

September
2016

US Interest Rates
Chartbook



Takeaways

The FOMC September economic projections reveal a lower Fed funds rate path together with lower long-run GDP growth expectation. The FOMC Fed funds projected path mean and median remain above dealers' expectations for 2018 - 2019

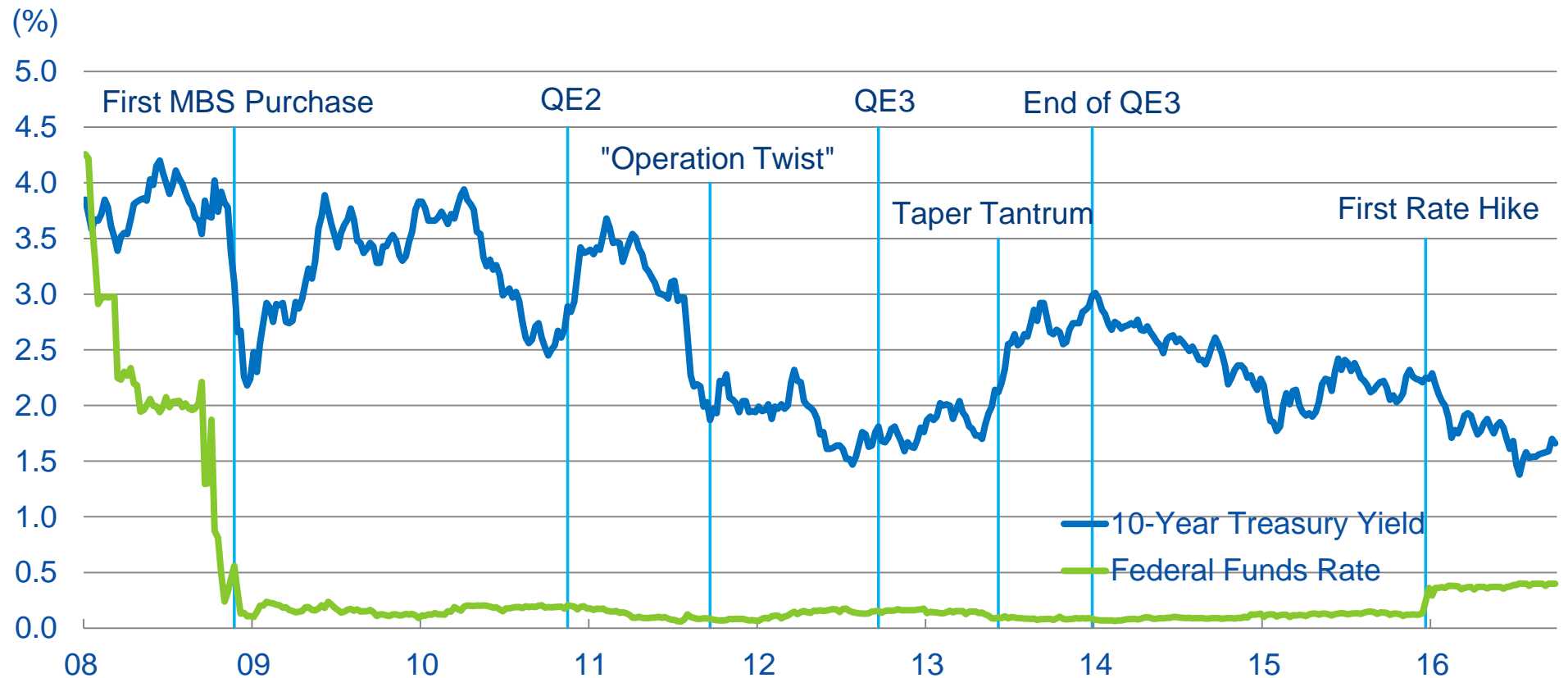
The Fed funds futures are priced at only one rate increase by the end of 2017. The December rate hike implied probability is at 68%

September's month-end term premium on long-term Treasury yields retreated back to their lows after the soft increase in mid-September due to higher than usual financial market volatility and uncertainty around the Fed's and other Central Banks' announcements

We continue to expect limited increase in long-term yields in the long run due to global risk-off sentiment, low inflation risk, moderate growth expectations, and the condensed duration risk environment

