BBVA | RESEARCH

August
2016

US Interest Rates
Chartbook

Takeaways

Fedspeak takes on a hawkish stance putting pressure on the Fed funds futures market to align with at least one Fed funds rate increase in the second half of 2016

> “in light of the continued solid performance of the labor market and our outlook for economic activity and inflation, I believe the case for an increase in the federal funds rate has strengthened in recent month.” FRB Chair Yellen at the Jackson Hole Symposium, August 26, 2016
>
> “The work of the central bank is never done, and I don’t think you can say ‘one and done’ and that’s it….We can choose the pace, but we choose the pace on the basis of data that’s coming in.” FRB Vice Chairman Fischer interview with Bloomberg Television, August 30, 2016

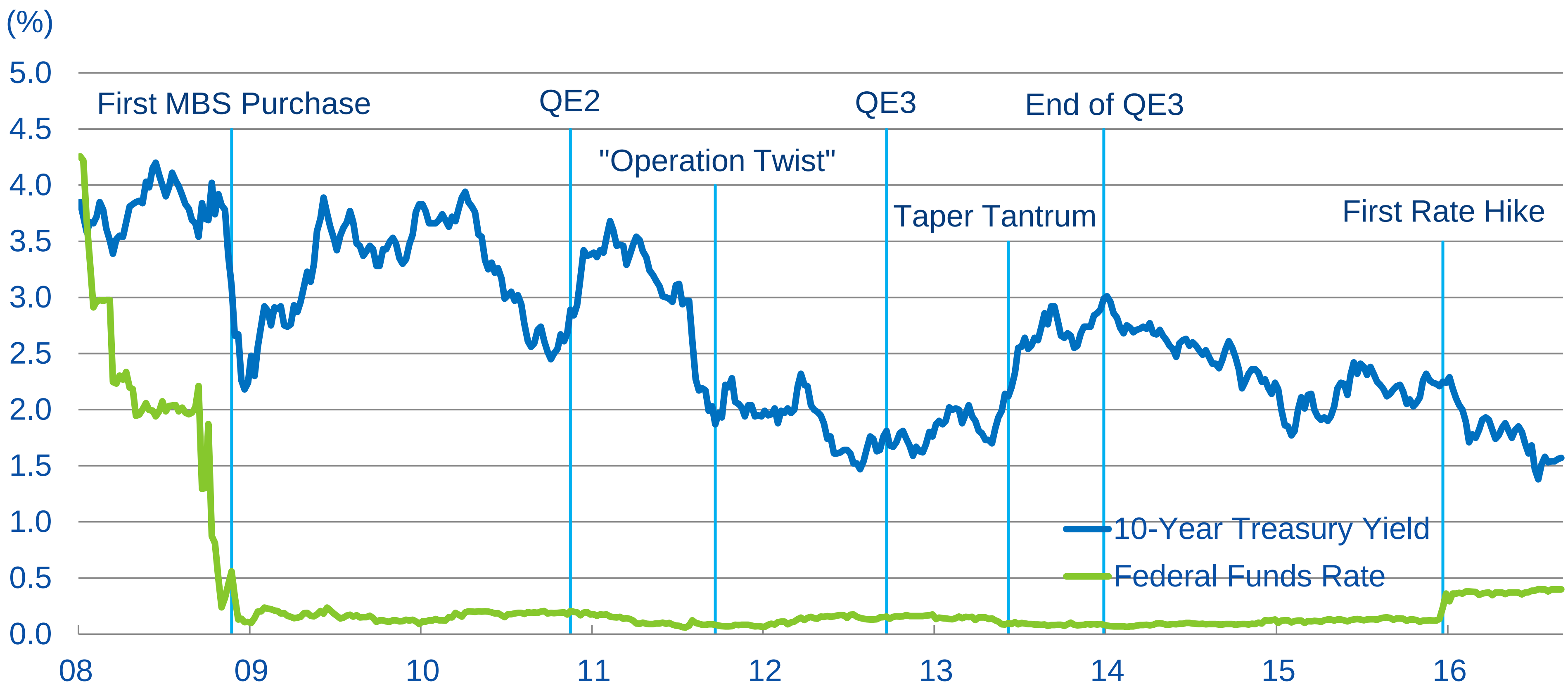
The Fed funds futures are priced at only one rate increase by the end of 2017. The December rate hike implied probability at 76% puts upward pressure on the short-end of the yield curve

Persistent downward pressure on long-term yields is unchanged as long-term duration-risk compression remains below zero and term-premium is pushed further into negative territory

