

BOK Financial Economic & Market Outlook April 18, 2018

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Market Performance

| | 1st Quarter | Last 12 Months |
|---|-------------|----------------|
| Headline Index Returns | | |
| NASDAQ Composite | 2.59% | 20.76% |
| MSCI Emerging Markets | 1.47% | 25.37% |
| Russell 1000 Growth | 1.42% | 21.25% |
| Barclays Global Aggregate Fixed Income | 1.36% | 6.97% |
| Russell 2000 | -0.08% | 11.79% |
| Barclays Global High Yield Fixed Income | -0.36% | 6.65% |
| Russell 800 MidCap | -0.46% | 12.20% |
| Russell 1000 | -0.69% | 13.98% |
| S&P 500 | -0.76% | 13.99% |
| MSCI EAFE | -1.41% | 15.32% |
| Barclays U.S. Aggregate Fixed Income | -1.46% | 1.20% |
| Dow Jones Industrial Average | -1.96% | 19.39% |
| Russell 1000 Value | -2.83% | 6.95% |

*Sorted by 1Q Returns

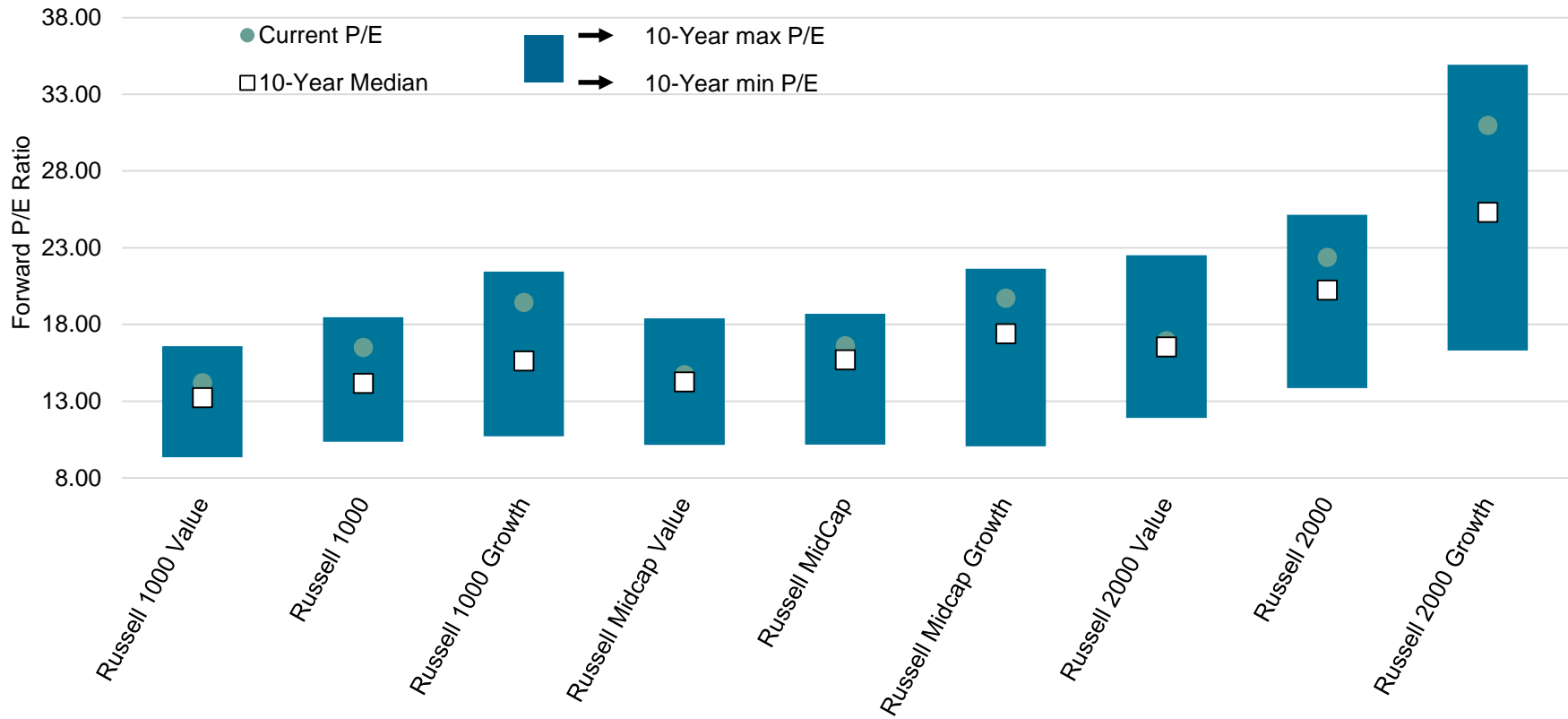
Source : S&P Dow Jones Indices, FTSE Russell, MSCI, NASDAQ, FactSet. As of 3/31/2018.



Equity Style Valuation

Multiples have contracted in 2018 with the forward P/E ratios of Value indices near or at their respective 10-year medians. The forward P/E ratios of Growth indices have also declined and are off their 10-year highs; but, they are still well above their 10 year medians.

