduce the risk of hitting the zero lower bound, (2) develop a Full Employment Fund to reduce labor market slack, (3) support direct job creation programs to boost labor demand, and (4) design international trade policies to safeguard aggregate demand and mitigate the negative effects of trade deficits.

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Introduction

It is a remarkable fact that since 1980, by one conventional measure, there has been slack in the labor market far more often than not. That is, there has often been insufficient demand for labor, putting downward pressure on job opportunities and wage growth.

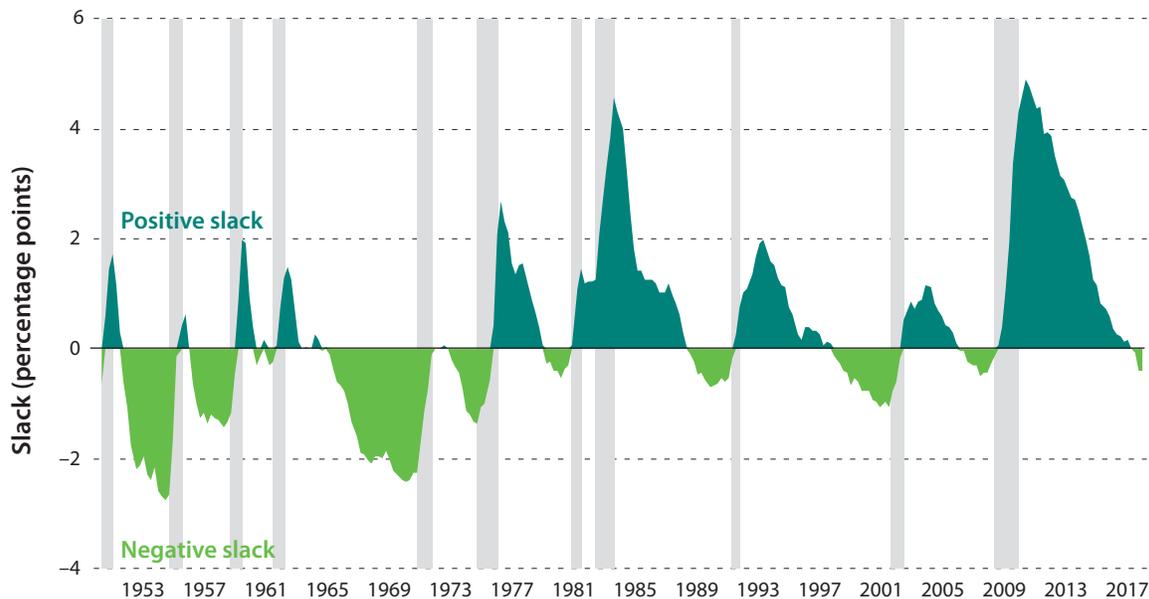
Figure 1 shows the difference between the unemployment rate and a frequently used estimate by the Congressional Budget Office (CBO) of the so-called natural rate of unemployment, or the rate economists believe to be the lowest jobless rate consistent with stable inflation. Though this paper critiques this concept of a reliably identifiable natural rate, by this broadly accepted measure, the U.S. job market has been slack about 70 percent of the quarters since 1980, compared to just about a third of the quarters from 1949 to 1980.

This fact of persistent slack might not be viewed as remarkable by many Americans stuck in places where gainful employment

opportunities have long been elusive. But for economists relying on models that assume full employment, as many models do, the fact that the U.S. economy has been at full employment less than a third of the time since 1980 is an awfully inconvenient truth.

It is also the case that many of the troubling trends in our economy, including wage and income stagnation, along with the rise of inequality, occurred largely after 1980. Of course, the absence of full employment is only one factor in those outcomes. Expanded trade and technological advances have contributed to slower wage and employment growth for certain groups of workers. In addition, the loss of union power, the erosion of labor standards (e.g., minimum wage levels and the overtime salary threshold), and corporate consolidation and greater market power of large firms have all tilted the playing field against less-advantaged workers. These factors help to explain the set of adverse wage and income outcomes for workers over the past few decades.

FIGURE 1.
Labor Market Slack, 1949–2017



Source: Current Population Survey 1949–2017; CBO 2017.

Note: Labor market slack is defined as the difference between the actual unemployment rate and the natural rate of unemployment: a positive slack value indicates elevated unemployment. 2017 values are based on the first three quarters of the year.

But weak aggregate demand—the total demand for goods and services throughout the economy—is an especially pervasive problem with unique characteristics. By definition, it suggests resource underutilization, which implies some degree of market failure, thus warranting a policy response. Similar to falling unionization, weak demand erodes the ability of many in the workforce to bargain for higher compensation. Even in the absence of unions, strong demand leads employers to bid up their wage offers to get and keep the workers they need if they are to meet consumer demand. In slack labor markets, such wage pressures abate.

Persistent slack has also been shown to lead to lasting (as opposed to temporary) negative effects on the supply side of the labor market and the broader economy. Even temporary shocks can cause permanent damage if workers' skills erode or if spells of long-term unemployment lead them to give up and permanently leave the job market. A recent, rigorous look at these effects in the labor market finds that workers in areas with relatively large unemployment shocks during the Great Recession had significantly lower employment and earnings years later (in 2015), relative to similar workers in places with milder upticks in unemployment (Yagan 2017). These impacts were particularly damaging for lower-wage workers, presaging results shown later in this paper on the relative impact of slack at different wage levels.

Other research shows the long-run impact of demand shortfalls on potential and actual gross domestic product (GDP), though economists remain uncertain how much of that loss is truly attributable to persistently weak demand. DeLong, Summers, and Ball (2014) argue that much of the post-2007 gap between earlier and later vintages of CBO's estimates of potential GDP—in other words, the decline in CBO's estimate of potential GDP in a given year—can be attributed to transitory shocks becoming permanent. In the second quarter of 2017, that difference amounted to just over \$2 trillion, which is the difference between the 2007 projection of potential GDP in 2017Q2 and the 2017 calculation of potential GDP in 2017Q2. It amounts to a loss of about \$6,500 per capita.

Even if only a part of that amount is attributable to the impact of persistent slack, weak aggregate demand is clearly a costly problem, suggesting the need for policies to address it.

Moreover, unlike many of the factors that dampen wage levels and growth, including eroded labor standards, arguments in favor of strong aggregate demand do not tend to provoke partisan rancor; in principle, policymakers generally agree on the need for strong demand. That said, policymakers have not yet taken adequate steps to keep the economy at full employment, as is evident from figure 1. Clearly, the problem of inadequate demand is not deemed sufficiently urgent by enough policymakers, perhaps because, as I show in the section on labor market tightness and wage growth, its downsides are concentrated among the least well-off.

Precisely what steps would ameliorate the problem of excessive labor market slack is the subject of much debate. Because there is no consensus about how to solve the slack problem, partisans often argue for their favorite solutions—tax cuts recommended by conservatives or infrastructure build-outs suggested by progressives—with insufficient evidence and economic rationale. To improve this discussion, I first examine the relevant evidence and economic theory, then propose policies to boost aggregate demand that are rooted in that assessment.

I propose a four-part policy response. First, the monetary policy framework should be reformed to reduce the risk of hitting the zero lower bound (ZLB) and to ensure that the central bank has the ability to support the economy during a downturn. Second, we must expand our thinking about fiscal policy and aggregate demand beyond recession-fighting to encompass sustained fiscal policy during weak expansions. I therefore propose a mandatory Full Employment Fund (FEF) that expands and contracts with need. Third, as a complement to this fund, I propose measures providing for direct job creation. Finally, I note that in the presence of the ZLB, persistent trade deficits can constitute a drag on aggregate demand, and I propose policies to both restore lost demand and reduce the trade deficits themselves.