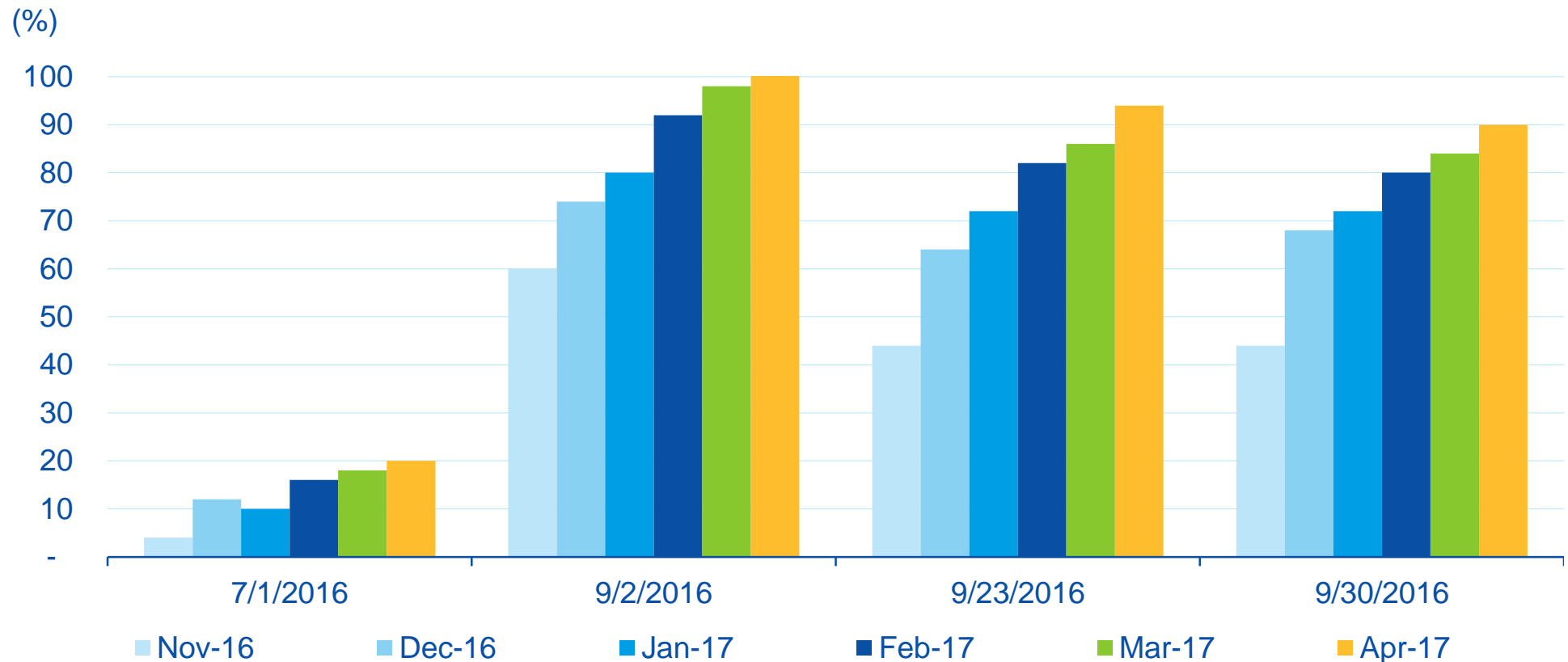
Unconventional monetary policy

Federal Funds Rate and 10-Year Treasury Note



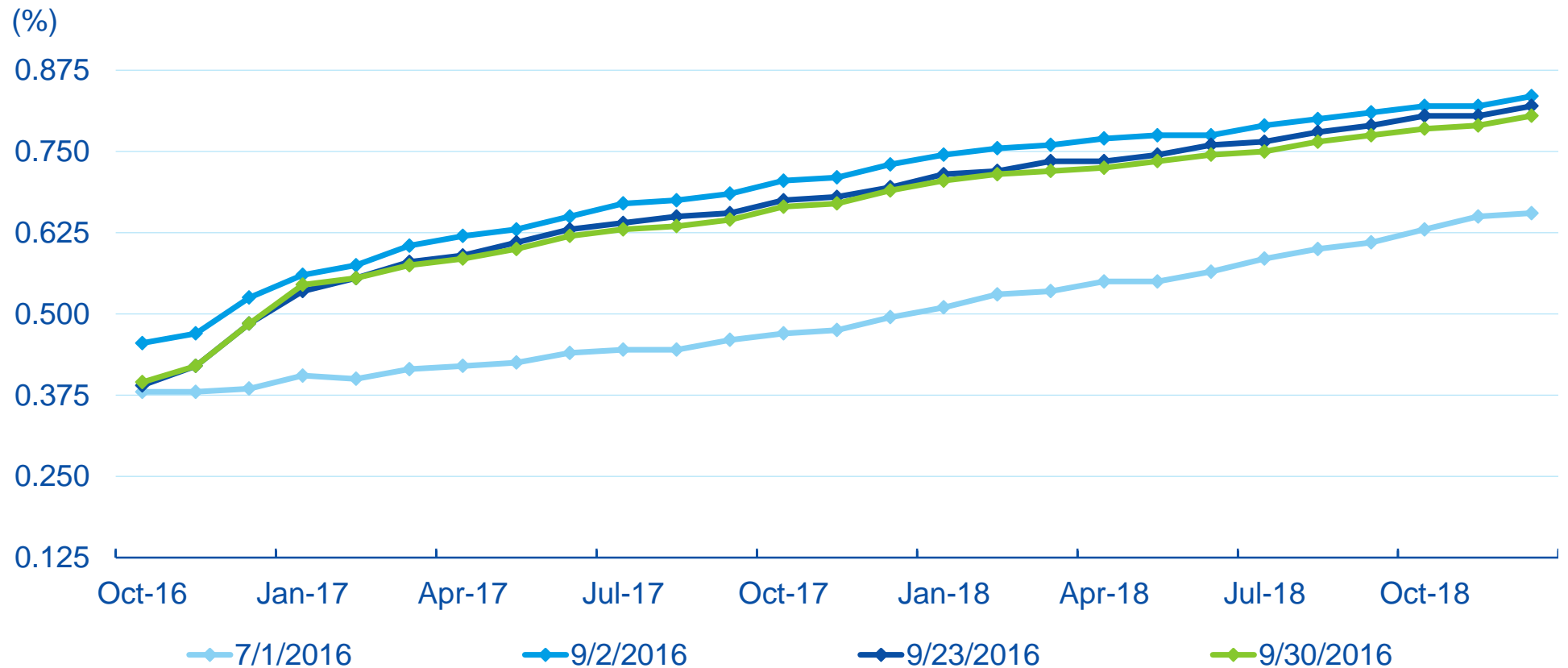
December rate hike probability at 68%

Fed Funds Futures Implied Probabilities, Second 25bp Hike



Fed funds futures curve

