

U.S. Economy Regains Footing, Set for Solid Year Ahead

August 5, 2015

Indicators released over the past two months suggest an upturn in U.S. economic activity. The first estimate of second quarter real gross domestic product (GDP) growth came in at an annualized 2.3 percent, putting first-half average growth at a modest 1.5 percent. Average job growth from April to June, although weaker than the red-hot 260,000 per month average of 2014, was nonetheless an impressive 221,000 per month. Meanwhile, the jobless rate dipped to 5.3 percent, its lowest since April 2008. On a 12-month basis, measures of headline inflation continued to be tepid, reflecting lower oil prices, while trimmed-mean inflation held steady.

Output Growth Rebounds

Initial data from the Bureau of Economic Analysis (BEA) showed that the economy shook off some of the weakness observed earlier in the year (*Chart 1*), with personal consumption expenditures (PCE) by far the leading contributor with 2 percentage points added to growth. Other components either added or subtracted only slightly, with their cumulative contribution about 0.3 percentage points.

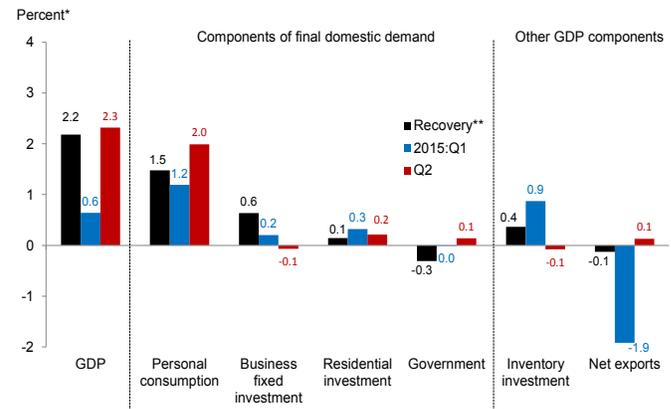
Before the latest report—and somewhat paralleling last year’s concerns—the economy exhibited a weakness in the first quarter that analysts often attributed to seasonal-adjustment measurement issues, dollar appreciation and cutbacks in oil-related investment. It makes sense to look again at these issues in light of new data.

Every July, the BEA conducts a revision of national accounts data for the prior quarter and at least three of the preceding years, during which updates are made for new seasonal-adjustment factors and incorporation of more source data. This time around, the BEA found the main culprit of residual seasonality to be in third quarter data spanning 2012–2014, caused by ramped-up government defense spending at the end of fiscal years. It consequently revised *down* third-quarter numbers by an average of 1.4 percentage points. Residual seasonality in 2012 to 2015 first quarter data was less clear, with both additional source data and seasonal adjustment to construction data likely playing similar roles in the average upward revision of 0.4 percentage points.¹ Importantly, this is just the first part of a three-phase project by the BEA to address seasonality concerns, leaving further work to be done.

International trade balances exhibited a turnaround: Net exports added 0.1 percentage points to growth in the second quarter compared with the mostly unrevised 1.9 percentage points subtracted in the first quarter—an indication that stronger-dollar effects attenuated between April and June.

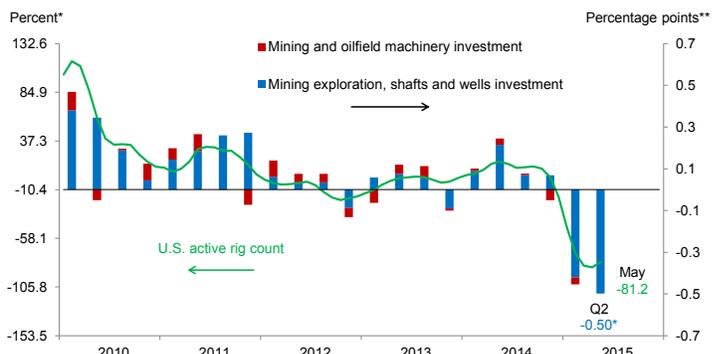
Although some underlying data on oil-related activity—namely, investment in mining and oilfield machinery—isn’t yet available for the second quarter, a strong historical relationship exists between oil-related investment and U.S. active rig count (*Chart 2*). Second-quarter data on mining exploration, shafts and wells investment recorded its second-largest decrease on

Chart 1
Personal Consumption Drives Second Quarter Rebound



*Contribution to percent change in GDP growth; quarter/quarter, seasonally adjusted, annualized rate.
**Calculated over 2009:Q2–2014.
SOURCES: Bureau of Economic Analysis; author’s calculations.