This proposal begins with an analysis of the historical extent of economic slack—the persistent absence of strong aggregate demand—and then turns to an analysis of the impact of economic slack on wages and incomes. I then develop a policy agenda intended to significantly raise the amount of time during which the U.S. labor market is at full employment.

The Challenge

A BRIEF HISTORY OF SLACK AND OUTPUT GAPS IN THE U.S. ECONOMY

Any efforts to identify the extent of slack quickly run into measurement challenges. Estimating slack requires either a calculation of the natural rate of unemployment or the output gap between actual and potential GDP, in which case we are invoking variables that we cannot directly observe (see box 1). Moreover, both of these capacity measures have come under scrutiny in recent years, leading to portentous questions about their value as policy guideposts.

Figure 2, for example, plots the estimate of the Federal Reserve's (Fed's) natural unemployment rate against actual unemployment, wage growth, and both actual and targeted inflation rates. As the unemployment rate fell sharply from 10 percent to almost 4 percent (the January 2018 unemployment rate of 4.1 percent is the lowest since December 2000), inflation has not accelerated at all, and nominal wage growth increased only slightly. Such dynamics suggest various possibilities, including a low responsiveness of inflation to unemployment and/or that there is more slack in the labor market than suggested by the unemployment rate. If that is the case, then the slack suggested in figure 1 could be underestimated. That

is, if the natural rate is lower than typical estimates suggest, the actual unemployment rate minus the natural rate would yield larger slack estimates than shown in figure 1.

In fact, the difficulty in finding a trustworthy measure of the natural rate of unemployment is evident in figure 3, which shows the evolution over time of both point estimates of the natural rate and confidence intervals surrounding it (note that these estimates differ from those shown in figure 2). Over the past 20 years the natural rate has moved around a bit, but more importantly, our ability to estimate it with the degree of accuracy necessary for policymakers has collapsed. This decreasing precision follows from the diminished correlation between unemployment and inflation, which is the traditional basis for calculating the full employment rate. As such, the declining precision reflects the dynamics shown in figure 2, with inflation becoming less responsive to changes in slack.

Figure 4 compares a more comprehensive slack measure, derived by economist Andy Levin (2014). His gap measure comprises three equally weighted parts: the gap between the unemployment rate and the natural rate, the gap between the labor force participation rate and its expected value at full employment (as per CBO), and the hours-weighted share of

BOX 1.

Measuring Slack in the Labor Market

Two estimated variables are typically used as benchmarks for calculation of labor market slack: first, the so-called natural rate of unemployment; and second, potential GDP. These variables are not directly observed, but must be inferred from other data in the context of a particular economic model.

The natural rate of unemployment is the hypothetical lowest jobless rate at which price growth (inflation) would remain low and stable. If actual unemployment stays below this level for a while, we would expect inflation to accelerate. Conversely, when actual unemployment is above the natural rate, we would expect inflation to remain subdued and workers to suffer weak labor demand.

Potential GDP, also referred to as potential output, is the level of economic output that is possible at a given time if labor and capital are fully utilized. When actual GDP falls below potential—that is, when there is slack in the economy—not all available resources are being utilized.

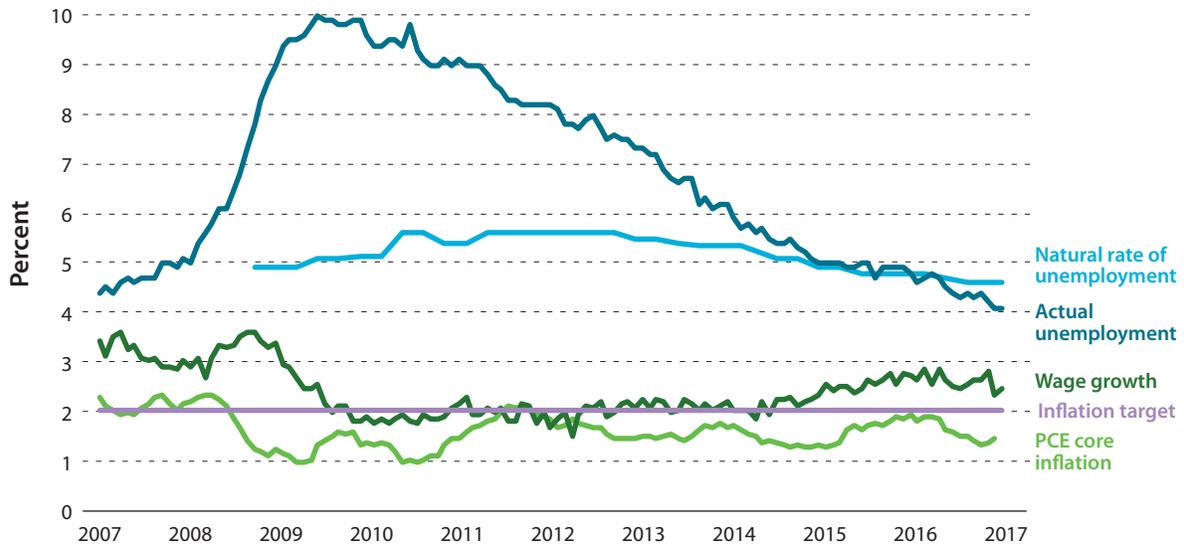
Both potential GDP and the natural rate of unemployment are unobservable variables that must be inferred from other, observable relations, such as the correlation between inflation and unemployment. Because these correlations change over time and across place, estimates of potential GDP and the natural rate of unemployment are subject to considerable uncertainty.

the workforce that is underemployed (i.e., involuntary part-time workers). Note that since around 1980 the Levin gap is larger than the standard gap measure; this difference was relatively large during the Great Recession and subsequent slow recovery. This was driven by both additional factors in the Levin measure: labor force participation was low relative

to expectations, and the share of underemployed workers was notably elevated in this business cycle relative to past cycles.

Potential GDP—the level of output at full resource utilization—and the output gap between real and potential GDP are also estimated with uncertainty (see box 1). Turning to the output gap,

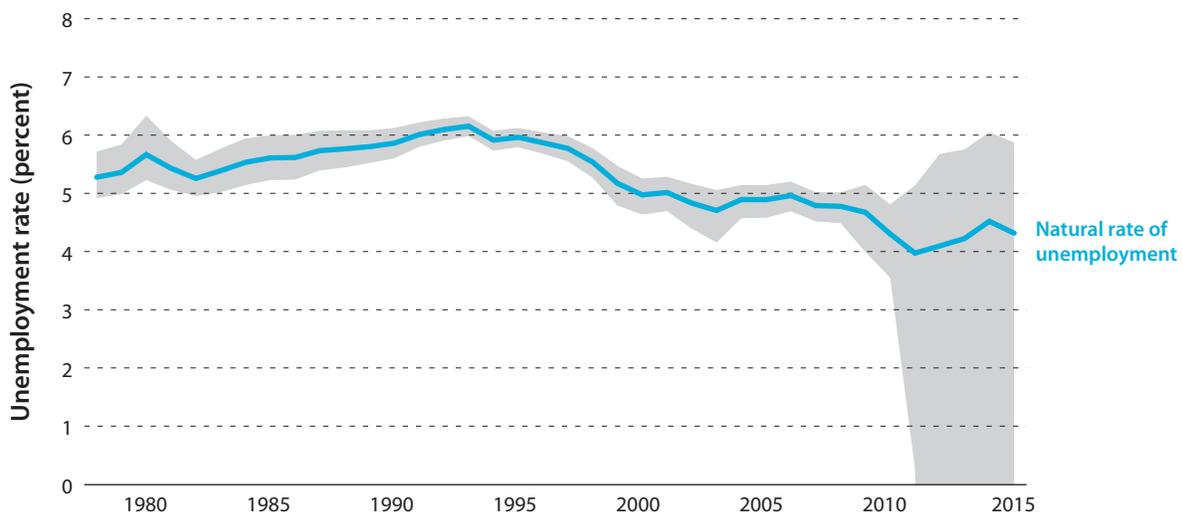
FIGURE 2.
Unemployment, Wage Growth, and Inflation, 2007–17



Source: Bureau of Economic Analysis (BEA) 2017; Current Population Survey 2007–17; Federal Open Market Committee (FOMC) n.d.; author’s calculations.
Note: PCE is the personal consumption expenditures price index. 2017 values do not include December. Data for natural rate of unemployment are only shown starting in 2009.



