

May
2016

US Interest Rates
Chartbook



Takeaways

The Fed's April meeting minutes and the May Fedspeak lineup of Federal Reserve Board and Regional Bank Presidents have embraced clarity, signaling their inclination towards a summer rate hike

“Depending on the incoming data and the evolving risks, another rate increase may be appropriate fairly soon” FRB Governor Powell, May 26, 2016

“It's appropriate -- and I've said this in the past -- for the Fed to gradually and cautiously increase our overnight interest rate over time. ... Probably in the coming months such a move would be appropriate.” FRB Chair Yellen, May 27, 2016

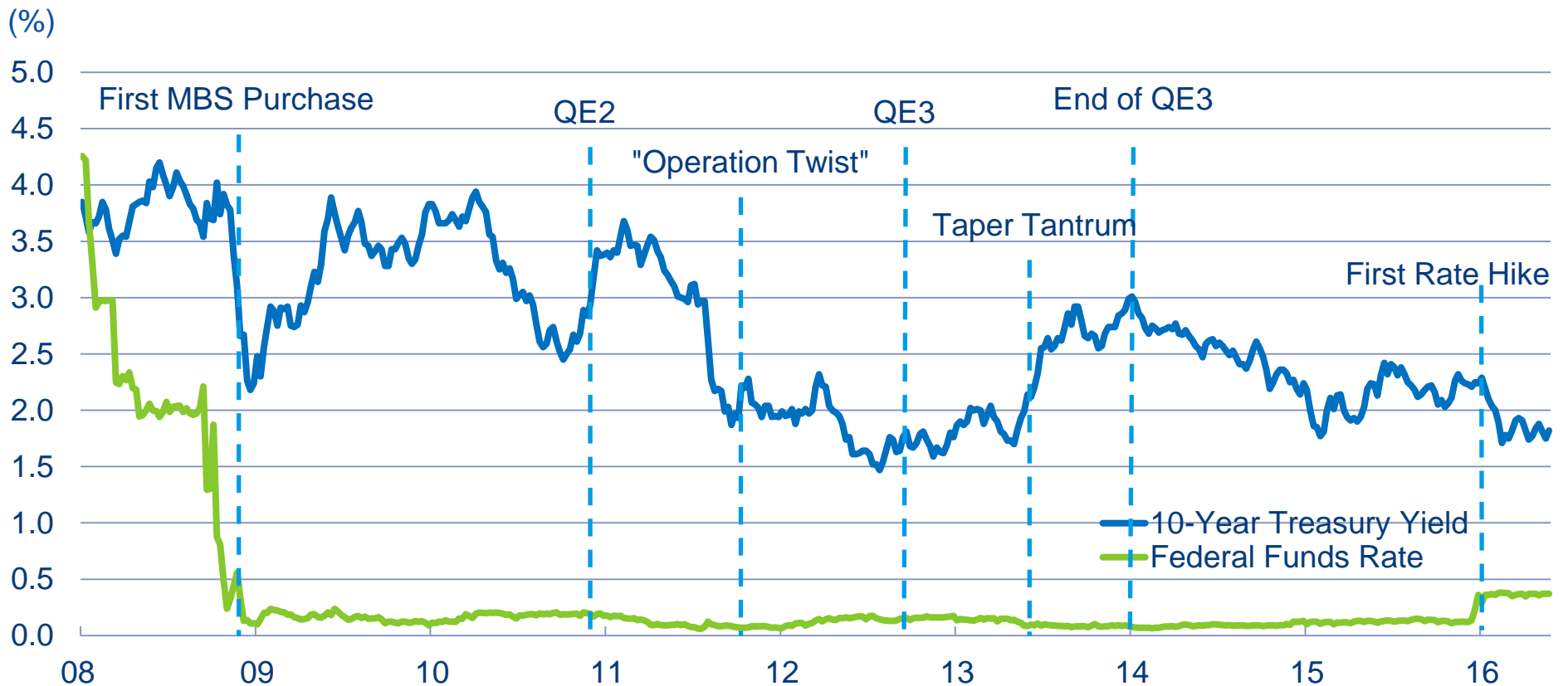
A higher likelihood now exists for a summer rate hike prompted by Fedspeak downplay of possible headwinds from China and a “Brexit” vote, as the Fed continues to highlight positive economic data on growth and employment. The Fed funds futures market has adjusted to hawkish Fed stance increasing the odds for June hike to 34% and July's to 72%

The yield curve has flatten under upward pressure from Fed policy expectations on the short end of the curve and downward pressure on the long end from the prolonged period of negative term premium and duration risk compression

Limited increase in long-term yields in the long-run. The downward bias in mid-term to long-term baseline yield forecasts toward a “prolonged flight to safety” scenario remains

