OUTLOOK
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The Economic Impact of Full Employment

What a tightening labor market could mean for workers, companies and the overall economy

The U.S. unemployment rate dropped down as low as 4.3 percent this spring, which was not just its lowest point since before the 2008 financial crisis and the Great Recession, but the lowest it's been since 2001. After a decade of often disappointing news on the jobs front, some economists have begun invoking the phrase "full employment."

Yet if those numbers would appear to be harbingers of a new era of higher wages, employee confidence and renewed inflation, the economy has sent some contradictory signs as well. For one thing, the economy added another 222,000 jobs in June, suggesting that it was not quite at full capacity yet. Moreover, wage growth still hasn't budged, having been stuck around 2.5 percent for the past two years. According to Jared Bernstein, a senior fellow at the Center on Budget and Policy Priorities and former chief economist to Vice President Joe Biden, it all adds up to a jobs picture that is improving but has not quite reached its peak.

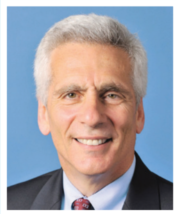
"Hold your applause," Bernstein noted in his *Washington Post* column on the employment situation. The economist spoke with OUTLOOK about why the unemployment rate by itself can be deceptive, what's going on with wages and inflation, and what signs will tell him the job market and economy have fully recovered.

OUTLOOK: How do you define "full employment"—and are we there yet?

Jared Bernstein: Full employment is that highly desired state in which there's an extremely tight matchup between the number of job seekers and the number of jobs. If we were there now, that would be good news for workers, because tight labor markets deliver the bargaining power workers lack in weaker labor markets.

We're getting close, but I don't think we're there yet. True, our current unemployment rate is low, and that's widely considered to be the best indicator of full employment. But other indicators haven't followed suit. Think of employment as a glass of water. When an economy reaches full employment, adding new jobs is like adding water to a glass that's already at the brim. Instead of helping your employment rate, new jobs essentially spill over in the form of rising inflation. Yet our key inflation gauges are not accelerating—they're decelerating. To me, that's a key sign that we're still not at full employment.

This Month's Expert



Jared Bernstein served as chief economist and economic advisor to Vice President Joe Biden from 2009 to 2011. During that time he also served as executive director of the White House Task Force on the Middle Class and a member of President Barack Obama's economic team. In May 2011, he joined the Center on Budget and Policy Priorities as a senior fellow. His areas of expertise include federal and state economic and fiscal policies, income inequality and mobility, trends in employment and earnings, international comparisons, and the analysis of financial and housing markets.

Prior to joining the Obama administration, Dr. Bernstein was a senior economist and the director of the Living Standards Program at the Economic Policy Institute in Washington, D.C. From 1995 to 1996 he served as deputy chief economist at the U.S. Department of Labor. Dr. Bernstein has written or co-written many books for popular and academic audiences, including 2013's "Getting Back to Full Employment: A Better Bargain for Working People." A frequent contributor to *The Washington Post,* CNBC and other news outlets, he holds a doctorate in social welfare from Columbia University.

OUTLOOK: How do wages factor in?

JB: At full employment, wage growth should be accelerating. Employers should be bidding up wage offers to get and keep the workers they need. But for non-managerial workers especially—the folks who really depend on a tight labor market to give them bargaining clout—wage growth went from around 1.5 percent per year after the Great Recession to around 2.5 percent now, and it has been stalled there for more than a year. That's a little peculiar considering how much the job market has tightened up. And because energy prices have gone up recently, the buying power of those workers' paychecks has actually flattened out.

OUTLOOK: What signs will convince you we've reached that tipping point to full employment?

JB: I don't think we can use one indicator anymore. For full employment, we would need an unemployment rate in the neighborhood of 4 percent, along with wage growth of about 3 percent, and inflation would have to be creeping up instead of slowing down.

OUTLOOK: What do you see as the reasons for the current disconnect between the unemployment rate and wages?

