ECONOMIC OUTLOOK: BEYOND THE HEADLINES

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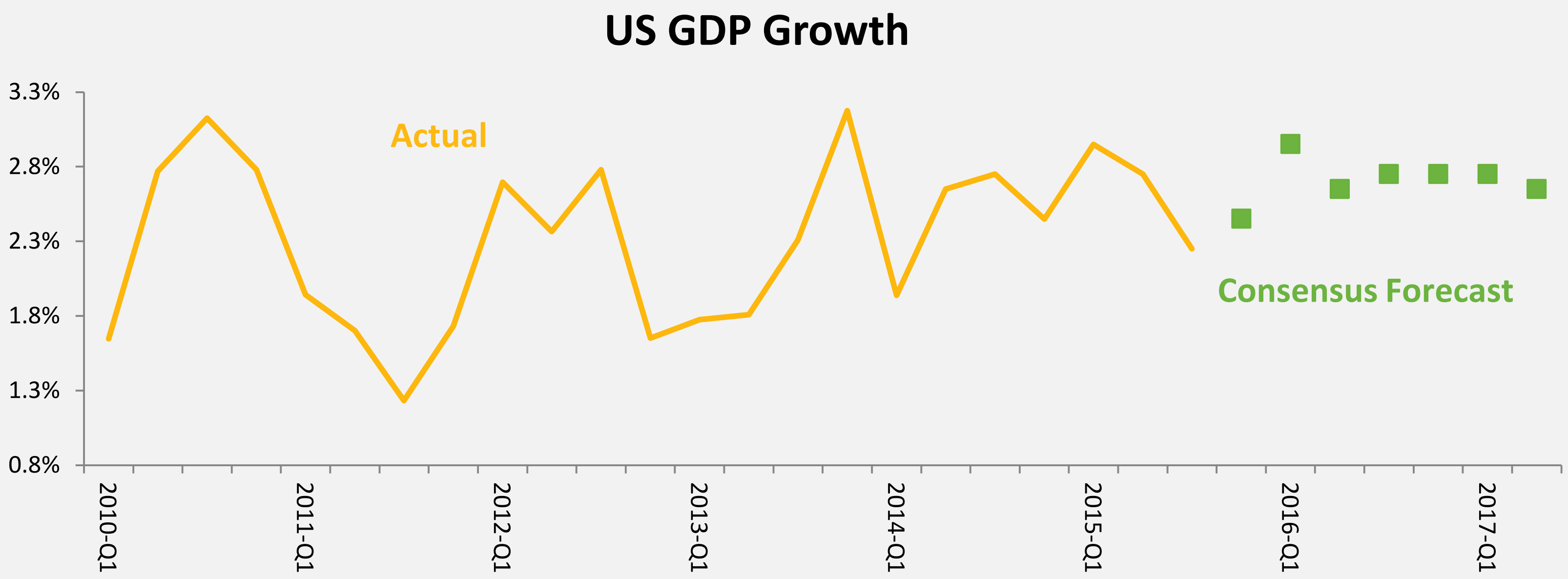
Nasdaq

