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More on the Changing Imperatives for U.S. Monetary Policy Normalization

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Introduction

Main idea*

- The case for monetary policy normalization in 2015 rested on some key assumptions.
- Two important aspects of this case have changed in 2016:
 - Inflation expectations have fallen further.
 - The risk of asset price bubbles over the medium term appears to have diminished.
- These data-based developments have given the Fed more leeway in its normalization program.

Themes in this talk

- Have inflation expectations fallen too far for comfort?
- Has the global sell-off in equity markets reduced the risk of asset price bubbles over the medium term?
- U.S. growth and labor market prospects remain reasonable.
- Monetary policy needs to be more clearly data dependent.
 - Should the Fed rethink the Summary of Economic Projections (SEP)?

Inflation Expectations Declining

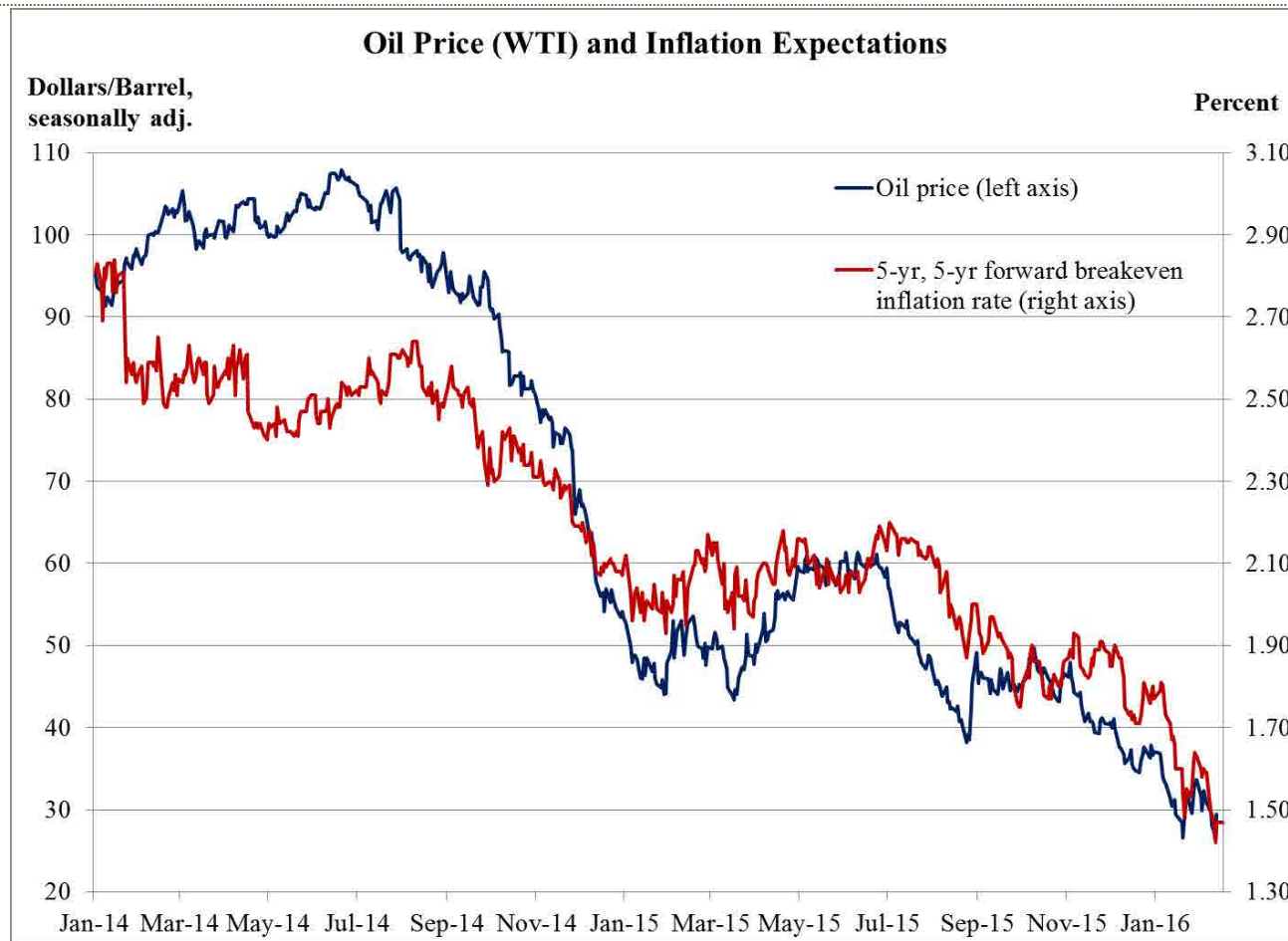
Normalization and data developments

- The case for normalization in the U.S. during 2015 rested on several pillars:
 1. Stable inflation expectations.
 2. Fully recovered labor markets.
 3. Further labor market gains putting upward pressure on inflation over the medium term and returning inflation to target.
 4. Remaining at a zero policy rate with increasingly tight labor markets risks fueling destabilizing asset price bubbles.
- Actual macroeconomic developments during 2016 are calling 1 and 4 into question.

Declining market-based inflation expectations

- Modern theory suggests that inflation expectations are a more important determinant of actual inflation than traditional “Phillips curve” effects.*
- Market-based measures of inflation expectations have been declining in the U.S. since the summer of 2014.
- The decline has been highly correlated with the decline in oil prices.