JB: One reason the unemployment rate has fallen so far recently is that labor force participation has been uniquely low. For the purposes of the unemployment rate, you're counted as unemployed only if you're looking for work. If you give up, or you retire, you're not counted. For example, the unemployment rate fell in May, from 4.4 percent to 4.3 percent. But that wasn't because people got more jobs; it fell because many people left the labor market.

Some of that reflects people not finding the opportunities they want. But more of it may reflect our aging workforce. Baby Boomers like me are aging out.

OUTLOOK: Do you expect wages to begin rising significantly any time soon? What would it take for that to happen?

JB: With the [Federal Reserve] tapping the growth brakes by slowly raising rates, I don't expect to see a significant spike in wage growth. Assuming labor market conditions remain about where they are now, I expect to see wage growth drift up a bit more, maybe from its current 2.5 percent or so to 3 percent or 3.5 percent, tops. Why not more than that? There are three constraints on wage growth: the Fed's rate increases, slow productivity growth and weak workers' bargaining power, even at low unemployment.

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OUTLOOK: What can we infer from the most recent employment numbers?

JB: Over the past three months, the average monthly job gain has been about 190,000, roughly the same as it's been over the past year. That's strong job growth, but as we get closer to full employment, we would expect that employers looking for new hires would have some trouble finding enough workers left in the labor pool. You'd expect to see accelerating wage growth and maybe faster inflation too, and we're not seeing either of those in the current data.

OUTLOOK: Overall, are you optimistic or pessimistic about the economy?

JB: There are some very positive signs. I think we look pretty good right now. Credit markets are flush, the labor market is tight, I don't think we're at full employment but we're closing in on it, inflation is not threatening, supply chains look robust, global capital continues to flow. Household debt is climbing back up, but it's not at an unhealthy level.

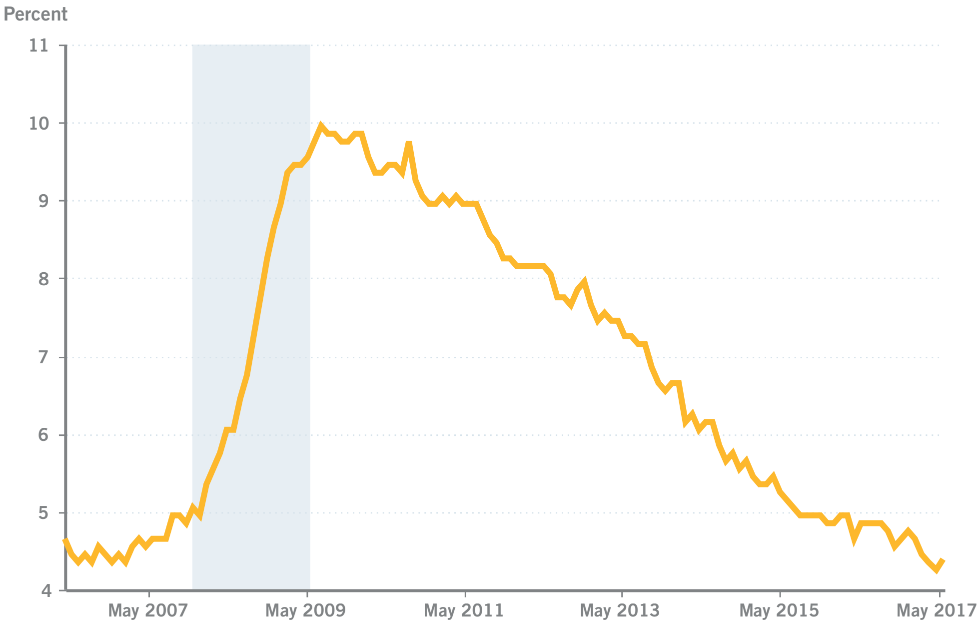
I do see three concerns in that somewhat bright picture. One is that there are pockets of despair where the recovery hasn't reached people. Two is the slowdown in wage growth. Inflation, while slow, has caught up to those gains, so we're not seeing the real wage growth we'd like to see eight years into an economic expansion. And three, I think that the Trump administration is pretty reckless when it comes to economic policy.

OUTLOOK: What, specifically, do you feel is reckless about the administration's handling of the economy?