Forward P/E Ratios 10-Year High/Low

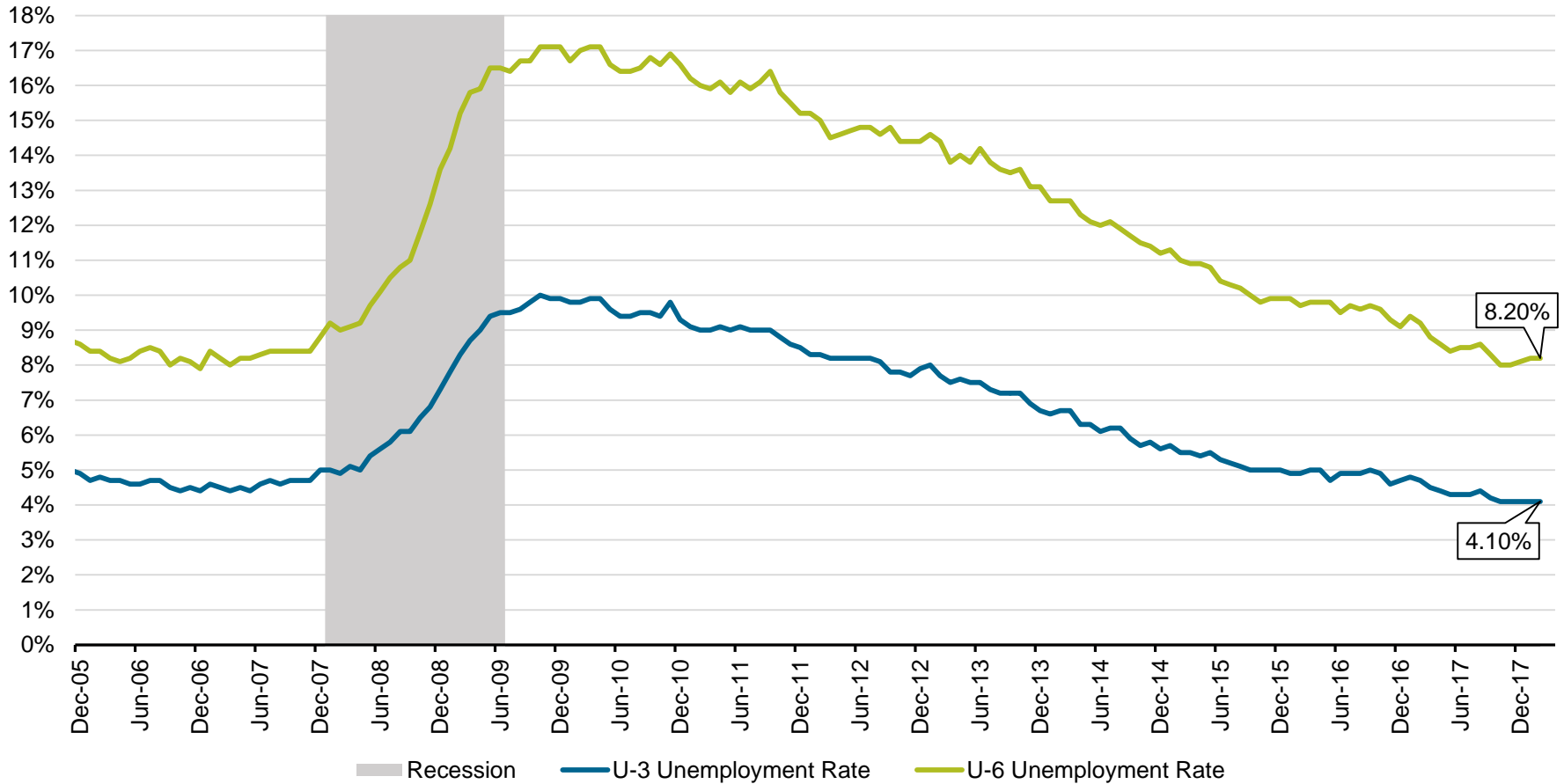


Source : S&P Dow Jones Indices, FTSE Russell, MSCI, Bloomberg Barclays, FactSet. As of 3/31/2018. ¹See appendix for index descriptions.



U.S. Unemployment

The U-3 unemployment rate has held at 4.1% through the end of February 2018. The U-6 rate has inched up from 8.0% at the end of November 2017 to the current reading of 8.2%. Still, compared to the previous 10 years, the U-6 rate is at a very low level.

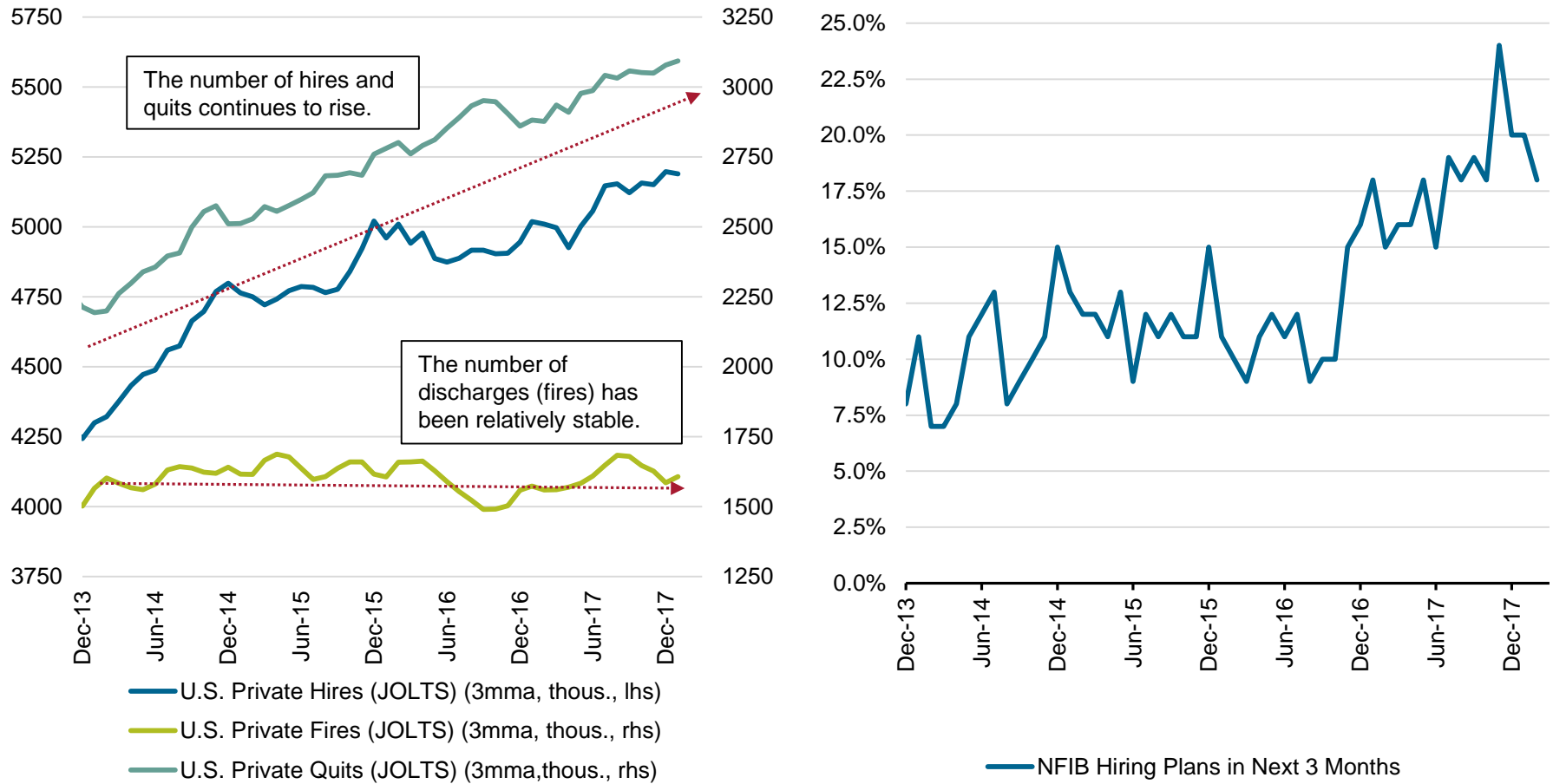


Source : US Dept. of Labor, FactSet. As of 2/28/2018.



U.S. Employment Environment

Job market trends reflect confidence in both workers and employers. Quitting and hiring have steadily risen while the rate of firing has flattened out. Small business hiring plans also remain at elevated levels.

