

July
2016

US Interest Rates
Chartbook



Takeaways

The FOMC July statement, while not explicit, left the door open for a rate hike in the second half of 2016, with the lack of dovish sentiment and optimism on the domestic outlook

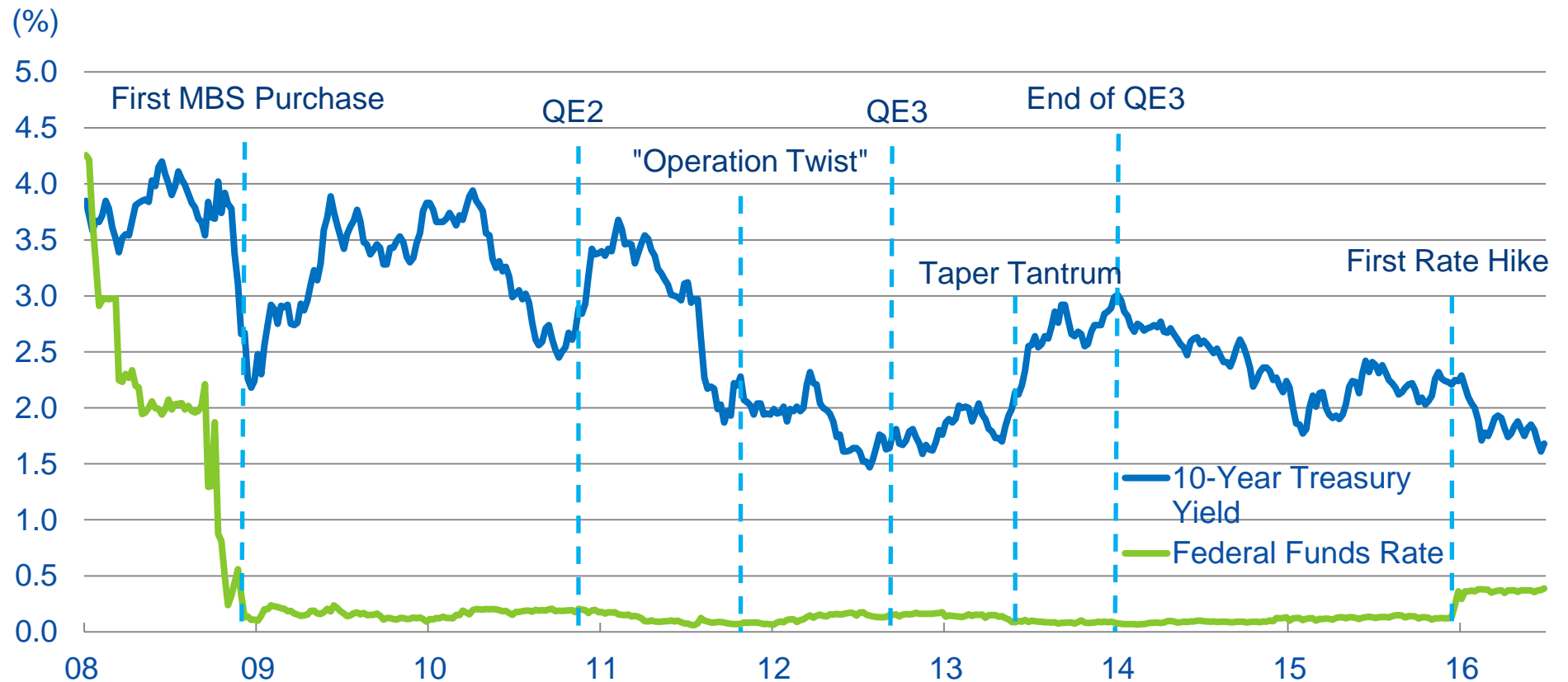
The disparity between the FOMC projections and those of the futures market and of the New York Fed's Dealers Survey persists with the Fed funds futures priced at only one rate increase by the end of 2017

Persistent downward pressure on long-term yields is unchanged as term-premium is solidified in negative territory and long-term duration-risk compression is below zero

