BBVA | RESEARCH

December
2016

US Interest Rates
Chartbook

Takeaways

The FOMC December statement has revealed a unanimous vote for a 2nd Fed funds rate increase, while economic projections reinforced the Fed's stance to stay true to its data-dependent course and to adjust the Fed funds rate trajectory accordingly if inflation expectations rise faster than anticipated

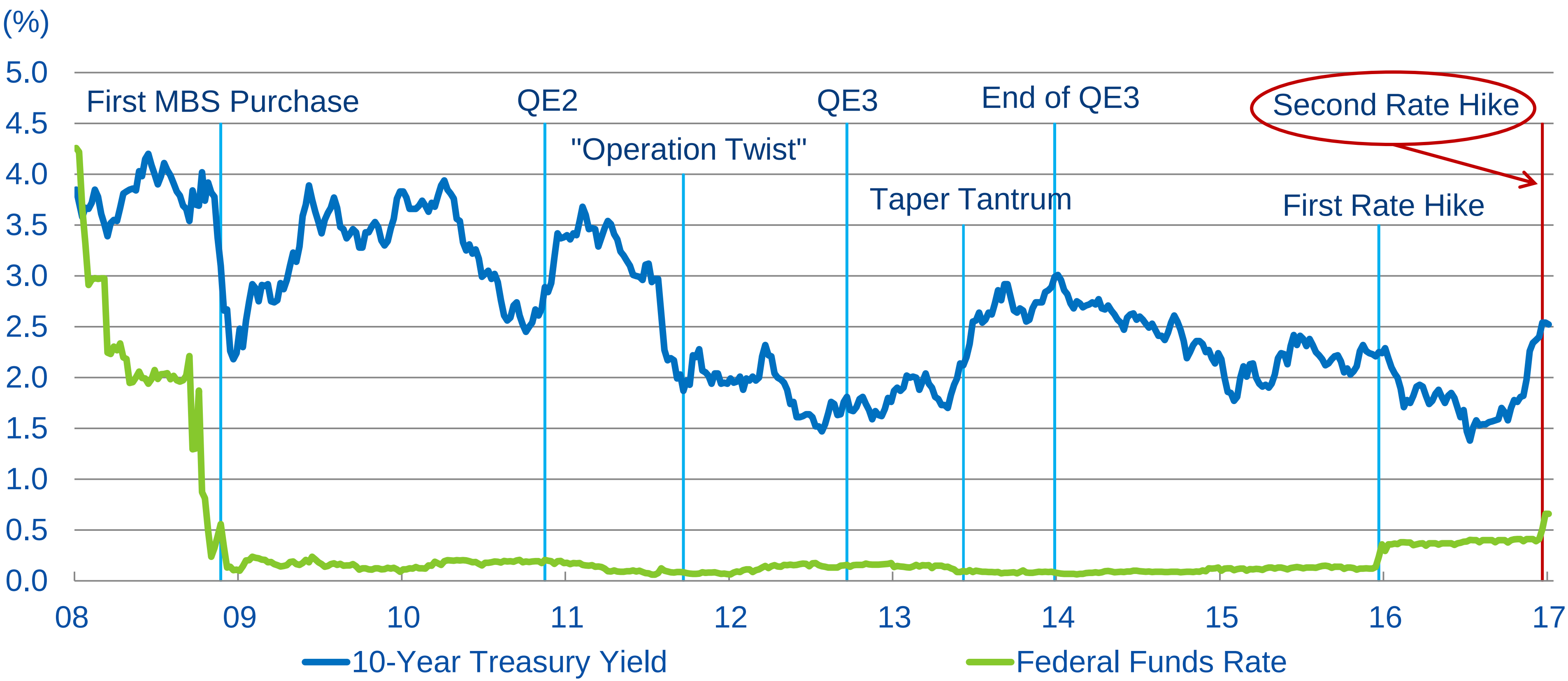
The median expectation of the FOMC policy firming path has shifted from two to three rate increases in 2017. Fed funds futures are pricing in two rate hikes in 2017. However, the implied probability for another rate increase at the January/February meeting is low at 12%

Year-end long-term yields have normalized at rates that have not been this high since September-October 2014. The current uptick in rates has been contained by subdued volatility, a correction in inflation expectations to 2%, and a return to positive territory for long-term and mid-term duration-risk compression

We continue to expect a moderate increase in long-term yields, supported by soft risk-on sentiment and higher expectations for growth and inflation. The baseline is for higher long-term rates and for a relatively flatter yield curve, while overall long-term yields risks to the baseline projections are biased towards the upside

Unconventional monetary policy

Federal Funds Rate and 10-Year Treasury Note

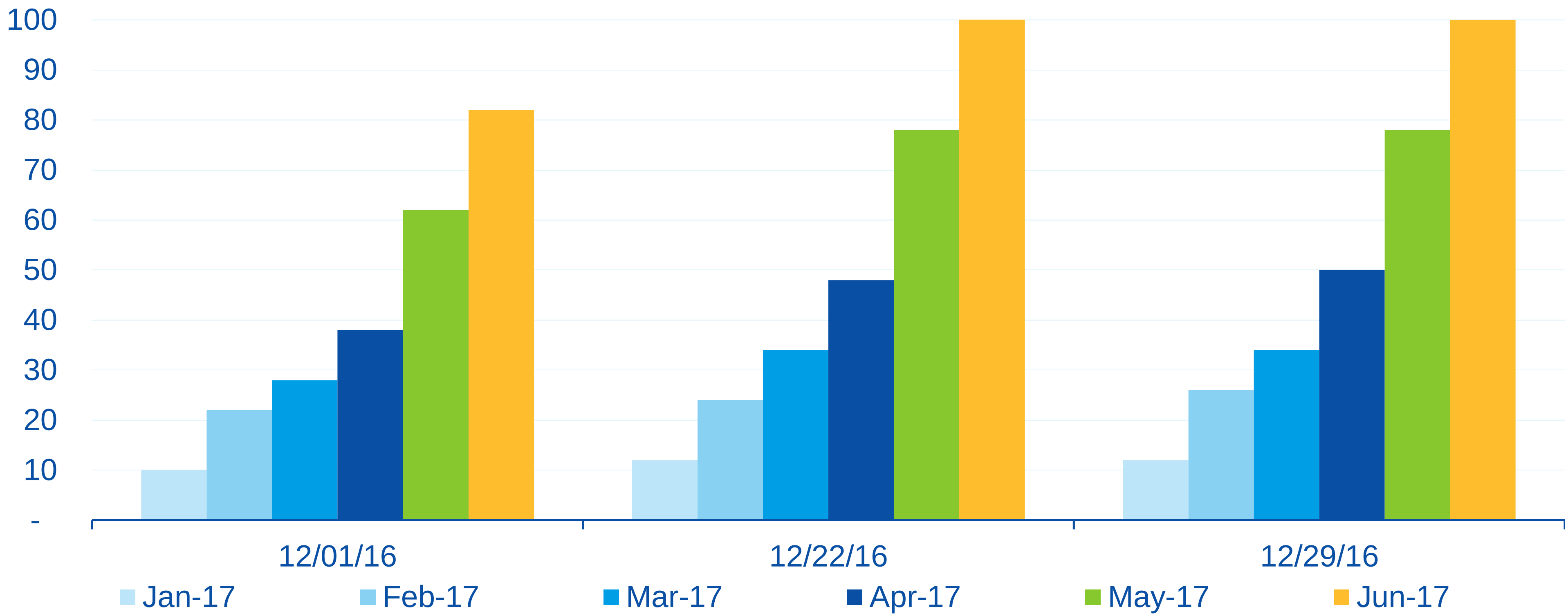


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Third rate hike is priced in for 2Q17