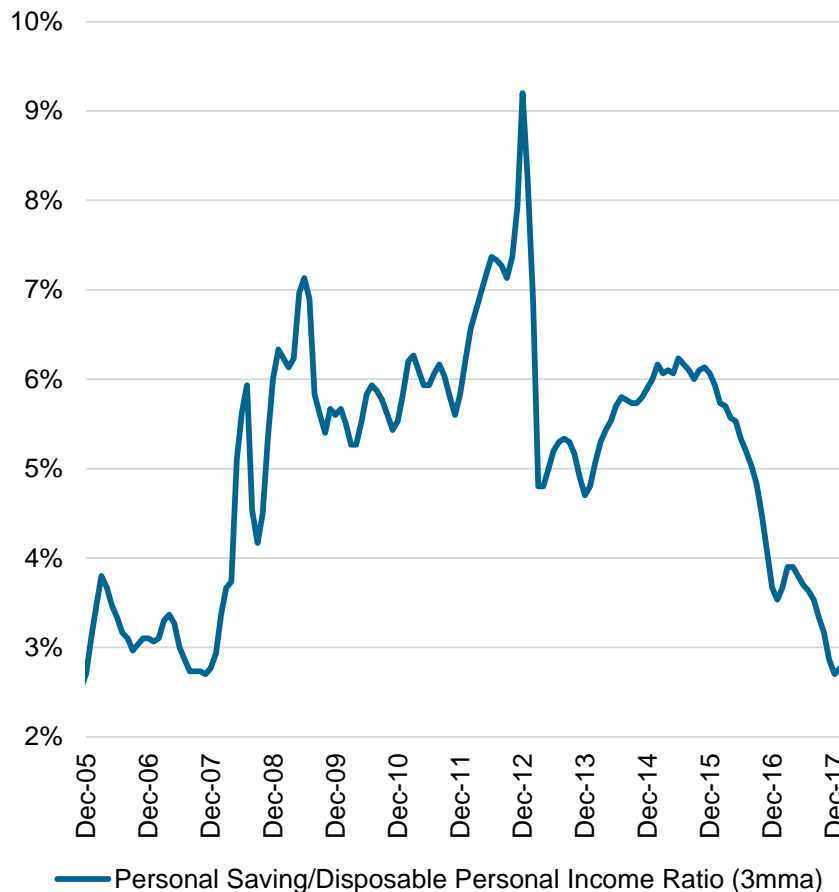
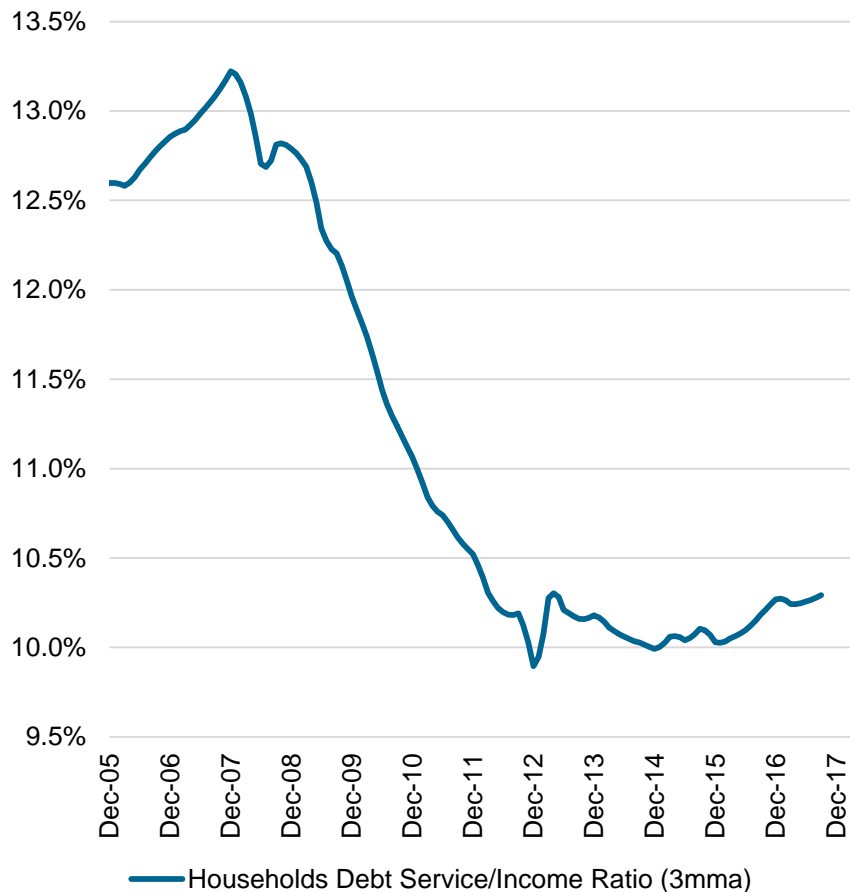


Source : US Bureau of Economic Analysis, US Dept. of Labor, NFIB, FactSet. As of 2/28/2018. ⁵See appendix for data availability.



U.S. Consumers : Financial Health

Over the past two years, the households debt service/income ratio has moved up slowly from 10% to 10.3%. In the same period, however, personal savings have been more than halved from over 6% at the end of 2015 to less than 2.5% as of January 31, 2018.

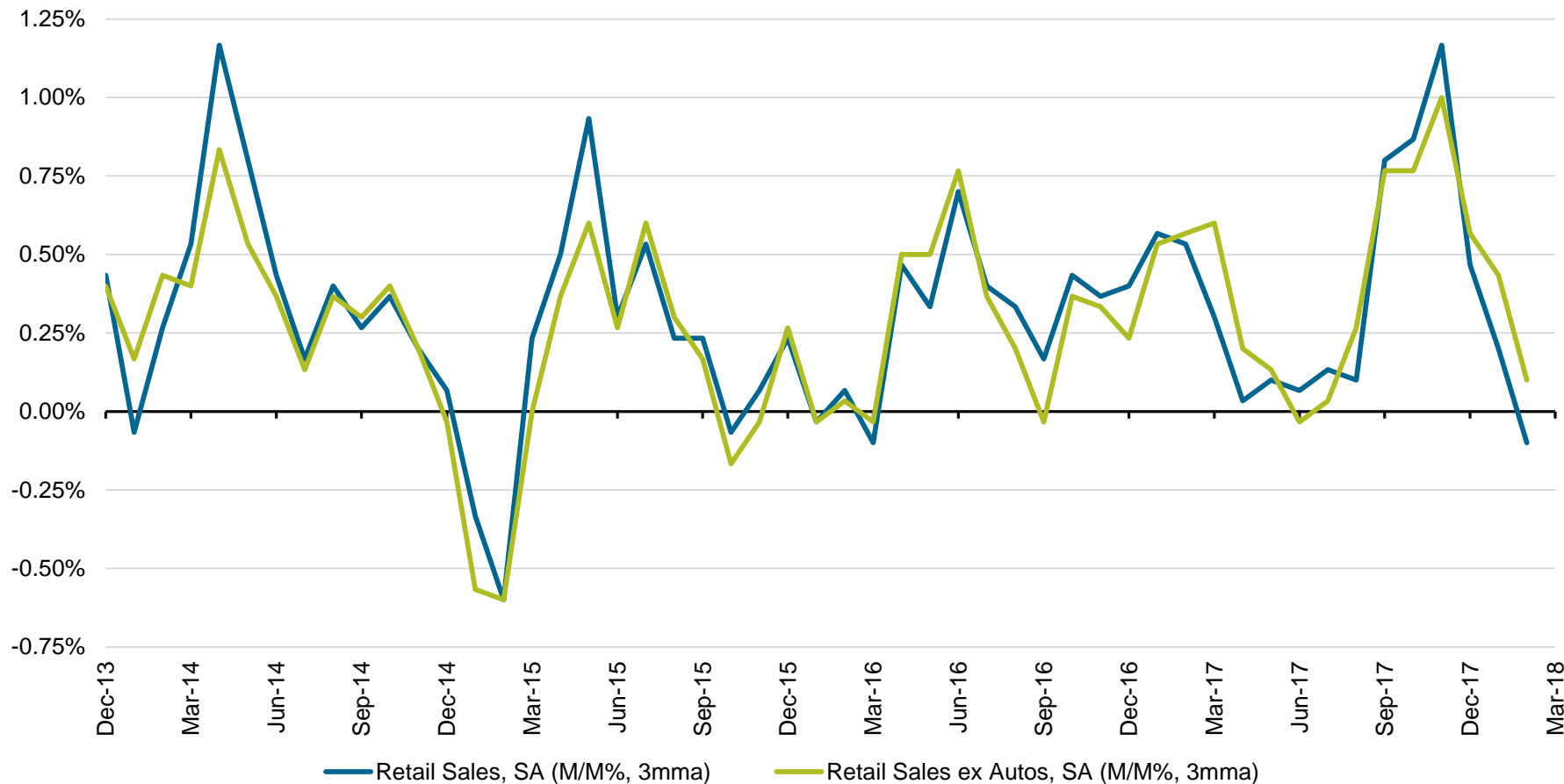


Source : Conference Board, US Federal Reserve, FactSet. As of 1/31/2018. ⁵See appendix for data availability.