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

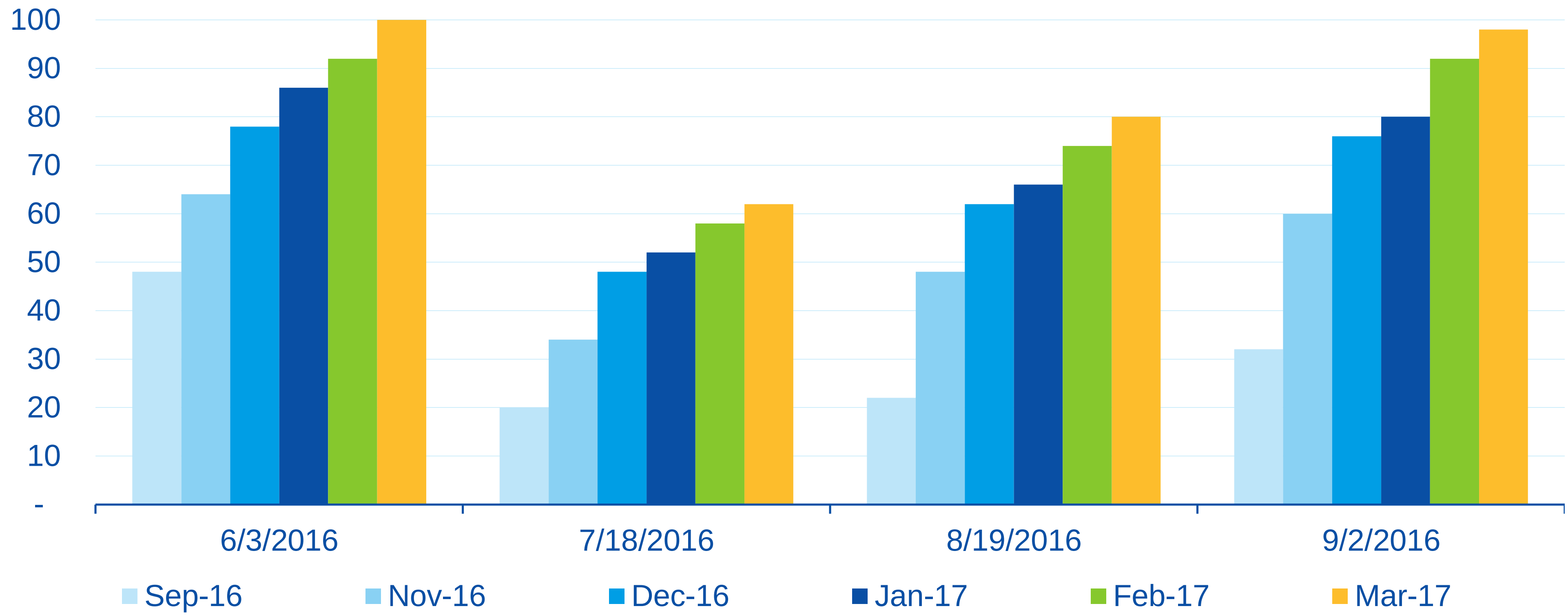


Source: BBVA Research, Federal Reserve Board and Haver Analytics

September rate hike probability at 32%; December at 76%

Fed Funds Futures Implied Probabilities, Second 25bp Hike

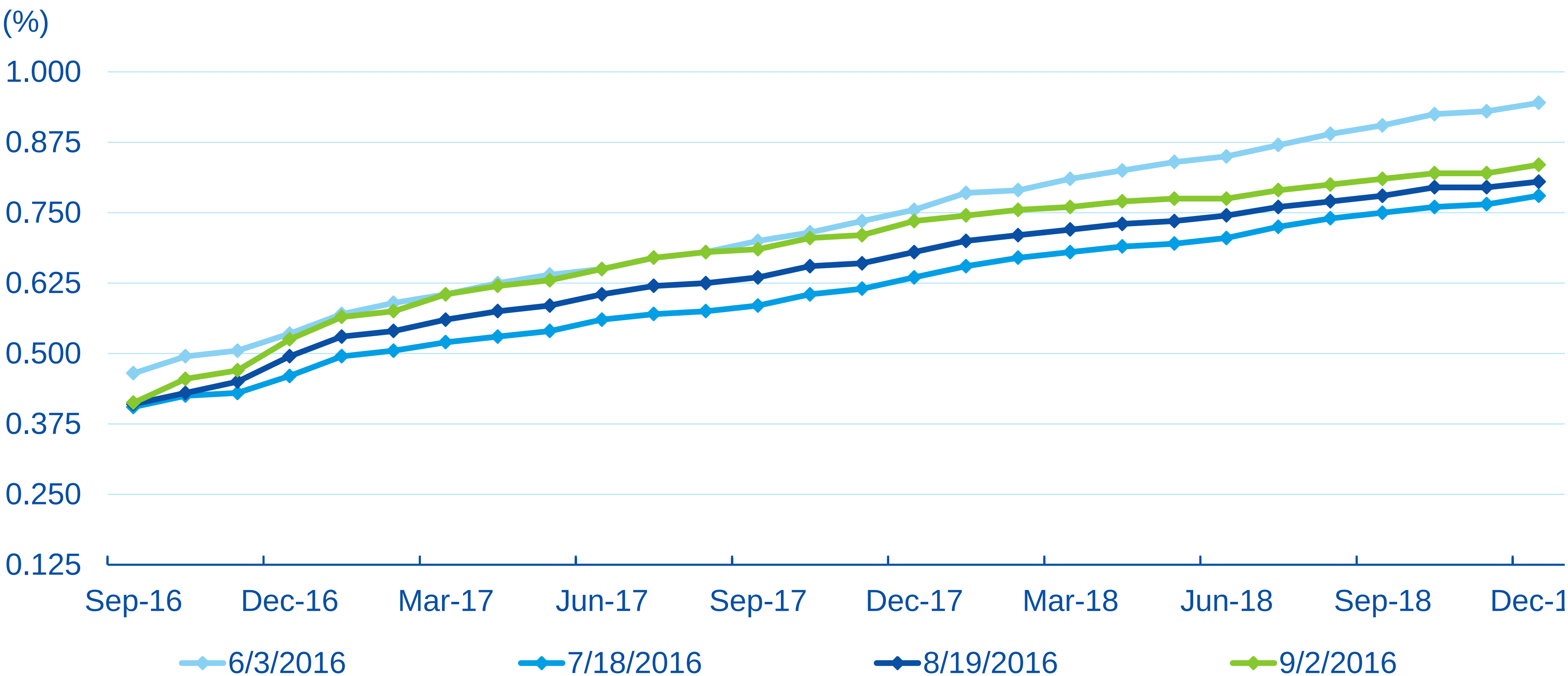
(%)