FIGURE 3.
Estimates of the Natural Unemployment Rate, 1978–2015



Source: Council of Economic Advisers 2016.
Note: Shaded gray areas indicate 50 percent confidence intervals.

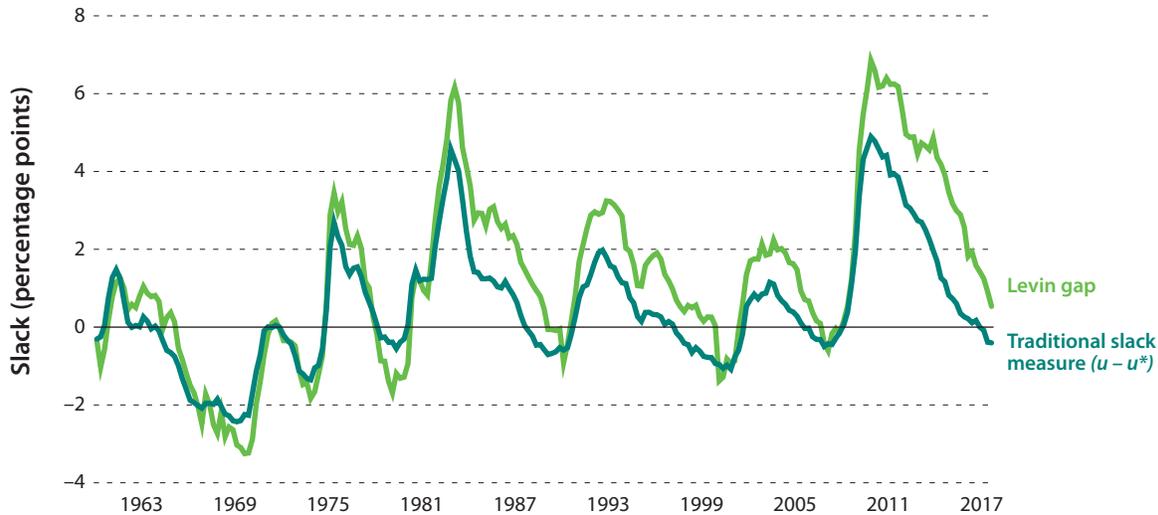


figure 5 shows three quite different estimates of potential GDP since just before the Great Recession, along with actual GDP. Two of the lines track CBO estimates of potential, derived from a combination of trend extraction and a bottom-up aggregation of estimates of production factors and productivity at full employment. The critical aspect of these estimates is that they are designed to capture lasting, structural changes in supply-side variables, including the stock of human and physical capital in the

economy; and total factor productivity (innovation), as opposed to temporary demand shocks. Recent research by Coibion, Gorodnichenko, and Ulate (2017) finds that such measures often conflate supply and demand shocks.¹

The implications of these figures are at least twofold. First, and most importantly, the U.S. labor market has been slack more often than not, as shown, for example, by the comparison of the

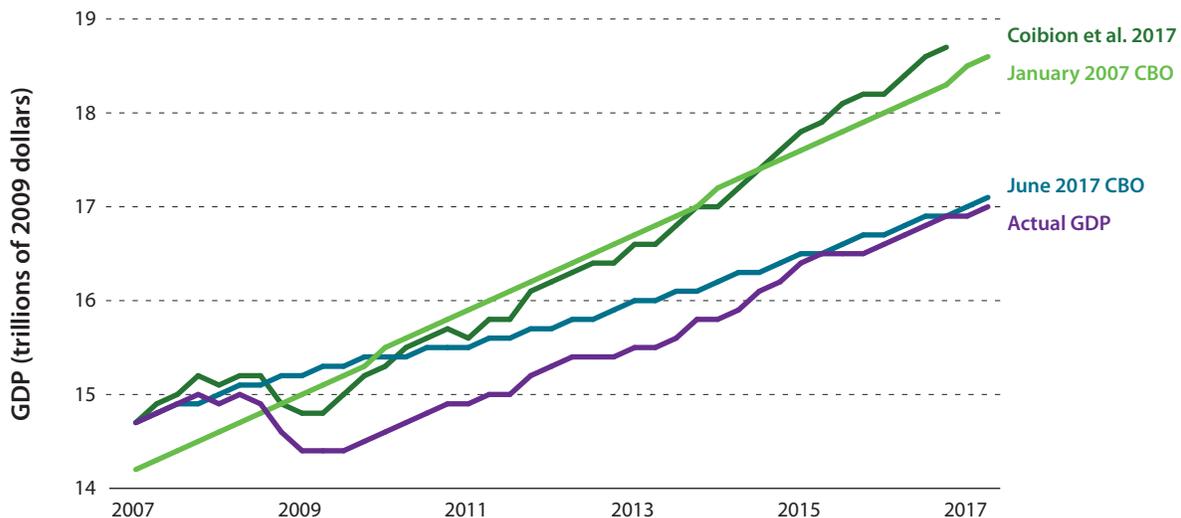
FIGURE 4.
Labor Market Slack by Measurement Method, 1960–2017



Source: Andrew Levin (personal communication); Current Population Survey 1960–2017; CBO 2017.
Note: 2017 values are based on the first three quarters of the year. The traditional slack measure is the unemployment rate minus the natural rate of unemployment.



FIGURE 5.
Actual GDP vs. Potential GDP, 2007–17



Source: BEA 2007–17; Coibion, Gorodnichenko, and Ulate 2017; CBO 2007, 2017; author's calculations.
Note: 2017 values are based on the first two quarters of the year. January 2007 and June 2017 CBO numbers are based on 2007 and 2017 Congressional Budget Office estimates of potential GDP; Coibion et al. 2017 shows potential GDP as estimated in Coibion, Gorodnichenko, and Ulate (2017) using an econometric technique developed by Blanchard and Quah (1989).



actual unemployment rate to CBO’s estimate of the natural rate. Such persistent slack puts downward pressure on wage growth, both nominal and real, which motivates a key theme of this chapter: implementing aggregate demand-side policies to get to and stay at full employment is instrumental in boosting wage and income growth, especially for less-advantaged or lower-wage workers.

Second, economists cannot, within a policy-relevant confidence interval (i.e., an interval that could reliably drive policy decisions), accurately calculate the extent of slack in the job market or broader economy. Absent clear signs of utilization constraints, and weighing both the macro and micro costs of weak demand against the risks of inflation, policymakers seeking to address wage stagnation, high levels of inequality, and weak worker bargaining power would be advised to aggressively apply the policies discussed later in this proposal.

LABOR MARKET TIGHTNESS AND WAGE GROWTH

The first part of this section establishes that slack has been common in the U.S. labor market. This section shows the impact of slack on wages and incomes, with a focus on the distributional impacts. These findings reveal economically and statistically significant negative impacts of slack on real wages and incomes. Moreover, these costs fall disproportionately on the least advantaged; in fact, correlations between slack and high wages tend to be statistically indistinguishable from zero.

The first set of results (figure 6) is derived from a state-level analysis of how wages respond to changes in either unemployment rates or employment-to-population ratios.² As expected, increases in employment lead to increases in wages, and increases in the unemployment rate lead to decreases in wages. Notably, the impact is much larger on low-wage workers, and, in fact, for high-wage workers slack and wages appear to be unrelated.