THUMBNAIL OF THE U.S. ECONOMY



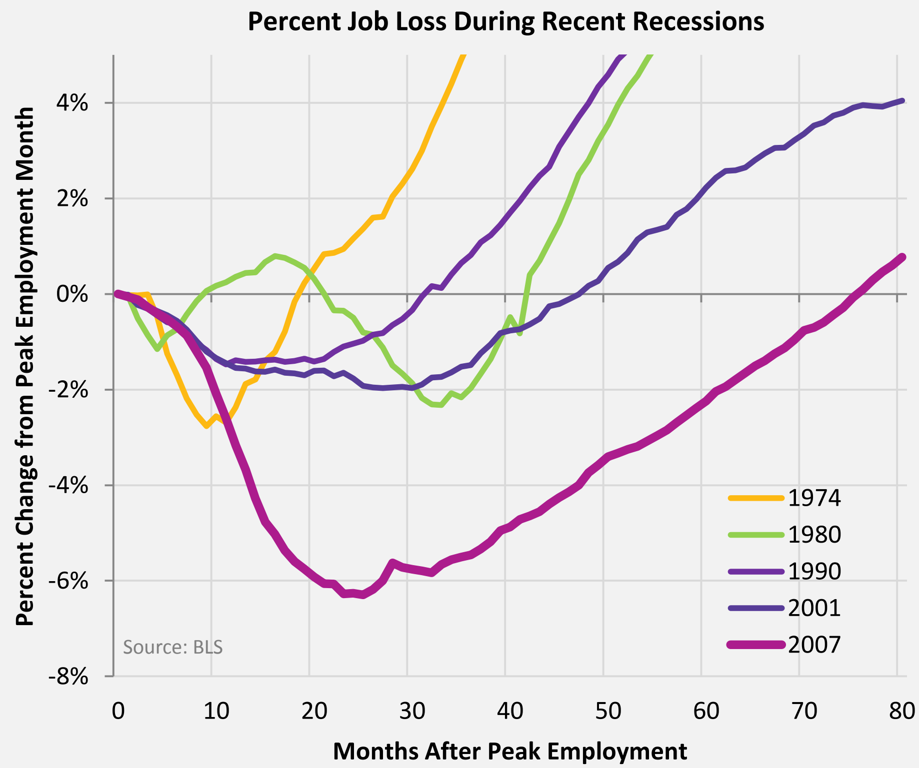
Source: Consensus Economics and BEA

- Moderate growth is expected to persist in the U.S. for 2015 and into 2016.
- Impacts from the Fed liftoff will ripple, not flood, through the economy in 2016.
- Geopolitical uncertainty as well as the longstanding structural deficits in the U.S. and Europe remain significant threats to economic growth.
- Q3 2015 economic growth was in line with the expected y-o-y growth rate at 2.2%.
- The current U.S. focus of many economists is on jobs and the consumer.

ONE VIEW OF THE STATE OF THE JOB MARKET

Weak Job Creation

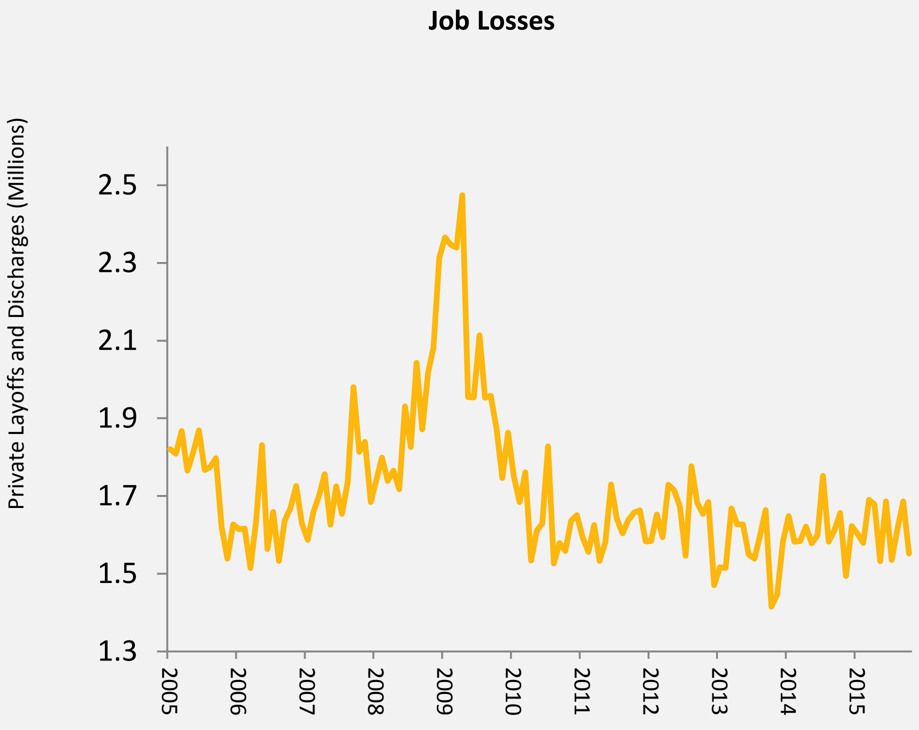
- The current job recovery has been widely characterized as slow but steady.
- This recovery has had the worst level of job creation relative to the previous employment peak of any recovery in 40 years.
- The large number of discouraged workers currently outside of the labor force remains an economic drag.
- Part-time work and the long-term unemployment rate also remain well above pre-recession levels.