JB: The best thing this administration could do for the U.S. economy is avoid screwing it up, but I'm afraid it may not do that. Donald Trump talks a lot about protectionist measures that would be destructive to international trade. But he and his administration have also proposed a 40 percent cut in job training, they want to cut child care programs that help low-income people get into the job market, and they want to hack away at health care coverage, which also enables people to participate in the labor market.

Donald Trump ran on a very resonant agenda regarding some of the difficulties in the job market. He really spoke to people left behind by globalization, and I give him a lot of credit for that. But I just haven't seen a policy agenda that would come anywhere close to meeting that rhetoric. I see the opposite—cuts to programs that actually help the people who put him where he is and a bunch of tax cuts for the wealthy.

CIVILIAN UNEMPLOYMENT RATE, 2006–PRESENT



Shaded area shows recession

Source: U.S. Bureau of Labor Statistics

OUTLOOK: Where are those pockets of despair you mentioned earlier?

JB: There are places in the Rust Belt, in Michigan and in Pennsylvania, and also some urban areas where unemployment rates have remained uncomfortably high for a long time. Job creation simply hasn't reached those places. Poverty rates are too high. Part of that is a Rust Belt story, where manufacturing employment went away a long time ago. Part of it is an urban story, where job deserts exist within vibrant and robust cities. Part of it is groups of people whose skill levels have left them behind. Those are problems that have been with us for a long time, but it's important to remember that even at full employment, or close to it, there are still people who have been left behind.

OUTLOOK: If the drop in unemployment hasn't led to a rise in inflation, why has the Federal Reserve signaled it plans to continue raising interest rates?

JB: If you look at core inflation excluding volatile energy and food costs—the measure that the Federal Reserve looks at most closely—it has been growing at a rate of 1.5 percent. The Federal Reserve's target is 2 percent, and they haven't been able to hit that target for years. So this is an economy without a lot of inflation. And even though energy prices have been rising, they're still relatively low.

Against that backdrop, I'm a bit concerned about the impact of the Fed continuing to raise rates. If you were just looking at the labor market, I can see where the slowing unemployment rate would signal rate hikes. But ultimately, the arbiter of whether the job market is creating inflationary pressures is the rate of inflation. A few months ago, inflation was growing 1.8 percent year over year; now it's 1.5 percent. It's going the wrong way.

On one level, I understand what the Fed is doing. We're in year eight of an economic expansion, the job market is clearly tightening, and the Federal Reserve's benchmark interest rate is still extremely low. So the Fed is on what it calls a "normalization" campaign, to get rates back to more normal levels. But the data certainly aren't pushing the Fed in that direction.

> "Since the 1970s, we've been at full employment less than 30 percent of the time.... We can run a tighter economy than we used to think we could."

OUTLOOK: Are there risks when an economy reaches full employment?

JB: The Fed's two main responsibilities are jobs and controlling inflation. If we're at full employment, then the Fed has to be concerned about wage pressures bleeding into price pressures, with an imminent rise in inflation.

Using my earlier analogy, if you pour in too much water, it can spill out of the glass. The economy can overheat, and if the resources in the economy are fully utilized and you push them further, you don't get more labor, productivity or investment. You just get more inflation, and that can turn into a spiral of people expecting more of that to occur. Decades ago, that was one way we got into recessions.

But since the 1970s, we've been at full employment less than 30 percent of the time. What the numbers are telling us now is that even at low unemployment, there's not that kind of full-utilization price pressure. We can run a tighter economy than we used to think we could.

OUTLOOK: You've written that underemployment remains too high. What is underemployment, and how does that factor into a discussion of full employment?

JB: Underemployment is a useful economic indicator because it's more comprehensive than the unemployment rate. It includes everyone who's unemployed, but it also adds the 5.2 million people who are working part-time—but not by choice. Typically they work only about 20 hours a week when they'd like to work 40. There's also a relatively small group of people who would be in the job market if they thought there was more work to be had. But they haven't been able to find anything for a long time so they've taken themselves out of the game. The technical term is discouraged workers.