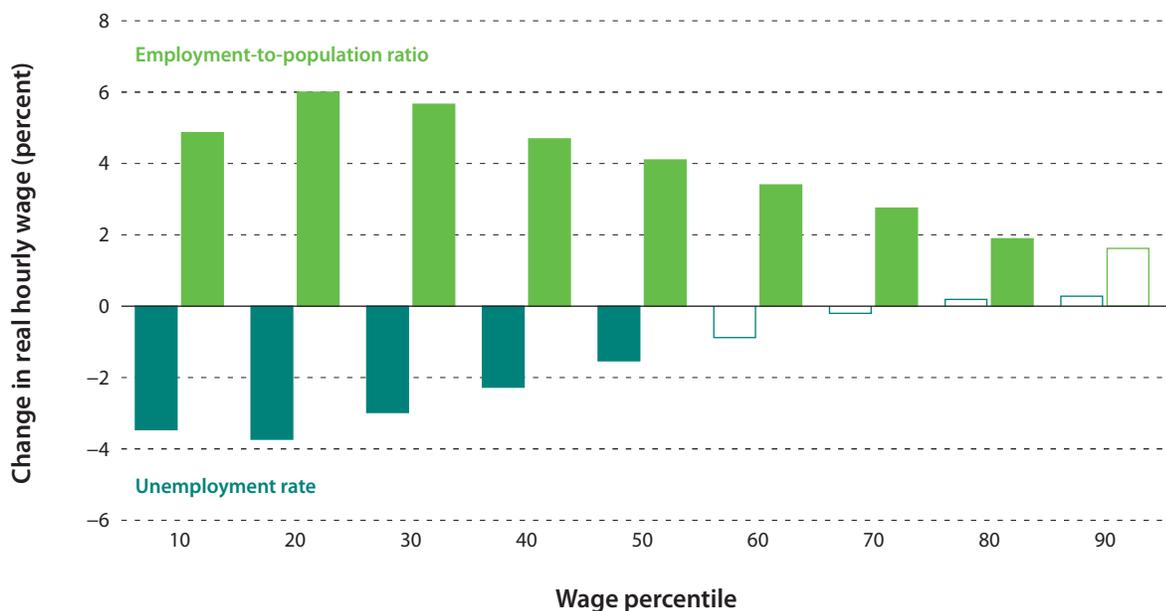
The magnitude of the impacts is economically meaningful. For example, as the U.S. job market moved to full employment during the 1990s, the jobless rate fell from 7.5 percent in 1992 to 4 percent in 2000. Over that period the 20th percentile of real wages grew 10 percent and median real wages grew 4 percent, implying that about 70 percent of each increase is associated with the unemployment decline.

This relationship between slack and hourly pay has long been understood in economics, particularly with respect to nominal pay. In addition, wage curve analysis has uncovered relationships like those shown in figure 6, all implying substantial wage gains when slack is lower. But there is another favorable effect of diminished slack, one that can be even more dramatic in terms of its impacts on the income of working families: the way low levels of slack can increase labor supply.

For working families, annual income can be simply defined as earnings plus nonlabor income. The earnings term can be

FIGURE 6.

Wage Differences Associated with Increases in Unemployment Rate and Employment-to-Population Ratio



Source: Current Population Survey 1979–2015; Economic Policy Institute 2017; author’s calculations.

Note: Bars in the charts show the impact on wages of a one-standard-deviation increase of a labor utilization variable over the 1979–2015 period. Hollow bars indicate coefficients that are not statistically significant at the 5 percent level.

FIGURE 7.

Simulated Real Median Household Income by Rate of Jobs Recovery, 2007–16



Source: Current Population Survey 2007–17; CBO 2017; author's calculations.

Note: "Baseline" shows the actual level of median household income, "Slower recovery" shows a simulation in which employment is assumed to grow half as quickly and unemployment fall half as fast as actually occurred, and "No recovery" shows household income with no post-2010 improvement in employment.



usefully decomposed as follows: Annual income = earnings per hour × hours per week × number of weeks + annual nonlabor income.

Slack does not matter only for hourly earnings: significant relationships similar to those shown in figure 6 exist between slack and both hours per week and the number of weeks worked. Bernstein, Spielberg, and Bentele (forthcoming) examine these relationships for low-wage workers over the 1979–2015 period, focusing on the role of stronger demand (low state-level unemployment) in generating higher earnings and incomes through increased labor supply. For all low-wage (bottom quintile) workers, the impact of falling unemployment on labor supply raised annual earnings by about 20 percent. For single mothers, lower unemployment raised earnings through the labor supply channel by 54 percent; for African Americans, 43 percent (Bernstein, Spielberg, and Bentele forthcoming).

In other words, while stronger labor demand puts upward pressure on wages, it also adds to annual earnings through increased labor supply. Another way to see this is to build a time-series model of median income growth as a function of inflation, employment, hourly wages, and slack (measured as the gap between the unemployment rate and the natural rate of unemployment). A simple model as described explains

about 80 percent of the variance in nominal median household income.³

Using this model, I simulate the evolution of real median household income under the assumption of no post-2010 improvement in employment. I also conduct a similar simulation in which employment is assumed to grow half as quickly and unemployment fall half as fast as actually occurred (shown in figure 7). Even though I allow hourly wages to grow exactly as they did over 2007–16, real median incomes either fall or stagnate under the two simulations, revealing the importance for middle-class incomes of having more work. That is, much of the recent improvement in real median household income has come not from wage gains, but from increases in hours and employment rates.

To be sure, more work at stagnant hourly earnings is costly to families in terms of reduced time for leisure and family responsibilities. Given the real hourly wage stagnation for low- and middle-wage men in the 1980s and both men and women in the 2000s, to the extent that incomes rose during those periods, those increased incomes were largely a result of more work. Hourly wage stagnation is, in other words, far from costless. But the record also shows that strong labor demand raises incomes through increases in both employment and hours worked.

A New Approach

The preceding analysis shows that, by various commonly used metrics, the economy does not quickly return to full employment after recessions, labor market slack is common, and this slack is costly, especially to less well-off families. For this reason, we need a policy agenda that will squeeze more slack out of the U.S. job market. The rest of this proposal explores such an agenda.

These proposals fall into four general categories: monetary, fiscal, direct job creation, and international trade/finance policies (though direct job creation is a specific application of fiscal policy). Since the goal of this agenda is to not only get to, but also to stay at full employment, I also consider financial regulatory policies to be highly germane because, in recent decades, financial bubbles have been a potent enemy of maintaining tight labor markets. However, in the interest of brevity I say little about these issues here. Also, while the focus is mostly on demand-side policies, I envision but do not discuss a role for training and apprenticeships within direct job creation programs. Updating and maintaining strong labor standards—including minimum wages, labor unions, and overtime pay rules—are key to a progressive wage agenda, but my focus here is more narrowly on policies to boost aggregate demand.

I propose that the following national policies be enacted to reduce labor market slack and raise labor demand:

- *Monetary policy:* Change inflation targeting at the Federal Reserve to both accommodate more monetary stimulus and reduce the risk of encountering the zero lower bound (ZLB) to interest rates. ZLB risk is at the core of all the proposals: the trade deficit, for example, poses a greater threat to labor demand when interest rates are near zero.
- *Fiscal policy:* Develop an automatic Full Employment Fund (FEF) that expands and contracts with changes in the business cycle.
- *Direct job creation:* Design the FEF so it will support direct job creation programs, from subsidized employment to public service jobs.
- *International policies:* Implement policies to ensure that changes in global demand are not a drag on aggregate demand within the United States, especially when there is already persistent slack in the U.S. labor market.

MONETARY POLICY: TIME TO TRY SOMETHING NEW

Monetary policy is carried out by the U.S. Federal Reserve, which has a well-known dual mandate of maintaining full employment at stable prices. Thus, the work of the Fed is at the heart of maintaining strong aggregate demand. My focus is, of course, on the employment side of the Fed's mandate, but understanding the role of price pressures in pursuit of tight labor markets is critical to achieving and maintaining full employment. As I argue next, countercyclical fiscal policy must of course be part of the response to temporary demand contractions, but the first line of defense is typically monetary easing by the central bank.