U.S. Consumers : Retail Sales

The holiday season posted some of the highest retail sales growth seen in a number of years. However, the start of 2018 has not been as strong. Retail sales growth ex. autos is still in positive territory but the automotive component slowed in January and February.



Source : U.S. Census Bureau, FactSet. As of 2/28/2017.



Key Rates

| | 12/31/17 | 3/31/18 | 1 Month Bps Change | 3 Month Bps Change | 1 Year Bps Change |
|-----------------------|--------------|------------|-----------------------|-----------------------|----------------------|
| 2 Year Treasury Note | 1.89% | 1.89% | +10 | +41 | +69 |
| 10 Year Treasury Note | 2.41% | 2.41% | +0 | +7 | -4 |
| 10 Year TIPS | 0.42% | 0.42% | -12 | -6 | -5 |
| 2 Year MMD AAA | 1.32% | 1.32% | +0 | +30 | +14 |
| 10 Year MMD AAA | 2.10% | 2.10% | -11 | +1 | -28 |
| Fed Funds Rate | 1.25 – 1.50% | 1.50–1.75% | +25 | +25 | +75 |
| 3 Month LIBOR | 1.69% | 1.69% | +21 | +36 | +70 |
| 30yr Mortgage Rate | 3.85% | 3.85% | +3 | +5 | -21 |

Source: Bloomberg

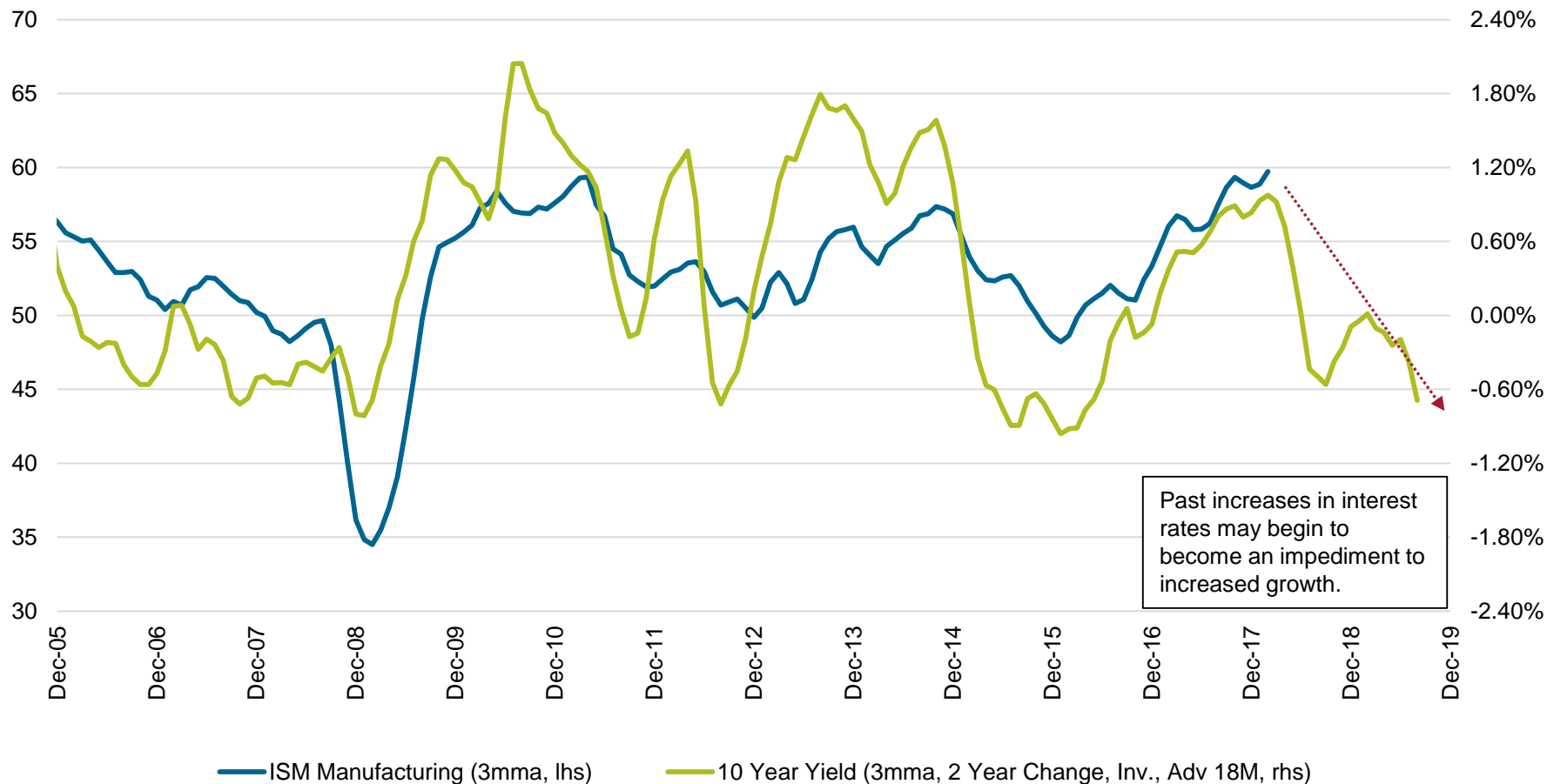


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U.S. Purchasing Manager Indexes : Potential Headwinds

Increases in prevailing interest rates affect the broader economy with a long lag. Interest rate changes that have occurred over the past 18 months may begin to become a drag on economic activity. (Note that the yield measure in the chart below is inverted).