Fed Funds Futures Implied Probabilities, Third 25bp Hike

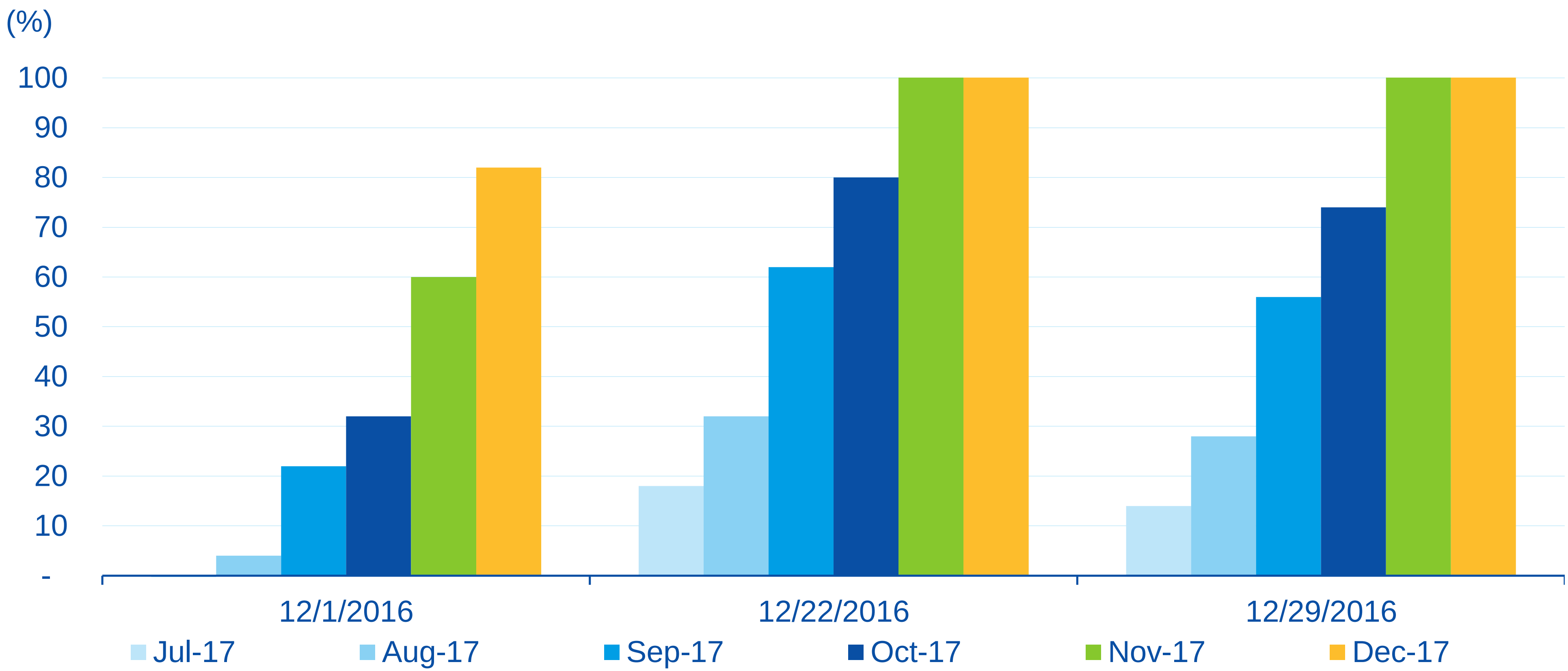
(%)



Source: BBVA Research and Bloomberg

Fourth rate hike is priced in for 3Q17

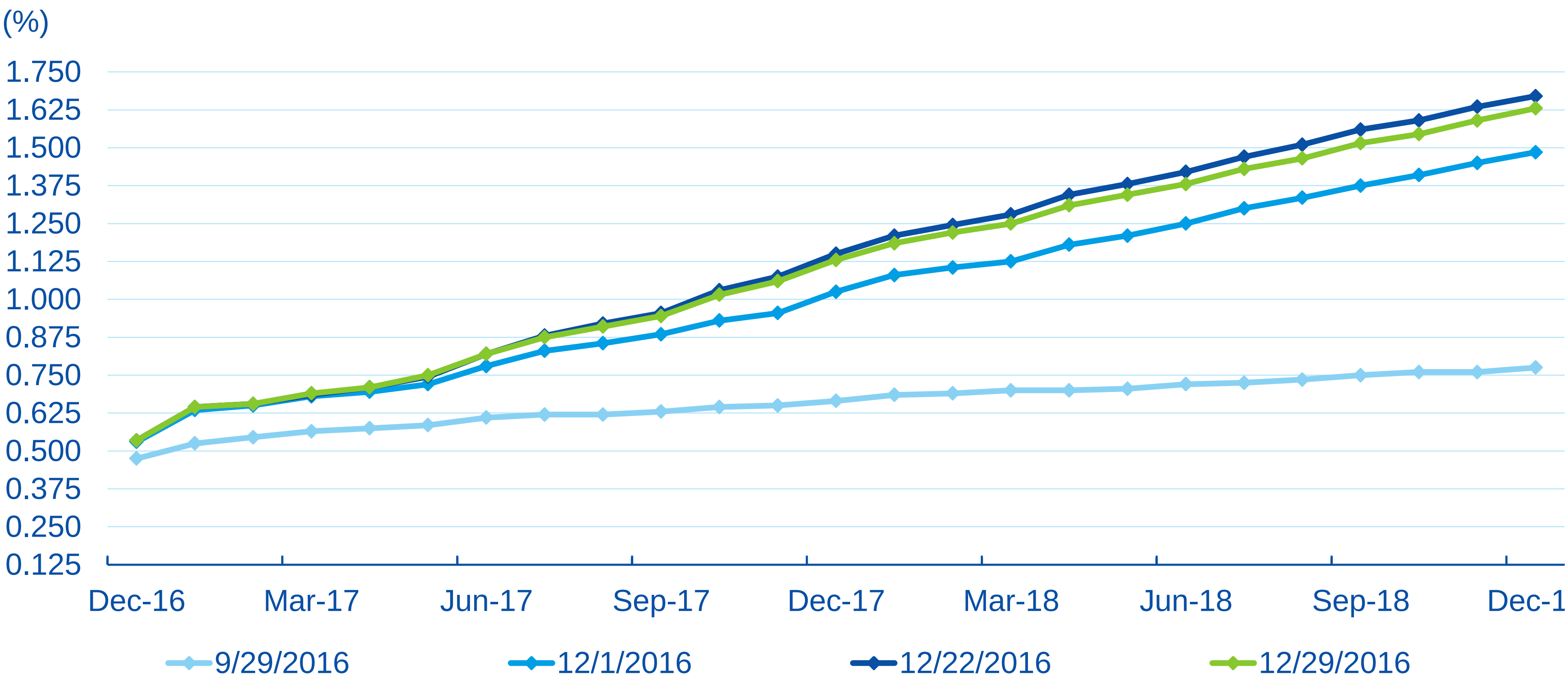
Fed Funds Futures Implied Probabilities, Fourth 25bp Hike