Crude oil price and expected inflation



Declining CPI inflation breakeven rates

	July 1, 2014	February 18, 2016	Difference
2-year *	188	103	- 85
5-year **	200	102	- 98
10-year **	226	124	- 102
5-year forward **	252	146	- 106

* Inflation compensation: continuously compounded zero-coupon yields (basis points).

** Breakeven inflation rates (basis points).

Too far for comfort

- I suggested during 2015 that inflation expectations would return to previous levels, such as those observed on July 1, 2014, once oil prices stabilized.
- Oil prices did not stabilize and instead fell further beginning in November 2015.
- Now I think market-based measures of inflation expectations have declined too far for comfort, the oil price correlation notwithstanding.
 - The expectations in the previous table are for CPI inflation. PCE inflation expectations would be approximately 30 basis points lower.

Inflation expectations need to stabilize

- The FOMC's normalization strategy is predicated on an environment of stable inflation expectations.
- Renewed downward pressure on market-based measures of inflation expectations during 2016 has called this assumption into question.
- I regard it as unwise to continue a normalization strategy in an environment of declining market-based inflation expectations.
- A decline in inflation expectations represents an erosion of central bank credibility with respect to the inflation target.

Decomposing inflation compensation

- Some argue that TIPS-based measures of inflation compensation can be decomposed into components representing inflation expectations, risk premia and liquidity premia.
- It is then sometimes argued that the components other than inflation expectations are rather large and volatile.
 - N. Gospodinov, P. Tkac and B. Wei. [Are Long-Term Inflation Expectations Declining? Not So Fast, Says Atlanta Fed](#), macroblog post of January 15, 2016.
 - M.D. Bauer and E. McCarthy, 2015. [Can We Rely on Market-Based Inflation Forecasts?](#) *FRBSF Economic Letter* 2015-30.

Decomposing inflation compensation

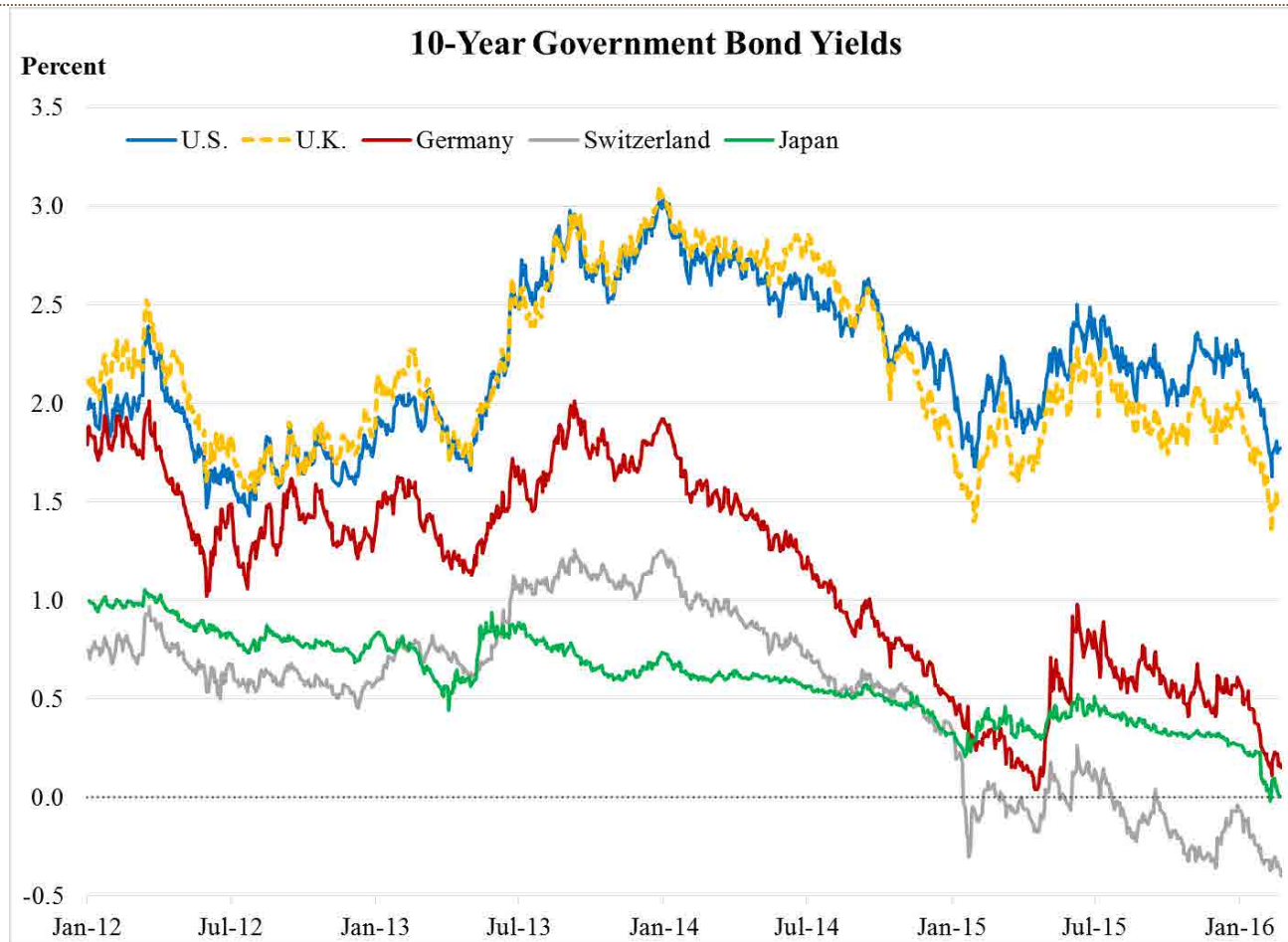
- I find these arguments unpersuasive.
- This analysis is sensitive to the underlying assumptions.
- My preferred interpretation is that risk and liquidity premia associated with inflation compensation are relatively small with low volatility.
- Hence, I interpret declines in TIPS spreads as reflecting mostly declines in inflation expectations.