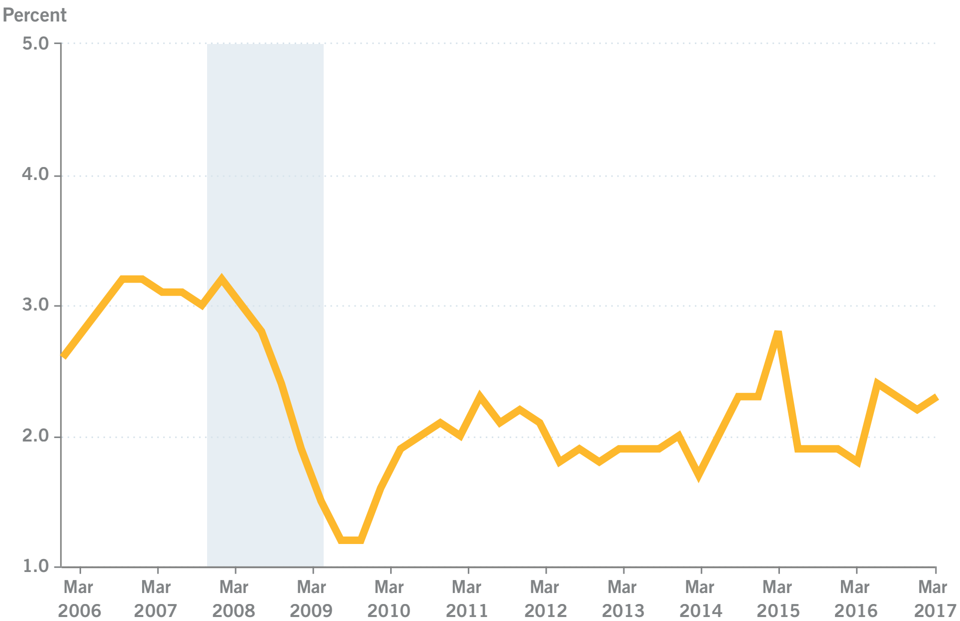
The underemployment rate got as high as 17 percent during the depths of the recession. Now it's right around 8.5 percent. And while that isn't full employment, it's definitely improving.

OUTLOOK: What separates the economy we have now from one that truly feels like it's booming?

JB: One big difference between now and, say, the late 1990s is that productivity growth was a lot faster then. We currently have very slow productivity growth, of about 1 percent, compared with 2.5 percent or 3 percent then. That's a big difference. Today's lower rate makes business and entrepreneurship feel less robust.

But there's also this other thing—sort of the Trump phenomenon, where a lot of people feel left behind by globalization, technology and elites who don't seem to take their problems seriously. You'd have to be living under a very big rock not to feel the kinds of frustration those folks have felt not just here, but with Brexit in the U.K and the rise of populist parties in Europe.

WAGE GROWTH: 12-MONTH PERCENT CHANGE IN COMPENSATION FOR PRIVATE INDUSTRY, 2006–PRESENT



Shaded area shows recession

Source: U.S. Bureau of Labor Statistics

OUTLOOK: Workers haven't gotten their swagger back?

JB: That's exactly right. And as much as we may worry about our own lack of opportunity relative to a more robust economic period, we worry even more about our kids. How are they going to fare in a tough, global economy? It's something I think a lot of parents think about these days—it's different than periods in which you just kind of knew your kids were going to outpace you.

OUTLOOK: Has the rise of robots and technology affected our ability to reach full employment?

JB: If that were really the case—if robots were on the verge of replacing all jobs and were doing all that people fear they're doing—productivity growth should be faster, not slower. Labor-saving technology is clearly displacing workers. It's happening. You can't miss it. But that's a slow-moving trend that has been going on forever. Right now, at least, the unemployment rate is low, we've been creating jobs at a pretty good clip, and we have a Federal Reserve that's interested in raising interest rates because it worries about that water spilling over the cup.

So it's hard to make a strong case right now for technological unemployment. Now, if you're asking me what's going to happen 10 years from now, I must say I don't know—but neither does anyone else.

Interest Rates and Economic Indicators

The interest rate and economic data on this page were updated as of 6/30/17. They are intended to provide rate or cost indications only and are for notional amounts in excess of $5 million except for forward fixed rates.