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

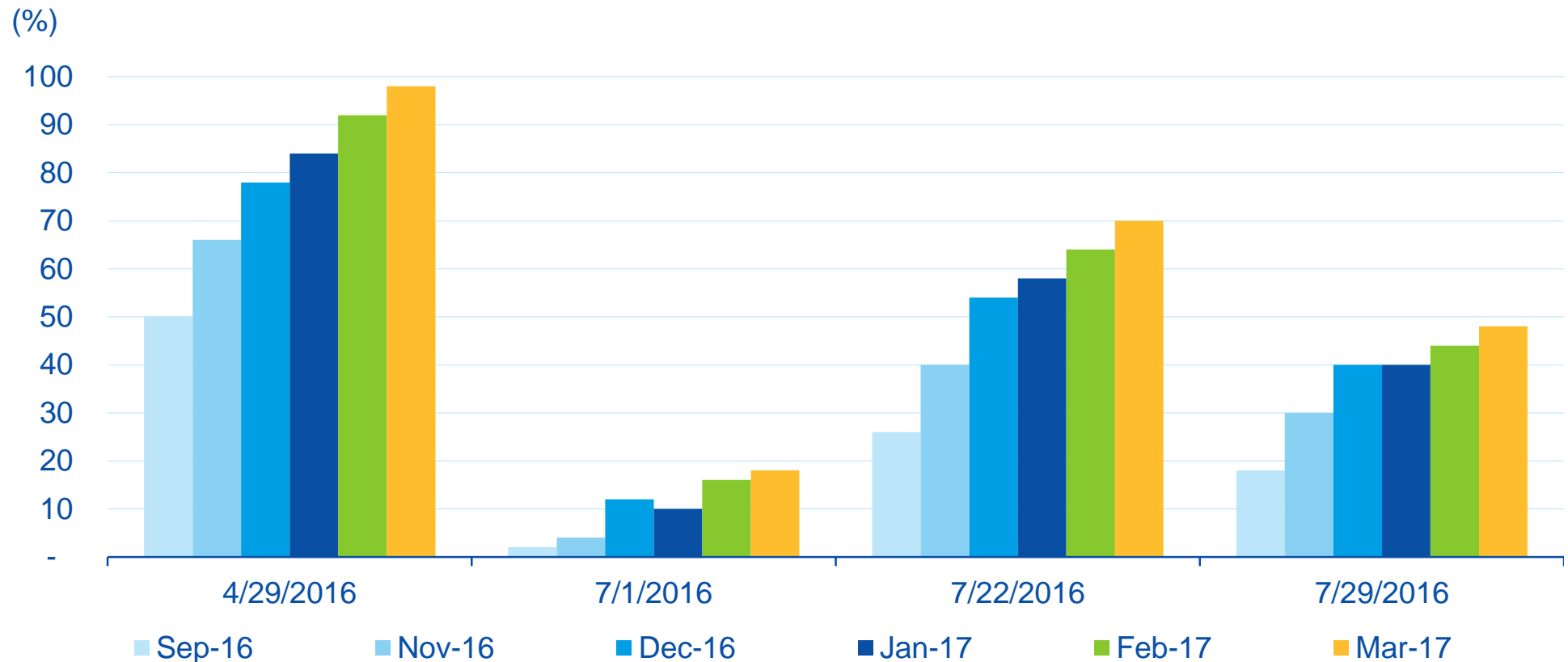
Unconventional monetary policy

Federal Funds Rate and 10-Year Treasury Note



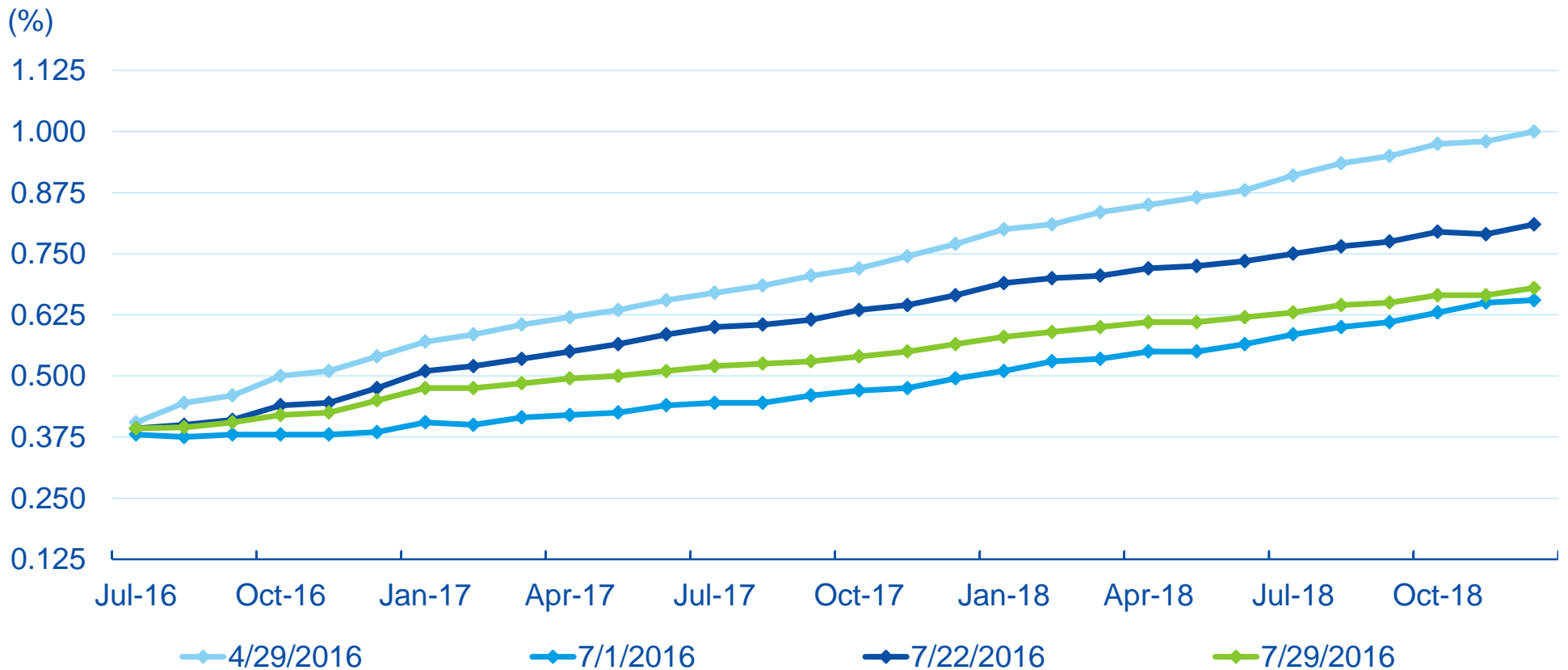
September rate hike probability at 18%

Fed Funds Futures Implied Probabilities, Second 25bp



A flatter Fed funds futures curve

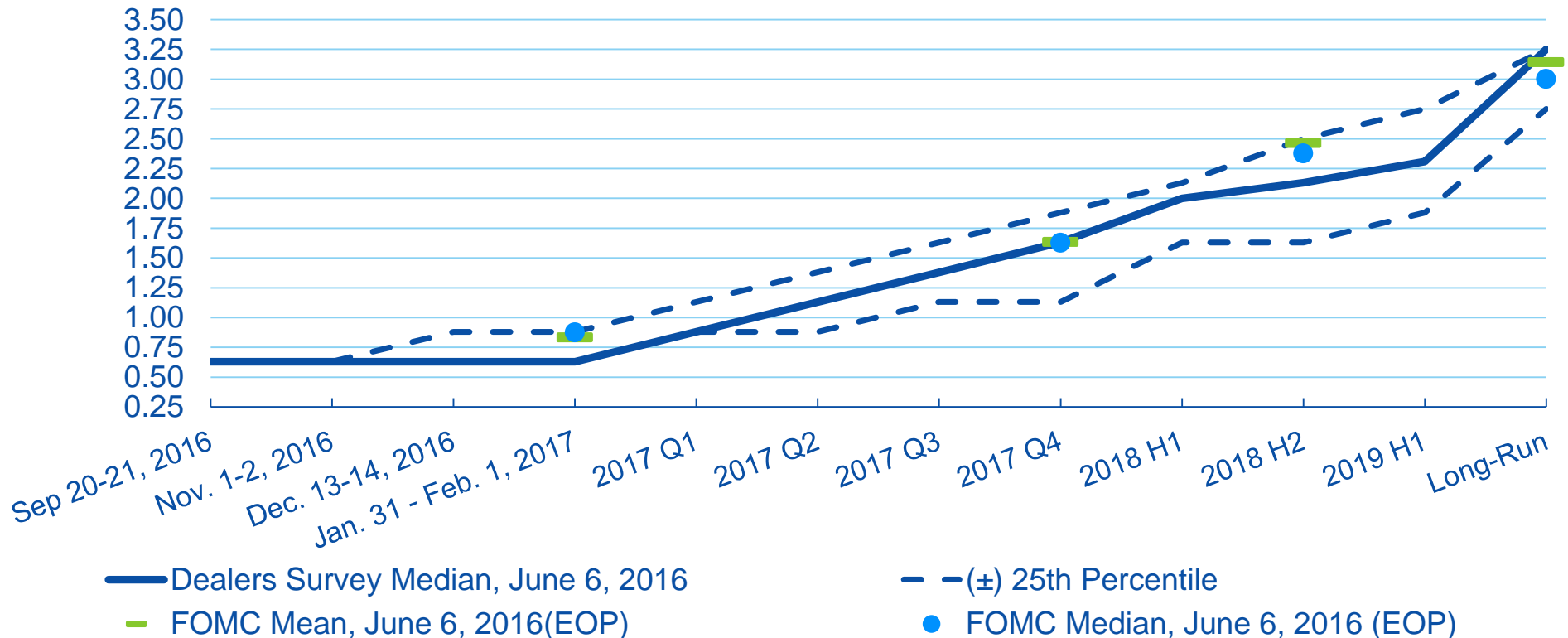
Fed Funds Futures – Most Recent, 1 Week Prior, 1 Month Prior, 3 Months Prior