The Eurozone Experience

What could go wrong?

- Suppose market-based measures of inflation expectations continue to slide—what might be the ultimate result?
- Arguably, the euro area reacted too slowly to this type of development before ultimately committing to a major quantitative easing program in January 2015.
- The result has been uncomfortably low inflation in the euro area, which is now not projected to rise to target for some time.
- Ten-year bond yields in Europe have dropped to the same level as those in Japan and Switzerland, arguably because the credibility of the inflation target has eroded.

The euro area joins Japan and Switzerland



Source: U.S. Treasury, Deutsche Bundesbank, Swiss National Bank, Bank of England, Ministry of Finance of Japan.
Last observation: February 23, 2016.

Interpreting government bond yields since 2012

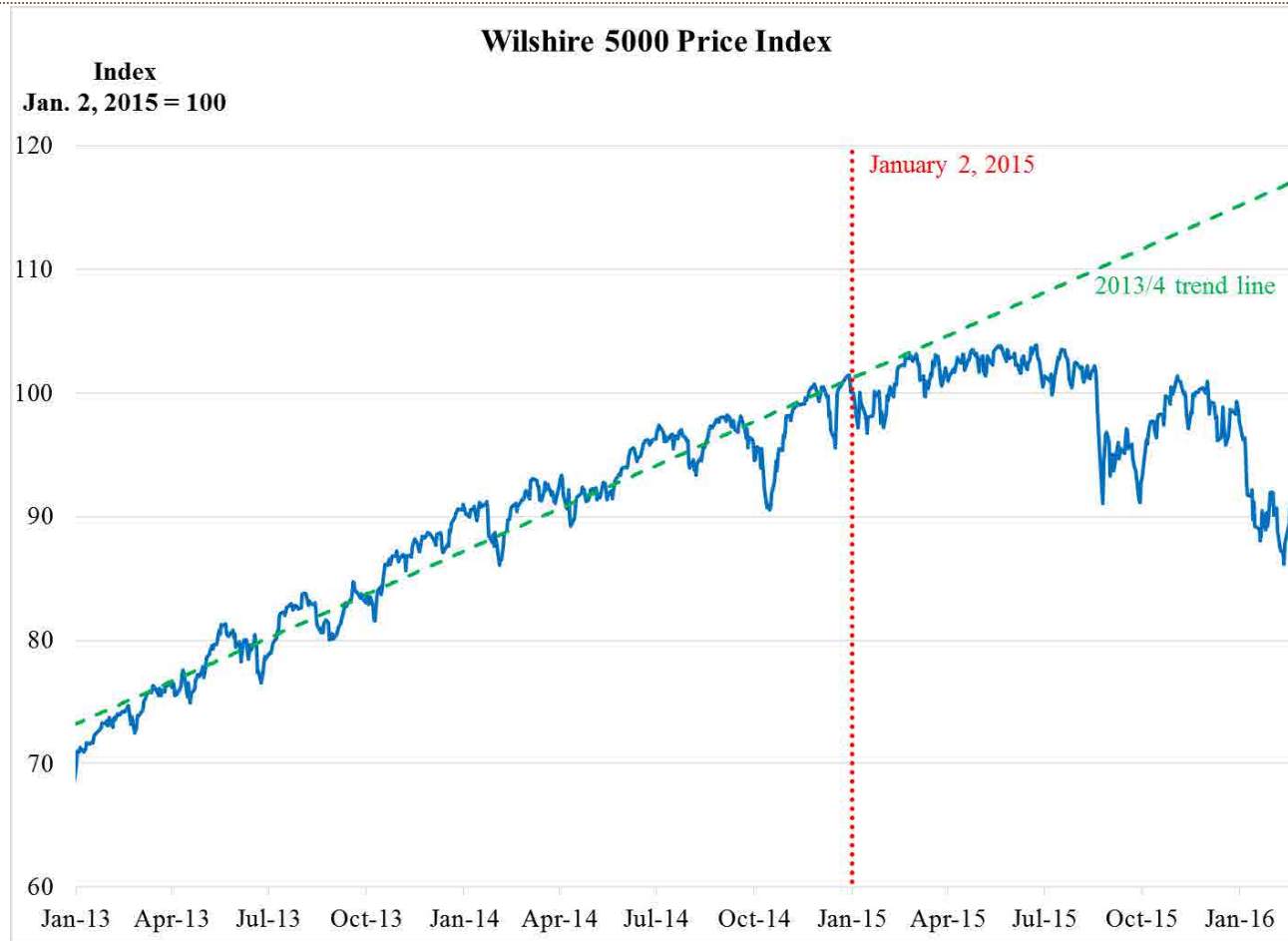
- These countries have similar inflation goals.
- Arguably, expected real rates of return on bonds of the same maturity are equated across these countries.
- What is different is that longer-term inflation credibility may differ across countries.
- As of January 2012, the U.S., U.K. and Germany were considered relatively credible, while Japan and Switzerland were considered less credible.
- Since then, Germany has moved from the relatively credible group to the less credible group.