A SECOND VIEW OF THE STATE OF THE JOB MARKET

Improved Job Security

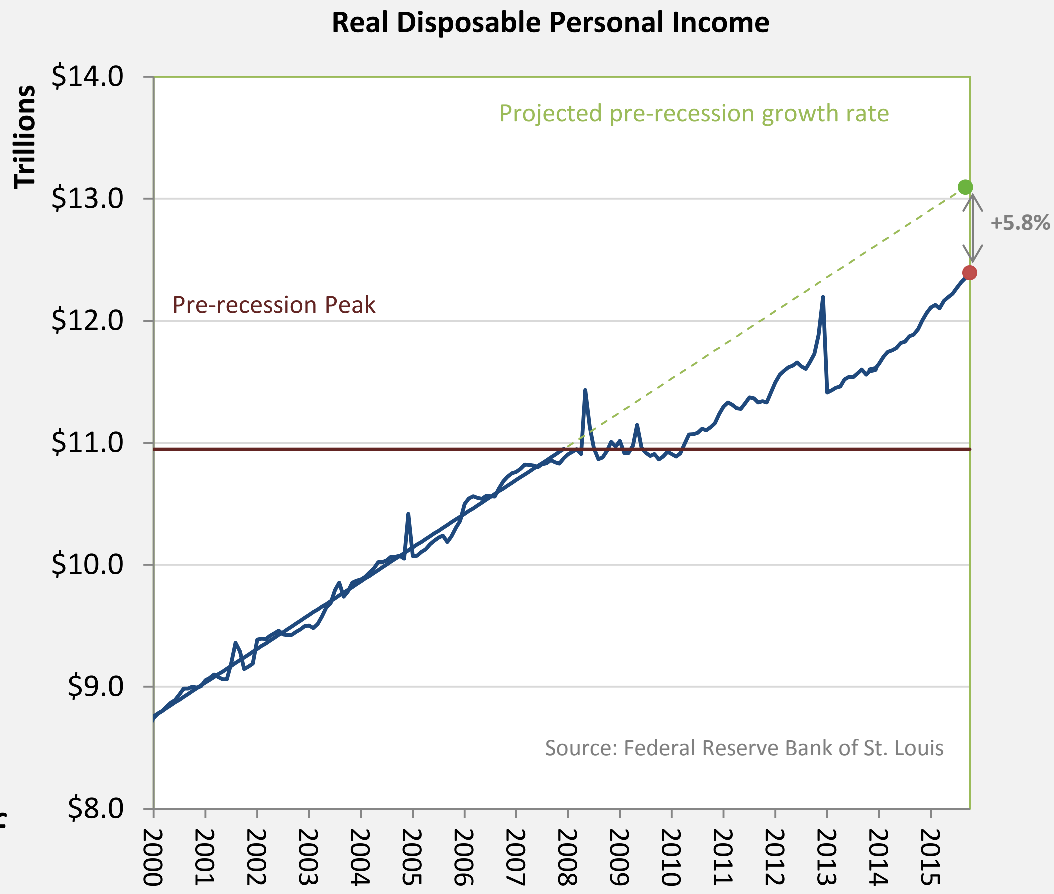
- Job losses reduce consumer income and indicate either a weak job market or economic instability.
- Four years ago job losses dropped to pre-crisis levels indicating employment conditions have improved, suggesting a tight job market for skilled workers.
- The strength of both these measures has a considerable impact on the well-being of the overall economy and on the prospects for future growth.