Source: BBVA Research and Bloomberg

A flatter Fed funds futures curve

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

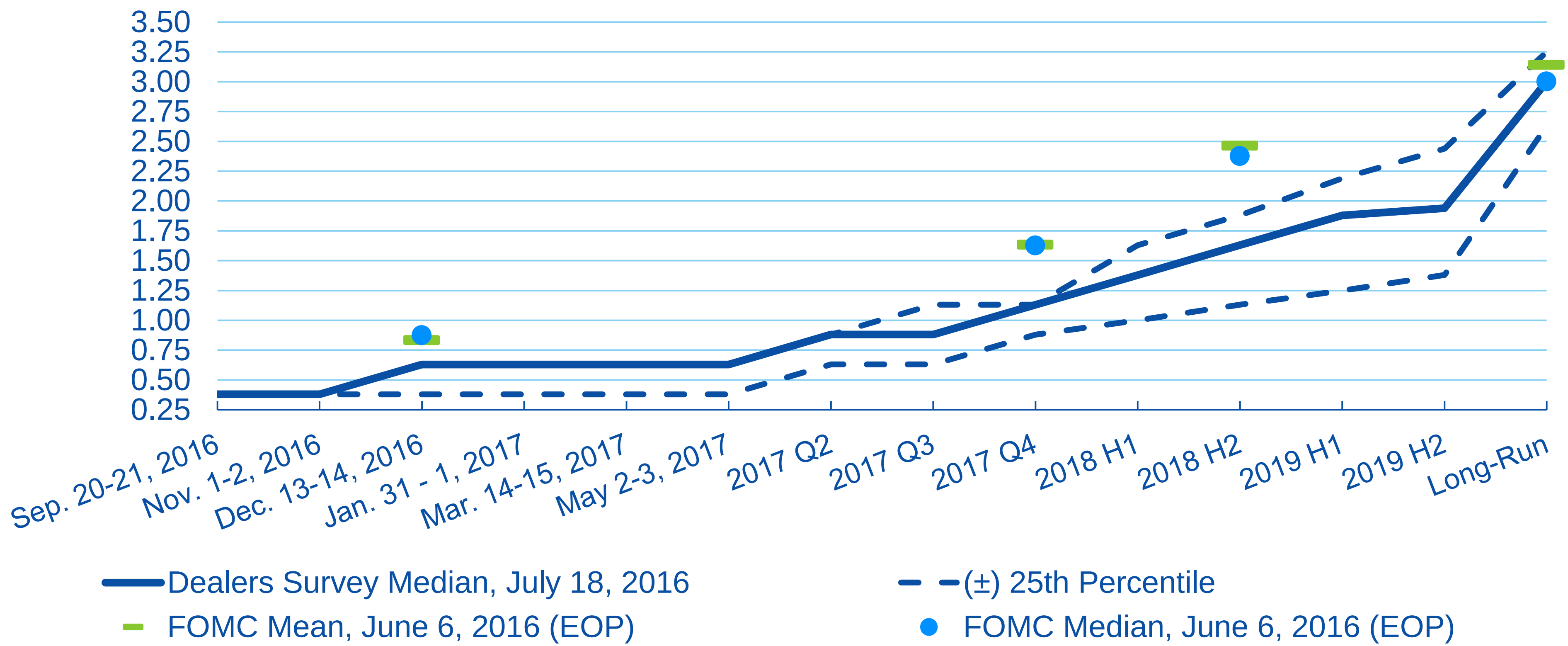


Source: BBVA Research and Bloomberg

Dealers expect a lower policy path than the FOMC firming path

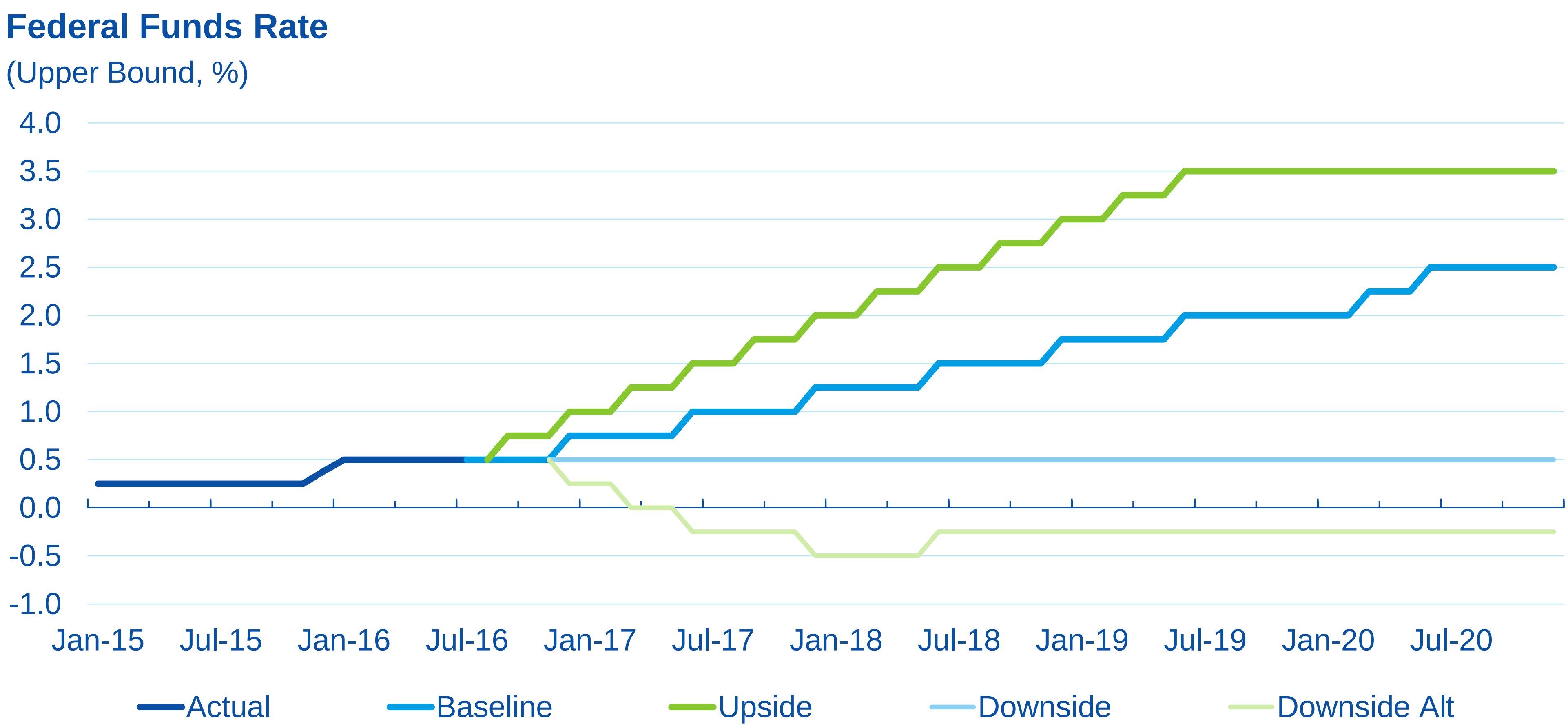
Projected Pace of Policy Firming

(%)