Source: BBVA Research and Bloomberg

Fed funds futures curve

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

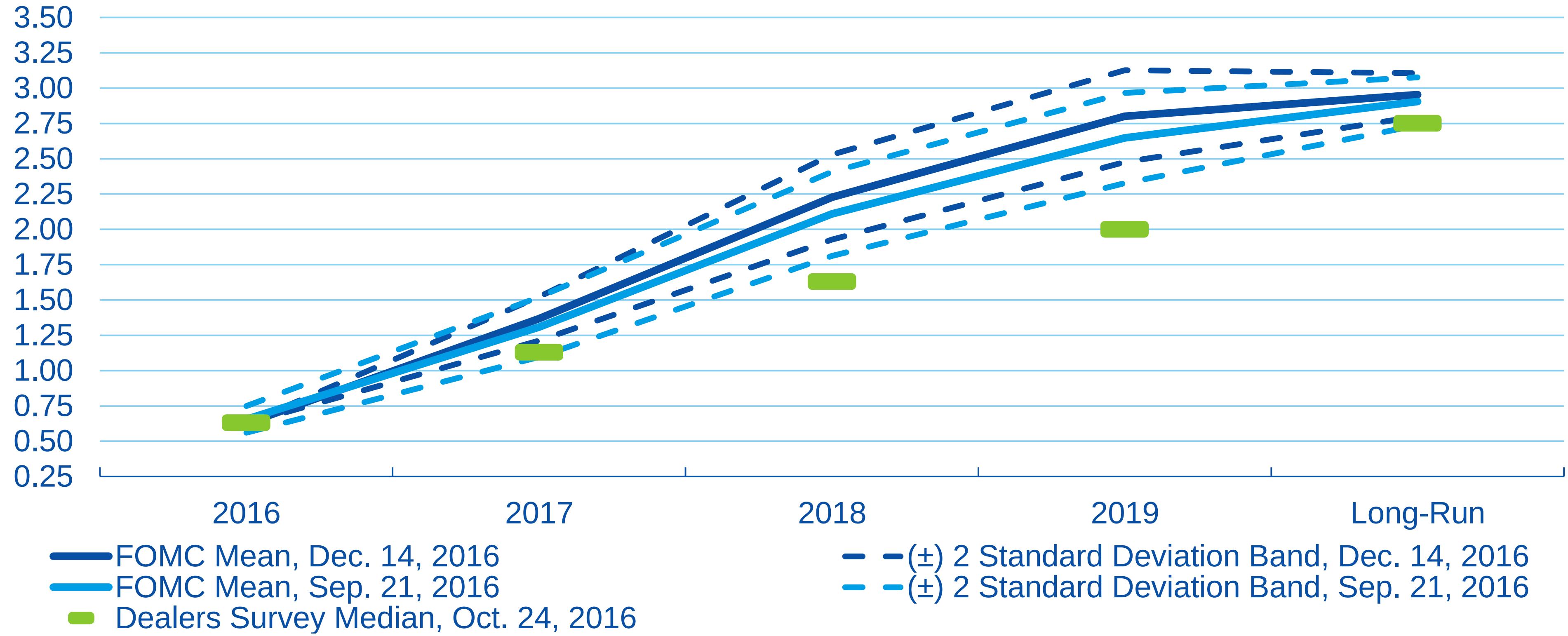


Source: BBVA Research and Bloomberg

FOMC policy firming trajectory median revised upwards by 25 basis points in both 2017 and 2018

Projected Pace of Policy Firming

(%, end of period)

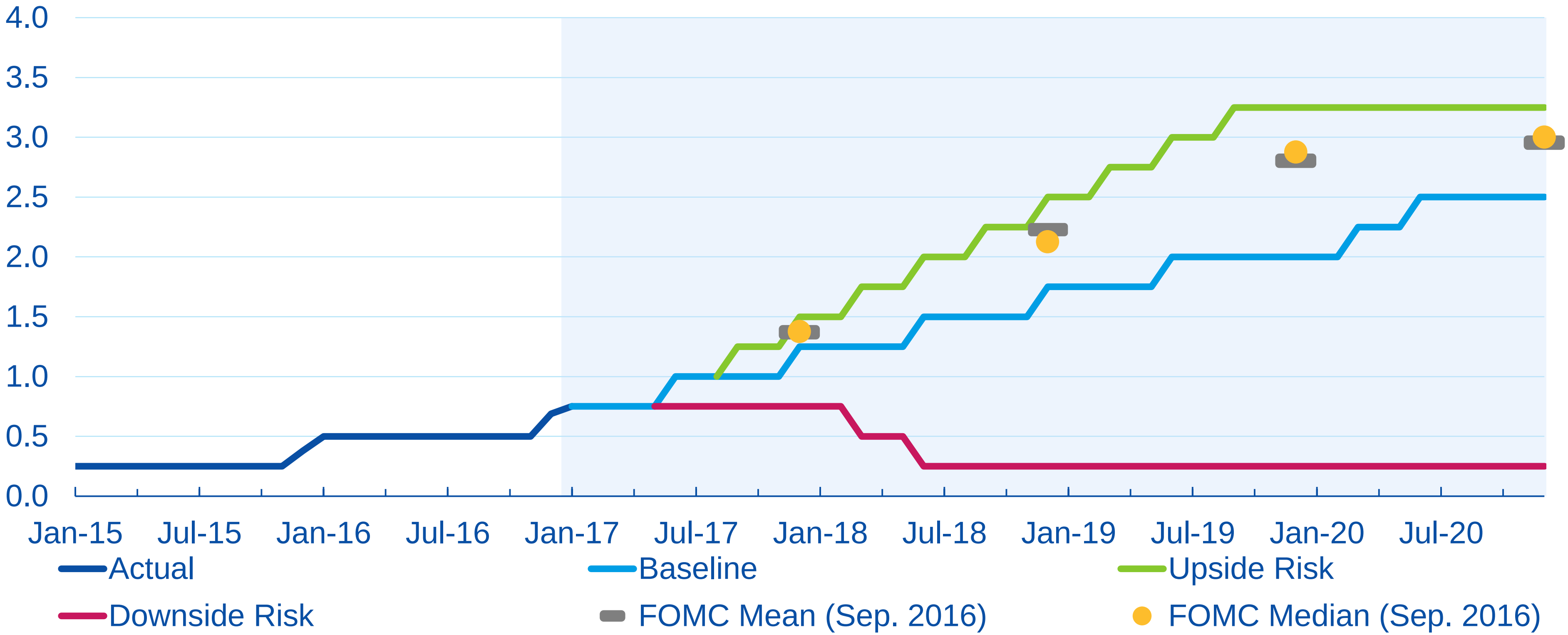


Source: BBVA Research and Federal Reserve Board

BBVA forecast of the pace of Fed funds firming remains unchanged

Federal Funds Rate

(Upper Bound, %, EOP)