KEY ECONOMIC INDICATORS

Gross Domestic Product (GDP) measures the change in total output of the U.S. economy. The Consumer Price Index (CPI) is a measure of consumer inflation. The federal funds rate is the rate charged by banks to one another on overnight funds. The target federal funds rate is set by the Federal Reserve as one of the tools of monetary policy. The interest rate on the 10-year U.S. Treasury Note is considered a reflection of the market's view of longer-term macroeconomic performance; the 2-year projection provides a view of more near-term economic performance.

ECONOMIC AND INTEREST RATE PROJECTIONS

Forecasts courtesy of Bloomberg and Blue Chip Economic Indicators

				US Treasury Securities	
2017	**GDP**	**CPI**	**Funds**	**2-year**	**10-year**
Q3	2.40%	2.20%	1.17%	1.58%	2.49%
Q4	2.30%	2.20%	1.28%	1.75%	2.68%
2018	**GDP**	**CPI**	**Funds**	**2-year**	**10-year**
Q1	2.30%	2.30%	1.36%	1.90%	2.79%
Q2	2.50%	2.20%	1.45%	2.09%	2.89%
Q3	2.30%	2.30%	1.49%	2.25%	3.01%

PROJECTIONS OF FUTURE INTEREST RATES

The table below reflects current market expectations about interest rates at given points in the future. Implied forward rates are the most commonly used measure of the outlook for interest rates. The forward rates listed are derived from the current interest rate curve using a mathematical formula to project future interest rate levels.

IMPLIED FORWARD SWAP RATES

Years Forward	3-month LIBOR	1-year Swap	3-year Swap	5-year Swap	7-year Swap	10-year Swap
Today	1.33%	1.47%	1.78%	2.00%	2.16%	2.32%
0.25	1.42%	1.57%	1.85%	2.06%	2.20%	2.34%
0.50	1.51%	1.67%	1.92%	2.11%	2.25%	2.40%
0.75	1.62%	1.75%	1.99%	2.16%	2.29%	2.43%
1.00	1.72%	1.82%	2.05%	2.21%	2.33%	2.46%
1.50	1.84%	1.94%	2.15%	2.30%	2.41%	2.52%
2.00	1.97%	2.07%	2.25%	2.38%	2.47%	2.57%
2.50	2.08%	2.16%	2.32%	2.44%	2.53%	2.61%
3.00	2.19%	2.26%	2.40%	2.50%	2.58%	2.65%
4.00	2.36%	2.42%	2.53%	2.61%	2.67%	2.71%
5.00	2.49%	2.53%	2.62%	2.69%	2.73%	2.76%

HEDGING THE COST OF FUTURE LOANS

A forward fixed rate is a fixed loan rate on a specified balance that can be drawn on or before a predetermined future date. The table below lists the additional cost incurred today to fix a loan at a future date.

FORWARD FIXED RATES

Cost of Forward Funds

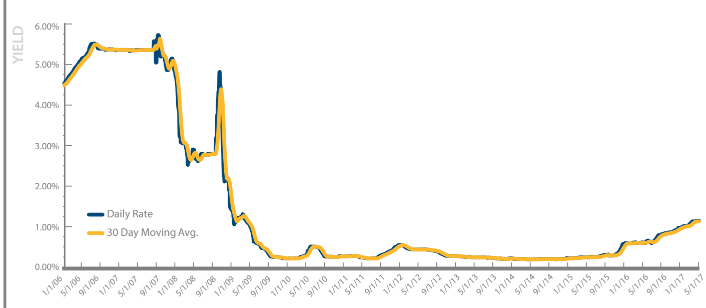
Forward Period (Days)	Average Life of Loan			
	2-yr	3-yr	5-yr	10-yr
30	5	5	5	5
90	8	8	10	8
180	13	14	18	14
365	30	29	35	27

Costs are stated in basis points per year.

SHORT-TERM INTEREST RATES

This graph depicts the recent history of the cost to fund floating rate loans. Three-month LIBOR is the most commonly used index for short-term financing.