Source: Bureau of Labor Statistics

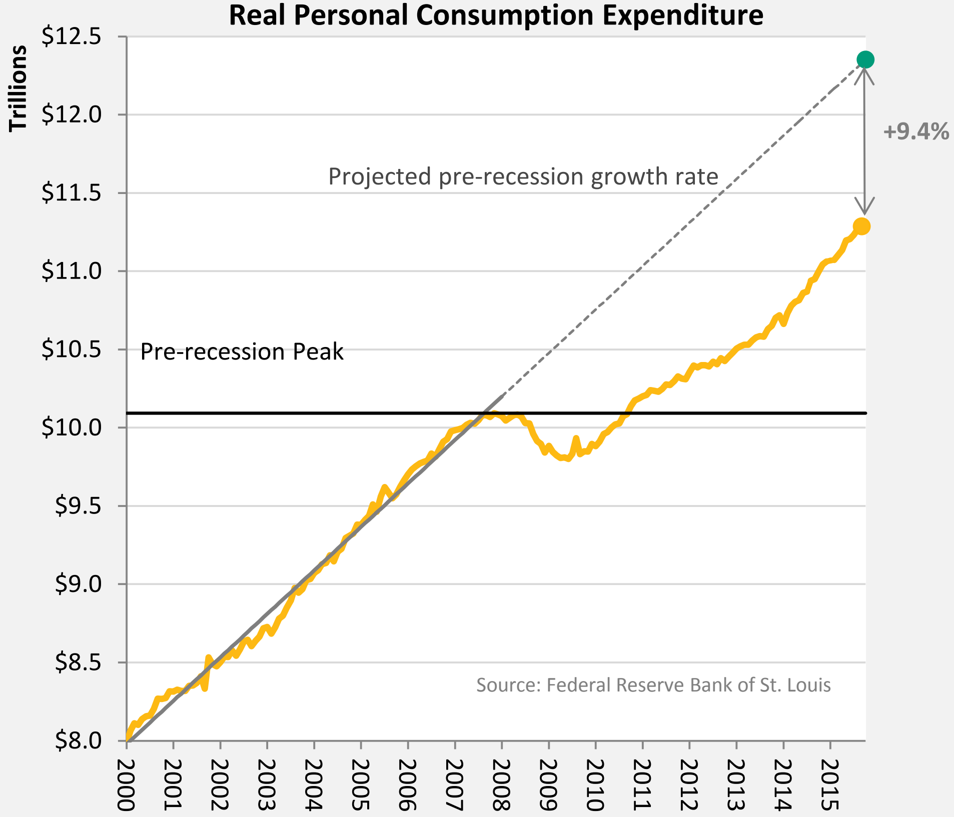
EFFECT #1:
SLOWER INCOME GROWTH

- A basic measure of consumers' financial health is the trend of (inflation adjusted) real disposable personal income.
- Before the recession, disposable income was growing 2.8% annually. Since 2011, income has only grown 1.9% annually.
- This five year slump leaves disposable income 5.8% below its projected pre-recession level.
- Growth in personal income is an important driver of the economy as it is the primary determinant of consumers' spending growth



EFFECT #2:
SLOWER SPENDING GROWTH

- Real personal consumption expenditure is one measure of consumer spending habits.
- Consumption has risen to an all-time high, but its trend has slowed from 3.0% pre-recession to 2.1% since 2011, much like the trend of personal income.
- Due to the near full percentage point drop in the growth rate of consumption since the recession, personal consumption is 9.4% behind its pre-recession pace.
- Despite a slower absolute growth rate, personal consumption as a percent of U.S. GDP by has risen from 65% to 68% since the year 2000, demonstrating that faltering consumer spending is also of growing importance to the economy.