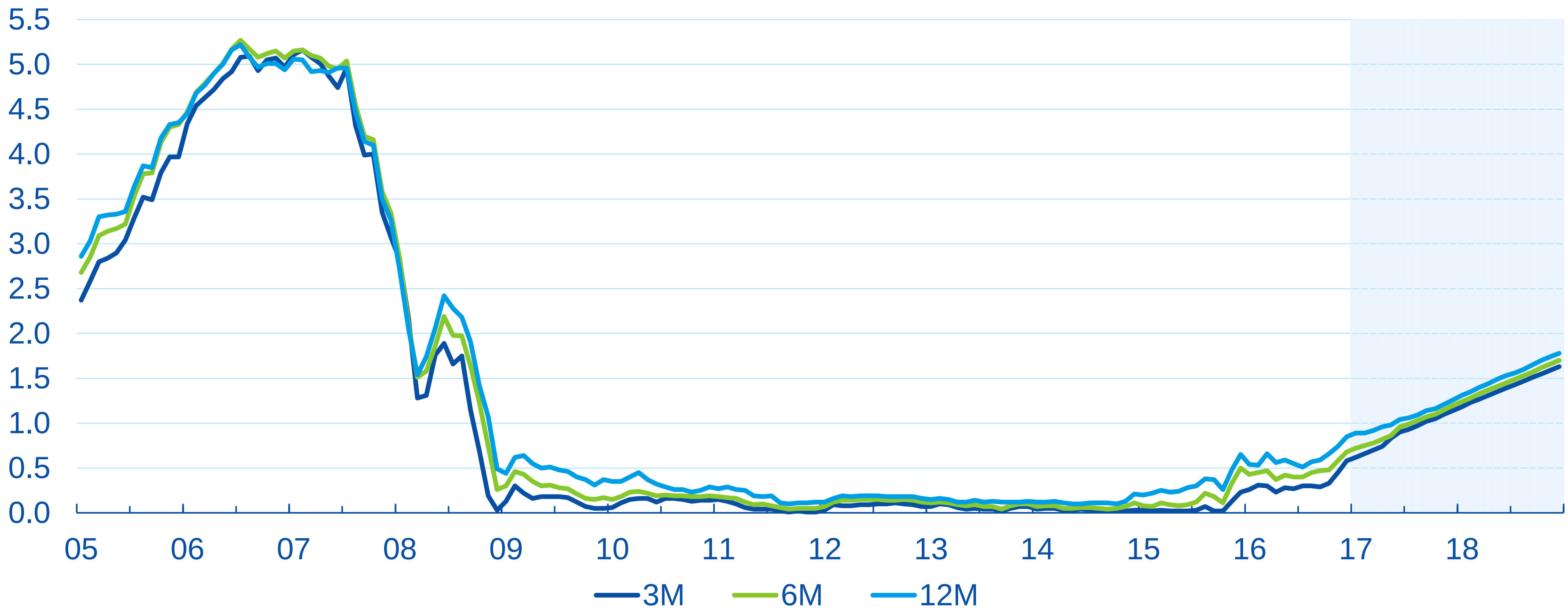


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Baseline forecasts of Treasury Bill yield

3-Month to 12-Month Rates

(%)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

Long-term yield volatility has normalized below historic mean

10-Year U.S. Treasury Note Volatility

(Daily Index)

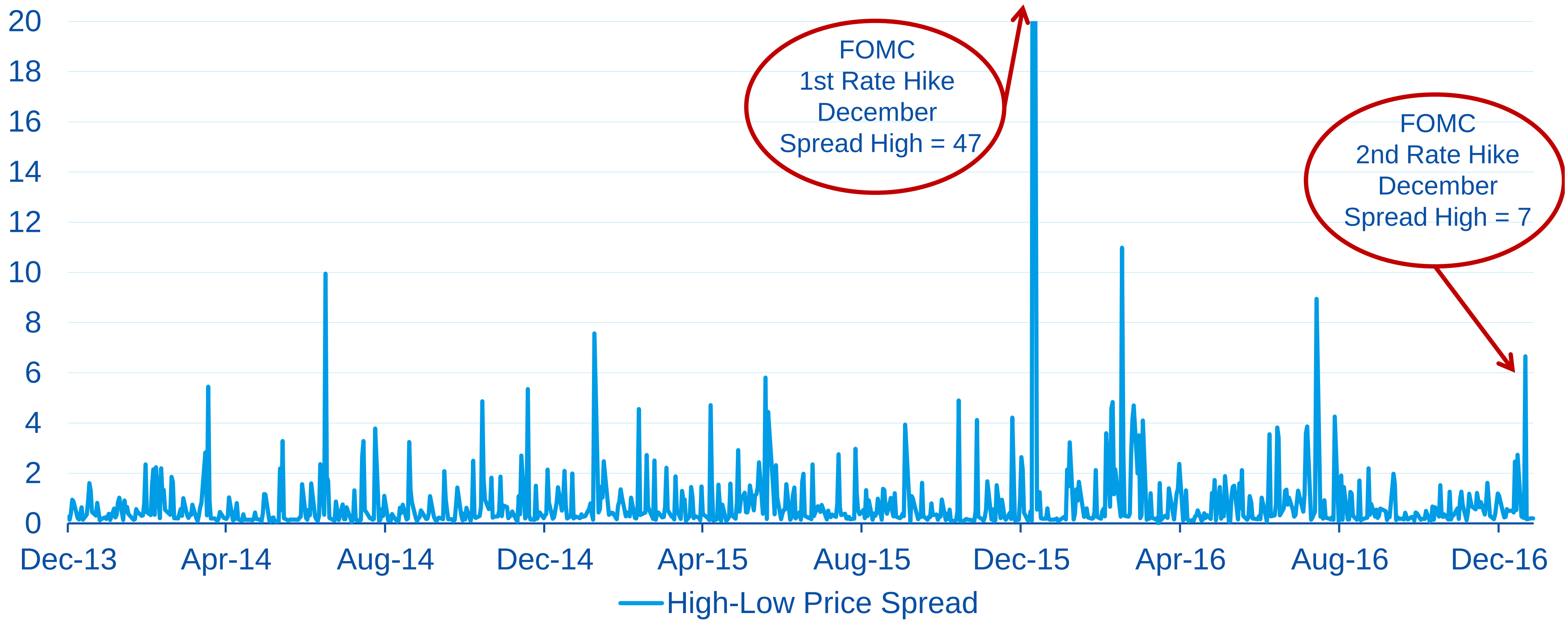
Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from Chicago Board of Trade's actively traded options on the Treasury Note futures.