Asset Price Bubbles

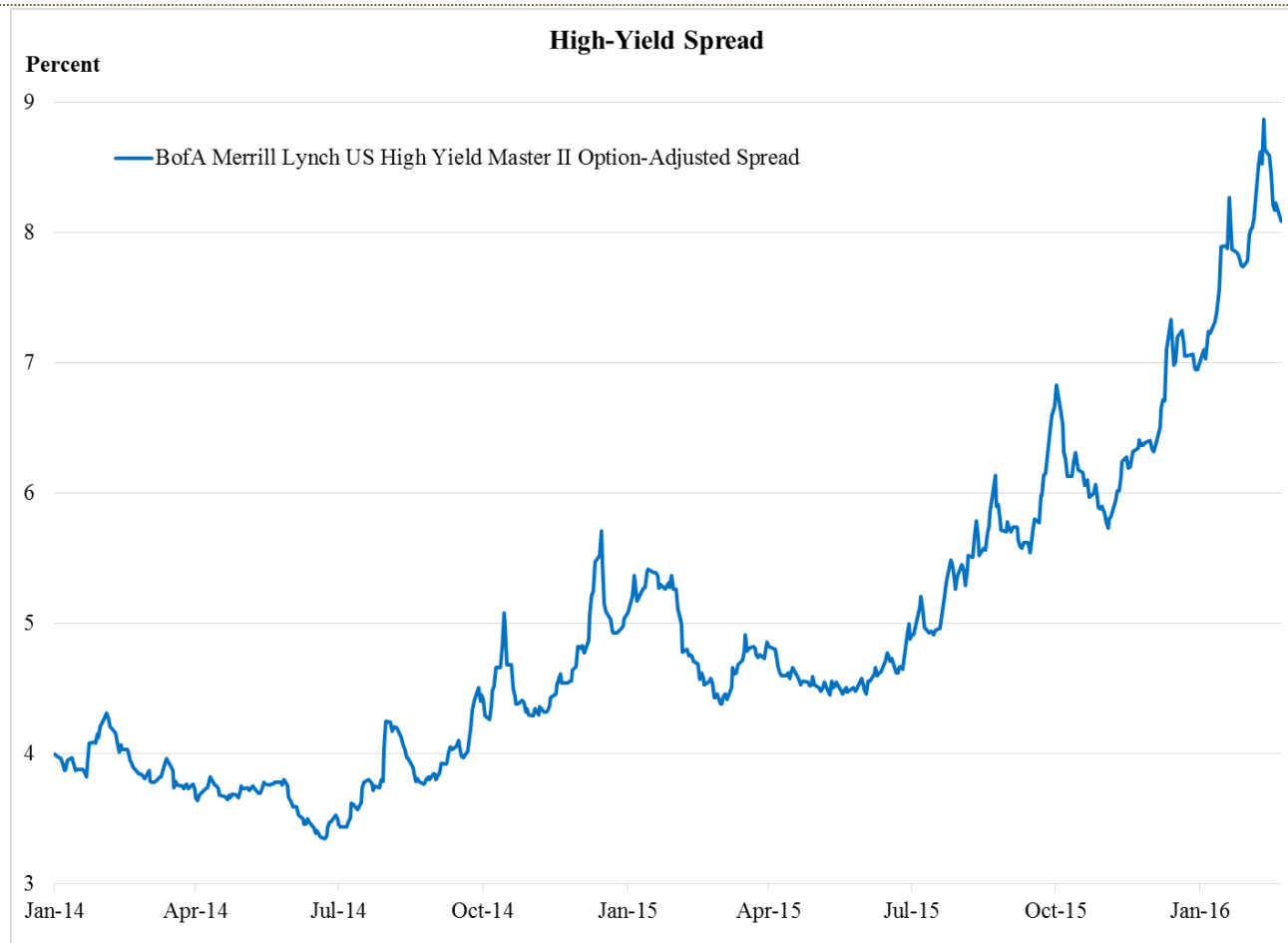
The specter of asset price bubbles

- Asset price bubbles have plagued the U.S. economy over the last two decades.
- Steps toward normalization of U.S. monetary policy help to lessen the risk that very low interest rates might feed into a third major asset price bubble in the U.S.
- The recent sell-off in global equity markets, along with increases in risk spreads in corporate bond markets, may have made this risk less of a concern over the medium term.