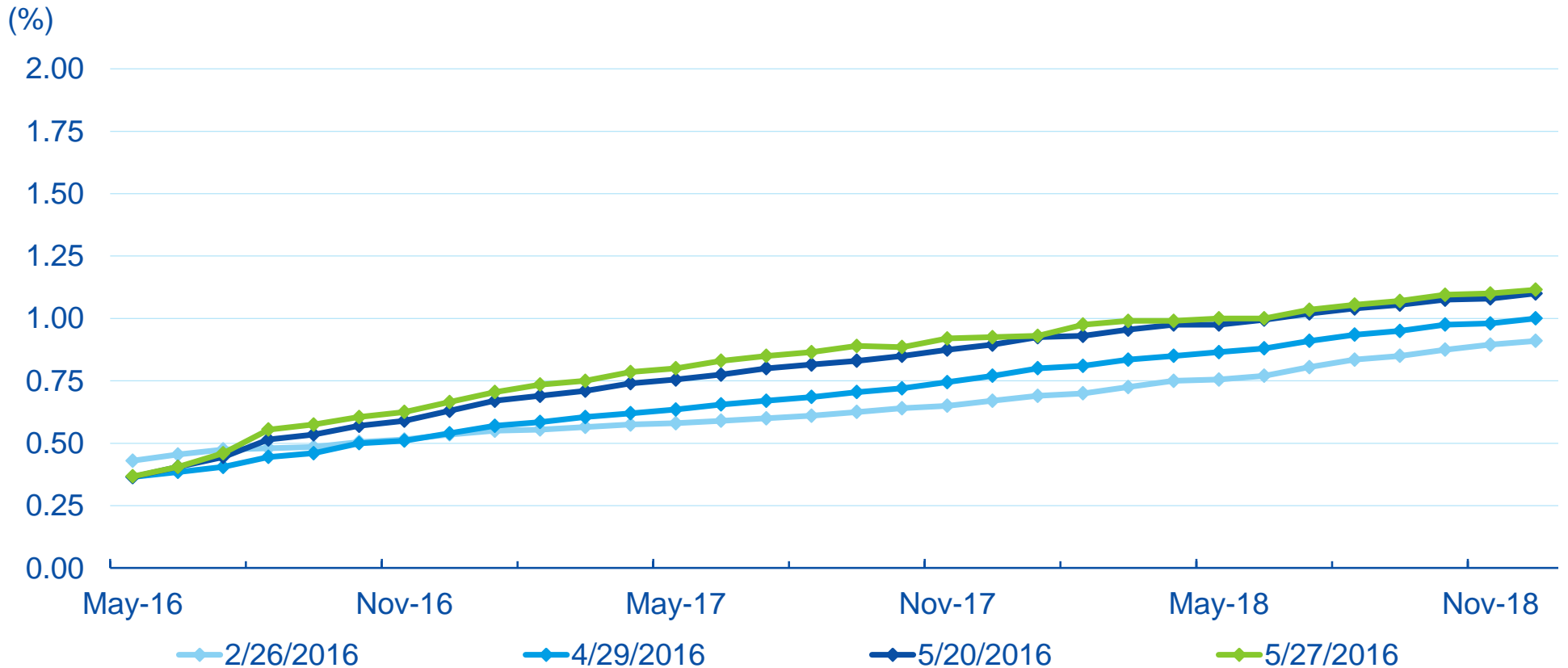
Unconventional monetary policy

Federal Funds Rate and 10-Year Treasury Note



A soft steepening of Fed funds futures curve

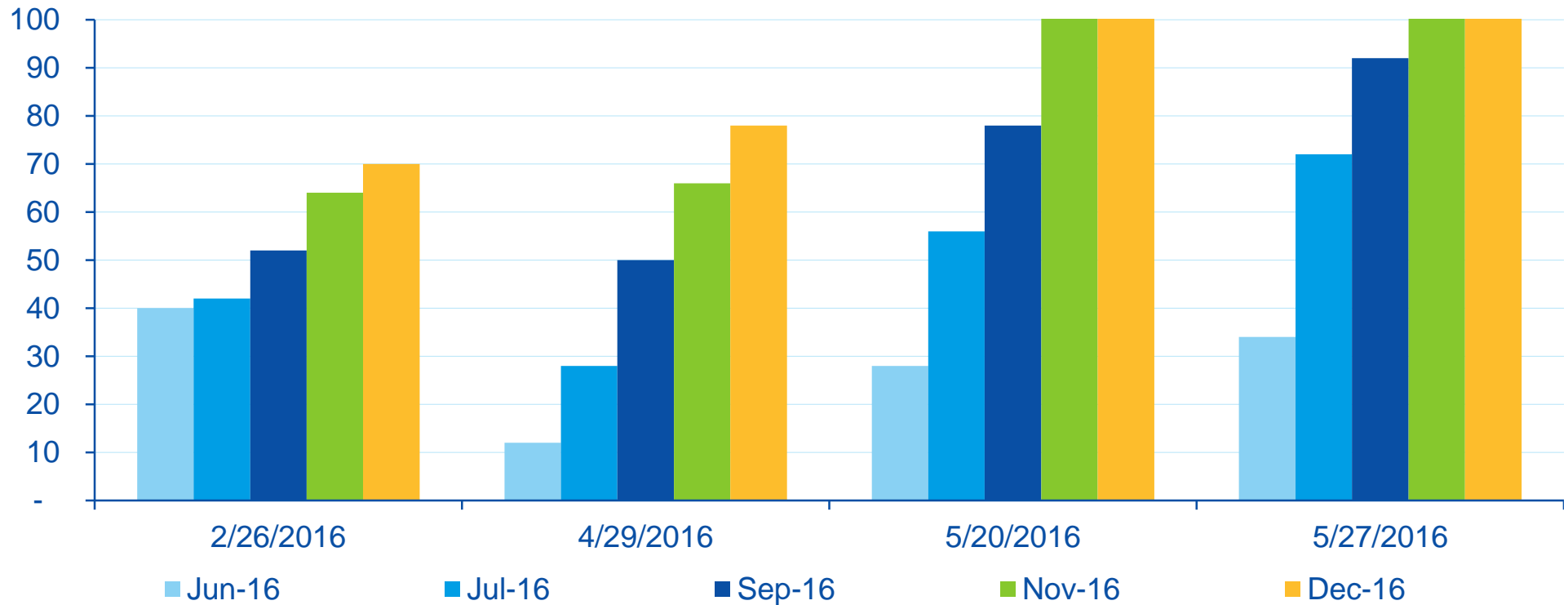
Fed Funds Futures – Most Recent, 1 Week Prior, 1 Month Prior, 3 Months Prior