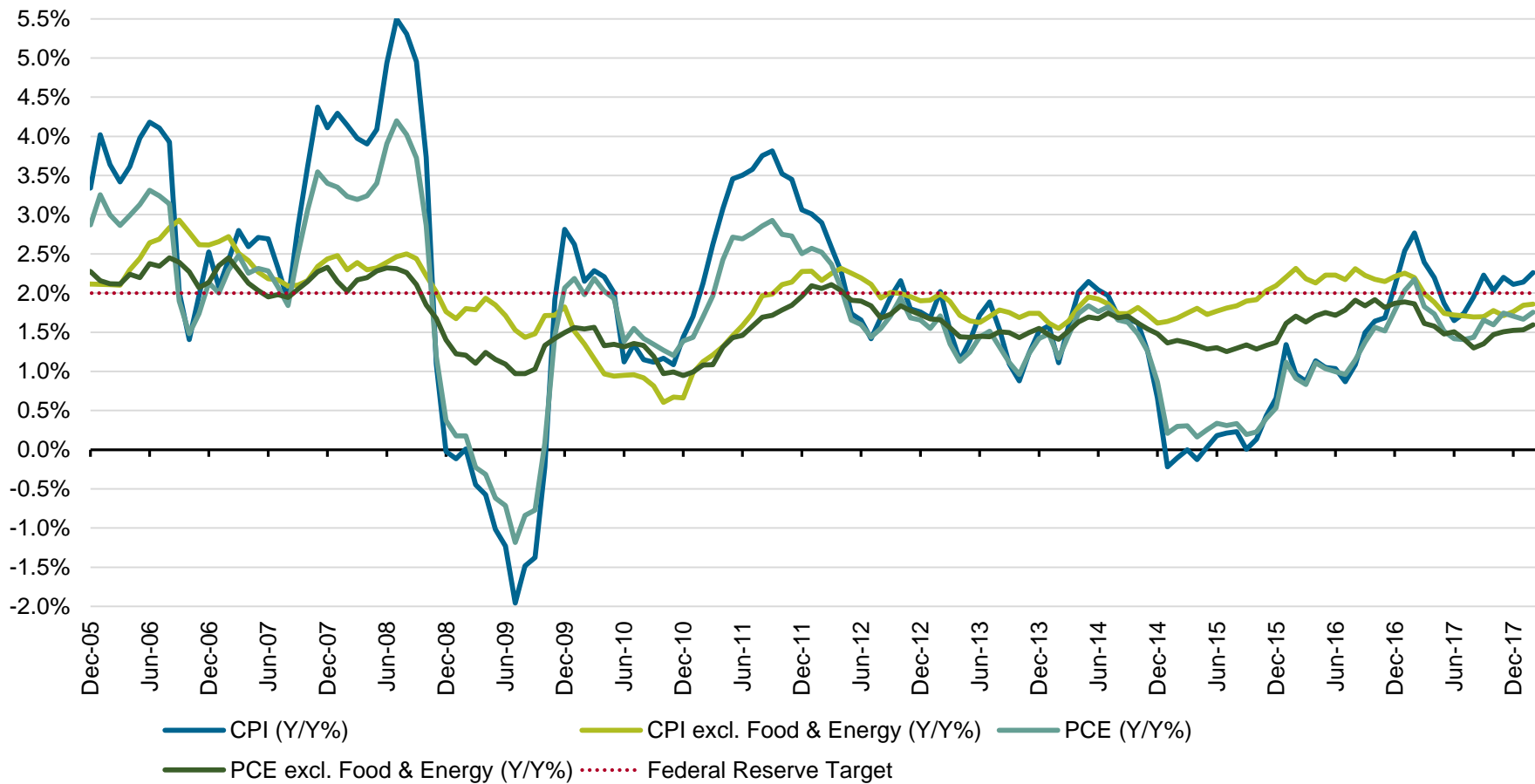
Past increases in interest rates may begin to become an impediment to increased growth.

Source : Institute for Supply Management, FactSet. As of 2/28/2018.



U.S. Headline and Core Inflation

Inflation, as measured by CPI and personal consumption expenditures, have edged up to a small extent but are still at relatively low overall levels. The Core PCE index finished February at 1.75%, below the Federal Reserve's long-term target of 2%.

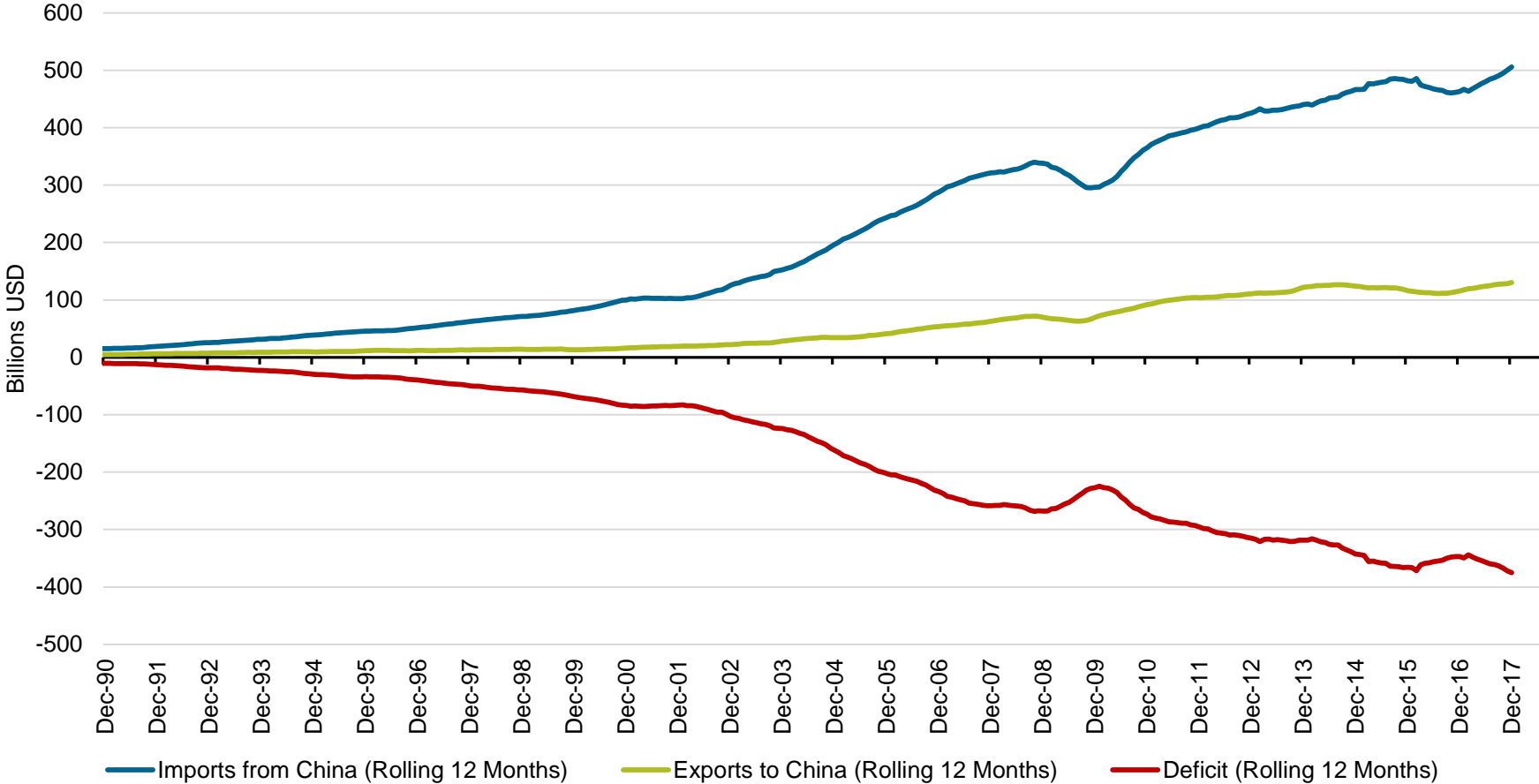


Source : US Bureau of Economic Analysis, US Dept. of Labor, FactSet. As of 2/28/2018.