Dealers expect a lower policy path than the FOMC firming path

Projected Pace of Policy Firming

(%)

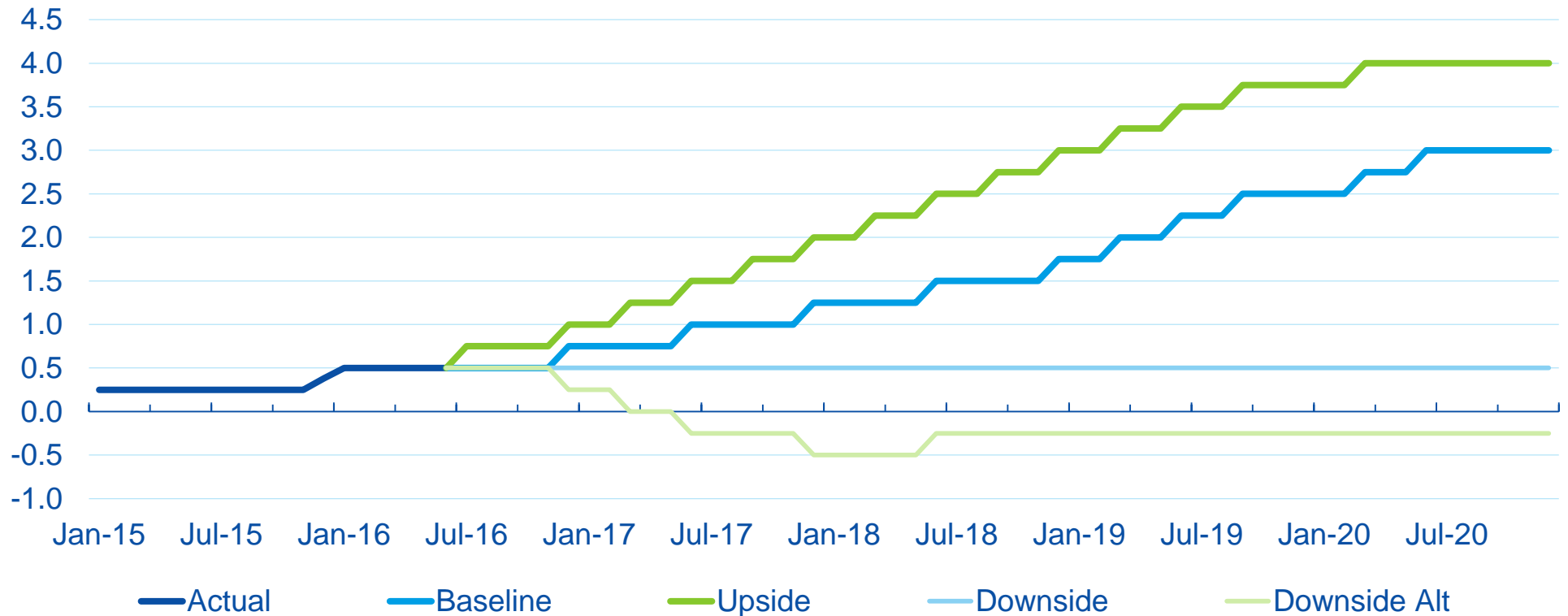


Source: BBVA Research, Federal Reserve Bank of New York and Federal Reserve Board

BBVA forecast of the pace of Fed funds firming revised

Federal Funds Rate

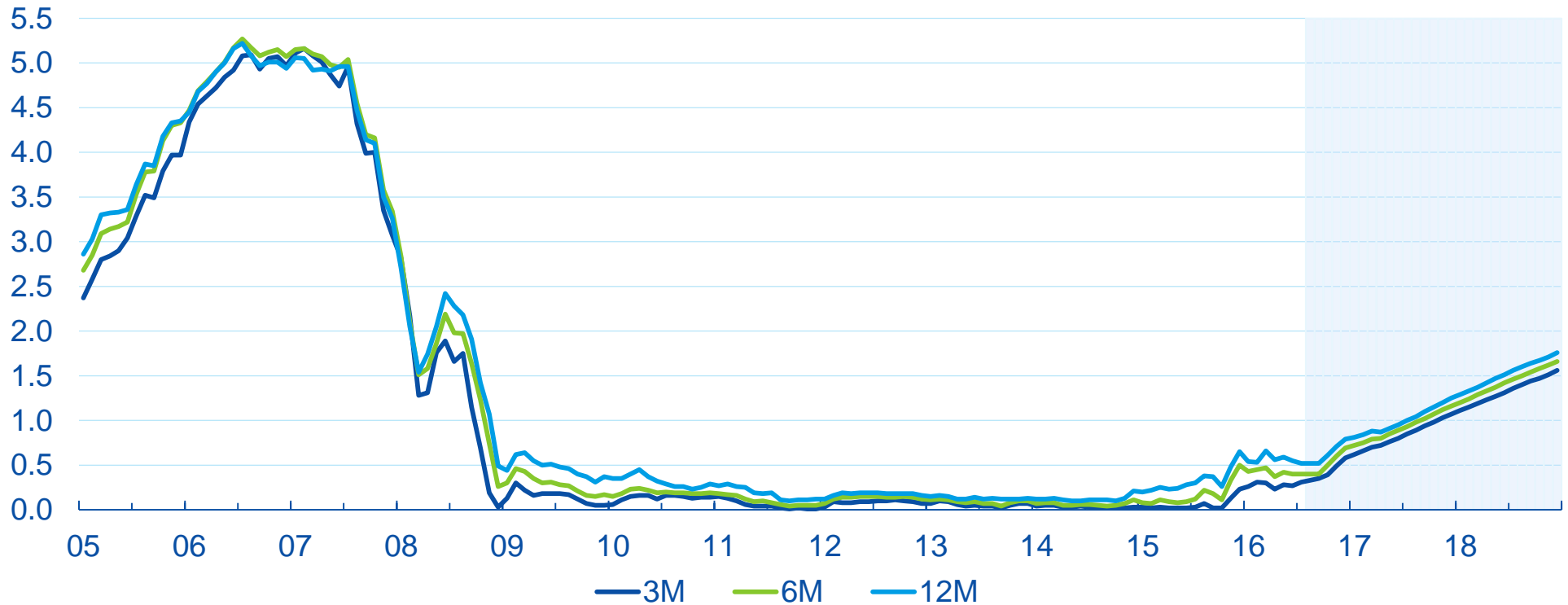
(Upper Bound, %)