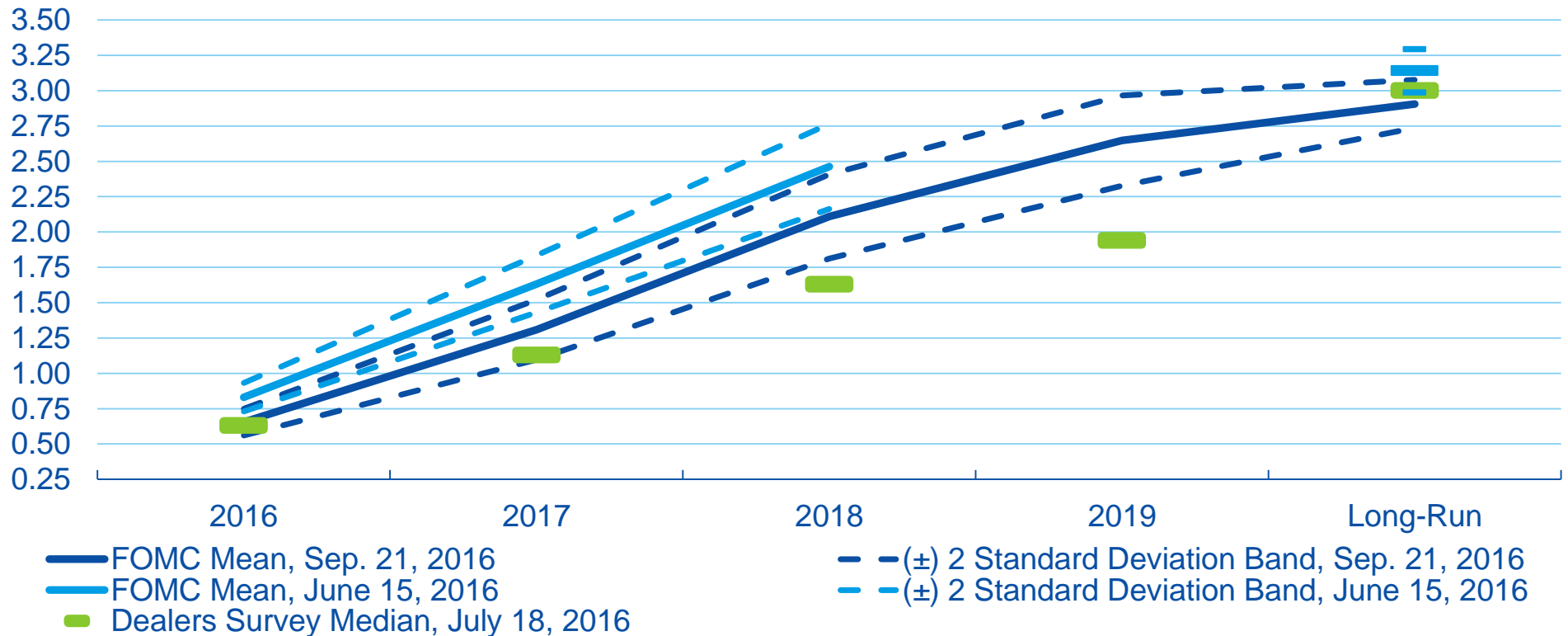
Fed Funds Futures – Most Recent, 1 Week Prior, 1 Month Prior, 3 Months Prior



FOMC revised downwards the policy firming path by 18 basis points in 2016 and 32 basis points in 2017

Projected Pace of Policy Firming

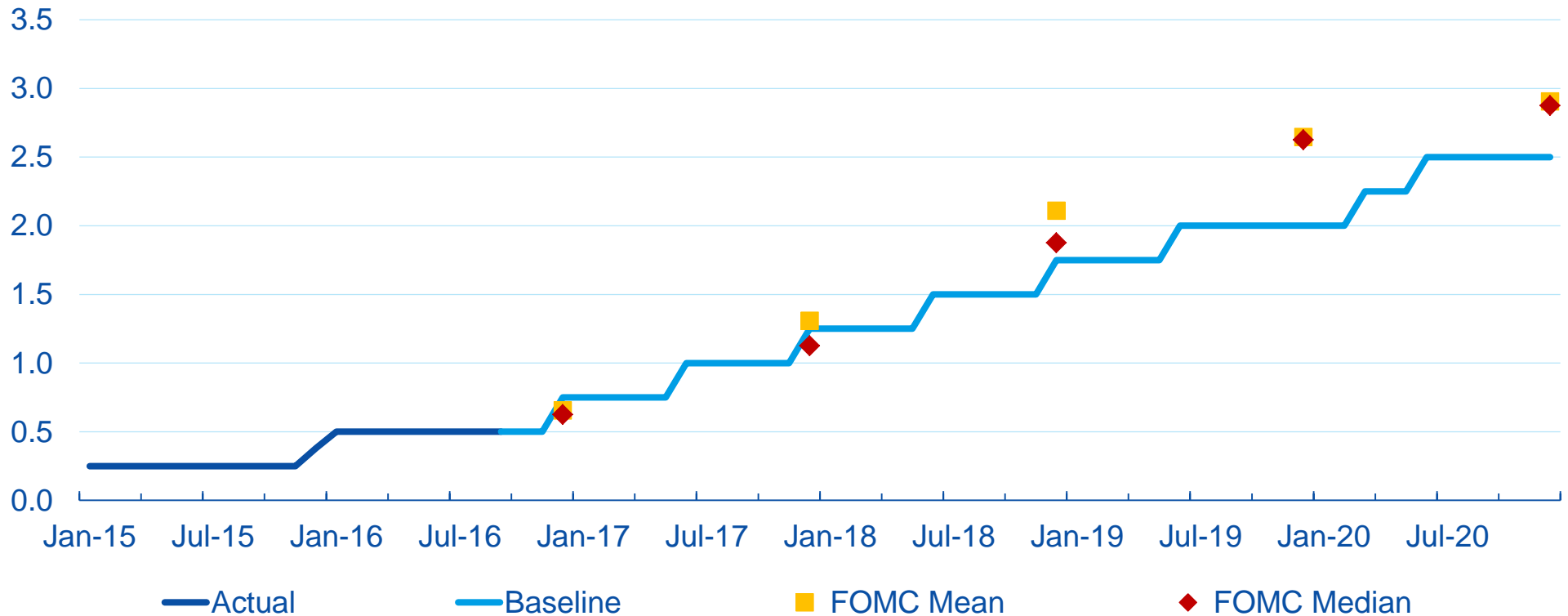
(%, end of period)