Chart 2
Growth Contribution from Oil-Related Investment Closely Linked to Rig Count



*Three-month percent change in centered three-month moving average.
**Contribution to percent change in GDP growth; quarter/quarter, seasonally adjusted, annualized rate.
NOTE: Due to data availability, the final data point reflects only mining exploration, shafts and wells investment.
SOURCES: Baker Hughes; Bureau of Economic Analysis; Haver Analytics; author’s calculations.

record. From this and the last few months’ rig count data, it’s clear that this subcomponent exerted a large drag in the second quarter, much as it did in the first quarter. Even so, the overall drag from business fixed investment was a small 0.1 percentage points.

Inflation Outlook

The jobless rate’s downward progression, and how much further it can fall before wage and price pressures kick in sometime later as a result, is of keen interest to analysts and policymakers. For Federal Reserve policymakers, the Fed’s dual mandate of full employment and price stability makes it especially important to understand the relationship between the jobless rate and wage and price pressures.

In the August 2014 National Update,² the wages and salaries component of the employment cost index (ECI) was used as a measure of wages. In order to forecast how wages will change over the coming year, the relationship between ECI inflation (less inflation expectations) and lagged values of the jobless rate was estimated. There's strong intuition (validated by empirical studies) for this relationship: One narrative among others is that as the supply of available labor lessens, firms subsequently realize that they must bid up wages to attract the remaining job candidates.

The forecast generated previously by our model was for a year-over-year 0.5 percentage point acceleration in wages from the second quarter of 2014 to 2015. Actual wage growth came in at 2.1 percent year to year, an acceleration of only 0.2 percentage points.

Using a more refined, better fitting model that separates periods in which the jobless rate is increasing or decreasing (*Chart 3*),³ our updated analysis suggests that wage inflation has recently accelerated more than expected given the historical relationship between a declining jobless rate and wage inflation. However, before any new data came in, with our refined model we would have forecasted wage inflation to be 2.1 percent in second quarter 2015—exactly as it turned out.

Assuming consistency with historical movements, the forecast calls for wage inflation to rise, from its current year-to-year rate of 2.1 percent, to 2.5 percent in second quarter 2016.

Turning to price inflation, the Dallas Fed's preferred measure of inflation is the trimmed-mean PCE price index, which excludes the greatest individual price movements (high or low) from a basket of items during a given month and consequently better captures the underlying trend. This gives trimmed-mean PCE a tight association with labor-market slack.

Unlike often-erratic measures of headline inflation that have been depressed due to the collapse of energy prices, 12-month trimmed-mean PCE inflation has been little changed, holding steady at around 1.6 percent since April 2014. Just as was the case with wage inflation, one can anticipate future trimmed-mean inflation using lagged values of the jobless rate (*Chart 4*).⁴ Doing so suggests a slight increase in trimmed-mean inflation to about 1.76 percent over the coming year.