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

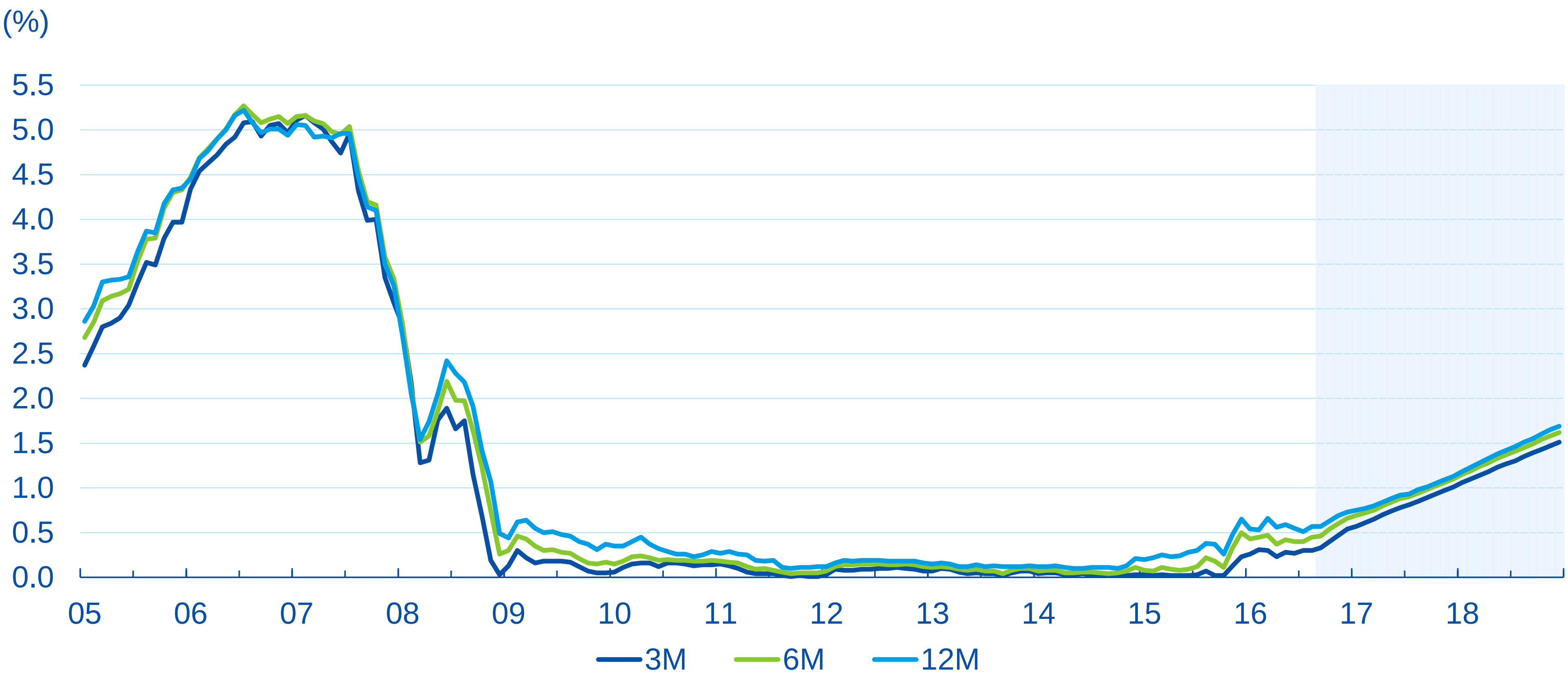
BBVA forecast of the pace of Fed funds firming revised



Source: BBVA Research, Federal Reserve Board and Haver Analytics

Baseline forecasts of Treasury Bill yield

3-Month to 12-Month Rates

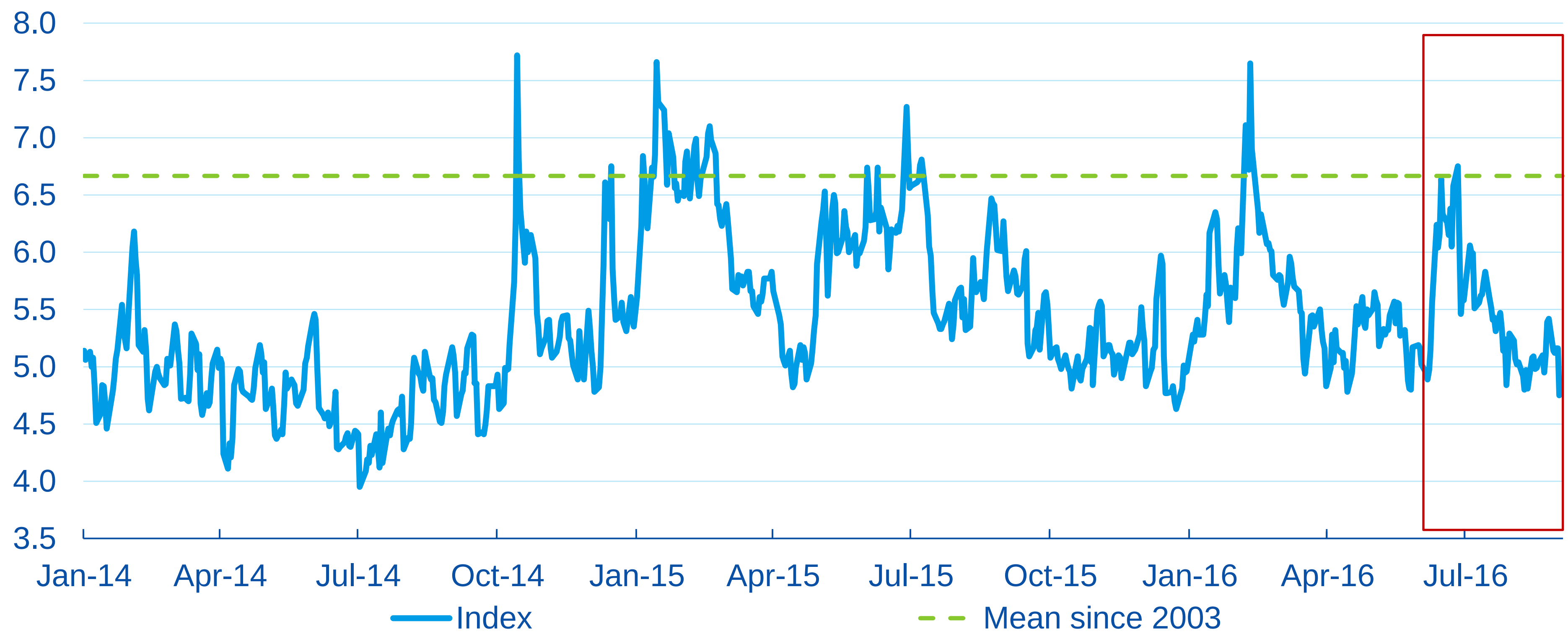


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Long-term rates futures volatility normalizes below historic mean

10-Year U.S. Treasury Note Volatility

(Daily Index)