Source: BBVA Research, Chicago Board Options Exchange and Bloomberg

Long-term yield volatility trading is contained

10-Year U.S. Treasury Note Volatility

(Daily Index)

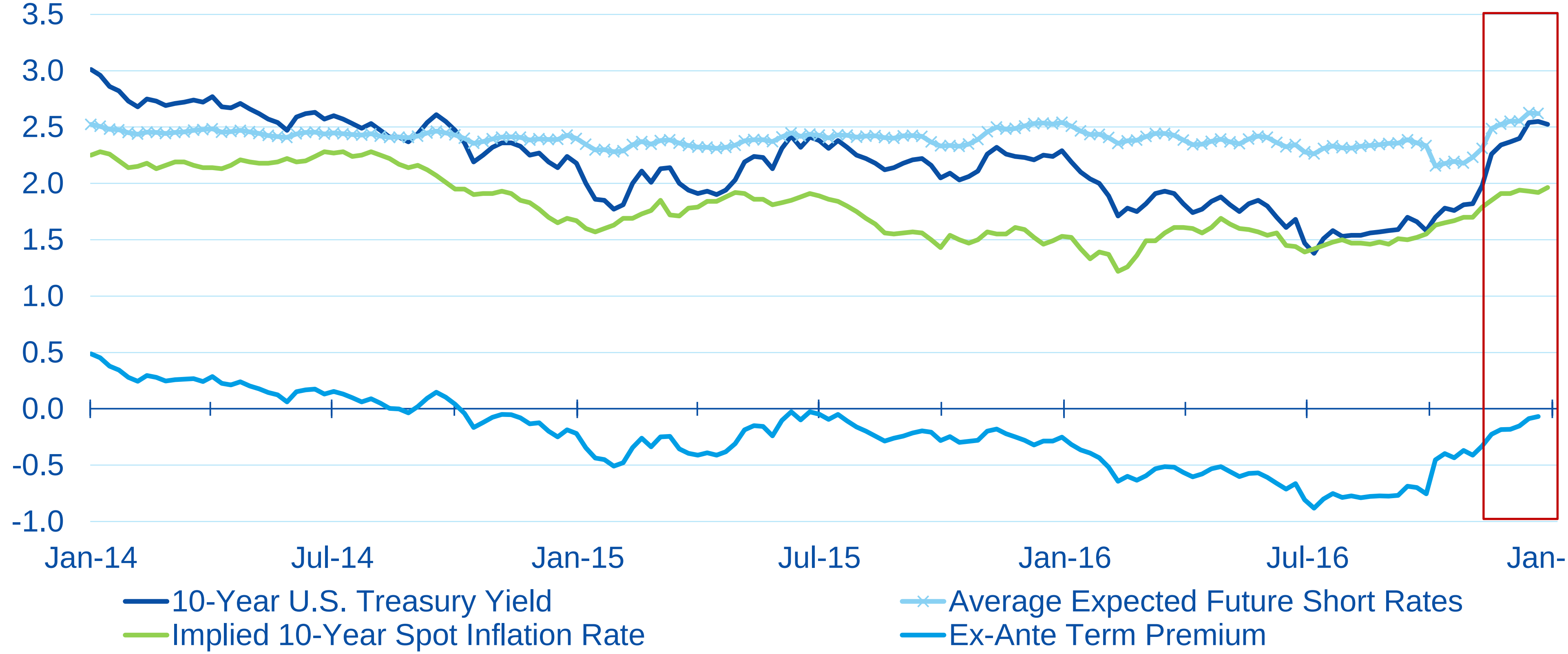


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Soft upward pressure on term premium maintained

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

(Weekly, %)

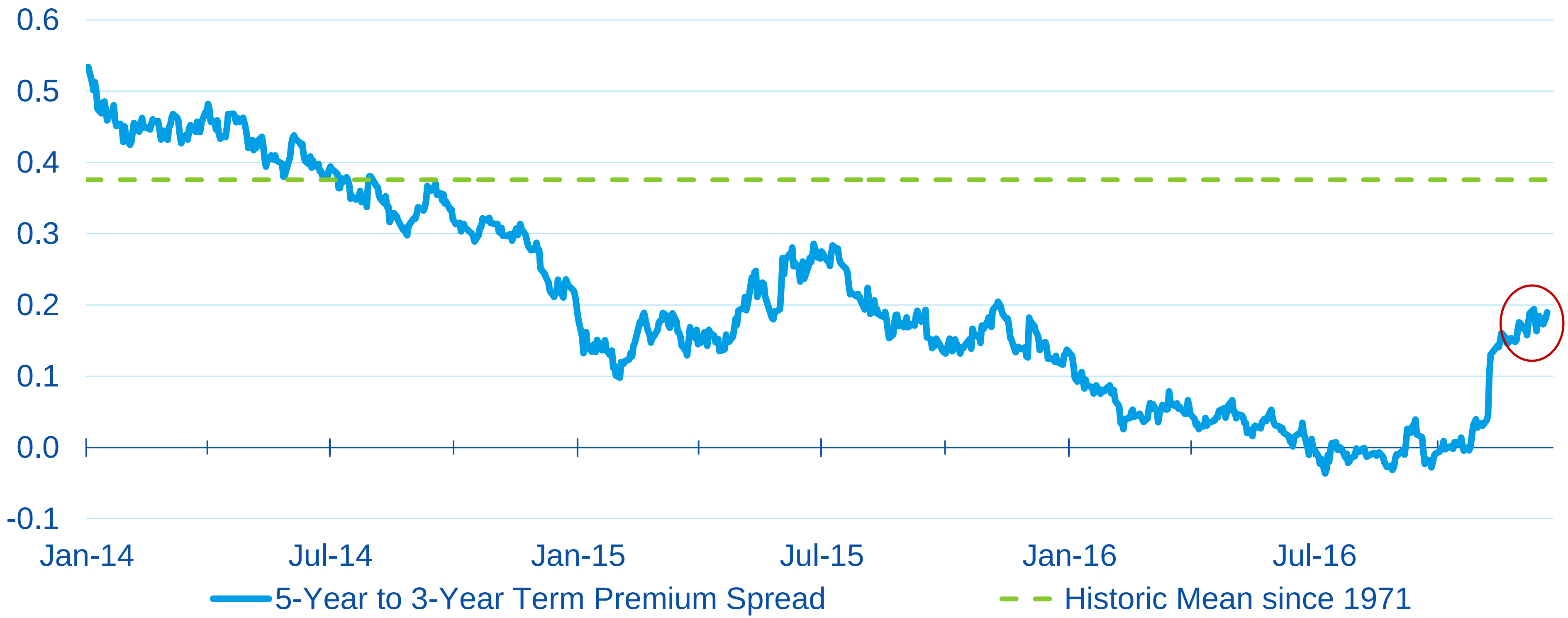


Fuente: BBVA Research and Federal Reserve Board

Mid-term duration-risk compression has normalized in the vicinity of 18 basis points

