Rising U.S. prime working-age labor participation

- In contrast to the Bureau of Labor Statistics’ (BLS) forecasts that the labor force participation rate (LFPR) would decline persistently, it has stabilized in a steady 62.7% - 63% range, driven by a larger-than-expected increase in the LFPR of prime working-age persons (age 25-54). In particular, the longer-run downward trend in the LFPR of prime working-age men has begun to reverse in recent years associated with strong gains in employment in middle-skilled and male-dominated occupations.

- This upward trend has very important implications. It suggests that the supply of labor is more elastic than is commonly presumed, so that the 4% unemployment rate is not an absolute constraint on employment. Associated, it explains why wage gains have remained constrained. The rise in the LFPR of prime working-age persons, if it continues, raises potential growth higher than is currently estimated.

- The re-entrance of people into the labor force and the types of jobs they are taking reveal the resilience of the U.S. economy that is undergoing sizable shifts fueled by technological innovations that are forcing changes in many industries.

- Based on our expectation that the LFPR will remain above official projections and modest improvement in productivity gains, we estimate potential growth in the intermediate term is roughly 2.3-2.4%. This is substantially higher than estimates from the Federal Reserve members (median: 1.8%) and the Congressional Budget Office (1.9%).

- We expect the Fed will eventually raise its estimates of potential growth and the natural rate of interest (so-called r*) and significantly lower its estimate of the natural rate of unemployment (so-called “full employment”).

Chart 1: Labor Force Participation Rate for the Prime Working-Age (25-54 years) Cohort, Actual and Berenberg Forecasts

Note: 2018 estimate is the average through August. Source: Bureau of Labor Statistics and Berenberg Capital Markets

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The BLS’s inaccurate forecasts of labor force participation rates
Every two years, the BLS makes a 10-year forecast of the overall LFPR and of different age cohorts. Based on demographics, the BLS has projected material declines. As shown in Chart 2, with the exception of the LFPR for people over 55 years old, it has been wrong, and it has also been slow to adjust its forecasts to the trends of recent years. There is much more to the LFPR than just demographics, including structural trends in society, fiscal and social welfare policies, educational attainment, wage trends, and other factors that influence desires or abilities to work and the demand for labor.

Following the much larger-than-expected decline in the LFPR during the deep recession of 2008-2009, it continued to decline more than the BLS’s forecasts, particularly for prime working-age people (25-54 years). The sharp decline in the LFPR for younger people (16-24 and 25-54 years) was particularly perplexing and disturbing to policymakers and economists. Beginning in 2015, the overall LFPR stopped declining, driven by sizable increases in the LFPR for those aged 25-54, but the BLS continued to forecast declines. In the last several years, the LFPR has outperformed the BLS’s forecasts for all age groups.

Nevertheless, the LFPR remains well below its prior expansion peak. The BLS’s latest forecasts, made in October 2017, project the LFPR to continue to decline. We expect the actual LFPR to continue to outperform the BLS’s forecast which will lead the BLS to eventually revise up its forecast.
Labor force participation and long-run growth

Estimates of potential real GDP growth are based on estimates of long-run growth in the labor force, labor productivity and total factor productivity. Estimates of potential growth have been revised down significantly since the 2008-2009 recession: the midpoint of the central tendency of Fed members’ forecasts has declined from 2.6% to 1.9%. Most of the Fed’s reduced estimates of potential growth stem from lower estimates of productivity (reflecting the actual weak trend in productivity and disappointing capital spending) while its estimates of labor force growth have been fairly stable, reflecting expectations of a declining LFPR.

Interestingly, the outperformance of real GDP growth in recent years has been attributable to the pickup in employment and the labor force as much as it has been to the pickup in productivity gains. At the same time, while economic growth has exceeded estimates of potential growth and the unemployment rate has been persistently below standard estimates of the natural rate of unemployment (so-called “full employment”), wage gains have remained below expectations based on standard estimates provided by the Phillips Curve. Obviously, estimates of potential growth and the LFPR significantly influence the Fed’s monetary policy.

The BLS projects labor force growth to recede as the large “Baby Boomer” population retire. The >55 group accounted for 27% of the civilian non-institutional population in 2000, 31% in 2009, 36% in 2018, and is projected to account for 39% in 2028 (Charts 3 and 4). The rising share of aging population is expected to overwhelm the labor force participation of persons under 55.

The prime working-age (25-54) group remains the largest and most critical cohort fueling the economy in terms of work effort, production and spending. Its share of the civilian non-institutional population has been declining since the 1990s, from 58% in 1996, to 53% in 2009 and 49% presently. It is projected to decline to 48% in 2028. The decline in the LFPR of this large cohort began in the early 2000s and was accentuated by the deep 2008-2009 recession. This makes its rebound since 2016 all the more striking.