The Fed faces two significant challenges in terms of maintaining strong aggregate demand. First, as suggested in the preceding two sections, the Fed does not have reliable guideposts as to what constitutes full employment or potential GDP. If the Fed sets the natural rate too high or potential GDP too low (as Coibion, Gorodnichenko, and Ulate [2017] suggest to be the case), that action creates a risk that it will wield interest rate policy in ways that keep the economy from achieving sufficient aggregate demand to tap the benefits for less-advantaged workers shown in the previous section.

The second challenge for the Fed is that when short-term nominal interest rates have been reduced to zero, the central bank can no longer stimulate the economy through its most powerful weapon: lowering the interest rate it controls, thereby reducing the cost of borrowing and investing. While some central banks have reduced interest rates slightly below zero, the U.S. Fed has heretofore not gone this route and Fed officials have not suggested that this is a tool they would readily use (Irwin 2016). Economists discuss this problem of the effective lower bound on the policy interest rate as the zero lower bound (ZLB). While lowering the rate it controls is not the sole tool in the Fed's toolbox, it is widely agreed that hitting the ZLB is a serious constraint on generating more aggregate demand.

While the focus of this proposal is on longer-term weakness on the economy's demand side, current events are instructive of the longer-term challenge. Look back at figure 2. Clearly, unemployment has fallen below the Fed's natural rate (4.6

BOX 2.

Why Is the Zero Lower Bound Important?

The main policy tool of most central banks is to set an overnight borrowing rate that banks use to borrow and lend to one another. By adjusting this benchmark rate, central banks have impacts on a wide range of interest rates that help determine economic activity, such as car and mortgage loans. If there is a large enough negative shock to the economy, the central bank may reduce that rate to zero. In that case, it can provide no additional stimulus to the economy via rate cuts. Given the current structure of our economy and financial system, zero becomes a boundary: if interest rates were substantially negative, depositors could remove money from banking systems and hold cash instead. If a shock is large enough that zero is not a sufficiently low interest rate to restore demand in the economy and move the economy toward full employment, the economy is said to be stuck at the zero lower bound (ZLB).

There are other tools the central bank can use to influence the economy even if it is at the ZLB. For example, it can make promises regarding how long it will keep rates low to try to lower long-term interest rates. Alternatively, it could buy long-term government bonds or mortgage-backed securities to try to directly change key interest rates. The Fed has used a variety of tools in the past decade, ranging from direct buying (often referred to as quantitative easing) to making commitments about future rates (i.e., forward guidance). The impact of these tools is widely debated, but most economists agree that central banks' ability to provide monetary stimulus is constrained when their policy rate is at the ZLB.

percent as per its latest projections), and yet core inflation has decelerated (FOMC 2017). Nominal wage pressures have also remained subdued.

This has led to arguments against preemptive tightening that could prevent the benefits of tight labor markets from reaching many who have heretofore been left behind in this and prior expansions. But even sympathetic members of the Fed, including former Chair Janet Yellen (a strong advocate of full employment), worried that the Fed could get behind the curve and that inflation would become de-anchored; such fears push the Fed toward raising rates.

One way to ensure that the Federal Reserve uses policy in a way to maintain sufficient aggregate demand while addressing a number of changing macroeconomic realities and growing risks, particularly ZLB risk, is for the Fed to raise its inflation target. Better yet, the Fed should shift to targeting the *level* of a key variable, like the price index, nominal GDP, or the nation's wage bill. While any such changes would be large and potentially disruptive, they could be helpful in more reliably sustaining aggregate demand.

One key impact of a higher inflation target would be to provide the Fed more weaponry against ZLB risk, as well as demand contractions. Extensive research finds that interest rates have declined structurally across advanced economies in recent years, and many monetary economists, including those at the Fed, argue that the economy's equilibrium interest rate—the interest rate consistent with full employment—has fallen as well (Williams 2017). Some researchers, including Larry Summers as part of his reintroduction of what he calls the secular stagnation problem, argue that persistently weak demand is partly responsible for the decline in interest rates,

as savings have outpaced investment. (A contributor is the savings glut problem associated with countries with persistent trade surpluses—explored in the final section of *A New Approach*.)

These facts imply that hitting the ZLB, as occurred in the Great Recession, is a greater risk going forward than it has been in the past. It is hard to overstate the downsides of this risk. Though some banks have set rates below zero, the ZLB remains a threatening constraint that could be increasingly worrisome if the equilibrium interest rate remains historically low. By setting a higher inflation target, equilibrium nominal interest rates would be higher, making it less likely that the central bank would reduce interest rates to zero.

Targeting a higher inflation rate or level has other useful attributes. Particularly in a period like the present, with a tightening job market amid weak price pressures, a higher target would lead to a more patient Fed, one that would allow the benefits of full employment to be felt more broadly before it acted to slow the economic expansion.

In a recent review of these issues, Binder and Rodrigue suggest that “in terms of reaching full employment, price-level targeting may be more effective than inflation targeting.” They argue, for example, that a “central bank using price-level targeting would reduce the output gap more aggressively than a bank using inflation targeting, thus keeping employment more stable” (Binder and Rodrigue 2016, 12–13). In periods of weak price growth, like the current one, this effect is mechanical in the following sense: Suppose, after some period of inflation below its target, inflation reverted up to its target rate. The Fed would wash its hands and declare its stimulative work to be complete.

But under a level target, the Fed would be committed to allowing prices to rise more quickly than the target rate, in order to close the gap between the actual level and the targeted level that developed over the period of weak inflation. This is because the level target, unlike the rate target, must make up for past misses. This difference implies that under a credible, level-targeting central bank, periods like the past few years create expectations of faster inflation, which in turn produce expectations of lower real interest rates, and thus greater demand.

Former Fed chair Ben Bernanke (2017) agrees that level-targeting is preferable to targeting a higher rate, and argues the latter is too costly in that “it forces society to bear the costs of higher inflation at all times, instead of only temporarily after periods at the ZLB.” He proposes an interesting hybrid: keep the 2 percent inflation target in normal times, and switch to temporary 2 percent price-level targeting when rates are at the ZLB. This creates a lower-for-longer rate regime by the Fed’s interest rate setters, because they must make up for persistent misses on inflation. This would have been relevant to the most recent business cycle, given that core PCE inflation has been below the 2 percent Fed target for much of the past decade.

Binder and Rodrigue—in addition to many others—argue that targeting an economic aggregate like nominal GDP is an even better idea for maintaining aggregate demand (Brookings Institution 2018). After all, if the ultimate problem we are trying to solve is inadequate income or wage growth, why not directly target the level of those variables? Since nominal growth is real growth plus inflation, either slower real growth or slower inflation would induce looser monetary policy. Again, these targets are especially attractive in periods of protracted weakness (like much of the current recovery), during which the Fed would signal that its goal was not just to get back to some target growth rate, but to make up for lost ground by surpassing that growth rate for as long as was necessary.

Recently, some Federal Reserve officials, including former Chair Yellen (Glassman 2017), former Vice Chair Fischer (Robb 2017), and San Francisco Fed president John Williams (Harrison 2017), have all signaled some interest in these ideas. However, the statements and musings of influential central bankers are always amplified, and sometimes misinterpreted, by markets and investors, making it difficult for the Fed to explore innovative monetary policy ideas, and consequently subjecting the bank to a massive status quo bias.