Duration-Risk Compression

(Daily, %)



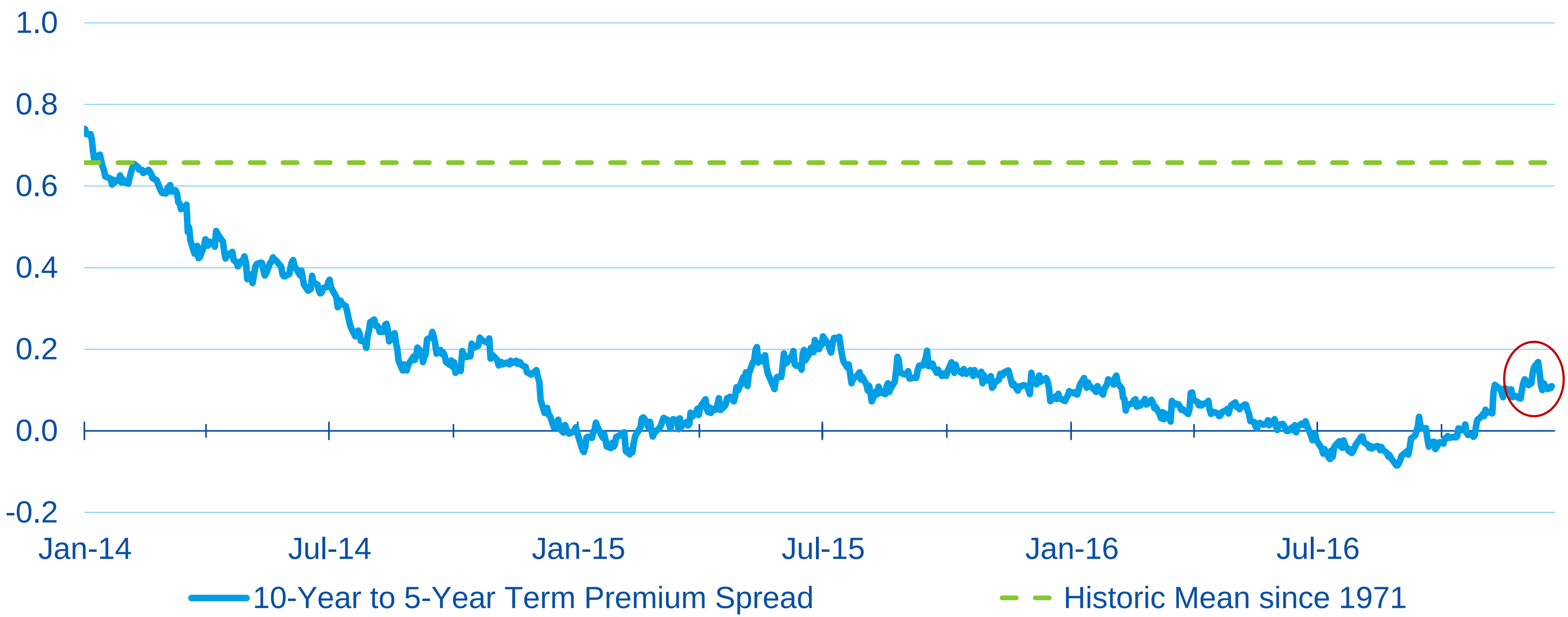
Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

Long-term duration-risk compression has normalized in the vicinity of 10 basis points

Duration-Risk Compression

(Daily, %)