BBVA forecast of the pace of Fed funds firming unchanged

Federal Funds Rate

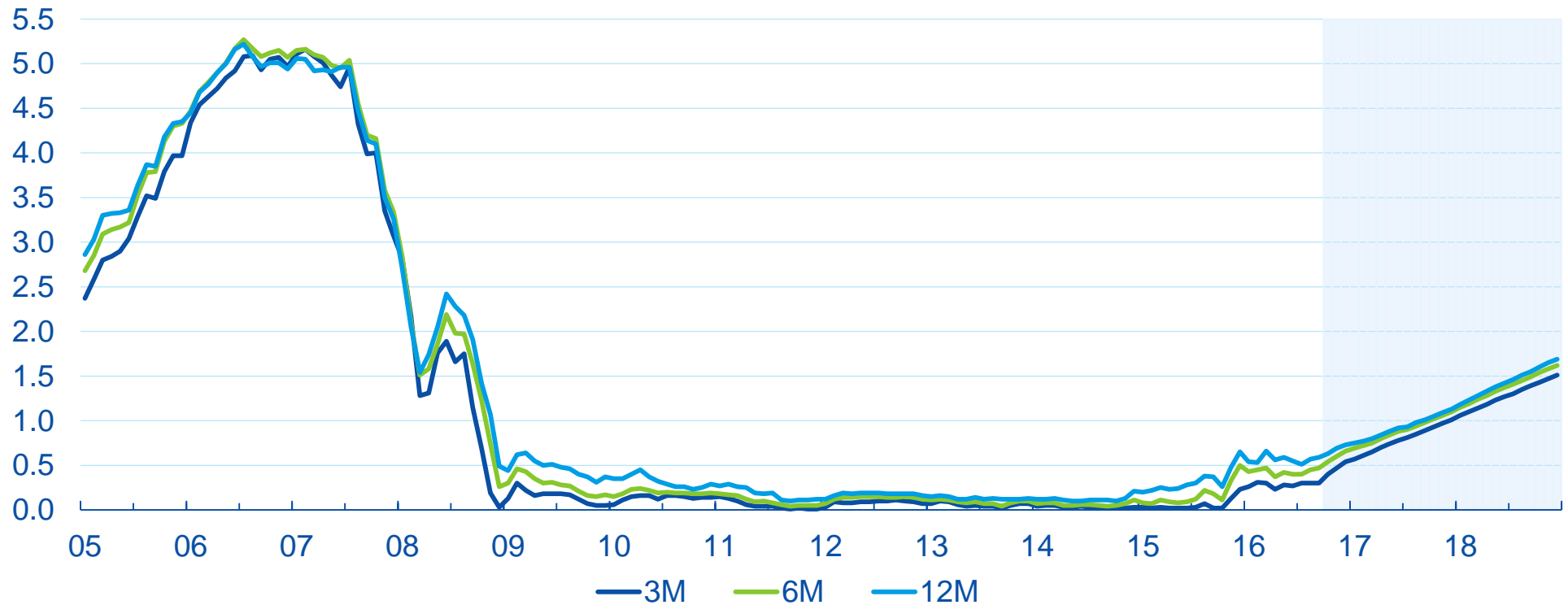
(Upper Bound, %, EOP)



Baseline forecasts of Treasury Bill yield

3-Month to 12-Month Rates

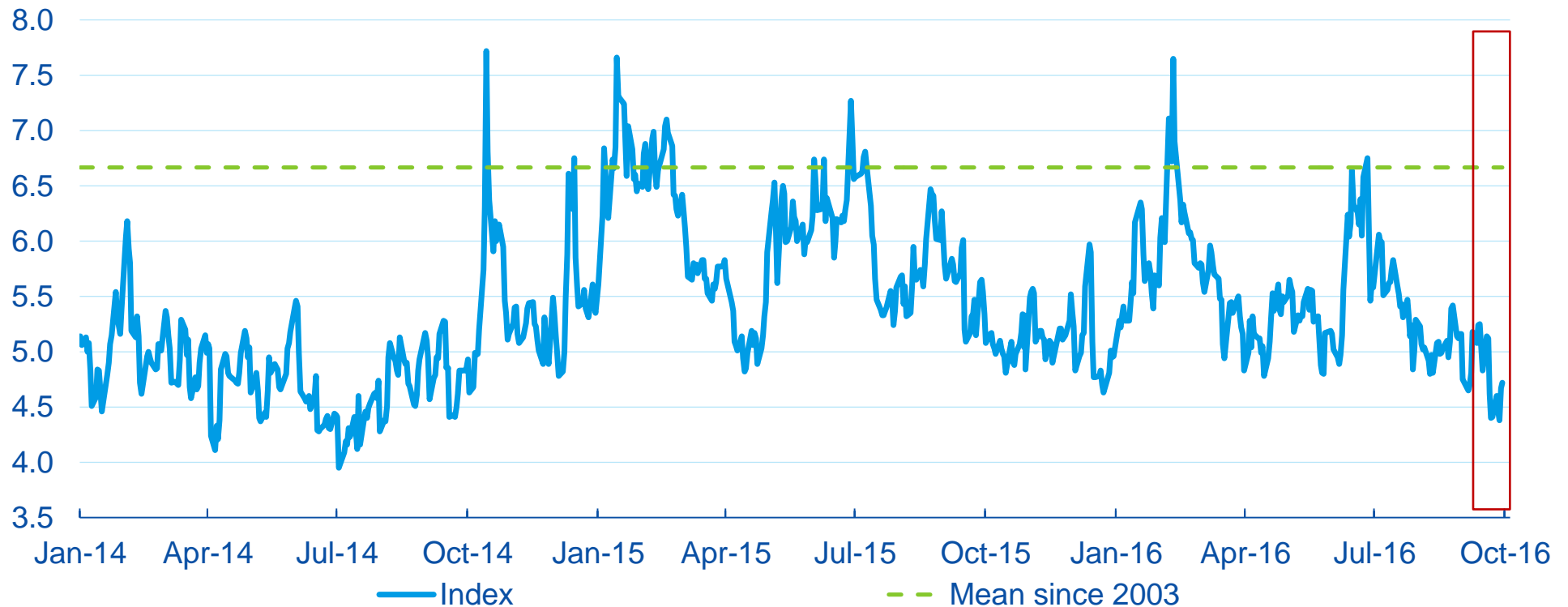
(%)



Long-term yield volatility is contained at historic low

10-Year U.S. Treasury Note Volatility

(Daily Index)