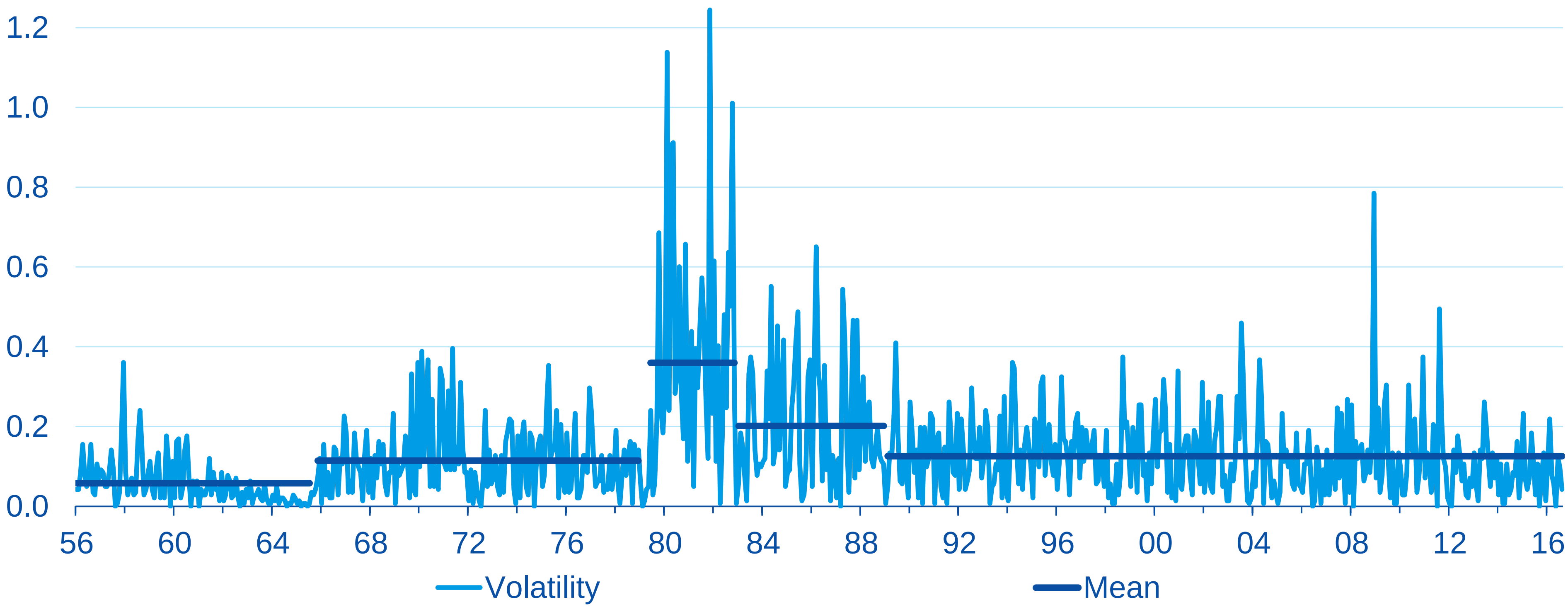


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from Chicago Board of Trade's actively traded options on the Treasury Note futures.

Source: BBVA Research, Chicago Board Options Exchange and Bloomberg

Long-term rate yield volatility is near historic mean

10-Year U.S. Treasury Yield Volatility
(MoM, %)

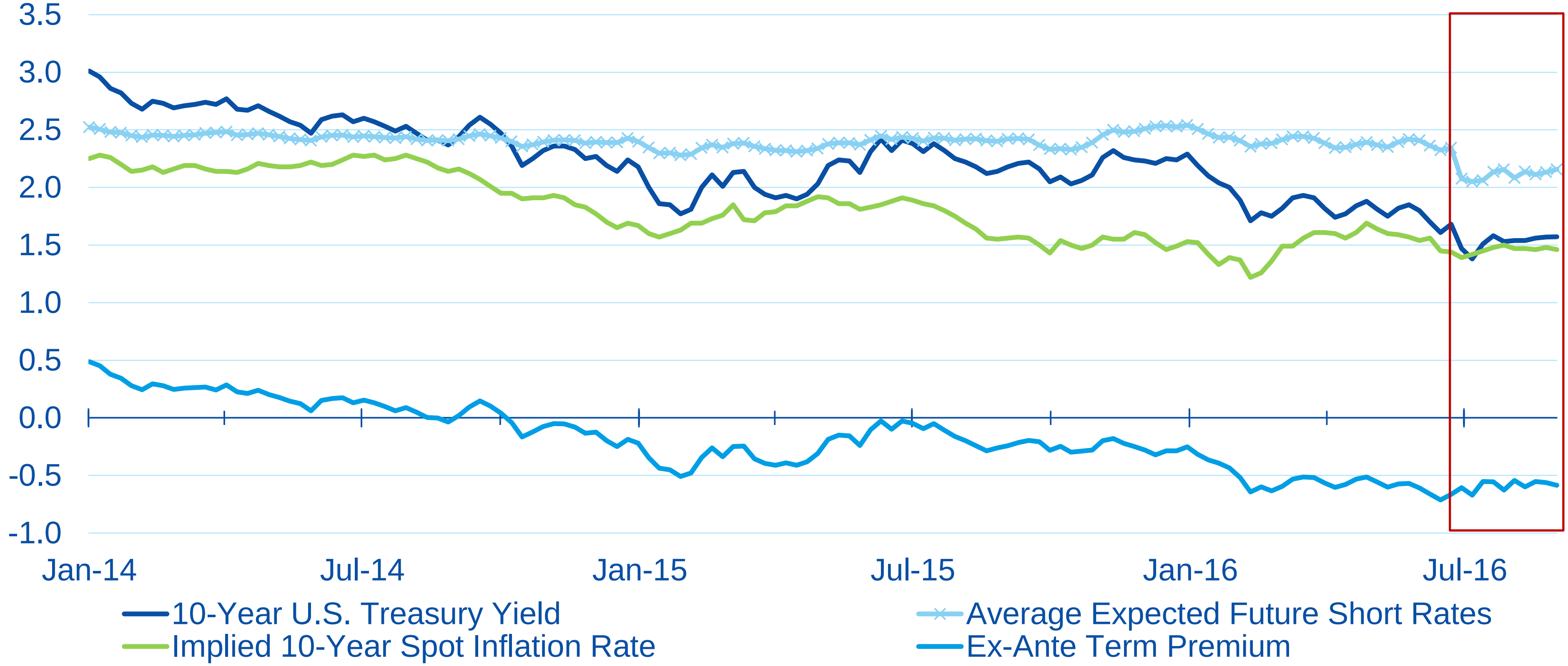


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Downward pressure on term premium unchanged

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

(Weekly, %)