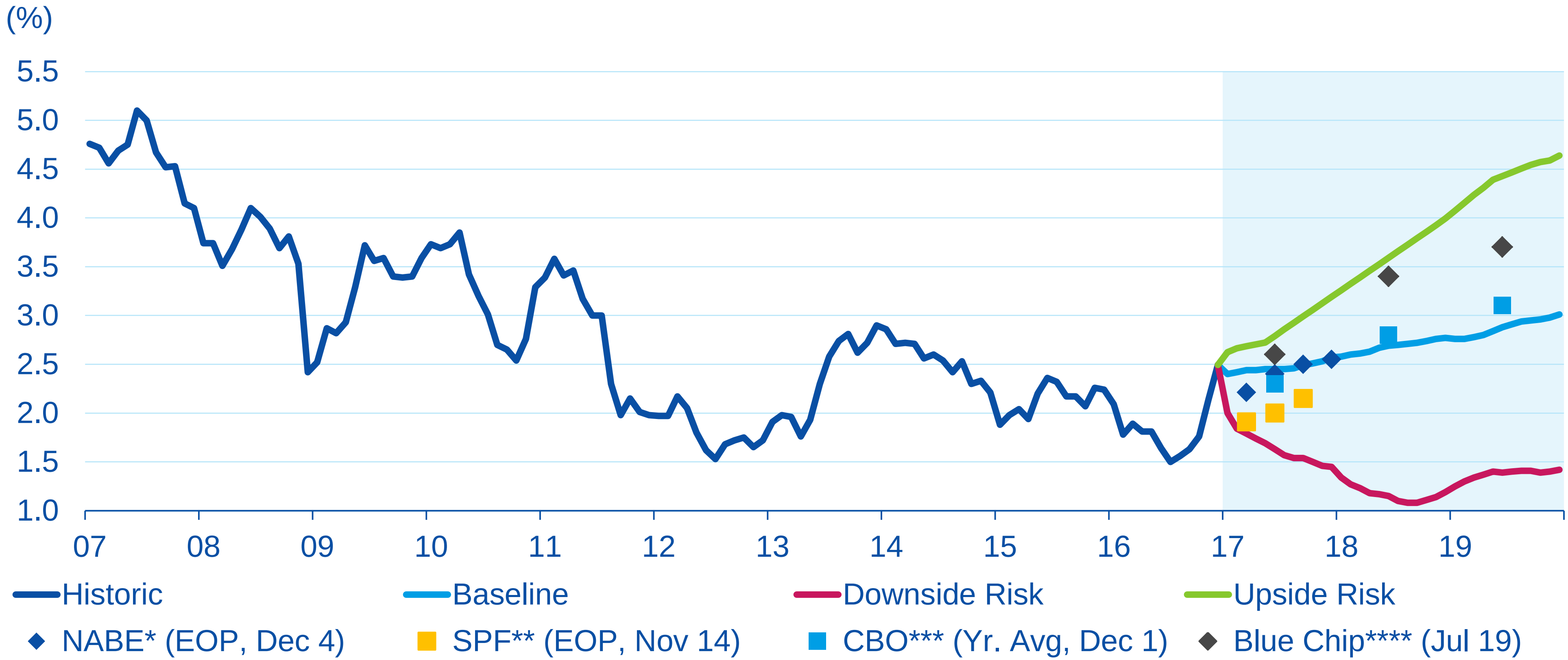


Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

10-year treasury yield forecasts

10-Year U.S. Treasury Yield



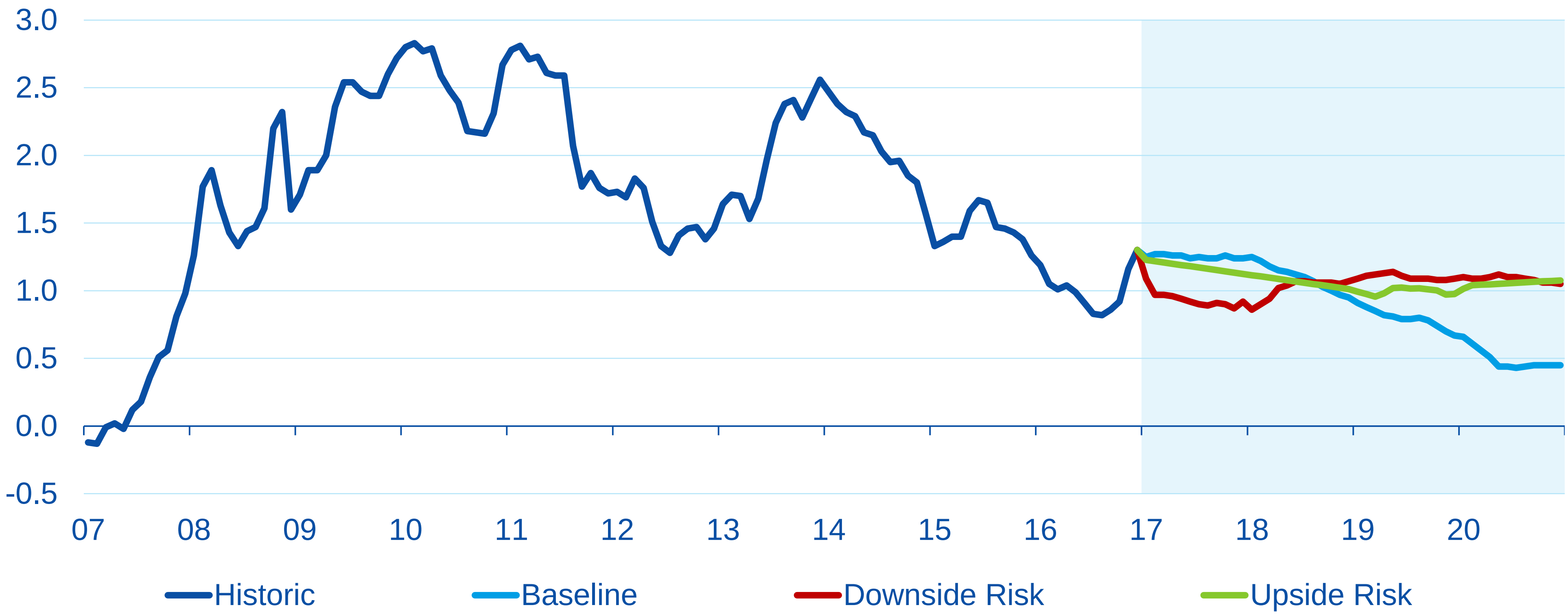
* National Association for Business Economics (NABE) Outlook median forecast compiled from a panel of NABE members. Last release date Dec 4, 2016
** Survey of Professional Forecasters (SPF) conducted by Federal Reserve Bank of Philadelphia. Last release date November 14, 2016
*** Congressional Budget Office (CBO). Last release date Dec 1, 2016
****The Blue Chip Consensus is the average of about 50 private forecasts. Last release date July 19, 2016

Source: BBVA Research, NABE, FRB Philadelphia, Congressional Budget Office, and Haver Analytics

Yield curve slope forecasts

Treasury Yield Curve Slope

(%, 10Y-2Y)