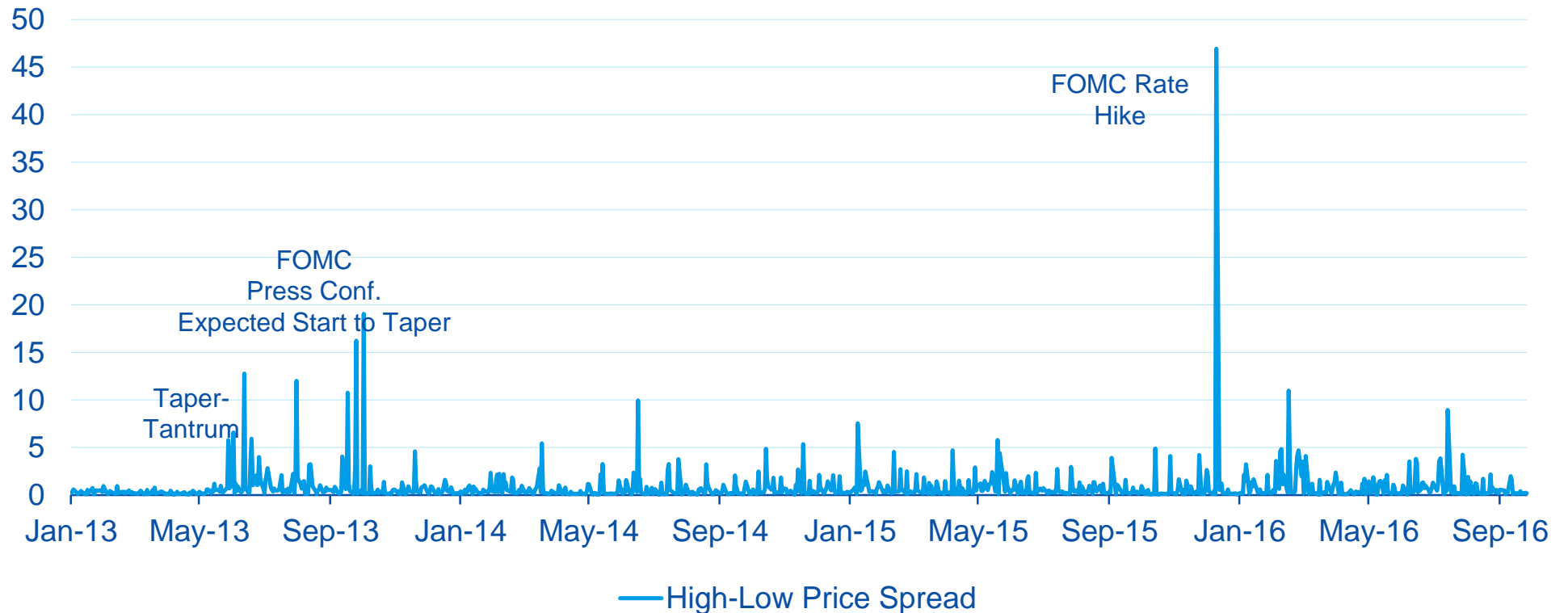
Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from Chicago Board of Trade's actively traded options on the Treasury Note futures.

Source: BBVA Research, Chicago Board Options Exchange and Bloomberg

Long-term yield volatility is contained at historic low

10-Year U.S. Treasury Note Volatility

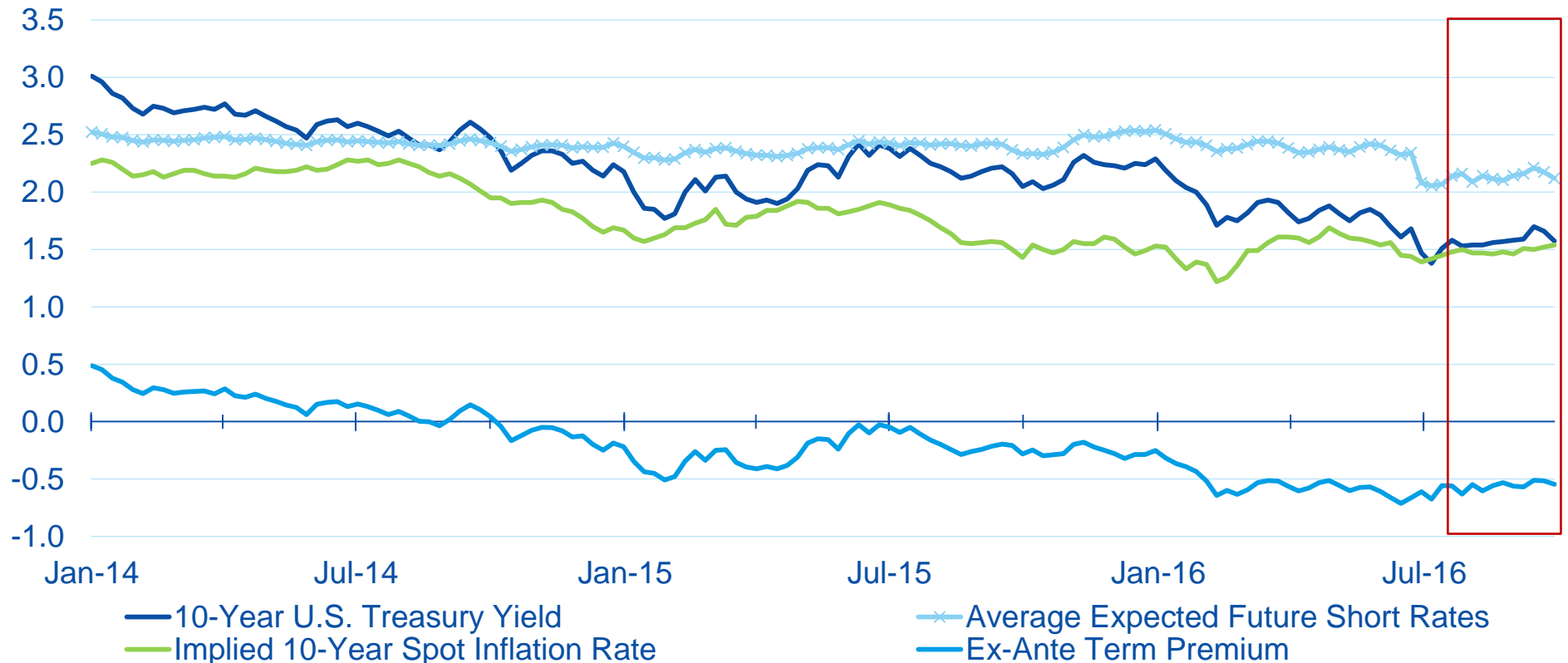
(Daily Index)