U.S. Trade Policy - China

On top of the proposed tariffs, the Trump administration is asking Beijing for a plan to reduce its annual trade deficit with the U.S. by \$100 billion. The current annual deficit is at \$375 billion at the end of 2017 up from \$347 billion in 2016.



Source : US Census Bureau, FactSet. As of 12/31/2017.



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The New Interest Rate Environment: Tools for Managing Floating Rate Risk

April 2018 Economic & Market Outlook Call

Mark Staggs, SVP
Interest Rate Derivative Sales
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The New Rate Environment

- For the first time in over a decade, the Fed is in an extended rate hiking cycle.
- 5 Fed hikes since Q4 2016, taking 1 month LIBOR from approx. 50 bps, to 1.89% currently.
- Fed rate hikes & balance sheet unwind continues; two + more hikes expected in 2018, with additional projected thru 2020
- Significant impact on term floating rate borrowers that are/had grown accustomed to the post-Financial Crisis “New Normal” of 25bps (and lower) 1 month LIBOR

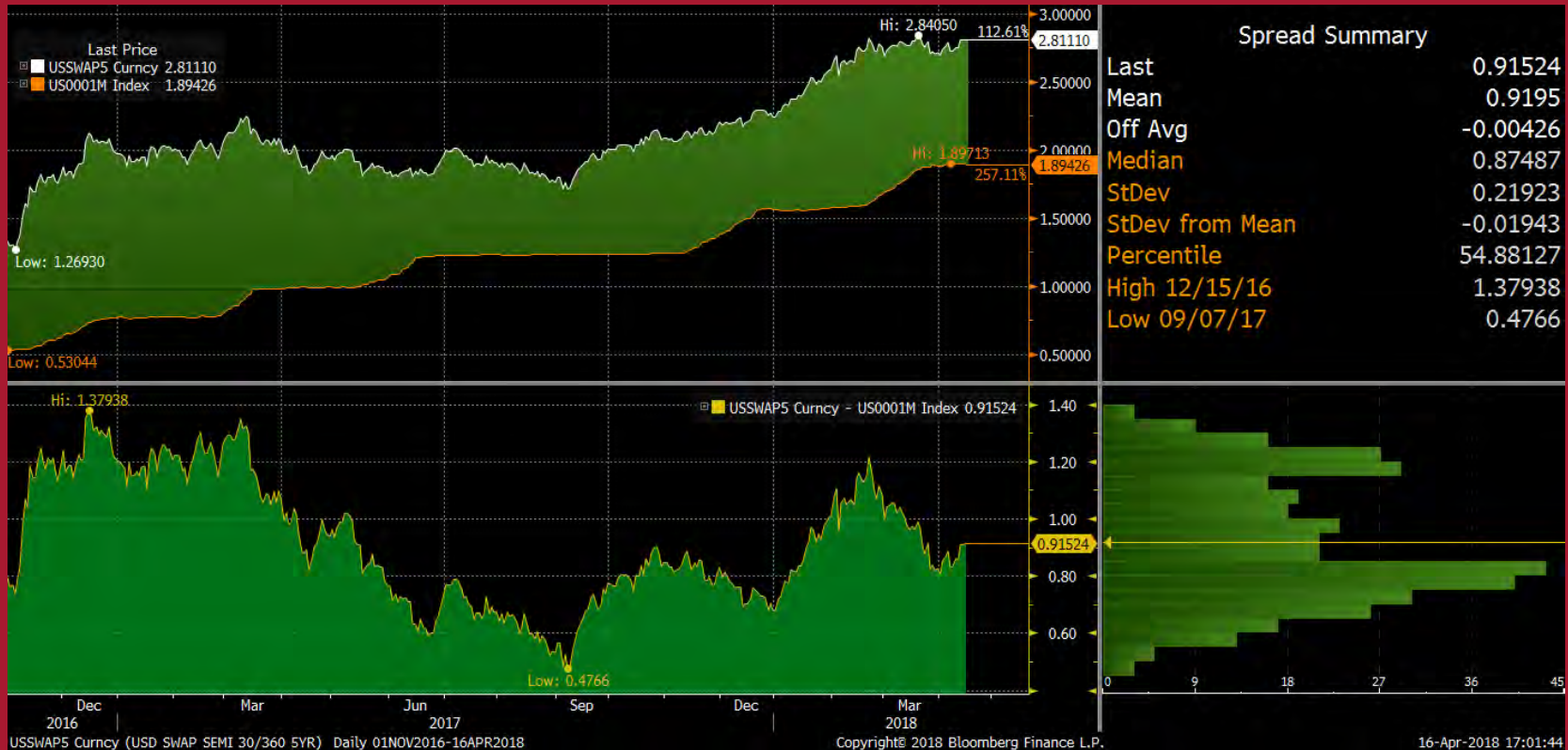
1 Month LIBOR (4/16/18)



5 yr. Benchmark Swap (4/16/18)



5 Yr. Swap vs. 1 Month LIBOR (4/16/18)

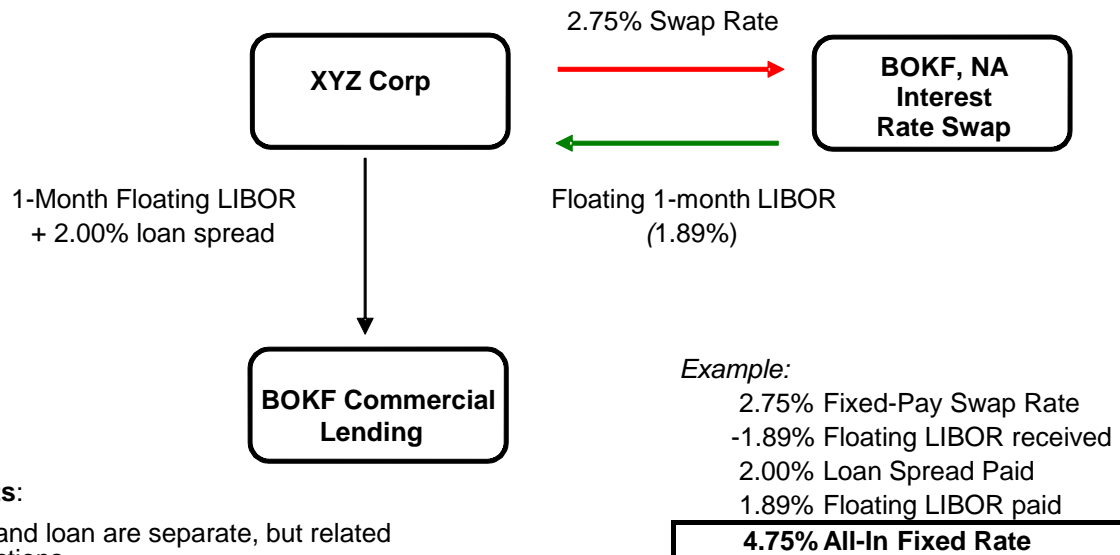


Fed Dot Plot (4/16/18)



Swap Basics

What Is a Swap and How Does It Work? Example: 5 yr. Term / 20yr. Amort



Key Points:

- Swap and loan are separate, but related transactions
- Fixed interest payments for floating interest payments
- Interest payments are exchanged, not principal