Some recent historical context on equity prices



High-yield spread

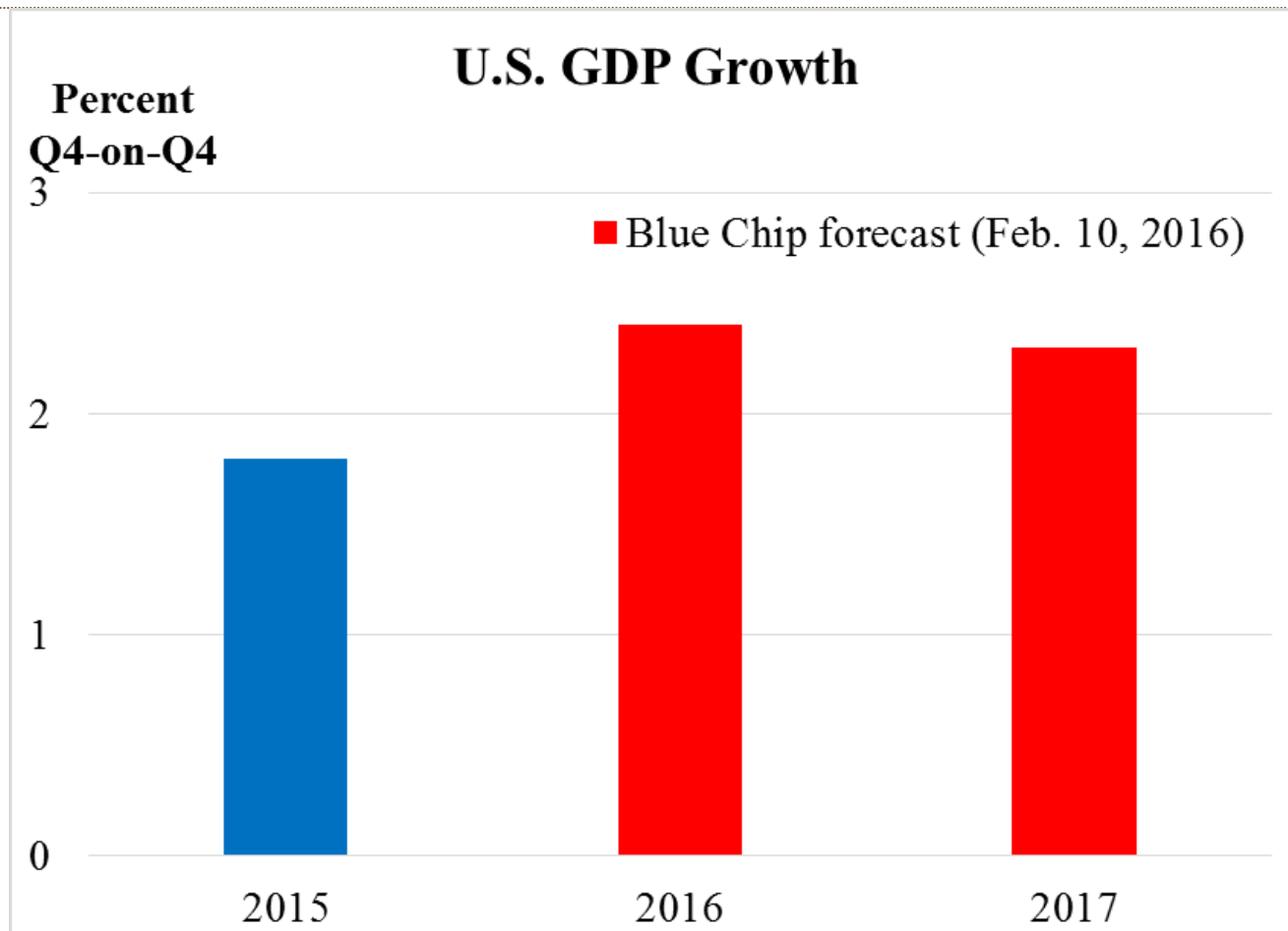


U.S. Growth and Labor Market Prospects

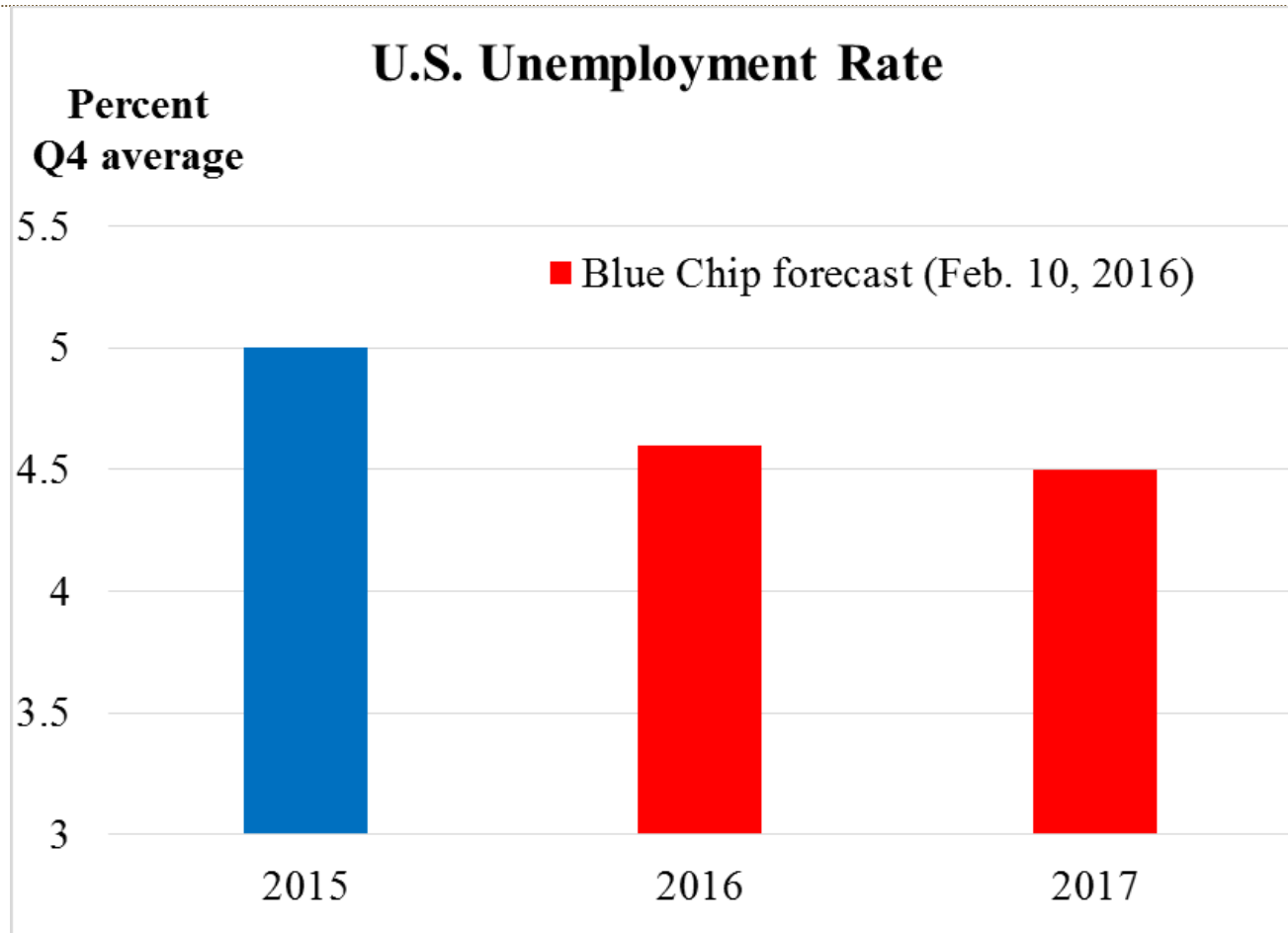
U.S. growth and labor market prospects

- My arguments related to inflation expectations and asset price developments are not predicated on a particularly weak U.S. economic outlook.
- I expect 2016 U.S. economic growth to be stronger than last year, and I expect U.S. labor markets to continue to improve.
- I also expect global growth to be stronger in 2016 than it was last year.