Downward pressure on term premium unchanged

10-Year U.S. Treasury Term Premium & Market Inflation Expectations

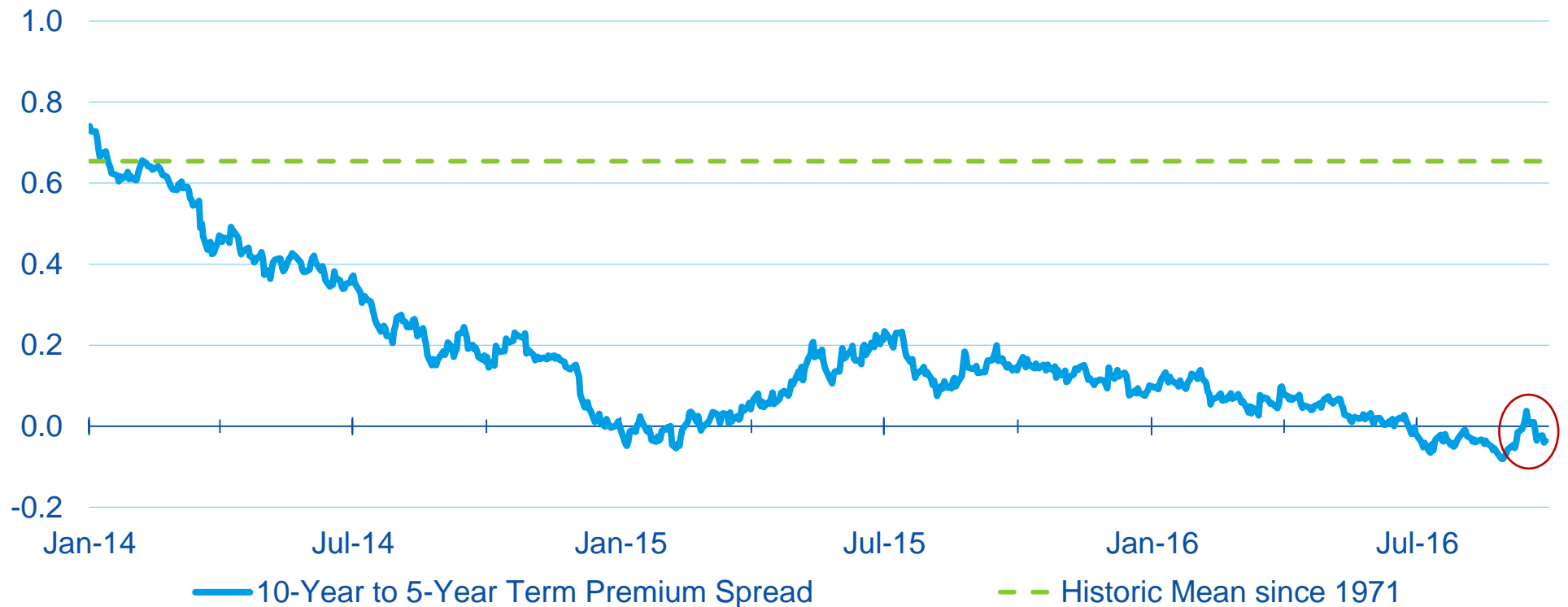
(Weekly, %)



Long-term duration-risk compression retreats into negative territory

Duration-Risk Compression

(Daily, %)



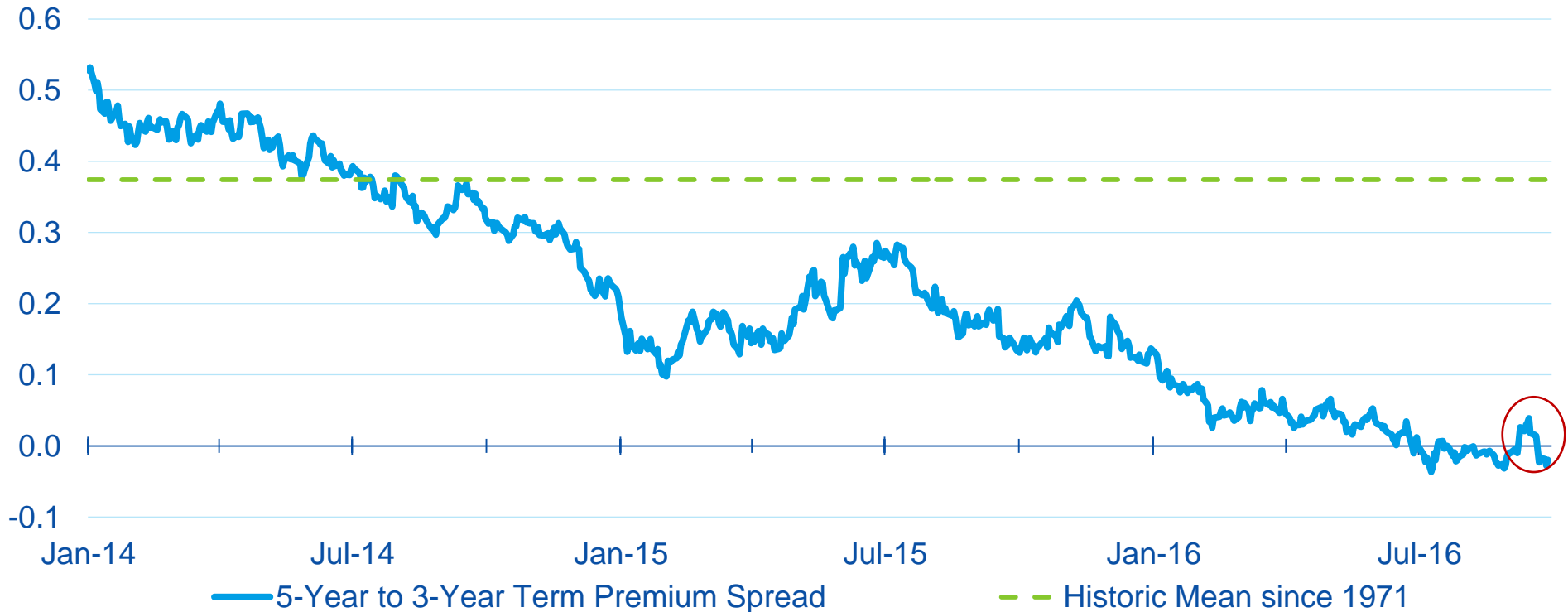
Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