Economic Prospects

Consensus forecasts, considered separately, offer competing views on future economic activity. A more informative alternative is to "average" competing consensus expectations, thereby generating forecasts possessing the relative strengths of each.⁵

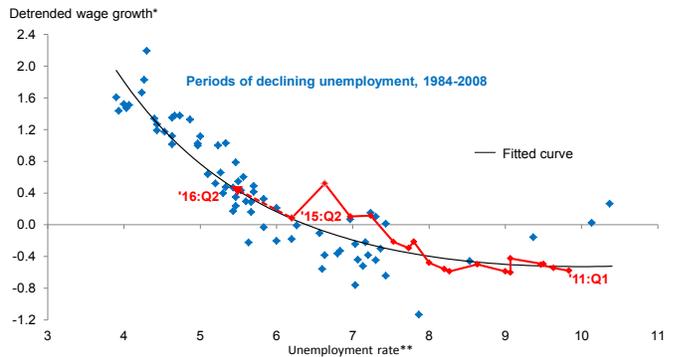
For the present analysis, Blue Chip Economic Indicators and the Survey of Professional Forecasters were used. The results imply that by second quarter 2016, GDP will grow about 2.6 percent over the period and the jobless rate will fall to around 4.7 percent.

The most recent staff economic projections from the Federal Reserve Board put the long-term jobless rate between 5 and 5.2 percent. The Congressional Budget Office has estimated the so-called "natural rate of unemployment" at 5.2 percent—which means consensus expectations are for little to no labor-market slack by early 2016.

Given that wage and price inflation respond to slack with a considerable delay, and assuming well-anchored inflation expectations, it's very likely over the next two years that inflation will rise to around 2 percent should these forecasts be realized.

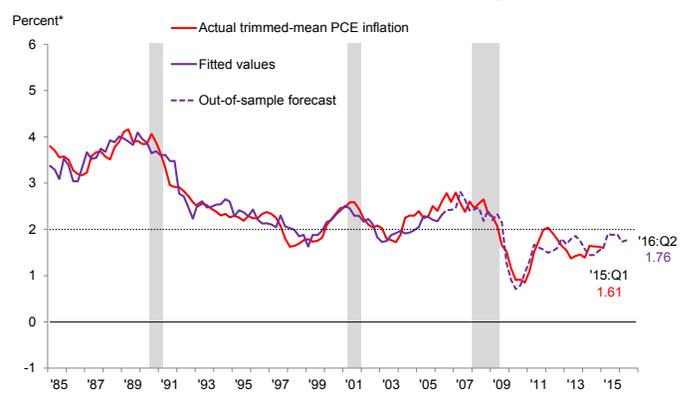
—Alan Armen

Chart 3
Latest Wage Data Entirely Consistent with Historical Behavior



*ECI wages and salaries growth, less Survey of Professional Forecasters four-quarter lagged 10-year PCE inflation expectations, year/year.
**Lagged four quarters, seasonally adjusted.
SOURCES: Bureau of Labor Statistics; Survey of Professional Forecasters; author's calculations.

Chart 4
Trimmed-Mean Inflation Forecasted to Reach 1% Percent by 2016:Q2



*Year/year growth.
SOURCES: Bureau of Economic Analysis; Federal Reserve Bank of Dallas; NBER; author's calculations.

Notes

- <http://www.reuters.com/article/2015/07/30/usa-economy-growthrevisions-idUSL1N1092BV20150730>
- National Economic Update, August 2014, Federal Reserve Bank of Dallas
- Specifically, the curve shows results from a regression of four-quarter wage growth (over periods of jobless-rate decreases), detrended using four-quarter lagged 10-year inflation expectations, on the four-quarter lagged jobless rate, the inverse of the four-quarter-lagged jobless rate and a constant. In this regression, the coefficient on the inverse jobless rate is large, positive and highly statistically significant, indicating that the relationship between it and wage inflation is strongly nonlinear.
- For a more detailed explanation of the model, see "Inflation, Slack, and Fed Credibility," by Evan F. Koenig and Tyler Atkinson, Federal Reserve Bank of Dallas Staff Paper, no. 16, 2012.
- The "averaging" involves assigning weights based on a regression of the dependent variable on the respective consensus forecasts. From this, a forecast of the dependent variable can be generated. The sample used here was 2002:Q1–2015:Q2, with 2008:Q4, 2009:Q1, 2009:Q2 and 2009:Q3 excluded.

About the Author

Armen is a research analyst in the Research Department at the Federal Reserve Bank of Dallas.