Chart 3: Key Age Cohorts as Share of Total Civilian Non-institutional Population

<table>
<thead>
<tr>
<th>Year</th>
<th>16-24 years</th>
<th>25-54 years</th>
<th>&gt;55 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>10</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>1986</td>
<td>10</td>
<td>20</td>
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<td>1996</td>
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<td>2011</td>
<td>10</td>
<td>20</td>
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<td>20</td>
<td>10</td>
</tr>
<tr>
<td>2026</td>
<td>10</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Census Bureau, Bureau of Labor Statistics and Berenberg Capital Markets

Chart 4: Older Cohorts as Share of Total Civilian Non-institutional Population

<table>
<thead>
<tr>
<th>Year</th>
<th>55-64 years</th>
<th>65-74 years</th>
<th>&gt;75 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>13.7</td>
<td>8.2</td>
<td>7.4</td>
</tr>
<tr>
<td>2018</td>
<td>16.3</td>
<td>11.7</td>
<td>8.1</td>
</tr>
<tr>
<td>2028</td>
<td>14.3</td>
<td>13.6</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Source: Census Bureau, Bureau of Labor Statistics and Berenberg Capital Markets
The long-term decline in LFPR for prime working-age men

The sharp fall in employment and the LFPR for prime working-age men during and immediately following the deep 2008-2009 recession accentuated its longer-term trend (Chart 5). This sharp decline is troubling and has drawn the attention of leading labor market researchers who have a variety of explanations. The key ones are:

1. Automation and new technologies have reduced the need for “middle-skilled” workers (routine, rules-based occupations); many of these workers do not have the qualifications required for “high-skilled” jobs and many are reluctant to work in “low-skilled” jobs. Globalization has also reduced demand for these workers in the U.S (Autor, 2010).

2. The U.S. economy has become more service-oriented; service-providing professions tend to attract more women and some men find these kinds of jobs less attractive (Katz, 2014).

3. The number of persons claiming disability and no longer able to work has increased dramatically. A large share of these individuals are in households that receive some kind of income support from the government, reducing their need to work or re-enter the labor force (Farren and Winship, 2018).

4. High incarceration rates have reduced businesses’ desire to hire persons with criminal records, and in some states these persons are legally prevented from obtaining certain jobs (Council of Economic Advisers, 2016).

5. Time spent in school has lengthened, reducing the share of the population available for work (Mankiw, 2018).

6. The LFPR has been lowered by drug addiction; research has found that labor force participation has fallen more in areas with higher opioid pain medication prescriptions (Krueger, 2018).

7. The social roles of men have evolved: more men have become “stay at home dads” while their wives work and support the household (Mercatus, 2018); the median age of first marriage has increased and a high share of young adults are living at home with their parents; and more have simply chosen leisure over work, influenced by the increased popularity and sophistication of video games and online gaming (Aguiar, Bils, Charles, Hurst, 2017).

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Chart 5: Labor Force Participation Rate for Prime Working-Age (25-54 years) Men

Source: Bureau of Labor Statistics and Berenberg Capital Markets

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1 According to David Autor, middle-skilled occupations involve “procedural, rule-based activities,” high-skilled occupations employ workers with “high levels of education and analytical capability,” and low-skilled occupations “require little in the way of formal education and are highly intensive in non-routine manual tasks.”
Prime working-age men are returning to the labor force, albeit slowly

Despite these explanations, the recent rise in the LFPR for prime working-age men is encouraging - it has increased to 89.1% this year from its 88.2% low in 2014. Along with the material strengthening of overall employment and economic growth, this increase in the LFPR for prime working-age men suggests that some of the earlier sharp decline was due to long-lagged cyclical factors. Now, the benefits of the shift in tax and regulatory policies are encouraging businesses to hire, and jobs that offer health insurance and other benefits are attractive to some who have been on the sidelines. It suggests that more prime age men will re-enter the work force.

Chart 6 shows employment by occupation-type disaggregated by skill requirements (Autor, 2010) and Chart 7 shows the employment trend of occupations based on the share of men in the occupation. Charts 8 and 9 summarize the net job changes of these occupation breakdowns over the long period 2000-2018, since 2009 and since 2016, with the following key observations: 1) the largest job increases since 2000 have occurred in high-skilled occupations and jobs in middle-skilled occupations have declined, 2) jobs in middle-skilled occupations were the hardest hit by the 2008-2009 recession, 3) jobs in middle-skilled occupations have increased in this expansion, outpacing low-skilled, but are well below high skilled, 4) the gap in job growth in high-skilled and middle-skilled occupations has narrowed significantly over the last two years. 5) from 2009-2018 job gains have been the largest in occupations in which the share of male workers is 40%-60%, 6) since 2016, jobs have grown the fastest in occupations in which over 60% of persons employed are men. The last observation is consistent with the significant rebound in manufacturing and mining sectors following the industrial slump during 2014-mid 2016 and strong demand for construction and transportation workers.
The outlook for the LFPRs

We expect the LFPR to remain near its recent range of 62.7 and 62.8% over the next four years (Chart 10), reflecting clear changing trends among age and gender cohorts. The LFPR for the prime working-age cohort (25-54) is expected to continue to rise and add significantly to the workforce and the LFPR for the younger 16-24 cohort is expected to rise modestly. However, this will be offset by a decline of older people in the workforce: the LFPR will drift down at the same time as the share of the total population over 55 grows (Charts 3-4).
Underlying this aggregate trend projection, we project the LFPR for women aged 16-24 and 25-54 will continue increasing modestly, while the LFPR for women over 55 will begin to decline as a larger share of this age cohort retire (Chart 11).