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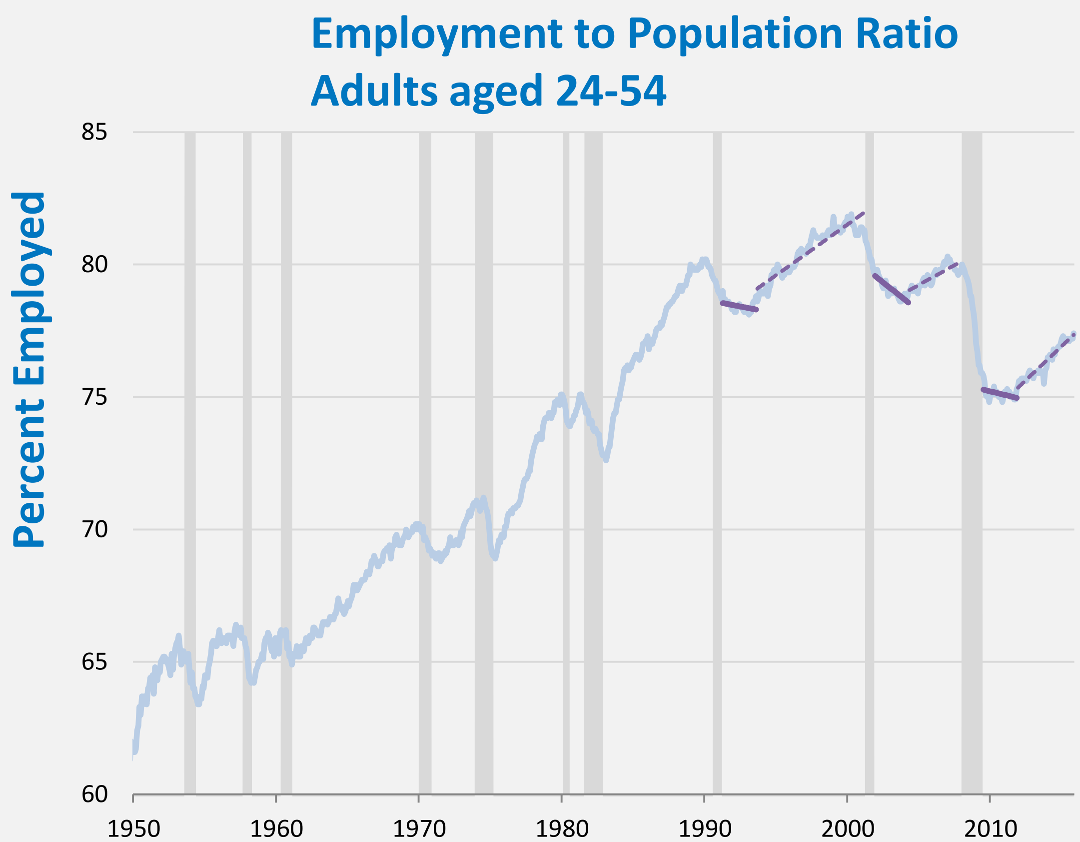
A THIRD VIEW OF THE STATE OF THE JOB MARKET