Treasury bill yield baseline forecasts

3-Month to 12-Month Rates

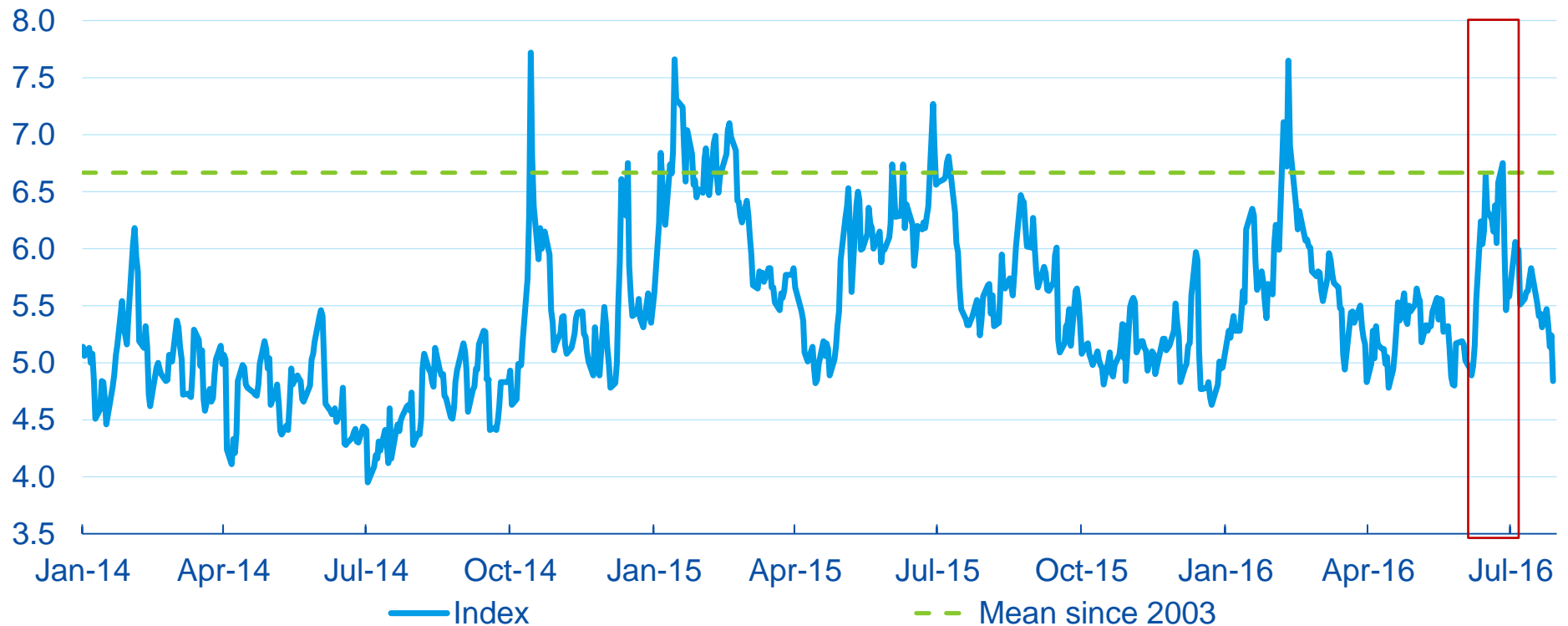
(%)



June long-term rate futures volatility reaches but does not surpass the historic mean

10-Year U.S. Treasury Note Volatility

(Daily Index)