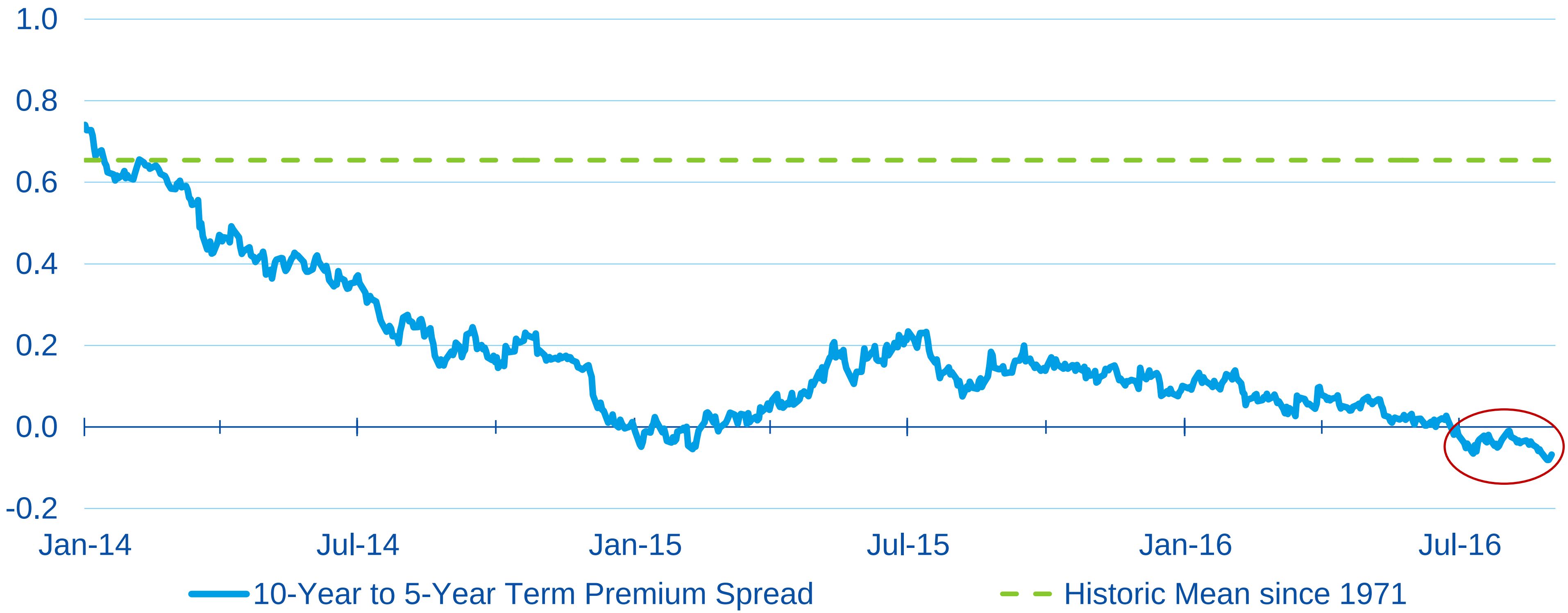


Fuente: BBVA Research and Federal Reserve Board

Long-term duration-risk compression remains in negative territory

Duration-Risk Compression

(Daily, %)



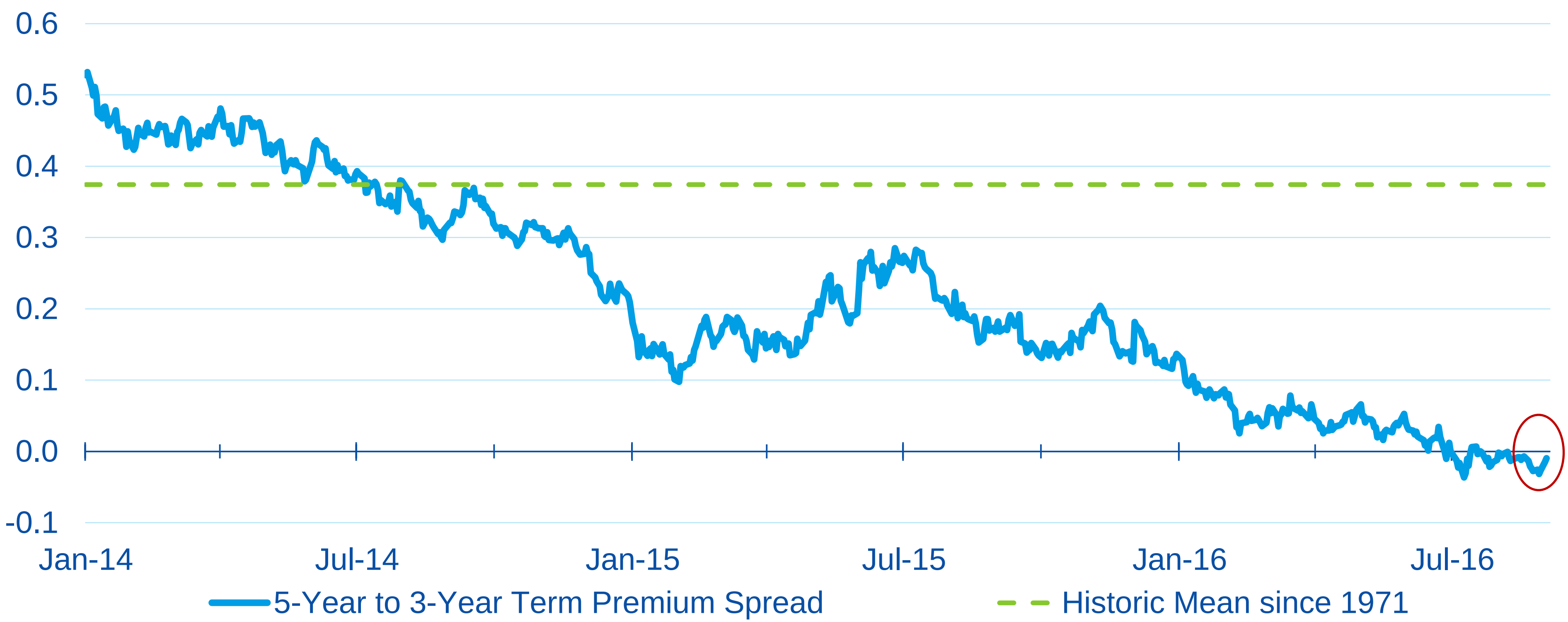
Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

Mid-term duration-risk compression crosses over from near zero into negative territory

Duration-Risk Compression

(Daily, %)