<u>The labor force has shrunk</u>

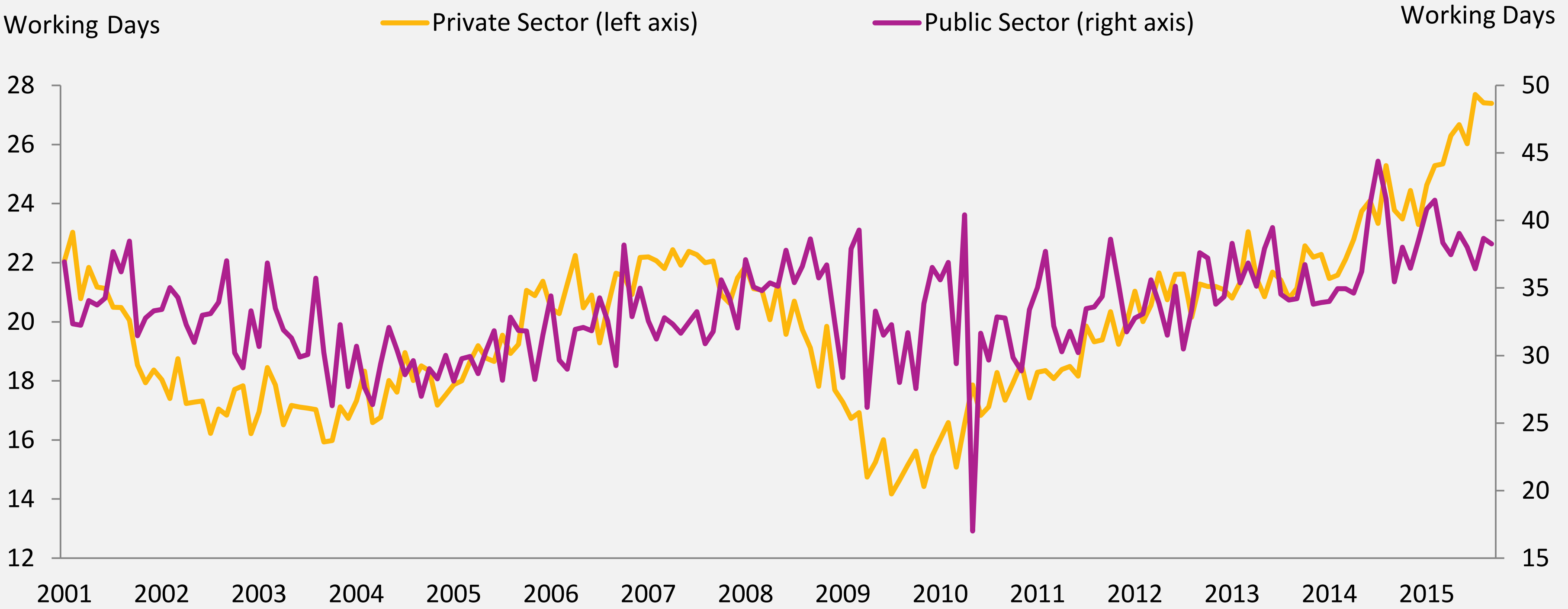
- Over 4 percent of the adult population, or 7 million workers, appear to have left the labor force.
- We look at the employment to population ratio for workers ages 24-54 which is less affected by young worker discouragement or older workers taking early retirement.
- This decline in the labor force appears to be permanent. A number of questions focus on what the effects will be.



CONTRADICTION: IT IS HARD TO HIRE

- According to recent data, it is more difficult to hire new workers now than at any time since before 2000.
- Hiring has become particularly difficult in manufacturing and the professions.

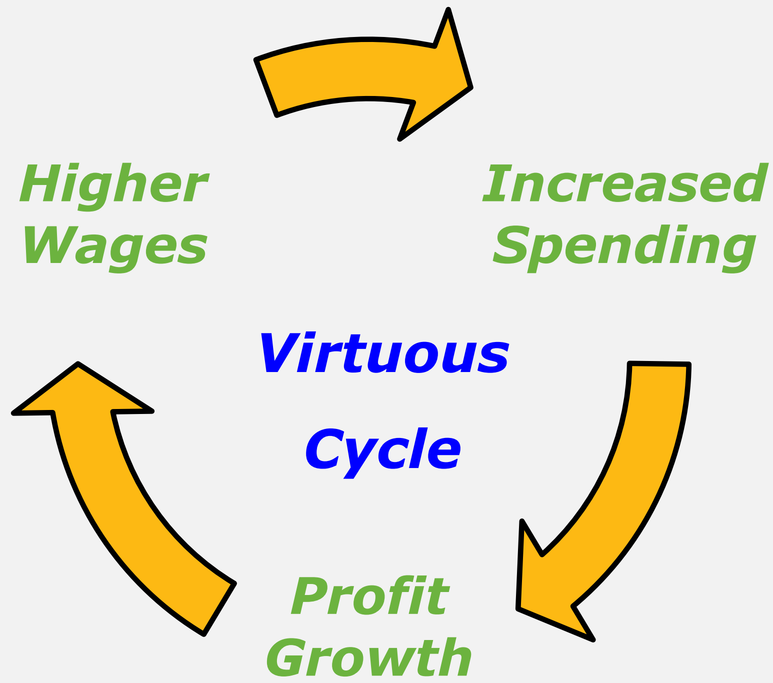
DHI-DFH Measure of Mean Vacancy Duration, January 2001 to September 2015