Source: BBVA Research, Federal Reserve Bank of New York and Haver Analytics

Mid-term duration-risk compression once again crosses over into negative territory

Duration-Risk Compression

(Daily, %)



Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

Source: BBVA Research, Federal Reserve Bank of New York and Haver Analytics

10-year treasury yield forecasts

10-Year U.S. Treasury Yield



* National Association for Business Economics (NABE) Outlook median forecast compiled from a panel of NABE members. Last release date Sep 11, 2016

** Survey of Professional Forecasters (SPF) conducted by Federal Reserve Bank of Philadelphia. Last release date August 12, 2016

*** Congressional Budget Office (CBO). Last release date Aug 23, 2016

****The Blue Chip Consensus is the average of about 50 private forecasts. Last release date July 19, 2016

Yield curve slope forecasts

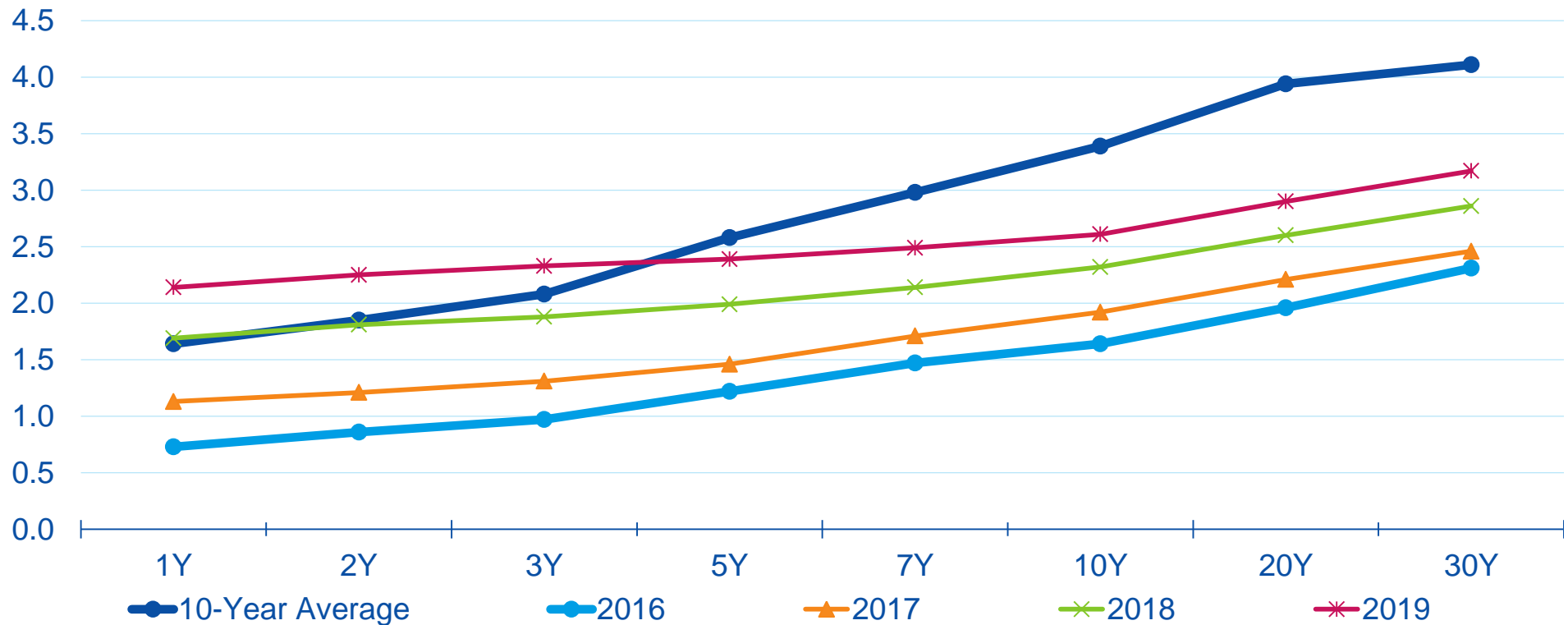
Treasury Yield Curve Slope

(10Y-2Y, %)



