

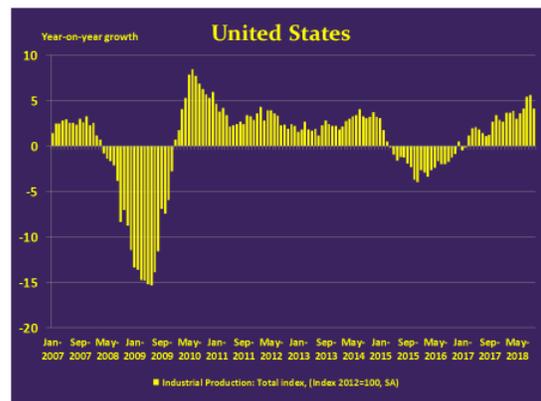
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Recent economic indicators portray an economy with increased strength compared with the post-recession average. This has been going on for about six quarters now.

Third quarter GDP growth is currently estimated to have been 3.5 percent. This is on the heels of a stronger 4.2 percent estimated for the second quarter. In a GDP accounting sense, third quarter growth was fueled by household consumption, company investment, and to a smaller extent, public sector expenditures. Trade was a significant drag on growth in the third quarter, subtracting almost two percentage points. In other words, if trade would have been neutral as it was for most of 2017, third quarter growth would have been five percent!

The most recent four quarters of job growth were a bit stronger than the four prior to that, at an average of 215 thousand compared with 170 thousand.

Industrial production has surged. This is noteworthy as it contracted during 2015 and 2016. During the past year, monthly growth rates over the prior year have exceeded two percent. Growth in two recent months exceeded five percent, the highest growth rate since 2011.



Household wealth surged by more than \$2 trillion in quarter three, a 5.8 percent inflation-adjusted increase over the prior year. This is on the heels of larger rates of increases during the past six months.

There do exist indicators that reveal segments of economic weakness. These include labor force participation and real estate development.

Labor force participation is at an incredible low, a level that has not been seen in many decades. This is what is driving the historically low unemployment rate, rather than rapid job creation. As I have repeatedly documented in this space, average post-recession job creation has been low. Analysts who use the low unemployment rate as evidence of a strong economy are not reading the data correctly in our view. This is a case where the low unemployment rate provides cause for worry, not celebration.

Housing was dramatically impacted by the recession, understandably. However, we are now ten years after the recession, and new housing production remains anemic and in fact, dismally, slow. This is not just a disappointment for the housing industry, it is a major disappointment for the overall economy as well. Houses have huge economic multipliers, where home production generates large volumes of additional economic activity in many different industries.

What's more, indicators of industrial and commercial building activity show that production of new commercial and industrial buildings has been lagging since the recession. The multiplier benefit of these types of buildings are in some cases larger than for a house. These buildings are much larger than a house and in some cases create a larger quantity of follow-on economic spending.

The Forecast

We forecast that consumption growth rates will hover in the 2.8 to 2.9 percent range, which is a bit slower than the last two quarterly growth rates of almost four percent. We believe that the household sector does keep an eye on balance sheets, and at some point pulls back from extraordinary spending to maintain household fiscal balances.

We forecast investment growth rates in the four to five percent range. These are a bit lower than one might think. CERF takes the benefit of the tax cuts seriously, i.e. we believe that they provide a meaningful boost to the economy. This forecast contains investment growth rates that are a bit slower than recent history. There are a few reasons for this. The residential component of investment is expected to be slow, as it has been for many years now. The US economy simply does not produce very much new housing anymore. Inventory investment, while decently strong now, is forecasted to subside. Third, investment requires an optimism about the future, and a sense of stability in the economy. However, the trade war that we are in has damaged our normal sense of stability in the economy. These will all drag on investment expenditure growth in the next two years. Our investment growth rate forecast has risen since the passing of the tax bill in December of 2017. However, it would be even higher if the three issues just mentioned did not exist.

Public sector expenditure growth is expected to gradually subside from the most recently recorded 2.6 percent to around 1.6 percent per quarter in 2020.

The trade impact on the forecast of economic growth is expected to be negative. Trade's impact on third quarter GDP was negative two percent, a massive

impact given the post-recession GDP growth average is just two percent. Trade's detriment to growth is forecasted to be about minus seven tenths in 2018 quarter 4 and minus three tenths in 2019 quarter 1.

There are risks to this interest rate forecast. Especially, if market jitters experienced thus far in December continue, the responses of these long rates to the Fed hikes will be muted.

Our long interest rate forecasts presume a December 2018 Fed rate hike, and two hikes during 2019. We forecast the ten year Treasury yield and the conventional mortgage rate yield will respond in part to the Fed hikes, and rise to an extent during the forecast horizon.