Also, while academics often suggest that the Fed should adjust its inflation target, as if this was merely a technical issue, in the real world it is surely difficult to change market expectations. People and markets appear to have firmly internalized the current target rate and thus have come to expect the Fed to anchor inflation at either 2 percent or—more realistically—

around the level it has been for a long while. Both the Bernanke and Yellen Feds worked very hard to convey this message, because they reasonably view anchoring to be a key determinant of stable prices. Add this to the fact that the Fed has been undershooting its price target for a number of years, and we must admit that convincing the public of a change in the Fed’s inflation target will be very challenging.

A more deliberative approach would be to organize a process by which central bankers along with outside advisers and stakeholders can explore these issues—both that of the ZLB and unreliable macro-guideposts—in a climate that is not fraught with market and political risks.⁴ The Fed should set up a time-limited commission—say, a year-long process—tasked with considering whether a change to its current framework regarding inflation—its 2 percent target—is warranted, and, if so, recommend a different framework.

To maintain a substantively and politically contained process, the commission should accept the premise of the dual mandate. Accepting that premise obviates legislative changes: the commission should discuss tools, not goals (the results of the commission would thus be advisory to the Fed, and would not be legislatively mandated). Careful consideration should be taken to ensure representation by those with the most at stake from the persistent slack shown in the beginning of this proposal, such as advocacy groups for minority and low-income workers. The commission’s meetings, findings, and papers should be made public, which would help to prepare markets and the broader public for a regime switch, if that is what is forthcoming. To avoid political risks, this process should be run by the Fed itself, and not by Congress. However, to achieve political buy-in, staffers from committees that deal with monetary policy (e.g., the Senate Banking Committee and the House Financial Services Committee) should also participate in the process.

Given that the most recent few economic expansions fell victim to imploding asset bubbles, the Federal Reserve’s macroprudential role—its oversight of the banking system—is also germane to this agenda. The key policy recommendation is to use regulatory, and not interest rate, policy to push back on potential bubbles and underpriced risk. That is, if financial markets become too effervescent, it is important to employ regulatory interventions (e.g., rules that reduce leverage ratios), rather than interest rate hikes, as countervailing measures. Former Chair Yellen (2014), along with macroeconomists Blanchard and Summers (2017) have recently underscored the benefits of this approach, and Lars Svensson (2017) provides empirical evidence in support of it.

SUSTAINED FISCAL POLICY THROUGH A FULL EMPLOYMENT FUND

In 2013, when the U.S. economy had already been expanding for about four years, Fed chair Bernanke stressed the importance of countercyclical fiscal policy in his congressional testimony: “Although monetary policy is working to promote a more robust recovery, it cannot carry the entire burden of ensuring a speedier return to economic health. The economy’s performance both over the near term and in the longer run will depend importantly on the course of fiscal policy” (Bernanke 2013).

In fact, especially in recessions and weak recoveries, monetary and fiscal policy can interact to boost aggregate demand. The Fed’s firepower is diminished in periods of low equilibrium interest rates, and recent research suggests that fiscal policy is particularly effective at the ZLB (Auerbach and Gorodnichenko 2017). Unfortunately, the challenges faced by the Fed in raising demand at the ZLB were exacerbated by austere fiscal policy from 2011 through 2015, when policymakers engaged in fiscal consolidation rather than the needed expansion. (This very dynamic was the reason for Bernanke’s quoted comment above.) Moreover, recent research suggests a relationship between austerity measures, weaker growth rates (Blanchard and Leigh 2013; Shambaugh 2012), and even long-run impacts of weak demand on supply (Ball 2014; Summers 2014), suggesting a very steep cost to such fiscal policy mistakes (see also figure 7). With that context in mind, this section offers proposals designed to avoid the damaging bouts of fiscal austerity that have contributed to persistent slack in the U.S. economy.

Fiscal policy—tax, transfer, and spending policy by governments—can play at least three roles in boosting and maintaining aggregate demand. The first is the well-known, though sometimes disparaged, Keynesian role, wherein government spending temporarily ramps up to offset a demand contraction. The second role, and the one most relevant to this paper, is the use of fiscal policy to offset excess slack in recoveries characterized by weak aggregate demand. Third, through public investment in physical and human capital, fiscal policy can boost the supply side of the economy, raising potential growth and generating more labor market opportunities.

Following the Great Recession, research on both the U.S. and European economies has strengthened the case against austerity and the case for stimulative fiscal policy. For example, fiscal contractions have been shown to correlate with negative output outcomes (Blanchard and Leigh 2013), and research has shown that the positive impact of fiscal stimulus in weak economies is larger than previously thought. Other work (e.g., DeLong and Summers 2012) shows that the existence of even minimal, negative long-run impacts of demand shocks can increase the benefits of fiscal stimulus in economies with output gaps, and thus is associated with lower rather

than higher future debt-to-GDP ratios. In a recent paper, Ben Spielberg and I suggest various ways to make Keynesian stimulus more effective, including increasing the role of automatic stabilizers, such as the Supplemental Nutrition Assistance Program (SNAP), extending the duration of unemployment insurance benefits, and increasing state fiscal relief (Bernstein and Spielberg 2016).

These findings are all particularly relevant to boosting aggregate demand during recessions. However, it is also important for fiscal policy to squeeze out the residual slack during expansions, and the next section expands on this idea. The idea behind what economist Jason Furman (2016) calls sustained fiscal policy is that the related phenomena of weak recoveries and low interest rates, specifically interest rates below growth rates, create the need and opportunity for policymakers to make demand-strengthening public investments in recoveries. Furman writes, “Sustained fiscal policy may be necessary because the global economic climate may be showing symptoms of persistently inadequate demand dragging on growth and inflation” (11).

When the national economy is in recession, most—though not all, of course—economists accept the role of temporary fiscal stimulus. The idea of sustained fiscal stimulus is that, even in recovery, there are places and groups of people that have been consistently left behind, such that recessionary conditions can prevail in some parts of the country even when national unemployment is low.

In addition, as long as the economy’s growth rate surpasses the interest rate—as has long been the case in the United States and even more so recently—debt servicing costs should remain manageable (Kogan et al. 2015). We find this dynamic not only in U.S. data, but also in most advanced economies (Furman 2016).

In this way, insufficient aggregate demand creates the necessary conditions for sustained fiscal stimulus. The lowered propensity for private investment, higher global savings, and, in the U.S. case, capital inflows all combine to push interest rates below growth rates. This leaves us with weakened demand, the pervasive absence of full employment, the potential for permanently damaging supply-side impacts, and low borrowing costs. The obvious solution is sustained fiscal investments targeting the people and areas where demand is weakest.

As discussed in the next section, these investments can take various forms, including subsidized or direct job creation, infrastructure investment, or environmental investments. To fulfill this role, the federal government should build up a Full Employment Fund (FEF) that can ramp up and down as needed.

In principle, the FEF could be scaled to the output gap, which, as shown in figure 5, persists in recent expansions. More

realistically, the FEF should be funded like other contingency or emergency programs, meaning it would be treated as mandatory funding and would not be subject to sequestration or other such budget rules. To maximize its effectiveness, the FEF should be triggered on and off by above-average increases in or high levels of slack variables. Spielberg and I (Bernstein and Spielberg 2016) make a similar argument regarding improved triggers for the extended unemployment insurance benefits program. There, we argue for triggers based on either levels or changes in the underemployment rate (U-6 in the monthly employment report), which includes involuntary part-time workers, making it closer to the Levin measure shown in figure 4. Thus, either a high underemployment rate, or one that is rising quickly relative to past values, would trigger FEF outlays.

The importance of an automatic trigger for the FEF cannot be overstated. If its operations were instead at the discretion of Congress, political forces would be sure to undermine its responsiveness to the business cycle. Though there are many options for suitable triggers, the underemployment rate is an appealing choice due to its status as a broad measure of labor market slack. The Bureau of Labor Statistics (BLS) currently calculates underemployment rates on a quarterly basis at the state level. Sub-state estimates would be much preferable for triggering the FEF, but might be infeasible due to data limitations.⁵

Given the uncertainty in estimating labor market slack, a relatively small amount of resources—less than \$10 billion a year—should initially be devoted to the FEF to test the capacity of the channels noted above and the programs discussed next, and to gauge the effectiveness of those programs. When the fund’s trigger turns on—when underemployment either hits a trigger level or is quickly rising—FEF funds would be deployed, for example, to support some form of direct job creation.