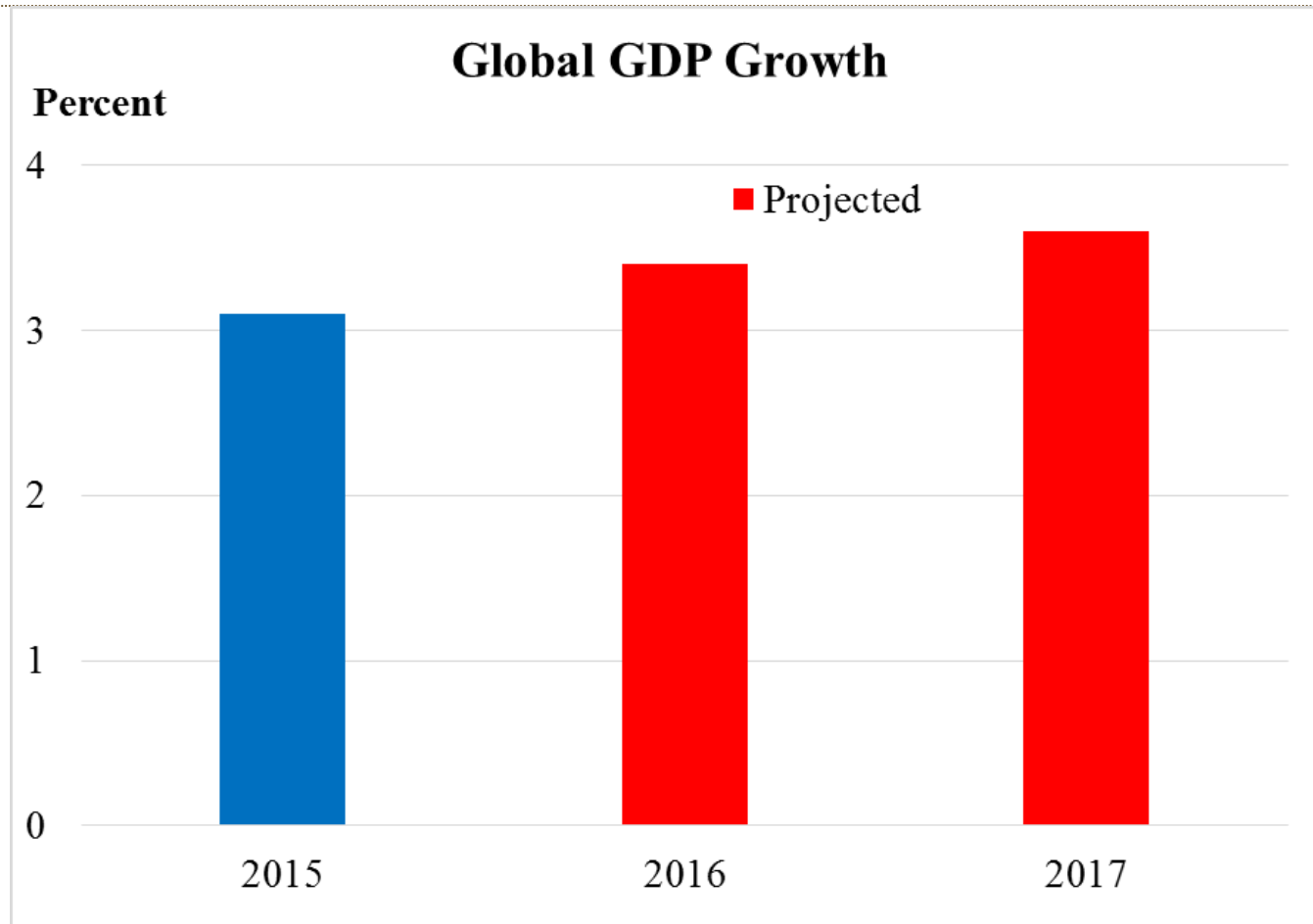
U.S. GDP growth



U.S. unemployment



Global GDP growth according to the IMF

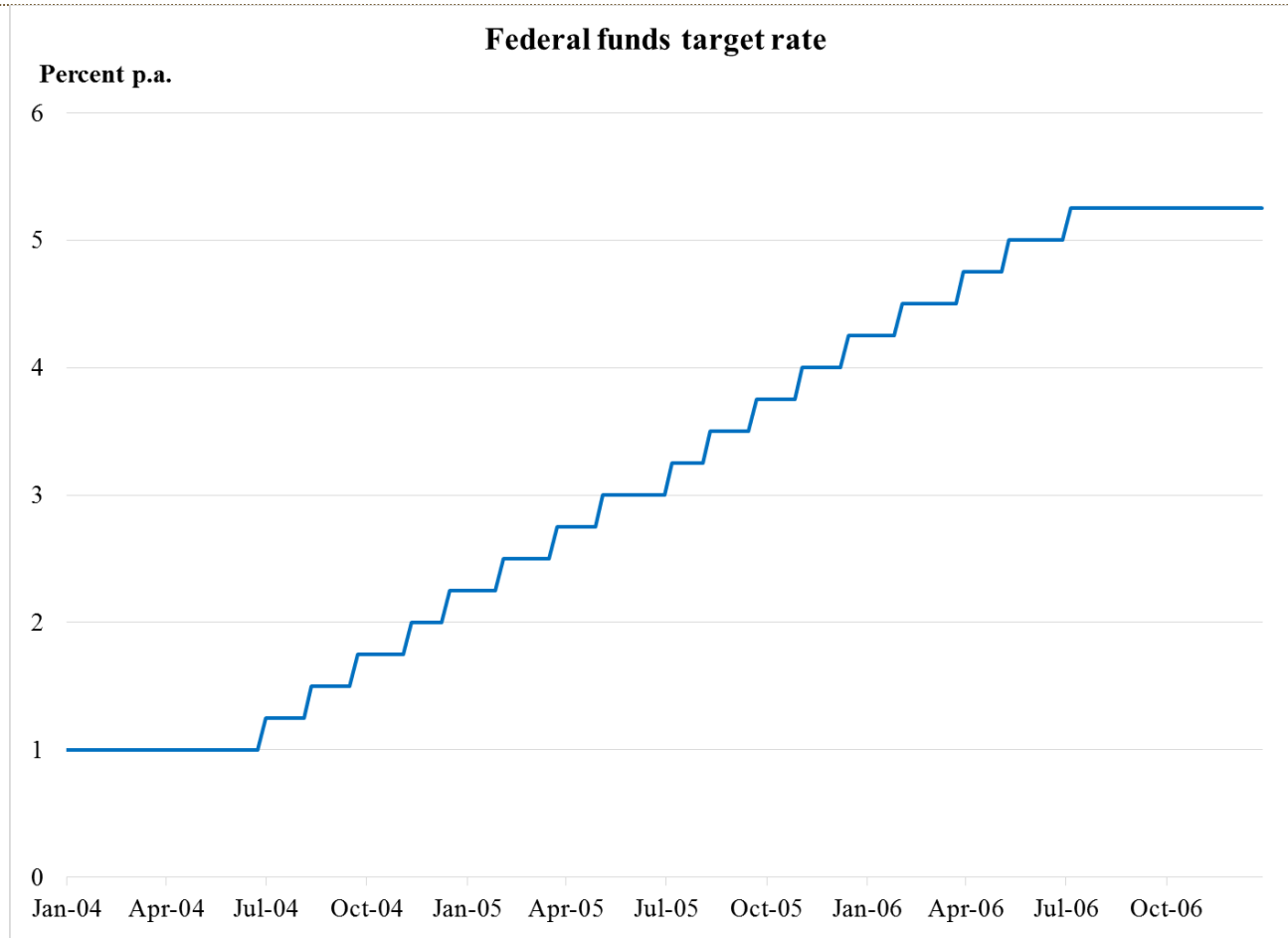


The FOMC and Data Dependence

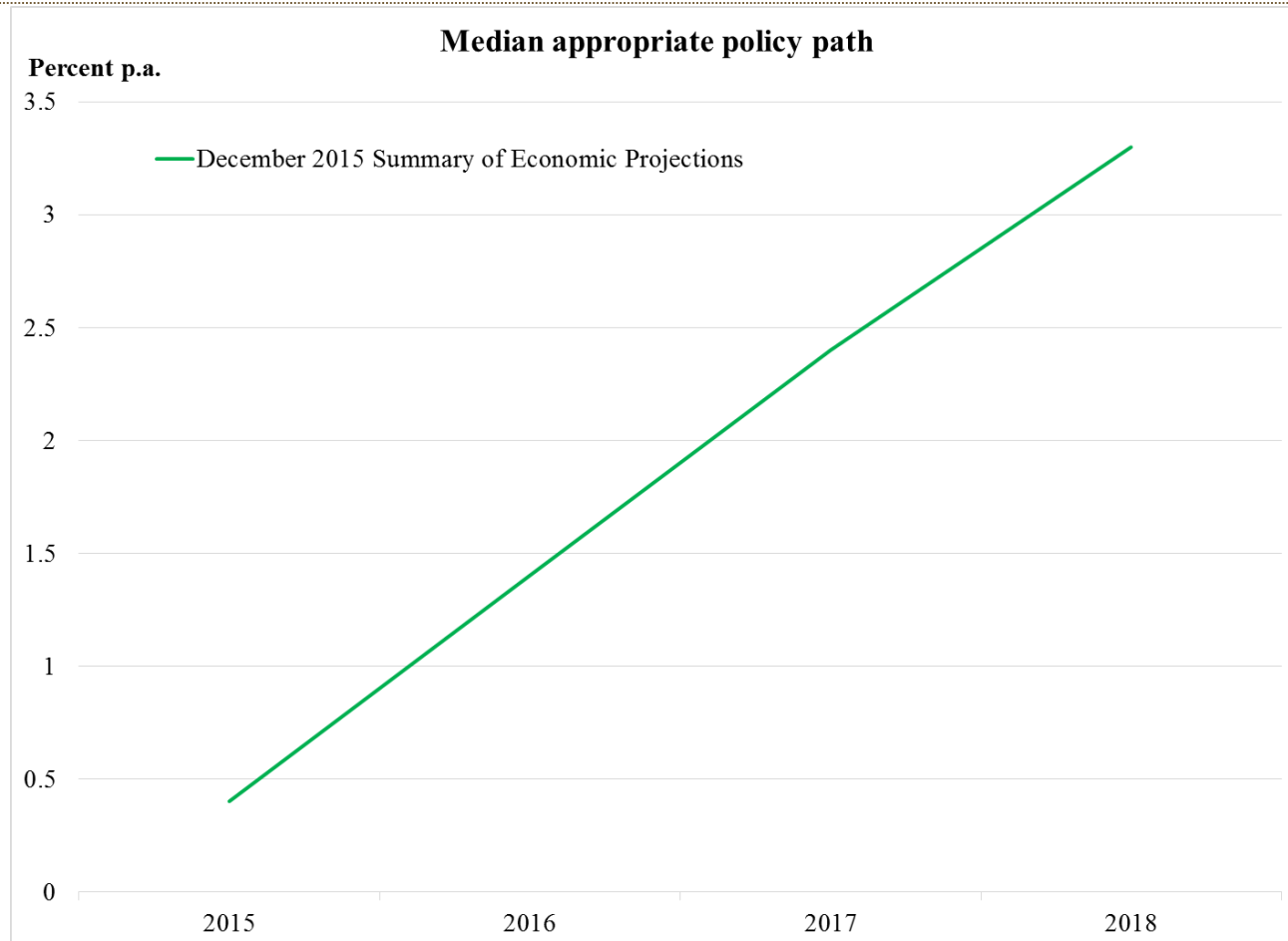
The FOMC and data dependence

- The FOMC has repeatedly stated in official communication and in public commentary that future policy adjustments are data dependent.
- Do financial markets believe the data dependence clause?
- Based on the following two observations, it is possible to make a case that they do not:
 - The 2004-2006 normalization cycle appeared to be mechanical.
 - The Committee's SEP may be unintentionally communicating a version of the 2004-2006 normalization cycle.

The FOMC policy rate 2004-2006



The median appropriate policy rate in the SEP



The SEP as an inadvertent commitment