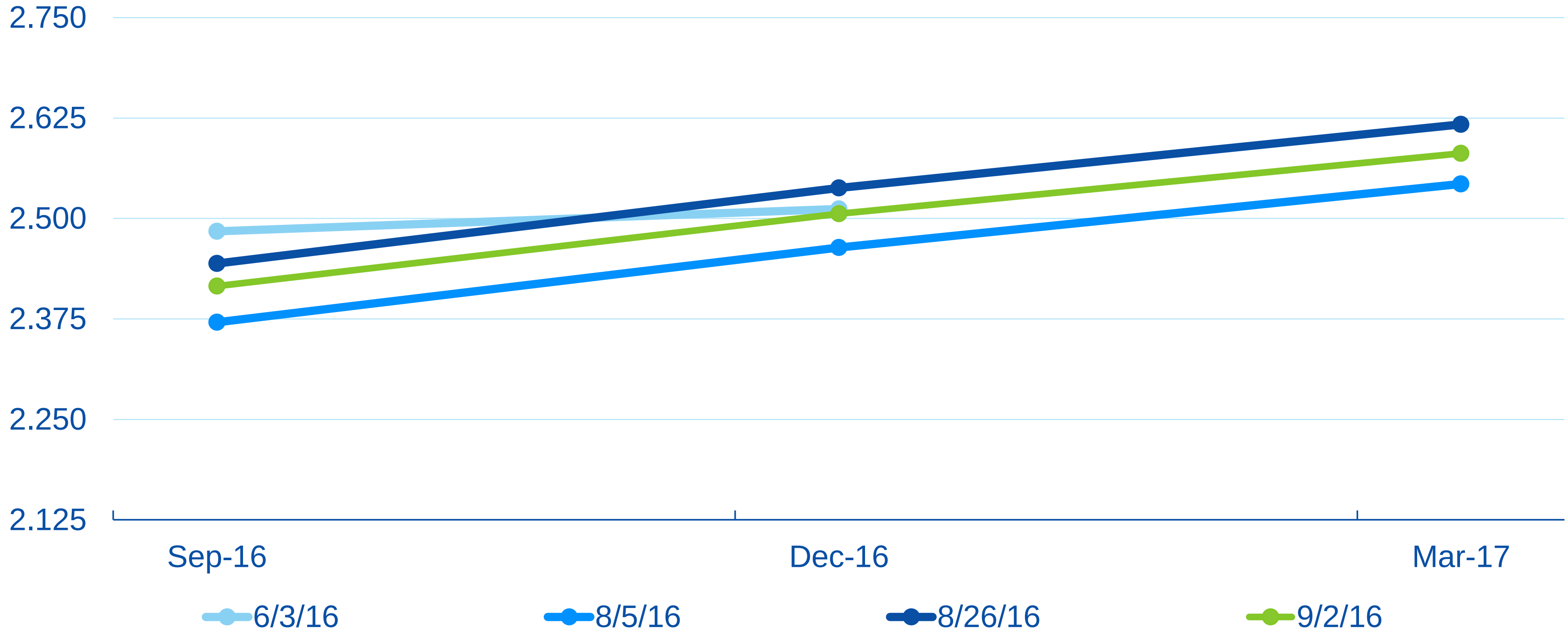
Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

Futures continue to discount at 17bp raise in 10YTN yields over the next 3 quarters

10-Year U.S. Treasury Yield Futures – Most Recent, 1 Week Prior, 1 Month Prior, 3 Months Prior

(%)



Source: BBVA Research and Bloomberg

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 June 05, 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

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

Yield curve slope forecasts

Treasury Yield Curve Slope

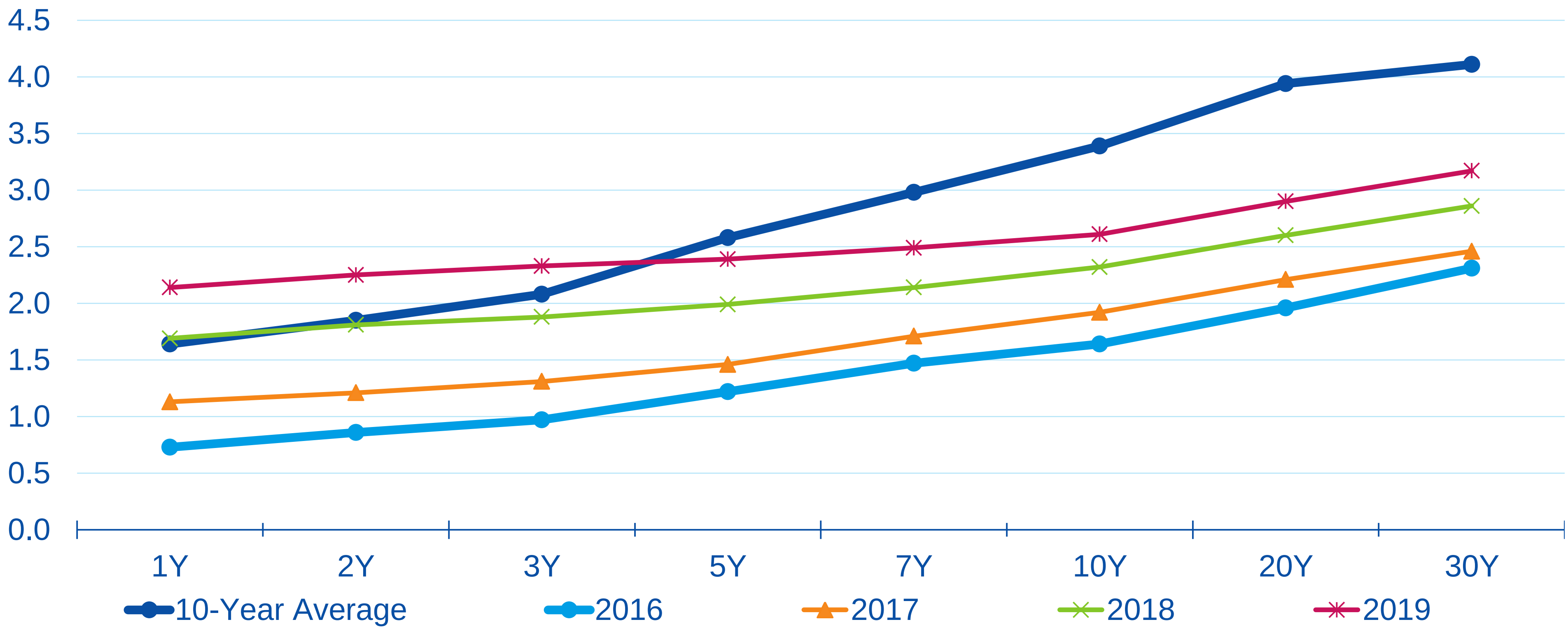
(10Y-2Y, %)