In recessions, neither FEF nor any other countercyclical stimulus spending should be offset with payfors (i.e., tax increases or spending cuts used to pay for new spending), because these actions would dampen the impact of the stimulus. In expansions, targeted FEF spending should be offset with payfors, but Congress must be cautious not to tap payfors that hurt one group of vulnerable workers to help a different group. Thus, a good way to provide long-term funding for the FEF would be a dedicated, progressive tax source.⁶

Of course, the Federal Reserve must view these dynamics in the way presented here, recognizing the need for fiscal intervention when aggregate demand is weak. Otherwise, it could offset the impact of FEF expenditures and reduce any potential demand multiplier effects. A selling point in this regard is the geographically targeted nature of the FEF. By definition, the fund is targeting an area with above-average slack, and should thus be viewed as unlikely to contribute to overheating in the overall economy.

DIRECT JOB CREATION

Most economists have little trouble accepting the Federal Reserve as the lender of last resort when credit markets fail, as was the case in the financial crisis of 2008. In this section, I argue that the persistent absence of full employment in the U.S. and European labor markets creates a role for the government. This role might not be as an employer of last resort, but the government should at least engage in some form of direct job creation. Surely, the same standard for credit markets should apply to the job market: banks facing credit constraints are no more economically important than the significant numbers of workers facing labor demand shortfalls.

Direct job creation policy exists on a continuum from least to most interventionist. At the less interventionist end are policies wherein the government subsidizes wages for a set period in public or private-sector jobs, including nonprofits. Dutta-Gupta et al. (2016) recently completed an exhaustive review and evaluation of 40 years of experience with subsidized employment programs. Their review stresses the role of fiscal policy targeting job creation not just during downturns, but during expansions as well:

While aggregate labor demand policies—both fiscal and monetary—are essential to helping low-income workers secure and maintain sufficient employment, *additional policies and programs would be valuable throughout the business cycle for those with serious or multiple barriers to employment.* Subsidized employment programs and policies are underutilized, potentially powerful tools for lifting up workers in or at risk of poverty and deep poverty in the United States. These job programs can provide income support, an opportunity to engage in productive activities, and, in some cases, labor market advancement opportunities. They can also offer a platform for connecting people to other needed services, resources, and networks. [emphasis added] (Dutta-Gupta et al. 2016, viii)

Such programs often include a training component; the most effective training programs coordinate with local employers to ensure that participants are training for in-demand occupations. These programs are often directed at particularly disadvantaged workers facing steep barriers to labor market entry associated with basic skill deficits, minor physical or cognitive disabilities, long-term unemployment, discrimination, or criminal records.

During the most recent recession, the federal government implemented a successful program from this model through the Temporary Assistance for Needy Families (TANF) emergency fund. As Pavetti (2014) stresses, the TANF program was really a funding stream to states and localities that could be used to subsidize employment. She notes that 39 states tapped into the program, using \$1.3 billion to place around

250,000 low-income people in jobs in less than two years. While employers typically received the subsidy for relatively short periods (less than a year), participants often remained in the job market afterward. One careful study from Florida's version of the program found that, relative to a control group, participants' work and earnings went up not just during the program, but after it as well, suggesting lasting benefits (Roder and Elliott 2013).

At the other, far more interventionist end of the continuum, Paul, Darity, and Hamilton (forthcoming) propose that the federal government provide public service jobs for which it pays salary and benefits. The program creates a National Investment Employment Corps (NIEC) that provides employment grants to state and local government projects that are "designed to address community needs and provide socially beneficial goods and services to communities and society at large." Infrastructure, energy efficiency, community development, education, elder care, art, and other projects could all receive funding through the NIEC. Individuals taking advantage of the NIEC would have the opportunity for promotions, and Paul, Darity, and Hamilton estimate that the mean salary would be about \$32,500. They scale their program to eliminate involuntary unemployment and substantially reduce poverty, leading to an annual cost of nearly \$600 billion, which is close to what we currently spend on defense.

That is a highly ambitious plan, but as aggregate labor demand has long been insufficient to provide gainful employment opportunities to all who seek them, achieving full employment may well require some degree of direct job creation. Dutta-Gupta et al.'s (2016) review reveals a good track record for well-designed programs as well as empirical evidence suggesting that, once policy helps disconnected workers find their way into the labor market, many will try to stay there.

THE TRADE DEFICIT AND ITS ROLE IN WEAK AGGREGATE DEMAND IN THE PRESENCE OF THE ZERO LOWER BOUND

In an accounting sense, a trade deficit contributes negatively in the classic, expenditure-side GDP decomposition ($GDP = \text{private consumption} + \text{gross investment} + \text{government spending} + \text{exports} - \text{imports}$). However, that simple equation shows that other GDP components can offset the drag from a trade deficit. Moreover, the trade balance is a function of exchange rates, relative demand conditions between trading partners, trade relations, technologies that affect the logistics of trade, and more.

In periods of truly full employment, trade deficits can expand because a faster-growing economy attracts more imports. In that context, imposing balanced trade or even reducing the trade deficit would often be a mistake, because it would prohibit

the nation from investing more than its own savings rates allow. Dean Baker and I point out that this dynamic described the demand story in 2000, when the American economy had an unemployment rate of 4 percent and a trade deficit of about that same magnitude (Bernstein and Baker 2016).

But in the next expansion the trade deficit's role was more negative, as an overvalued dollar contributed to a sharp increase in our goods deficit with China (this is the period of the "China Shock" documented by Autor, Dorn, and Hanson [2016]), and the deficit peaked at almost 6 percent of GDP in 2005 and 2006, a historically large imbalance. As Baker and I wrote, "In this context, the trade deficit was subtracting from demand in the domestic economy."

Thus, it is equally important not to lean too far in the other direction: trade deficits are not always benign. For one, as shown in the first section of this paper we are often not at full employment, and in periods of weak demand trade deficits are not being sufficiently offset by other components of growth.⁷ Research has shown how some countries attempt to manage their savings rates and currencies to maintain trade surpluses, and, since global trade must balance, to impose trade deficits on other countries. Prominent mainstream economists, including Ben Bernanke (2005, 2015) and Lord Mervyn King (2017), have articulated how these imbalances can reduce demand in deficit countries, because surplus countries essentially export excess savings and import product and labor demand. These impacts on demand become especially important at the aggregate level when the economy is at the ZLB. As long as the Fed has ample room to lower interest rates, monetary authorities can help to offset the negative demand impact of the trade deficit. But as the risk of encountering the ZLB has gone up, so has the risk that trade deficits exacerbate the problem of weak aggregate demand.

From a policy perspective, this analysis suggests two types of interventions. In periods when trade deficits and slack coexist, as in the jobless (and initially wage-less) recovery of the 2000s, monetary policy interventions (when the economy has not encountered the ZLB) and fiscal policy interventions are effective. This is particularly the case for fiscal policy responses targeted at places where diminished net exports are clearly taking a toll on employment and earnings opportunities. In fact, classical trade arguments maintain that whereas trade does create so-called losers (e.g., production workers in richer countries), the gains of trade are such that winners can compensate losers and still come out ahead. When import competition reduces labor demand in particular areas, safety net programs, including supply-side and demand-side programs (e.g., training/apprenticeships for a subsidized or guaranteed job), are warranted. These are precisely the intended uses of the FEF.