Takeaway: The All-In Fixed Rate = Swap Rate + loan spread over LIBOR

Why Swap? Four Benefits

- **Fixed Rate Certainty:** Rate is fixed, as with a “traditional” fixed rate loan
- **Upside Potential in Event of Pre-Payment**
 - Customer can profit in the event of prepayment (higher rate environment), unlike typical traditional fixed rate loan
 - Downside, i.e. yield maintenance in lower rate environment, similar to typical traditional fixed rate loan
- **Customizable:** Hedge structure determined by customer’s needs in consultative process with banker & swap specialist
 - Partially or fully hedge amount of borrowings
 - Hedge term may be =, <, > loan term
 - Same, faster, or slower amortization than loan
 - Early no risk termination options available
 - Target borrower’s desired-all in rate with customized structure
- **Flexible:** customer can fix with swap on existing loan without redoing loan; can also unwind/extend/restructure the hedge separately from loan

Swap Basics

Typical Swap User

- Term loan borrowers (sometimes RLOCs)
- Reasonable expectation of early payoff, thus attracted by gain potential
- Want/need unique rate hedging solution; e.g. partial hedging, forward-starts, early cancellation options, accreting structure/unique principal schedules, etc.
- Typically larger, approx. \$3MM minimums
- Dodd Frank/Regulatory requirements of (typically) more than \$1MM net worth or more than \$10MM assets for the swapping entity

Market and Economic Outlook

Conference Call

Wednesday, April 18, 2018

Jim Huntzinger, Chief Investment Officer | BOK Financial Corporation



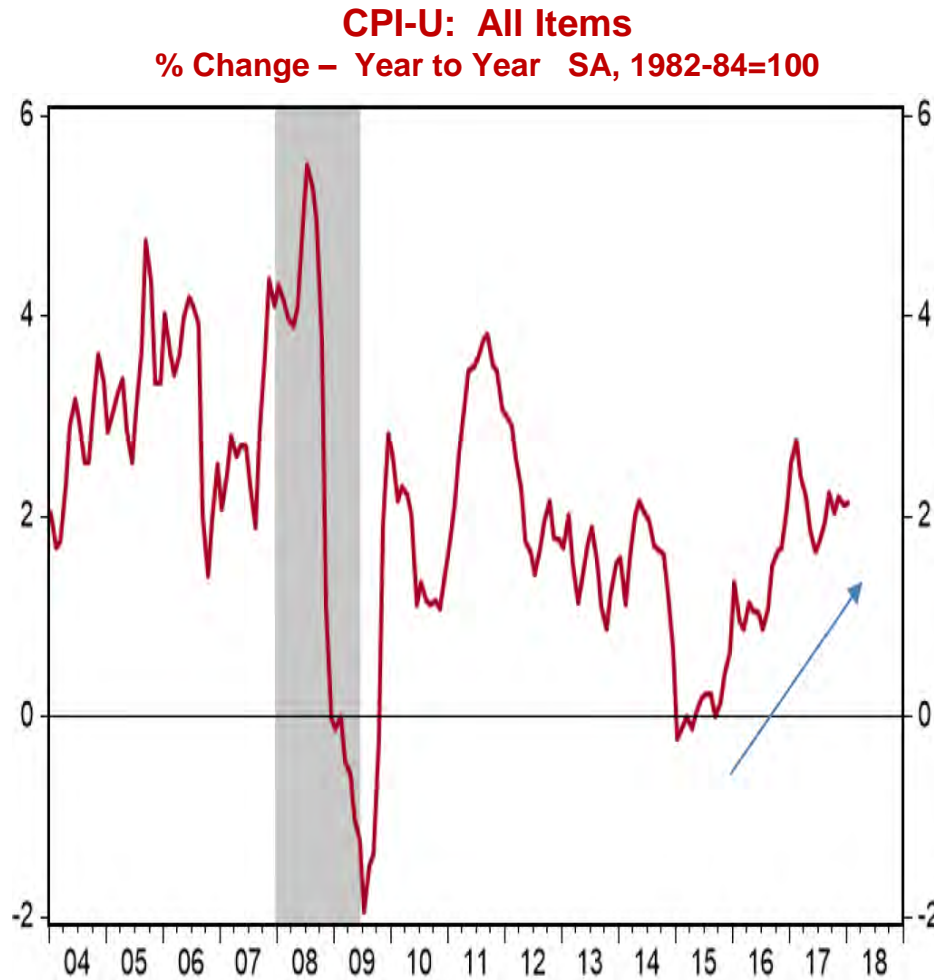
**Civilian Unemployment Rate: 16 yr. +
SA, %**



- 4.1% unemployment rate low...and headed lower.

Source: Bureau of Labor Statistics

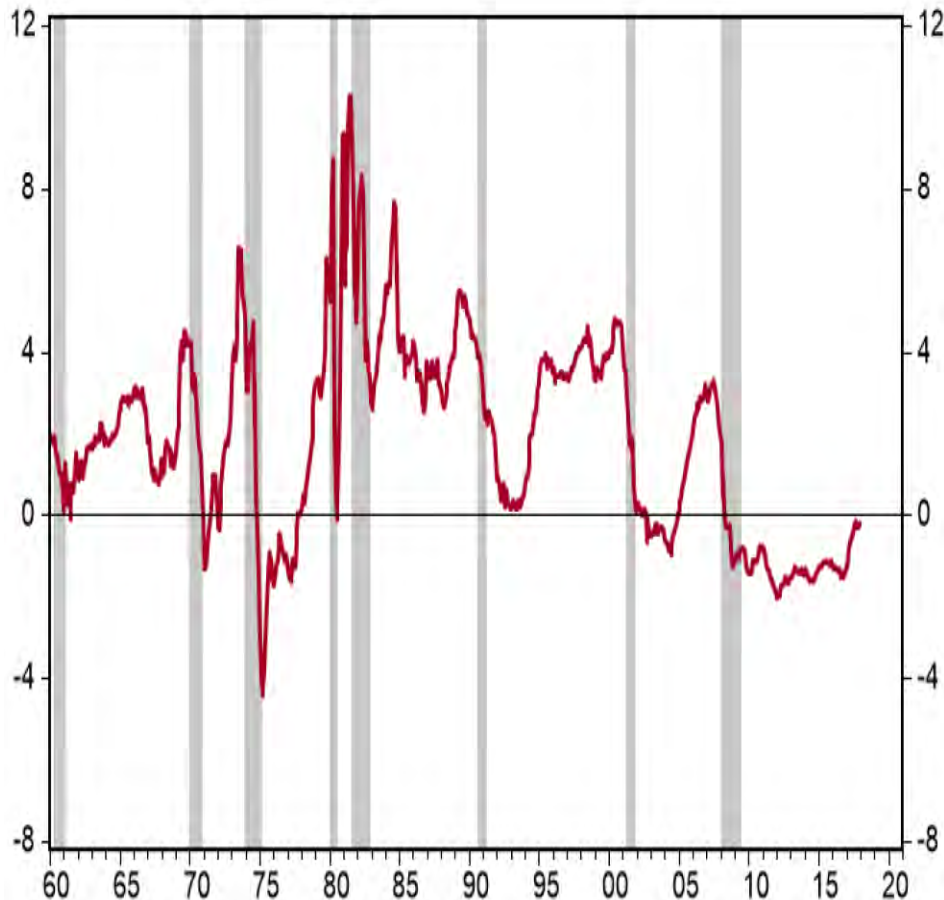




Source: Bureau of Labor Statistics

- Consumer Price Index up 2.1% Y/Y...with core up 1.8%.
- These are not high inflation results but, clearly hooking higher.
- Fed uses PCE inflation not CPI. Core PCE currently at 1.5%.
- But...probably the beginning of the end of Goldilocks.