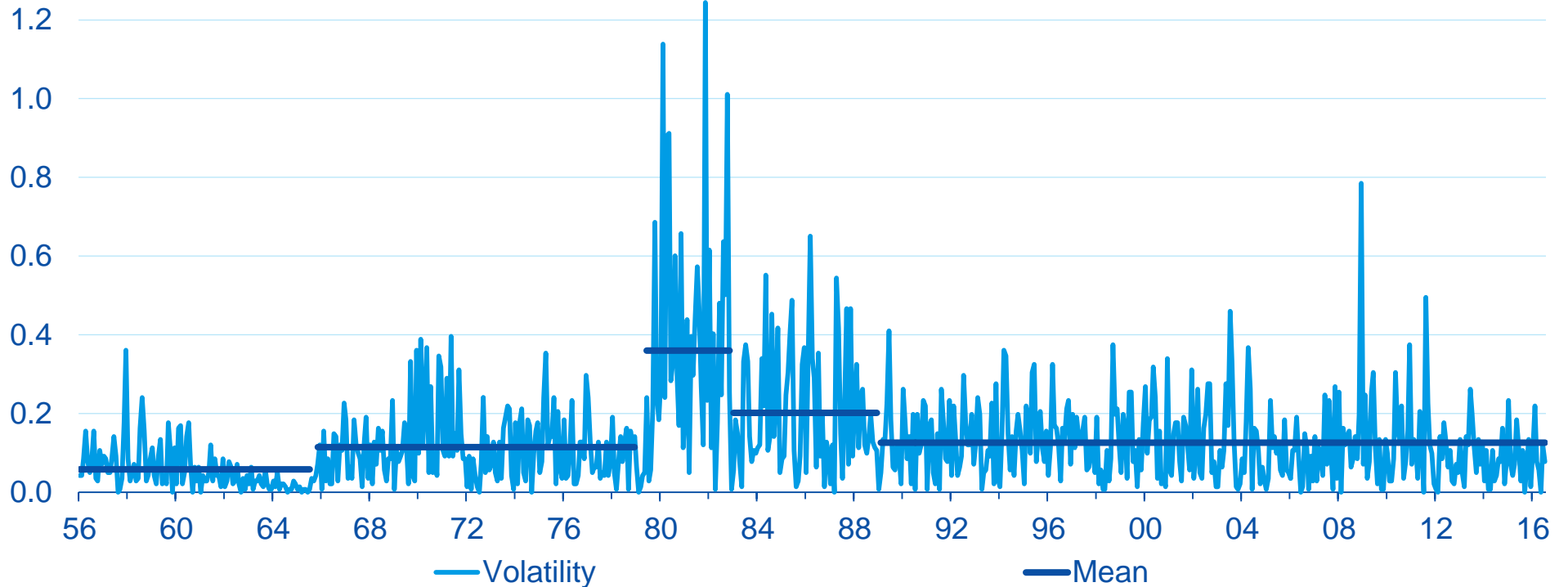


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from Chicago Board of Trade's actively traded options on the Treasury Note futures.

Source: BBVA Research, Chicago Board Options Exchange and Bloomberg

Long-term rate yield volatility is near historic mean

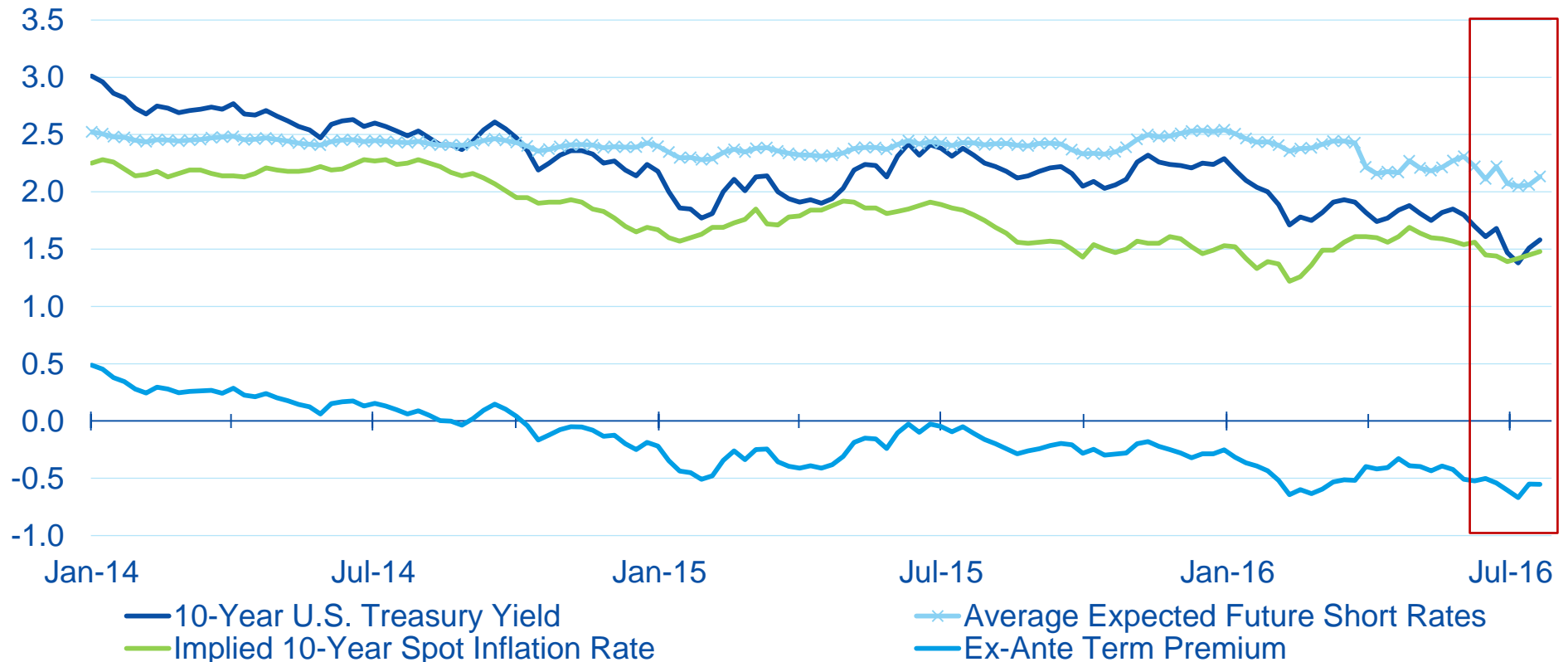
10-Year U.S. Treasury Yield Volatility
(MoM, %)