Source: BBVA Research, Federal Reserve Board and Haver Analytics

Yield curve forecasts

Treasury Yield Curve Baseline Forecast

(Average, %)



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

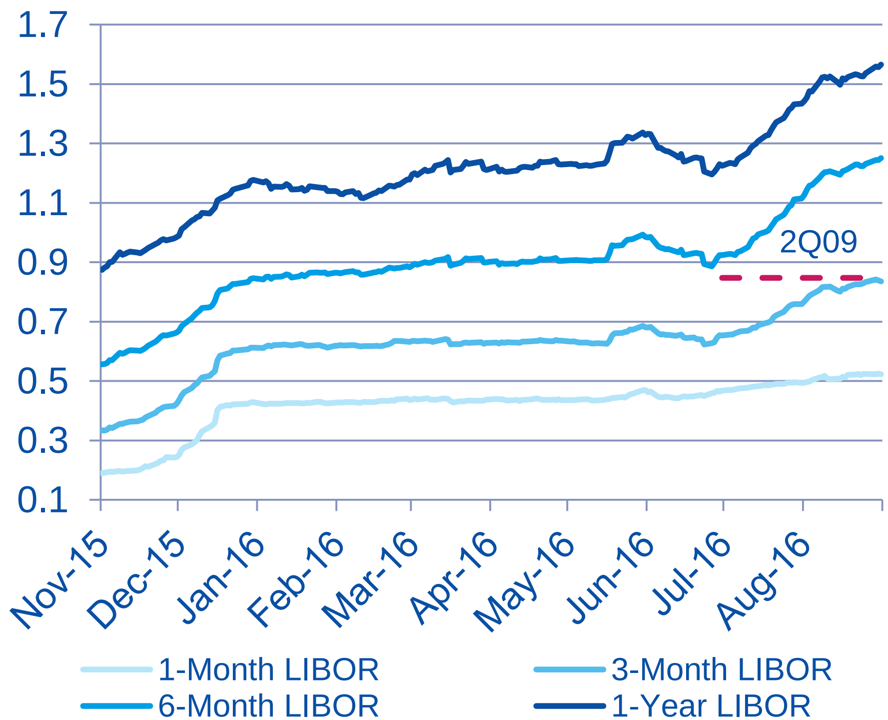
(%)

Source: BBVA Research, Federal Reserve Board and Haver Analytics

3-month LIBOR surges to a level not seen since 2009

LIBOR

(Daily, %)

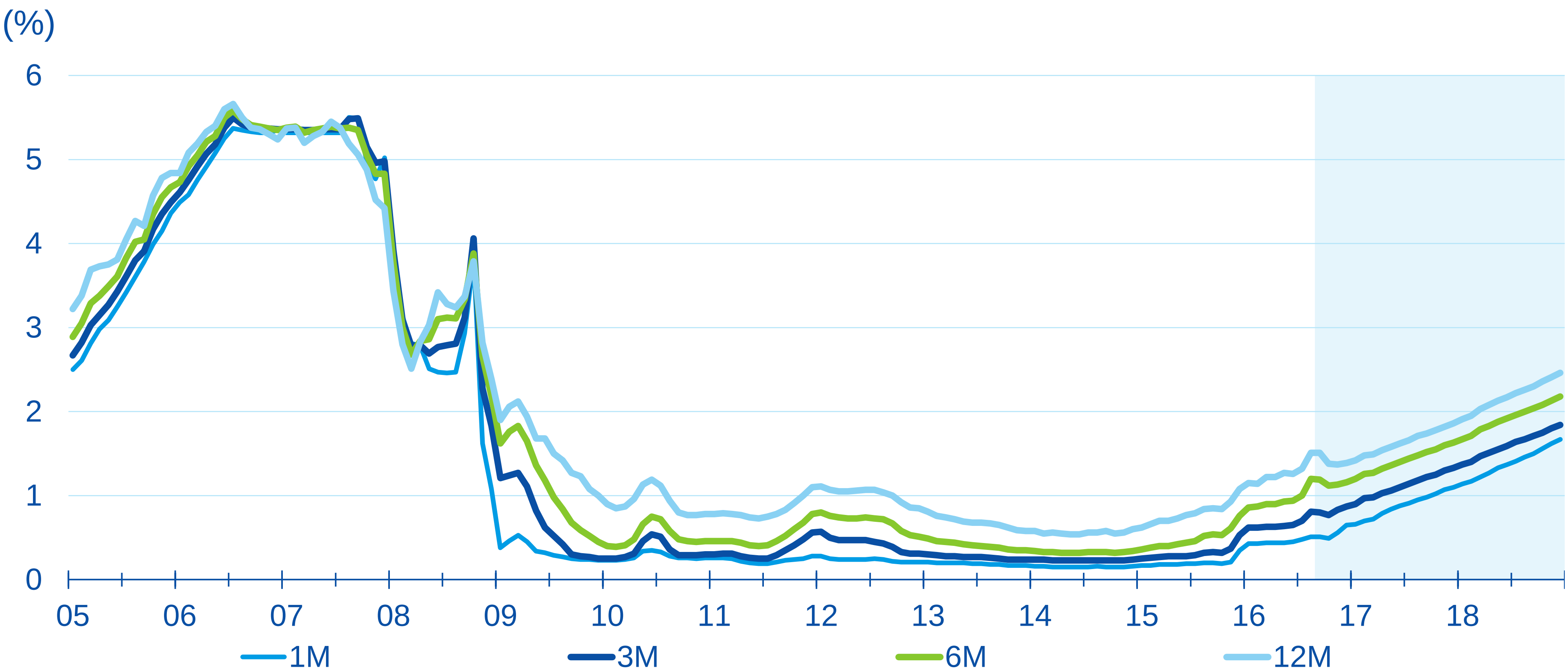


Structural changes to LIBOR and money market fund rules that will come into effect in October 14, 2016 have elevated 3-month to 1-year LIBOR rates in August

Part of the upward pressure on LIBOR can also be attributed to the signal from the FOMC of a nearing Fed funds rate hike

LIBOR curve baseline forecasts

U.S. LIBOR Rates



Source: BBVA Research, Federal Reserve Board and Haver Analytics

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