Source: DHI Group, Inc.

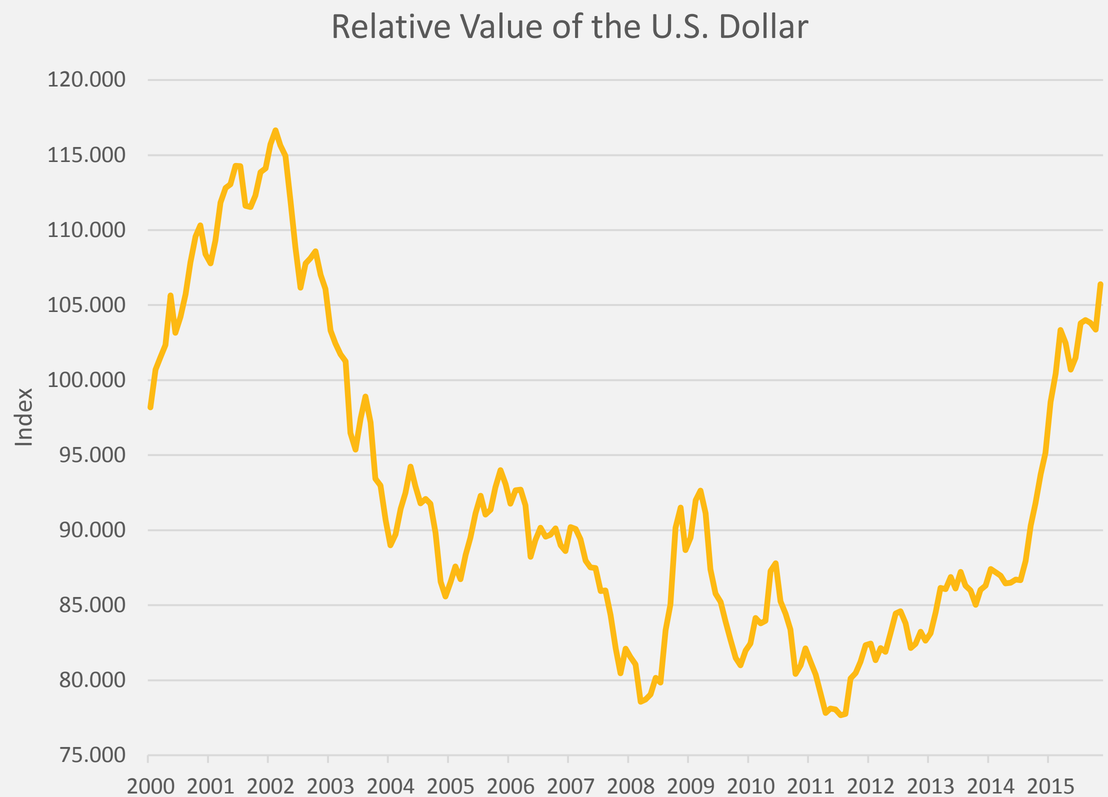
IS THIS THE START OF A VIRTUOUS CYCLE?

- Ideally, wages, spending and profits all form parts of a positive feedback loop which supports economic growth.
- One challenge with this recovery is that the virtuous cycle hasn't been able to take hold.
- Wage growth remains modest, consumer savings rates persist at levels more typical of the 1990s.
- There are as many explanations as to why as there are economists.