Downward pressure on term premium unchanged

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

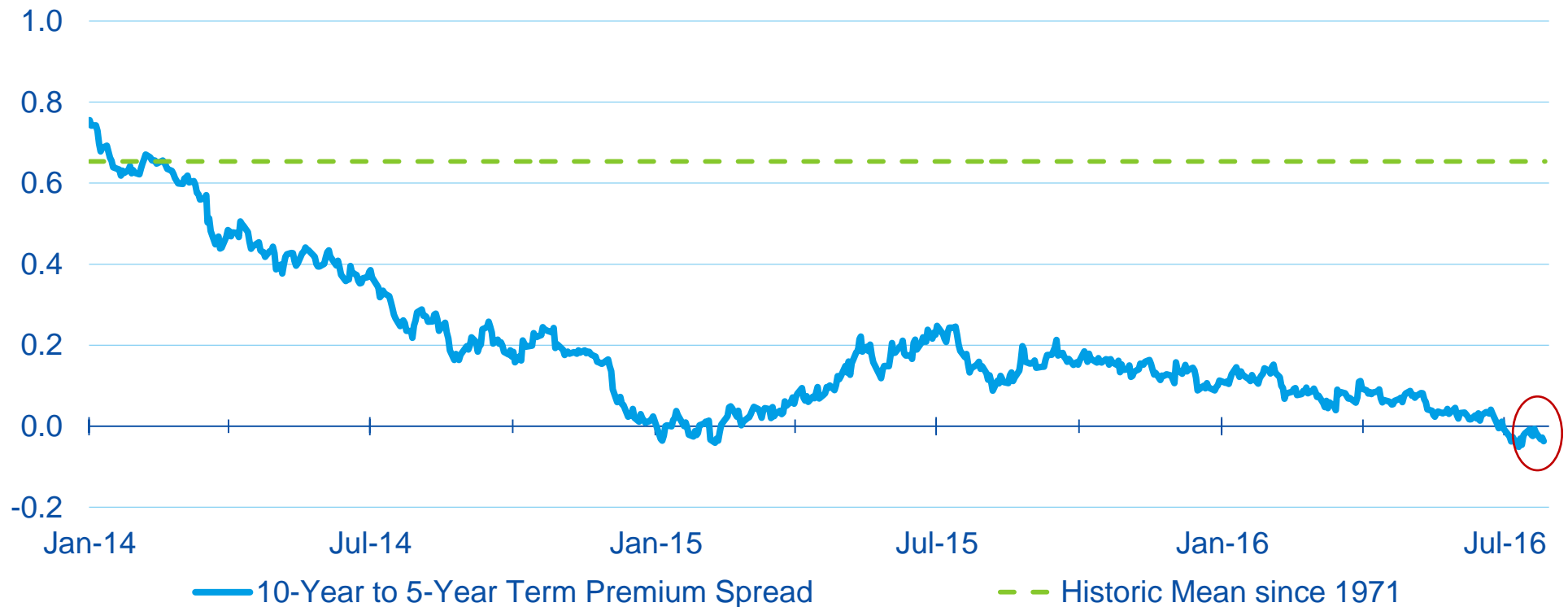
(Weekly, %)



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

Duration-Risk Compression

(Daily, %)



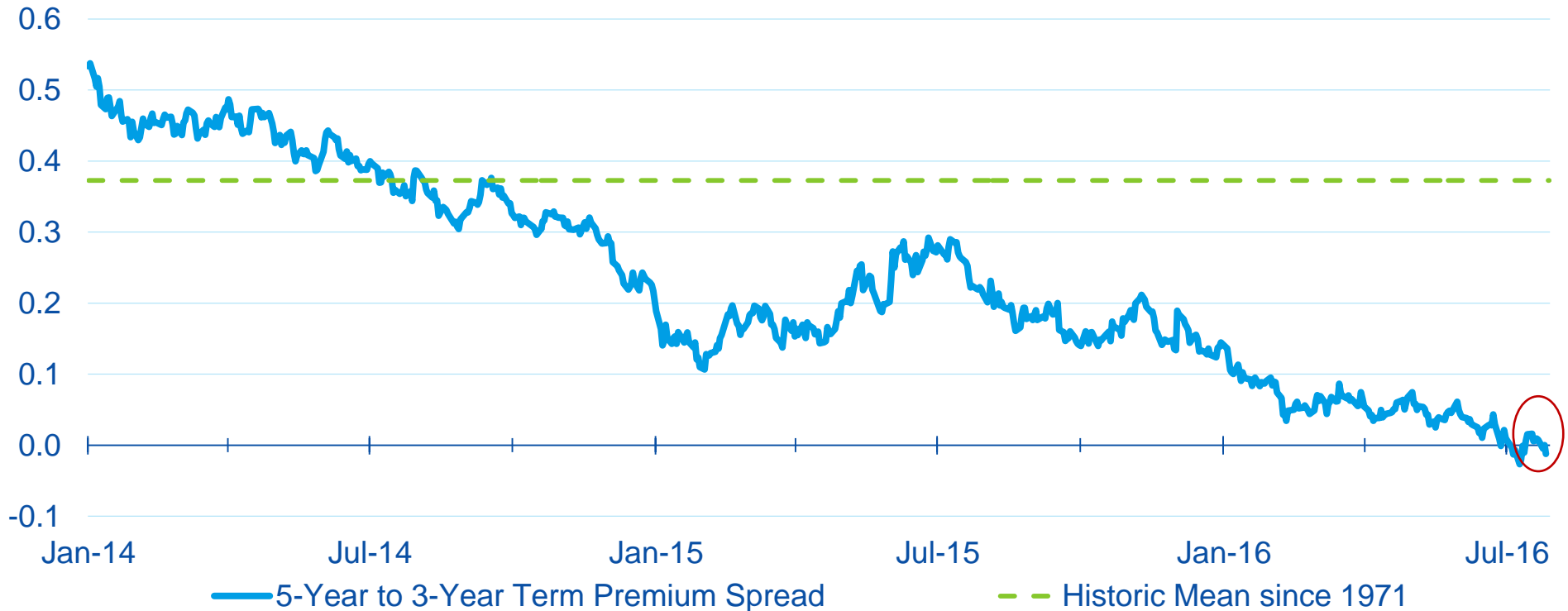
Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

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

Duration-Risk Compression

(Daily, %)