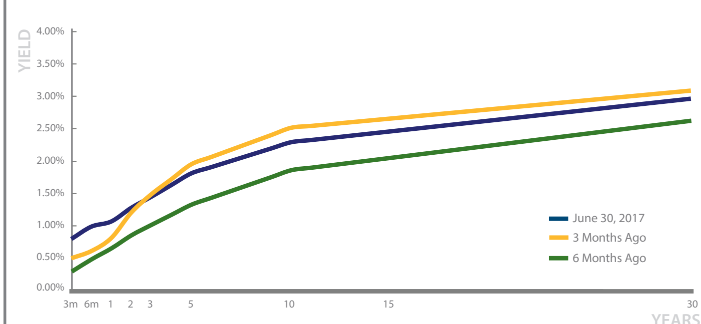
3-MONTH LIBOR



RELATION OF INTEREST RATE TO MATURITY

The yield curve is the relation between the cost of borrowing and the time to maturity of debt for a given borrower in a given currency. Typically, interest rates on long-term securities are higher than rates on short-term securities. Long-term securities generally require a risk premium for inflation uncertainty, for liquidity, and for potential default risk.

TREASURY YIELD CURVE



COBANK UPDATE

CoBank Kicks Off No Barriers Program for Rural Veterans

Navy veteran Bryan Styer at the No Barriers Summit

At the beginning of this year, CoBank customers were invited to nominate a disabled veteran from their communities to participate in one of four CoBank-sponsored expeditions as part of the CoBank/No Barriers program. The process of selecting the participants is nearing completion, and the expeditions will begin this month in the Red Feather Lakes region of Northern Colorado. Participants will experience whitewater rafting on the Poudre River, climbing on local rock formations and trekking through the Colorado backcountry. There are four separate five-day expeditions planned from July through September.

CoBank received nearly 50 nominations from customers in 23 states for the project. Nominated veterans ranged in age from 28 to 73 and served in all branches of the armed services, in places such as Afghanistan, Iraq and Vietnam.

Nominees who were unable to participate in an expedition were given the option of attending the No Barriers Summit, which took place in early June in Lake Tahoe, California. Those veterans included:

- William Nelson, a Vietnam veteran from Cleveland, Georgia, nominated by Habersham Electric Membership Corporation
- Navy veteran Brian Styer of Atoka, Tennessee, nominated by Southwest Tennessee Electric
- Craig Nicholson, a veteran of the Marine Corps from Lithopolis, Ohio, nominated by South Central Power Company
- Chad Olson of Austin, Minnesota, nominated by Central Farm Service

About CoBank

CoBank is a $128 billion cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states. The bank also provides wholesale loans and other financial services to affiliated Farm Credit associations serving farmers, ranchers and other rural borrowers in 23 states around the country.

CoBank is a member of the Farm Credit System, a nationwide network of banks and retail lending associations chartered to support the borrowing needs of U.S. agriculture, rural infrastructure and rural communities. Headquartered outside Denver, Colorado, CoBank serves customers from regional banking centers across the U.S. and also maintains an international representative office in Singapore.

For more information about CoBank, visit the bank's web site at www.cobank.com.

COBANK UPDATE

CoBank Kicks Off No Barriers Program for Rural Veterans

Continued

Army veteran William Nelson with his daughter at the No Barriers Summit

CoBank covered the full cost of the summit for each of these veterans as well as for a caregiver. The summit allowed them to do things they had not believed possible: With the help of adaptive equipment like the Action Track Chair, Nelson and Nicholson were able to participate in a day hike that took them through rough, mountainous terrain and obstacles including rocks, snow and mud. With assistance from guides with Environmental Traveling Companions, Styer spent several hours kayaking around Lake Tahoe. Other participants took part in activities like wheelchair rugby, adaptive archery, snow skiing and cycling.

"It was a real privilege to spend some time with these veterans, to watch them take on new experiences and challenges and to do things they never thought they could do," said Sherry Johnson, senior manager of corporate social responsibility at CoBank. "Most importantly, I think each of the veterans left the summit with a new community of friends and supporters that will continue to encourage them even after they return home."