At the ZLB or in a global recession, though, it becomes more important that demand be supported by policies abroad as well as at home. Lord King calls for a new Bretton Woods (i.e., a global agreement for countries to work to move their economies toward balance) that would nudge high-savings countries like Germany to invest their excess savings more internally, thus reducing capital flows to deficit countries. The U.S. government should encourage agreements that help ensure sufficient demand abroad and clarify their importance via diplomatic

channels. Failing that, countries can push back against currency manipulation and excess savings through ideas like Bergsten and Gagnon's "countervailing currency intervention" (2012, 1), wherein the United States announces "that it would offset the effects of currency manipulation through equal purchases of the intervening country's currency. This is intended to deter any return of the practice and, like any deterrent if credible, probably would not have to be used much if at all" (Peterson Institute for International Economics 2017).

Questions and Concerns

1. Given the increased difficulty of measuring labor market slack in recent years, is it possible that slack could be overestimated?

The fact that policymakers cannot reliably gauge some of the key metrics in this space, including the natural rate or the output gap, does not necessarily imply that more-accurate measures would always reveal more slack. In fact, in the late 1970s policymakers overestimated potential GDP, which led to high and damaging levels of inflation and unemployment. These relationships and these variables are dynamic, and economists must allow for biases in both directions.

2. Is it likely that the FEF and direct jobs creation programs will be effectively implemented?

Ideas like the FEF or direct jobs creation depend on a functional government sector that can efficiently implement such programs. For example, if, under a direct job creation program, employers simply substitute subsidized for nonsubsidized workers, there is no addition to aggregate demand. For this reason, it is always a good idea to try new programs on a pilot basis before taking them national.

3. Slack in the U.S. labor market appears to be very limited in early 2018. Does this undermine the case for your proposals?

It is true that the U.S. economy in early 2018 is quite clearly closing in on full employment; the unemployment rate is well below the natural rate as estimated by various agencies like the CBO and the Federal Reserve Board, though the absence of wage and price pressures suggests that we have not yet reached full capacity. This may lead some readers to question whether we have already solved the aggregate demand problem! Of course, that would be a mistake. My point is not that the U.S. economy never achieves sufficient levels of demand: it is that periods like the present are too infrequent, and policymakers need an aggressive agenda to implement when labor market slack is much greater than it is today.

4. If the Fed increases the rate of inflation, won't that just increase nominal wages, but provide no improvement in real wages?

Typically, higher inflation does pass through to higher nominal wages, which is one reason we should not expect a higher inflation target to hurt workers' real earnings. The goal of this policy, however, is to avoid the ZLB or insufficient aggregate demand more generally, where too many workers are unemployed and face stagnant real wage growth.

5. Won't your proposals for more aggressive fiscal policy cause larger deficits and debt levels?

I am clearly calling for more spending both during downturns—through more responsive automatic stabilizers—and during expansions (“sustained fiscal policy”). These proposals need not have a large impact on long-run deficits or debt levels. First, Congress already provides discretionary fiscal support during most recessions. The goal of one of my proposals—an FEF that is triggered by need—is to ensure that the fiscal impetus is both timely and well-designed rather than delayed or distorted by extended periods of political bargaining. In addition, by shrinking the amount of time the economy is below full employment, the policies should both boost revenue and lift the denominator (GDP) in debt-to-GDP ratios. Finally, I recommend raising more revenues as needed, preferably through progressive tax policies.

6. You suggest adding non-experts in monetary policy—specifically, advocates for low-wage and minority workers—to your proposed process led by the Federal Reserve that would evaluate and revise the monetary policy framework. Won't that both slow the process and make it needlessly more contentious?

It may or may not have these impacts. Progressive groups like “Fed Up,” while critical of some Fed actions, have developed good and useful relationships with the central bank. But such additions are absolutely essential for broad public agreement about the outcome of the framework evaluation process. Moreover, the workers represented by these groups are often the ones most affected, for better or worse, by Fed policies, and they therefore very much deserve to play a role in shaping those policies.

Conclusion

Among the many assumptions made by economists, one of the most empirically indefensible is that the U.S. economy is generally at full employment. It is also an assumption with the capacity to do tremendous damage to people and communities who, because of inadequate demand and thus limited economic opportunities, face stagnating living standards. Conventional measures reveal persistent slack in recent decades, and this slack disproportionately hurts those with the fewest economic resources.

I have suggested a four-part policy response. First, given the diminished correlation between unemployment and inflation, along with the increased risk of hitting the zero lower bound (ZLB) on the federal funds rate, the monetary policy framework should be reformed to reduce the risk of hitting the ZLB and ensure that the central bank has the ability to support the economy during a downturn. Second, we must expand our thinking about fiscal policy and aggregate demand

beyond recession fighting to encompass sustained fiscal policy during weak expansions. I therefore propose a mandatory Full Employment Fund that expands and contracts with need. Third, as one use for this fund, I propose measures providing for direct job creation. Finally, because persistent trade deficits in the presence of the ZLB can constitute a drag on demand, I propose policies to both restore lost demand and reduce the trade deficits themselves.

These four responses represent a small start in addressing this critically important market failure. Much more research is needed to identify the extent of weak aggregate demand. We must improve our measurement of output gaps and labor market slack, investigate the factors explaining the absence of full employment, explore geographical variation in slack, and examine other policies that can play a role in explaining labor market slack. But the first step is recognizing the problem and working toward its solution.

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Endnotes

1. Using an econometric technique developed by Blanchard and Quah (1989) to separately identify supply and demand shocks, they derive the potential GDP series shown in the figure. By the end of their data, while CBO's current estimate of potential GDP is coincident with the actual value, Coibion, Gorodnichenko, and Ulate's (2017) measure is 11 percent, or about \$2 trillion higher. Interestingly, that is about the same difference between CBO's 2007 prediction of potential GDP today and the most recent estimate for 2017Q2. Ball et al. (2014) come to a similar conclusion as Coibion, Gorodnichenko, and Ulate.
2. The estimates come from fixed effects panel regressions for the period from 1979 to 2015 that regress the log real hourly wage on the slack measure, where the slack measures are logged and lagged one year.
3. The model is run with data from 1968 to 2016 and regresses the percentage change in nominal median household income on lagged inflation (CPI-U-RS), the percentage change in wages, employment, and the unemployment rate gap. The R-squared in such a regression is 0.8.
4. This idea is somewhat like the Bank of Canada's five-year reviews of its monetary policy framework, though I am suggesting a process that is considerably more inclusive than the Bank of Canada's (as I understand it), and involves no direct government involvement.
5. However, BLS often uses modeling procedures to develop sub-state estimates (e.g., in the BLS Local Area Unemployment Statistics program), which could be applicable here as well.
6. One option is a small financial transaction tax, as other authors and I have described (e.g., Bernstein 2015, 2016; Burman et al. 2015).
7. Deficits at the sectoral level may be important as well, separate from their implications for aggregate demand. If production is concentrated geographically (as with some types of manufacturing) deficits can have important impacts at the community level.

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Highlights

By conventional measures, the U.S. job market has suffered some degree of slack for about 70 percent of the time since 1980. The absence of persistent, strong labor market demand has a significant negative impact on wages and incomes, with these costs falling disproportionately on the least advantaged. In this paper, Jared Bernstein offers a four-part proposal to increase labor demand along with earnings and employment opportunities.

The Proposal

Reform the monetary policy framework to accommodate more monetary stimulus and reduce the risk of hitting the zero lower bound on interest rates.

Develop a Full Employment Fund that automatically expands and contracts with changes in the business cycle to provide fiscal stimulus when and where it is needed.

Support direct job creation programs to subsidize employment and help disconnected workers to enter the labor market.

Design international trade policies to safeguard aggregate demand and mitigate the negative effects of trade deficits.

Benefits

These four policy proposals would begin to address the problem of persistent labor market slack. When labor market slack is significantly reduced, workers can more easily find employment, move across firms, and achieve career progress. Implementing these policies would boost both wages and overall economic growth.



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