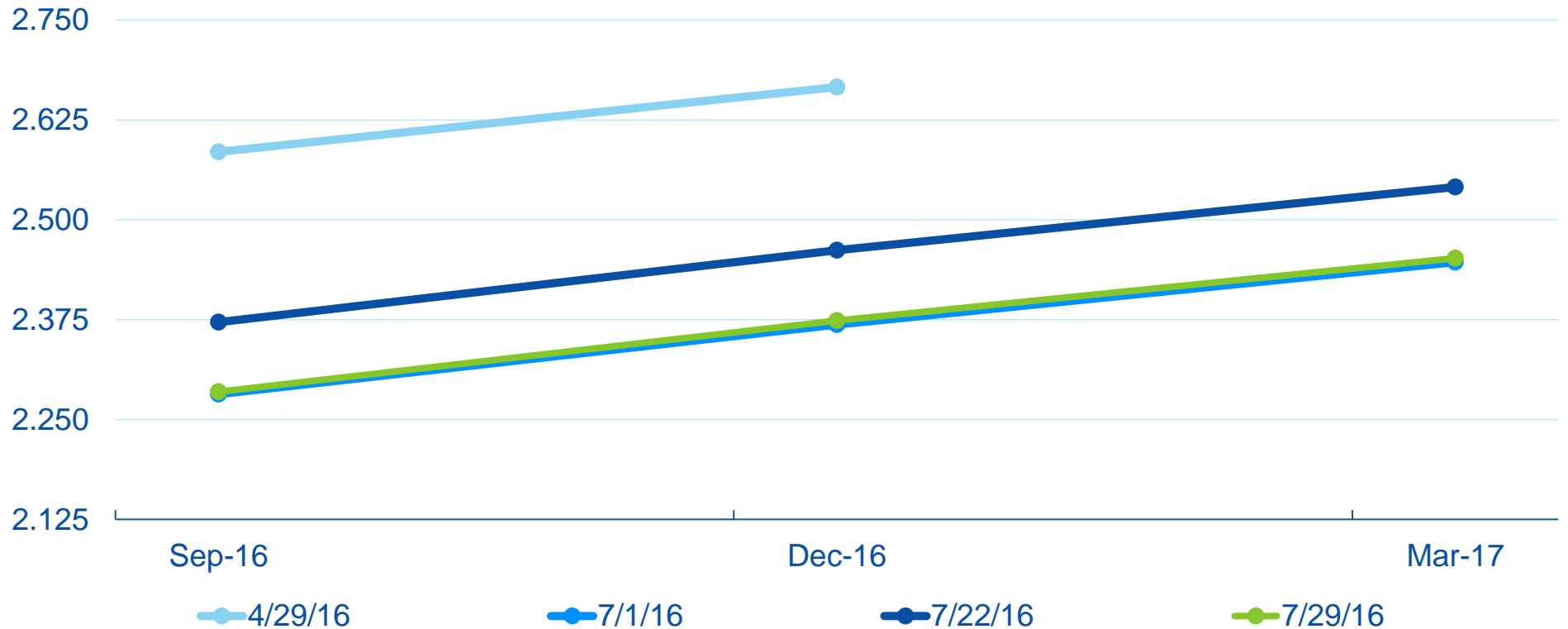


Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

Futures 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 (%)



Treasury yield curve scenarios

Averages for 2016-2020	Baseline 60%	Upside 10%	Downside 25%	Downside Alt 5%
GDP Growth	2.2%	2.6%	1.0%	0.4%
Unemployment	4.6%	4.2%	5.3%	7.0%
CPI Inflation	1.9%	2.5%	1.1%	0.2%
FFR EOP	3.0%	4.0%	0.5%	-0.25%
10-Year Treasury Yield EOP	3.6%	4.7%	2.3%	0.7%

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 May 13, 2016

*** Administration: 2017 Budget. Last release date July 19, 2016

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

Yield curve slope forecasts

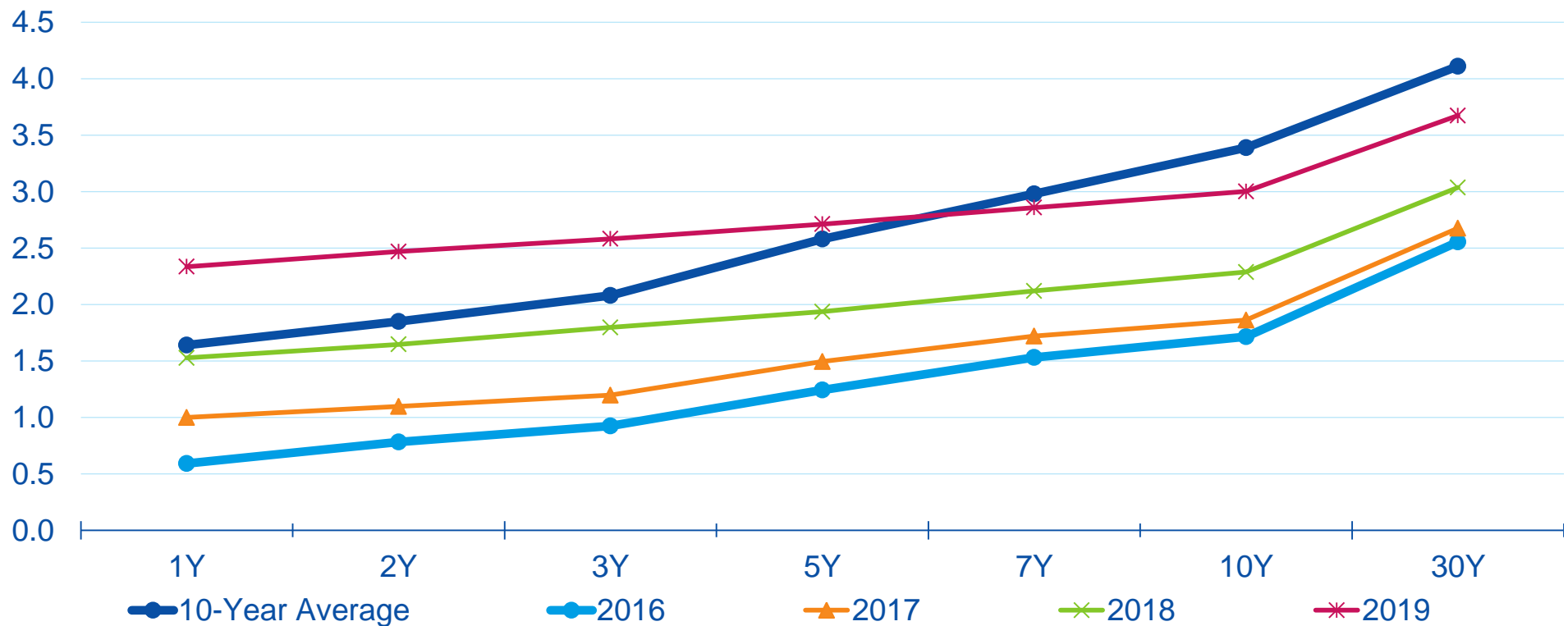
Treasury Yield Curve Slope

(10Y-2Y, %)