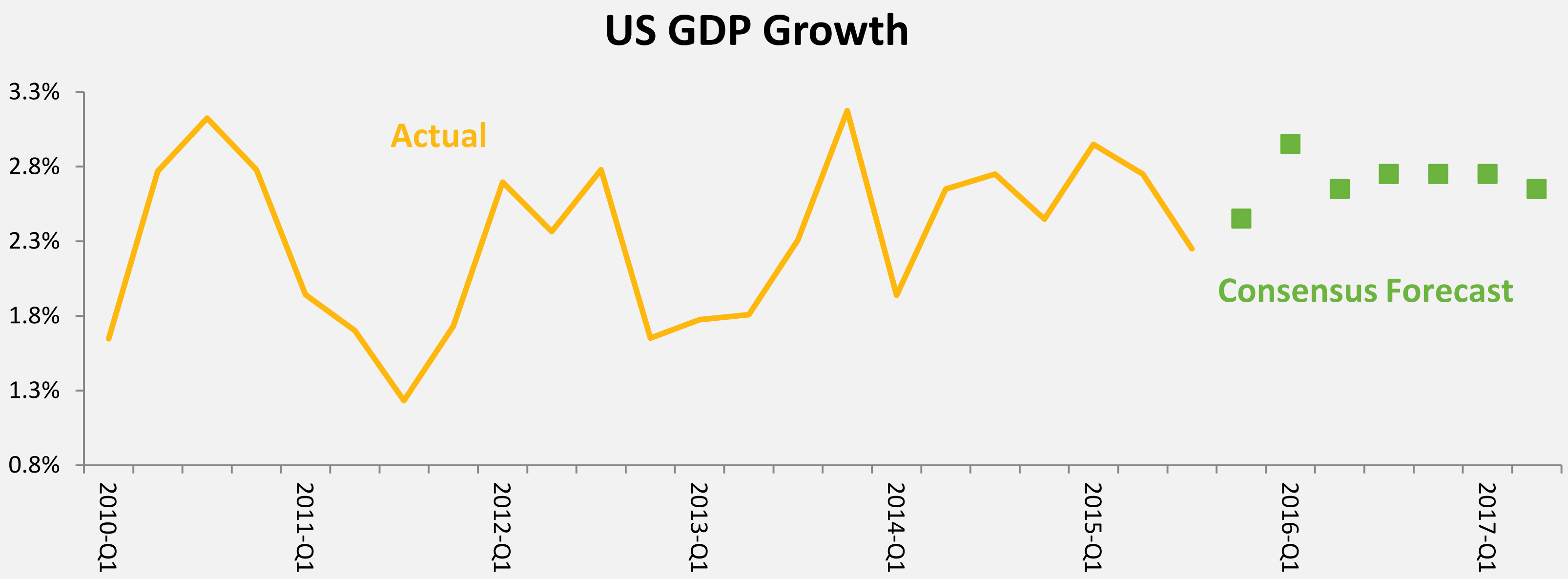
WHY CAN'T WAGES JUST INCREASE?

- Due to recent changes in Foreign Exchange rates, U.S. wages have already increased in terms of global competitiveness.
- Actions by international central banks have served to significantly increase the value of the dollar.
- This decreases the competitiveness of U.S. workers and acts to curb wage increases.



Source: Federal Reserve Bank of St. Louis (Trade Weighted US Dollar Index for Major Currencies)

REVISED: THUMBNAIL OF THE U.S. ECONOMY



Source: Consensus Economics and BEA

- Moderate growth is expected to persist in the U.S. for 2015 and 2016.
- Fed tightening will marginally reduce economic growth.
- FX rates will have a bigger impact but the FX markets are already pricing a U.S. rate hike.
- Higher rates of growth, and potentially higher than expected interest rates will depend on an acceleration in the Virtuous Cycle.