Yield curve forecasts

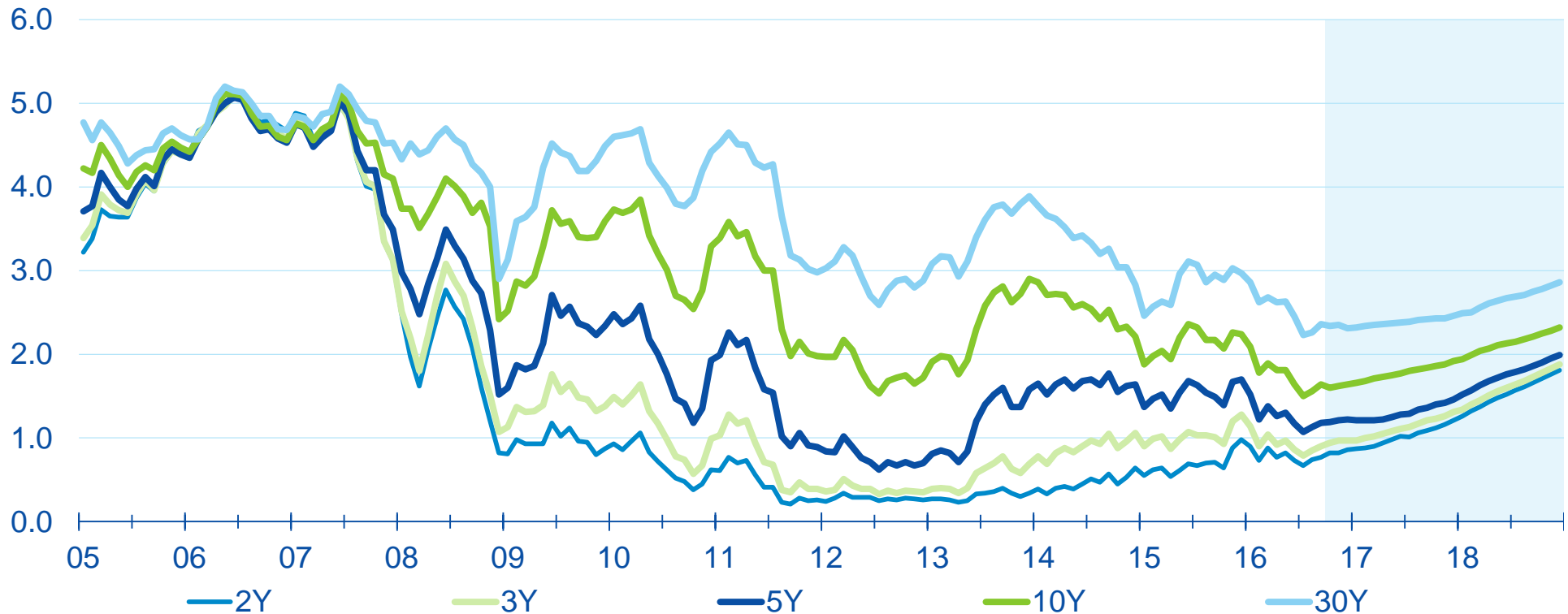
Treasury Yield Curve Baseline Forecast
(Average, %)



Treasury yield curve baseline forecasts

U.S. Treasury Yield Curve

(%)



Treasury yield curve is estimated with a three-factor no-arbitrage model linked to macroeconomic factors measuring growth, inflation and monetary policy. Estimates are based on BBVA Research baseline forecast for GDP growth, inflation and Fed funds rate.

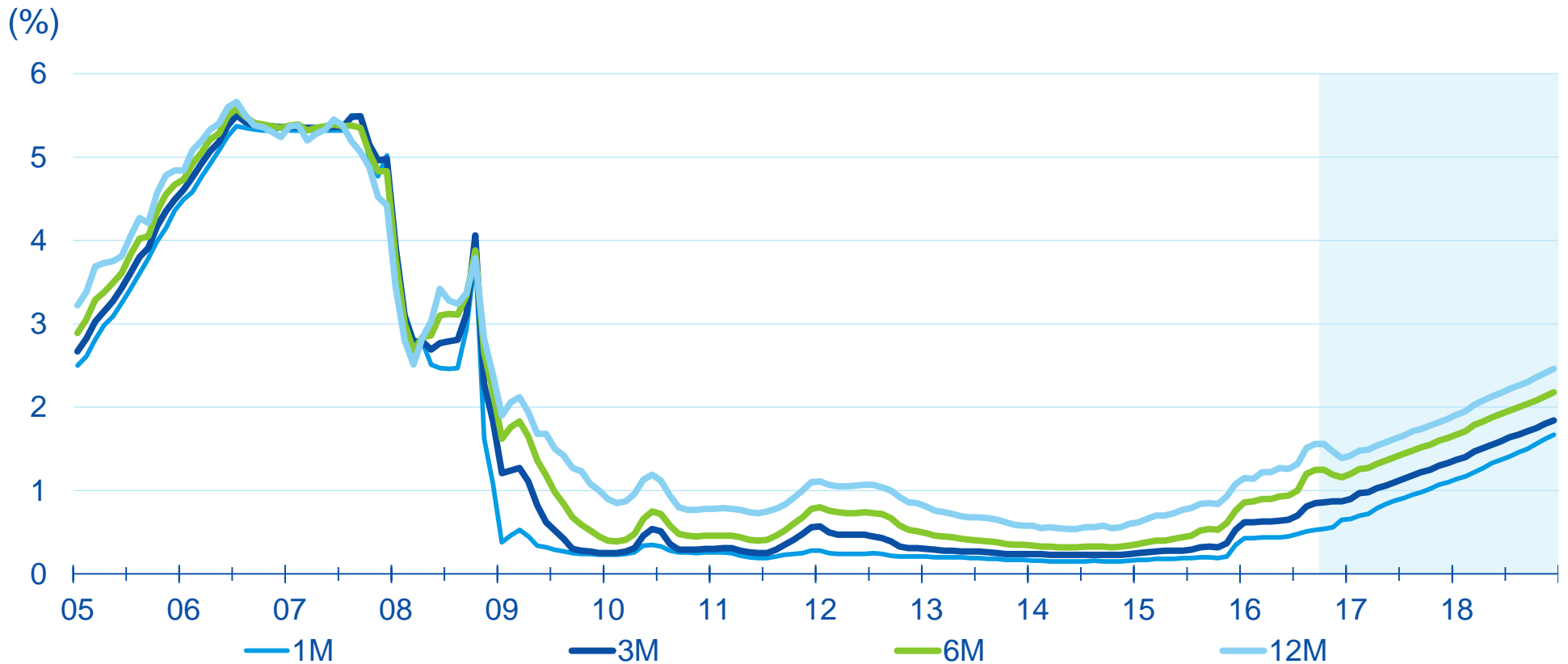
Swap curve baseline forecasts

U.S. Swap Rates



LIBOR curve baseline forecasts

U.S. LIBOR Rates



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