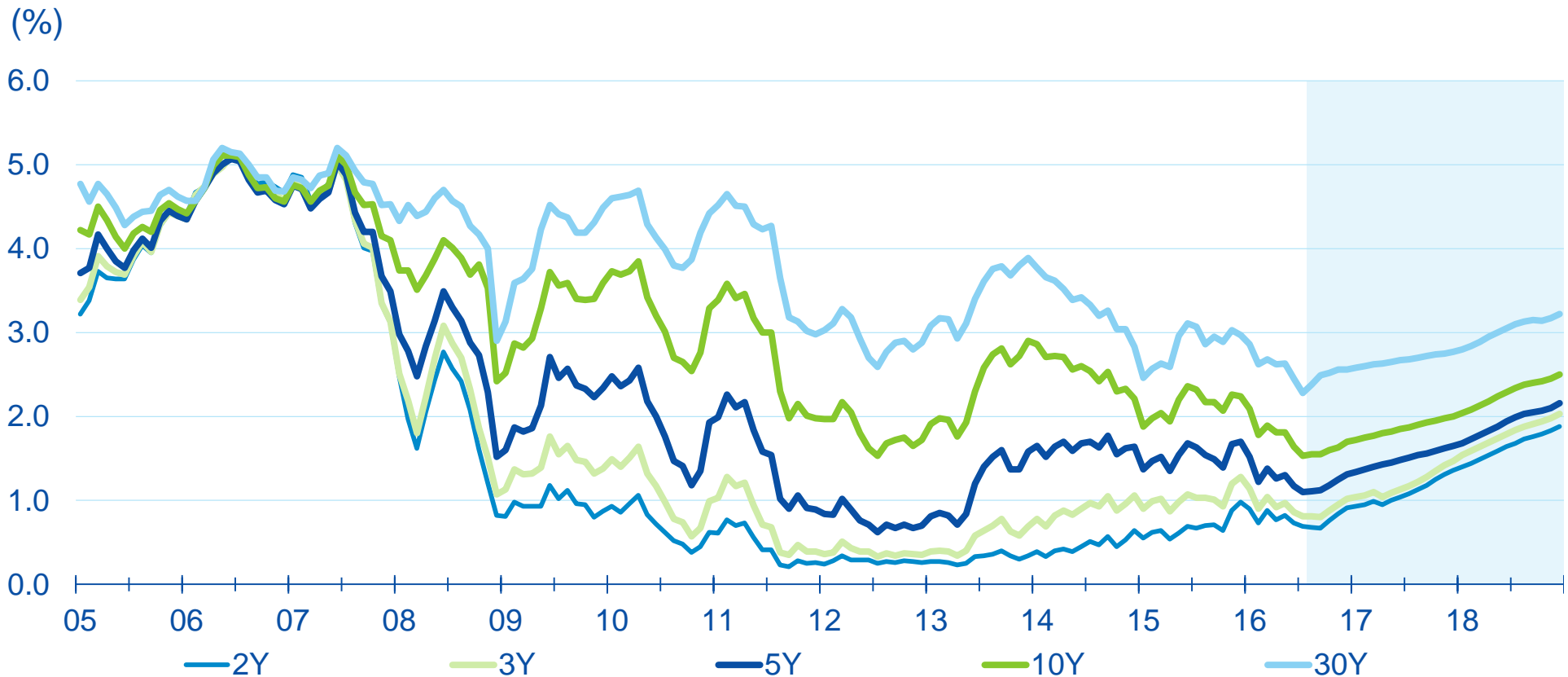
Yield curve forecasts

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.

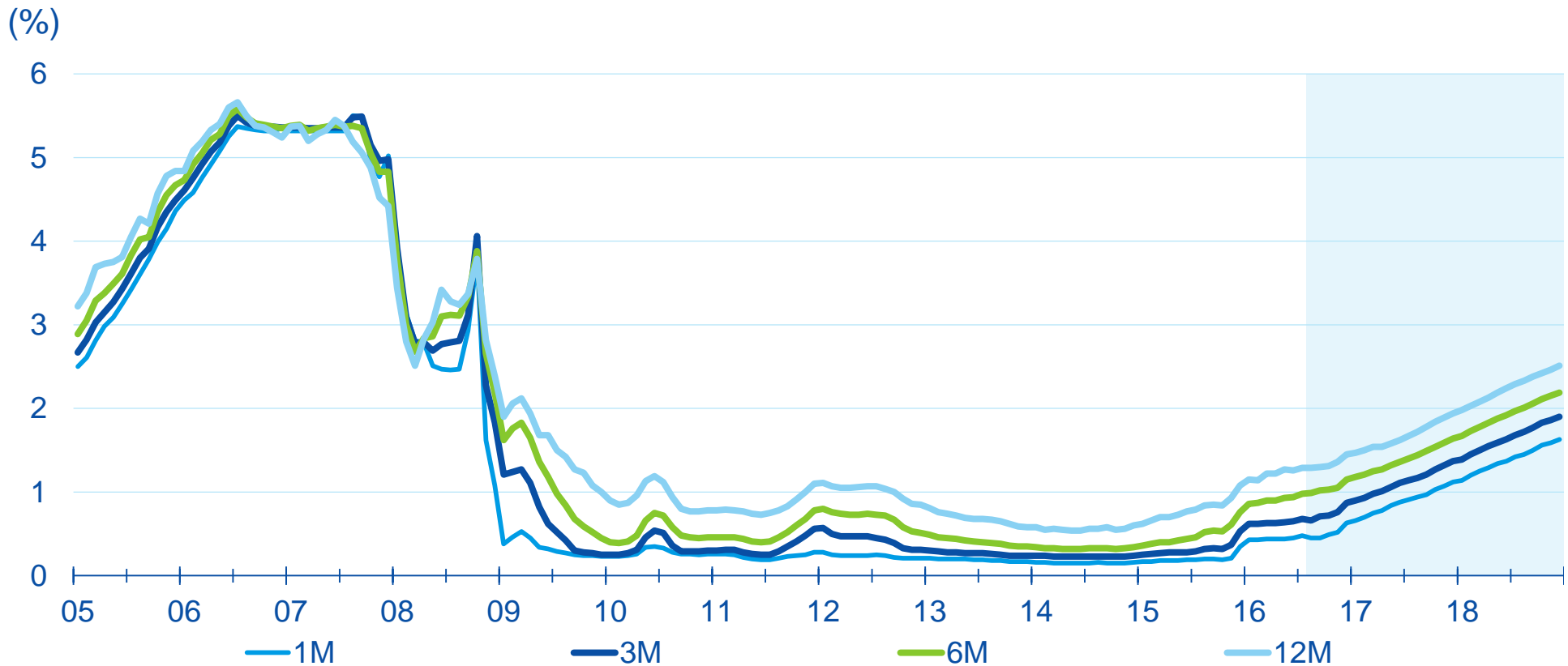
Swap curve baseline forecasts

U.S. Swap Rates



LIBOR curve baseline forecasts

U.S. LIBOR Rates



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