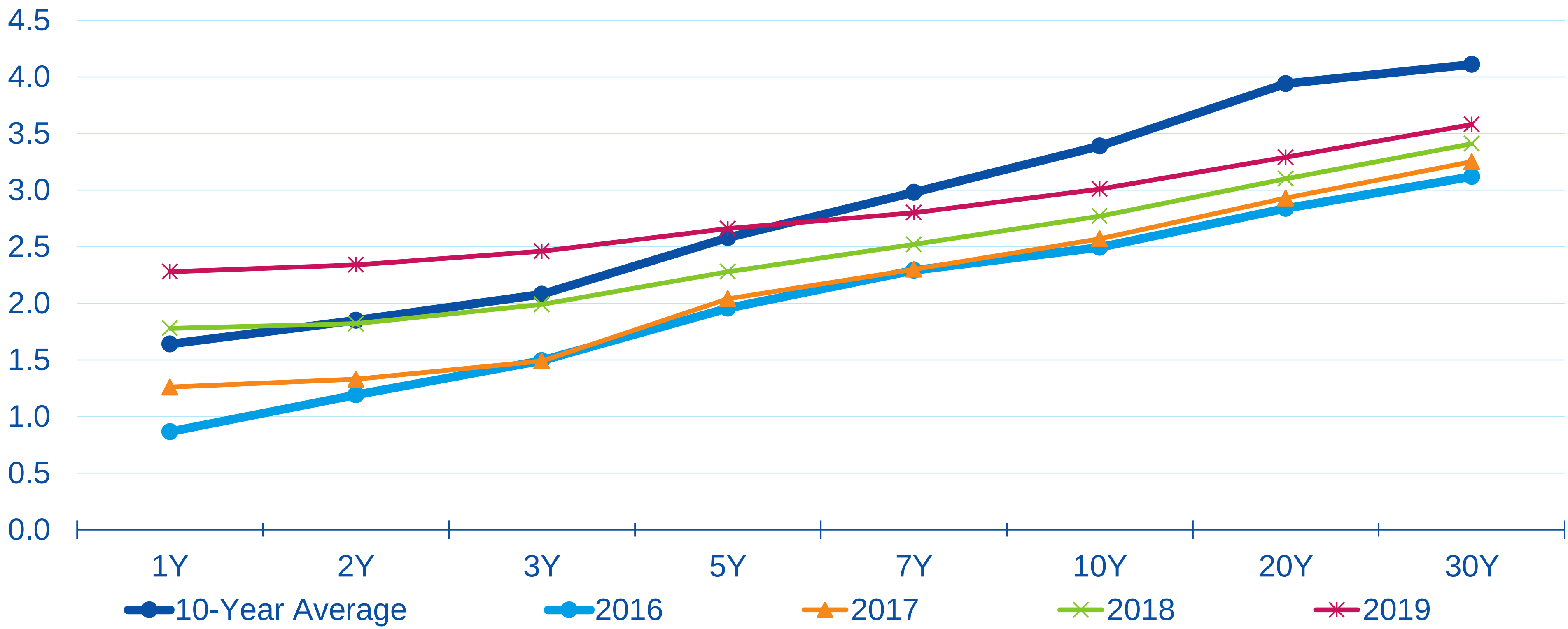


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Yield curve forecasts

Treasury Yield Curve Baseline Forecast

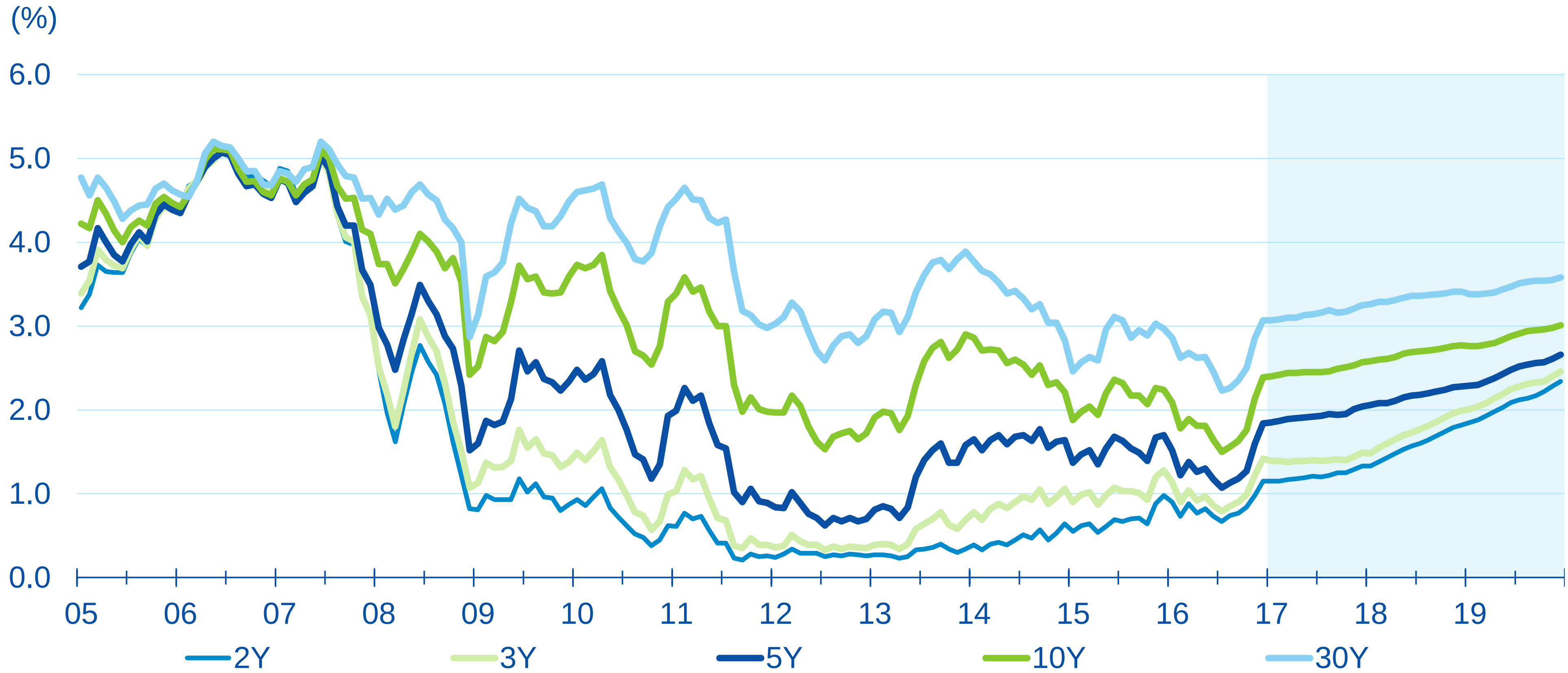
(%, end of period)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

Treasury yield curve baseline forecasts

U.S. Treasury Yield Curve



Source: BBVA Research, Federal Reserve Board and Haver Analytics

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

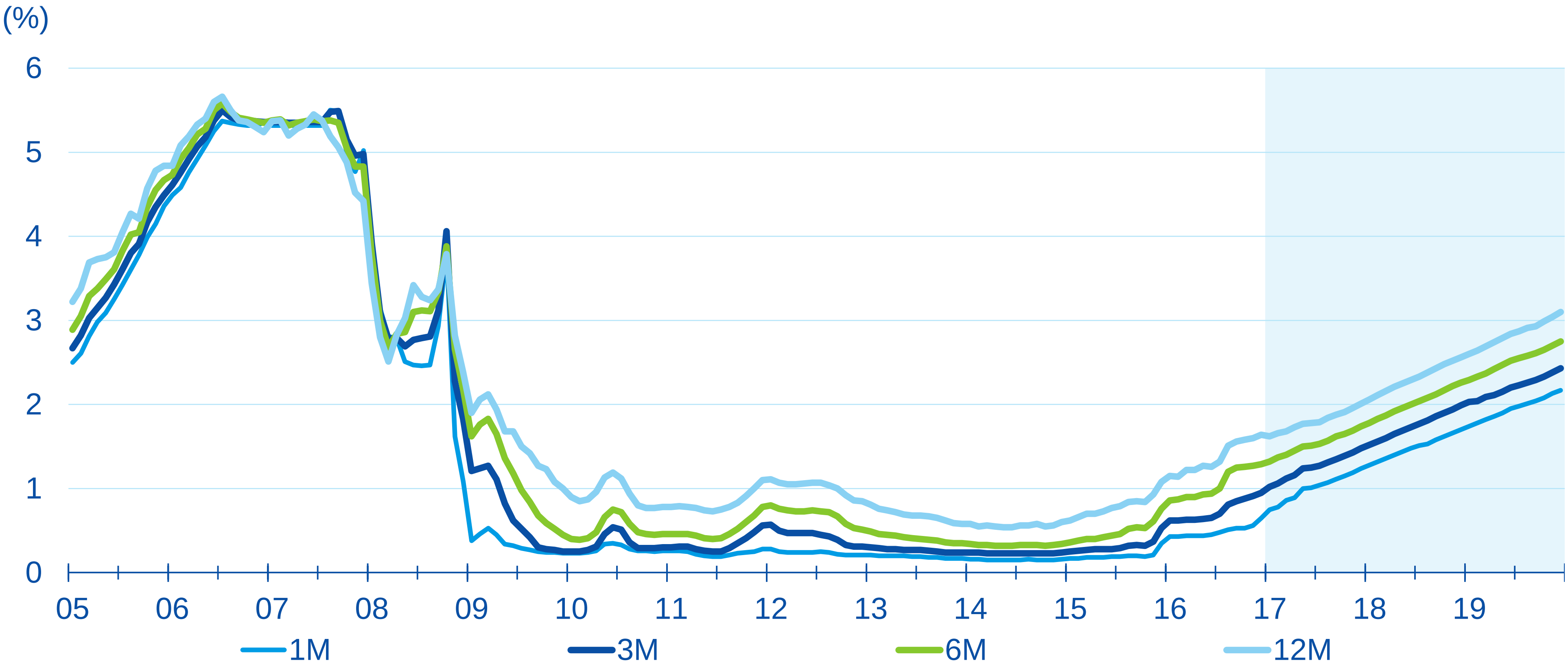
U.S. Swap Rates

(%)

Source: BBVA Research, Federal Reserve Board and Haver Analytics

LIBOR curve baseline forecasts

U.S. LIBOR Rates



Source: BBVA Research, Federal Reserve Board and Haver Analytics

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