U.S. Funds Rate Minus Core PCE Deflator
Y/Y %



Source: Haver Analytics

- Central bankers treading lightly as real rates are still negative.
- Here's the trick on the inflation story: Acknowledge the warmer inflationary environment (oil prices – spending – bigger deficits – full employment), without jumping to the stagflation of the 1970's.
- Reaccelerating inflation does not mean runaway inflation. It just means its harder to hedge stock with bonds.

Small Business Confidence

NFIB: Small Business Optimism Index
SA, 1986=100

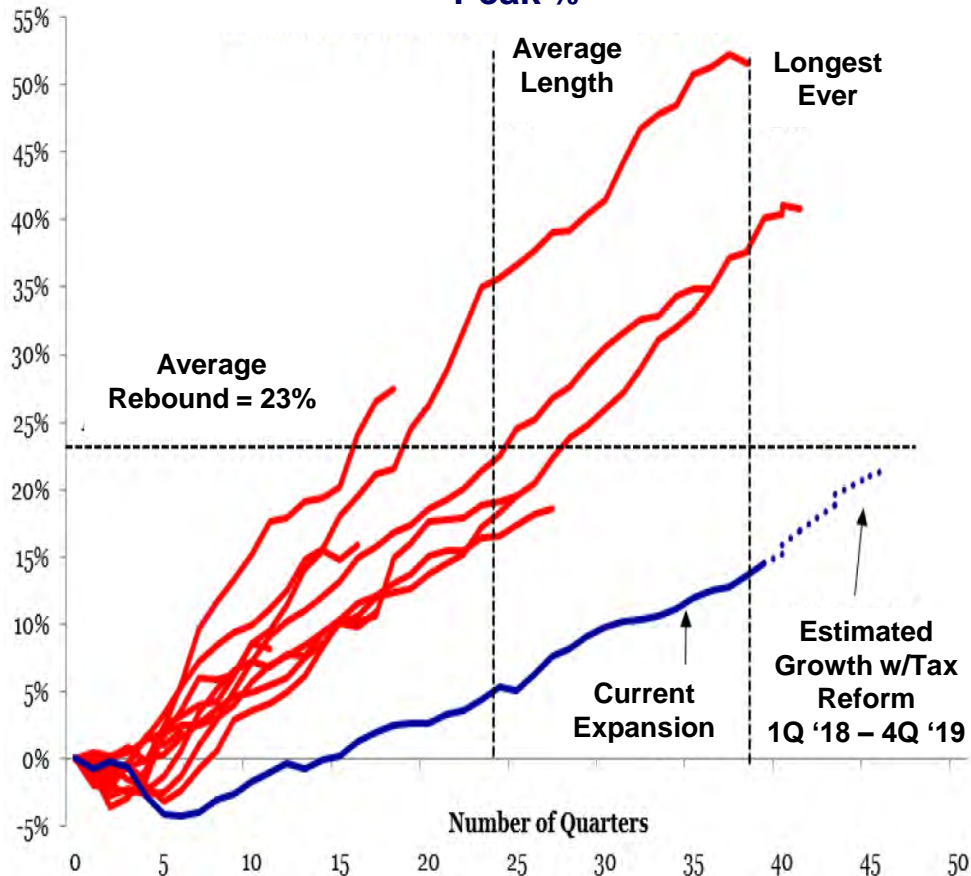


Source: National Federation of Independent Business

- Confidence remains high.

Boom/Bust vs. Slow and Steady Cycles

**U.S. Economic Contractions + Expansions
Cumulative Real GDP Growth Since Prior
Peak %**

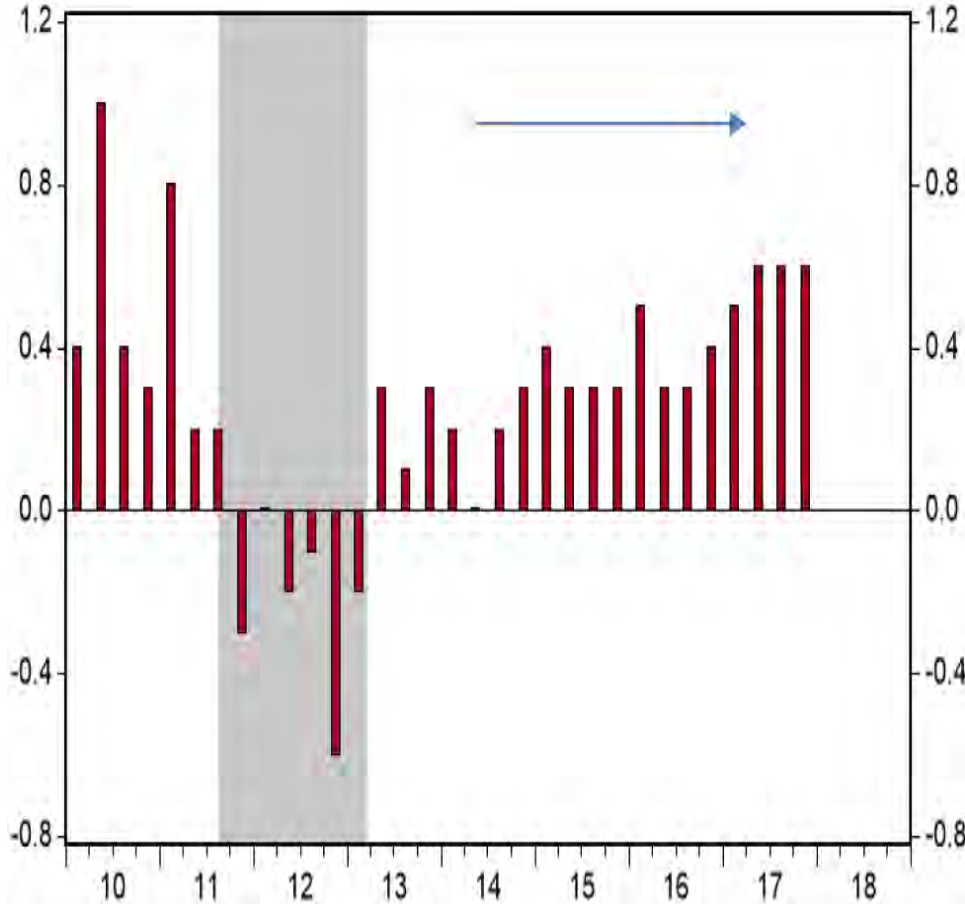


Source: Strategas Research Partners, LLC

- With help and time, we're just getting back to average.

Euro Area Gross Domestic Product

EA 19: GDP at 2010 Prices {Flash Estimate}
SA/WDA, Qtr./Qtr. % Chg.



Source: Statistical Office of the European Communities

- Euro area GDP shows continued global growth.

Key Themes for 2018

- Synchronized global growth positive and accelerating.
- U.S. wages are modestly accelerating.
- Interest rates will move higher, from low levels.
- S&P earnings new high. Outlook still positive.
- 2018 will be a year the economy does considerably better than equities.
- Look for continuing political and market volatility.



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