- Global financial markets might be forgiven if they see similarities in these two pictures, and therefore essentially expect a repeat of the 2004-2006 calendar-based normalization cycle.
- The policy rate component of the SEP was perhaps more useful when the policy rate was near zero.
- During some of that period, the Committee wished to commit to the idea that the policy rate was likely to remain near zero for some period into the future.

The SEP as an inadvertent commitment post liftoff

- But now, post liftoff, communicating a path for the policy rate via the median of the SEP could be viewed as an inadvertent calendar-based commitment to increase rates.
- While the Committee has certainly stressed data dependence, its past behavior belies that emphasis and therefore may not carry as much weight as it should with the financial markets.

Possible changes to the SEP?

- The FOMC cannot alter history and change what happened in 2004-2006.
- However, the FOMC could change its approach to the SEP in a way that would cease giving such explicit guidance on the likely path of the policy rate going forward.
- Such a change might help better align the Committee with financial markets on the idea that policy is data dependent and does not follow a predetermined path.
- This is an important issue for the Committee to consider.

Summary

Summary

- Two important pillars of the 2015 case for U.S. monetary policy normalization have changed.
- These changes are that market-based inflation expectations have fallen further and that the risk of asset price bubbles appears to have diminished.
- These data-dependent changes likely give the FOMC more leeway in its normalization program.
- The Committee may wish to consider changes to the way it approaches the policy rate projections in the SEP to better align market expectations of future policy moves.



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