Similarly, we expect the LFPR for young men aged 16-24 to rise modestly, retracing only a small portion of its long decline, while the LFPR of prime working-age men (25-54) is projected to continue to rise. These positives will be partially offset by the eventual decline of men over 55 in the work force (Chart 11).

Our hunch is that labor supply for the prime working-age male cohort is very elastic and participation for this group will be boosted by better economic growth, and continued strong labor demand in fields such as construction, and prospects for better wage growth.

Note: 2018 estimates are averages through August.
Source: Census Bureau, Bureau of Labor Statistics and Berenberg Capital Markets
Implications of higher labor force growth

The most obvious implication of the higher-than-expected increase in the LFPR is more jobs and income, and a stronger economy. The re-entrance of people into the workforce also suggests that the supply of labor is more elastic than is currently presumed. The standard notion is that the workforce and economy are constrained by the natural rate of unemployment, which the Fed and others currently estimate to be 4.5%. The elastic supply of labor suggests that this is not a binding constraint. Employment continues to grow faster than the amount of job growth that is presumed necessary to stabilize the unemployment rate.

Associated, as business demand for labor continues to increase, the more elastic supply of labor has constrained wage gains (see Chart 12 and “Positive U.S. wage trends in detail”, April 10, 2018). Although wages have been rising faster than inflation, their softer-than-expected increases have persistently frustrated policymakers and others that had projected higher wages based on standard Phillips Curve models that presume standard projections of the LFPR.

Chart 12: Employment-Population Ratio for 25-54 Age Cohort and ECI: Wages and Salaries for Private Industry

Along with the recent pickup in productivity, the higher-than-expected rise in the labor force, if sustained, implies that sustainable potential growth is higher than currently forecast by the CBO and the Fed.

In 2017-2018, real GDP growth has significantly exceeded the Fed’s estimate of potential growth (Chart 13). While productivity gains have picked up, the unanticipated stabilization in the overall LFPR (as opposed to continued projected declines), and in particular the sizable rise in the LFPR for prime working-age workers has been a significant contributor.

The Fed acknowledges that the economy has strengthened and has revised up its real GDP growth forecasts for 2018 and 2019, but it has not changed its longer-run sustainable growth forecasts. We have been arguing that the shift towards easing burdensome regulations and some key provisions of the Tax Cuts and Jobs Act have lifted sustainable growth. Our estimate of potential growth under current laws is roughly 2.3%-2.4%. The compounding impact of this difference based on an $18.5 trillion economy is sizable.

While the Fed tends to be slow to change such forecasts as it obtains sufficient confirming data, it obviously is very aware of changes in the economy.
Fed Chair Powell emphasized the uncertainties of forecasting structural variables in his recent speech at the Kansas City Fed’s Jackson Hole Monetary Policy Symposium (see “Fed Chair Powell stresses gradualism due to uncertainty with estimates of key longer-run variables”, August 24, 2018). Powell gave examples of how inaccurate estimates of these unobservable variables led to inappropriate monetary policy in the 1960s and 1970s, while a realization of a positive productivity shock in the second half of the 1990s by Fed Chair Alan Greenspan resulted in appropriate policy.

Powell’s focus on longer-term forecasts and variables is wise and warranted, particularly in light of the Fed’s decidedly underwhelming track record in its short and intermediate term forecasts (“The Fed’s Economic Forecasts, Uncertainties, and Monetary Policy”, March 12, 2018). In recent years, as the Fed revised down its estimate of real potential growth, it revised down its estimate of the inflation-adjusted natural rate of interest (so-called r*) even faster. The highly visible debate about what is the neutral Federal funds rate hinges critically on its estimate of r*, highlighting the importance of the Fed’s estimate of potential growth.

Unofficially, the Fed seems to be open to the notion that potential growth may be higher than its current estimate. In his first semi-annual testimony to Congress, Chairman Powell stated that “some of the headwinds the U.S. economy faced in previous years have turned into tailwinds.” Other Fed members, including Federal Reserve Bank of St. Louis President, James Bullard, have acknowledged that sustainable growth may have risen. While we do not anticipate any quick change in the Fed’s longer-term forecast, we anticipate that eventually the Fed will raise its estimate of potential growth (and nudge up its estimate of r*) and lower its estimate of the longer-run unemployment rate. We expect that an upward revision in the estimated LFPR will be central to the change in the Fed’s forecast.
References


Farren, Michael, and Winship, Scott, “Supply or Demand? What’s the Story behind Men Leaving the Labor Force?”, Mercatus Center, George Mason University, May 1, 2018.


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