June rate hike probability at 34%. July rate hike probability at 72%

Fed Funds Futures Implied Probabilities, Second 25bp

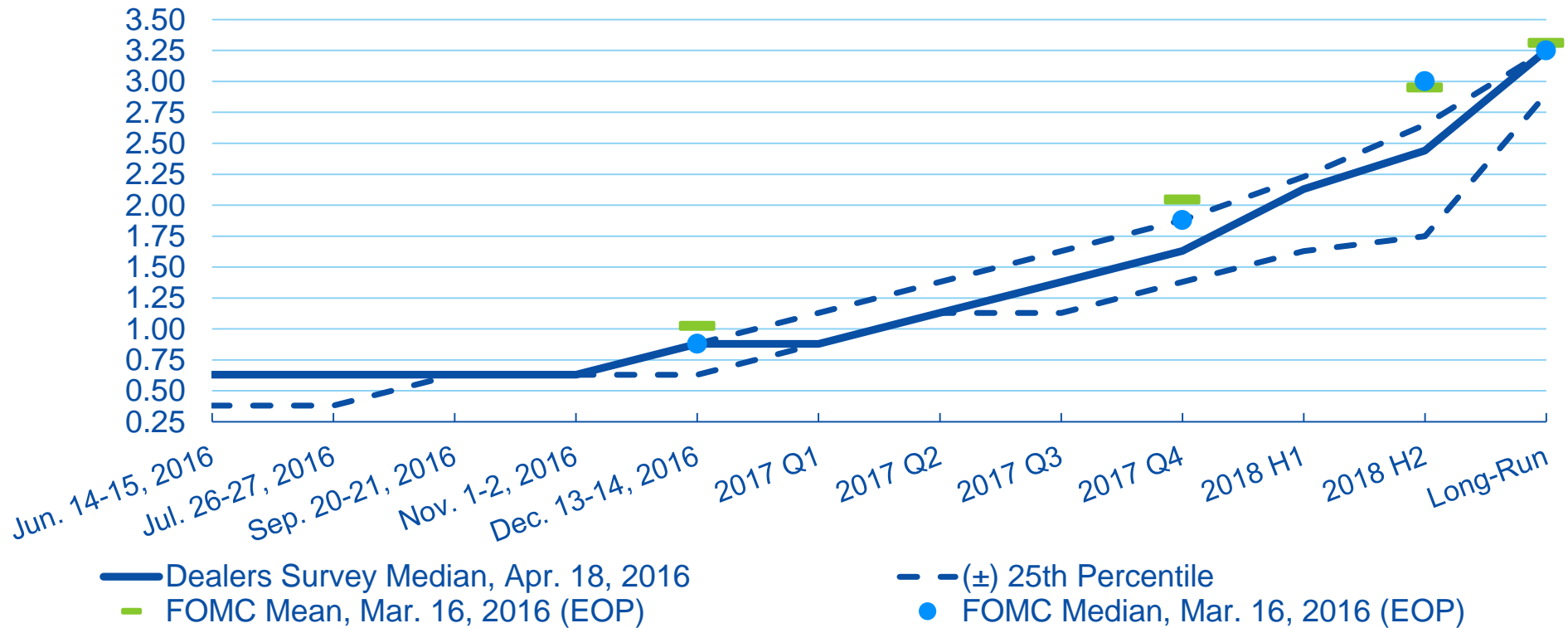
(%)



Dealers expect June rate hike followed by a slower pace of firming than the FOMC March projection

Projected Pace of Policy Firming

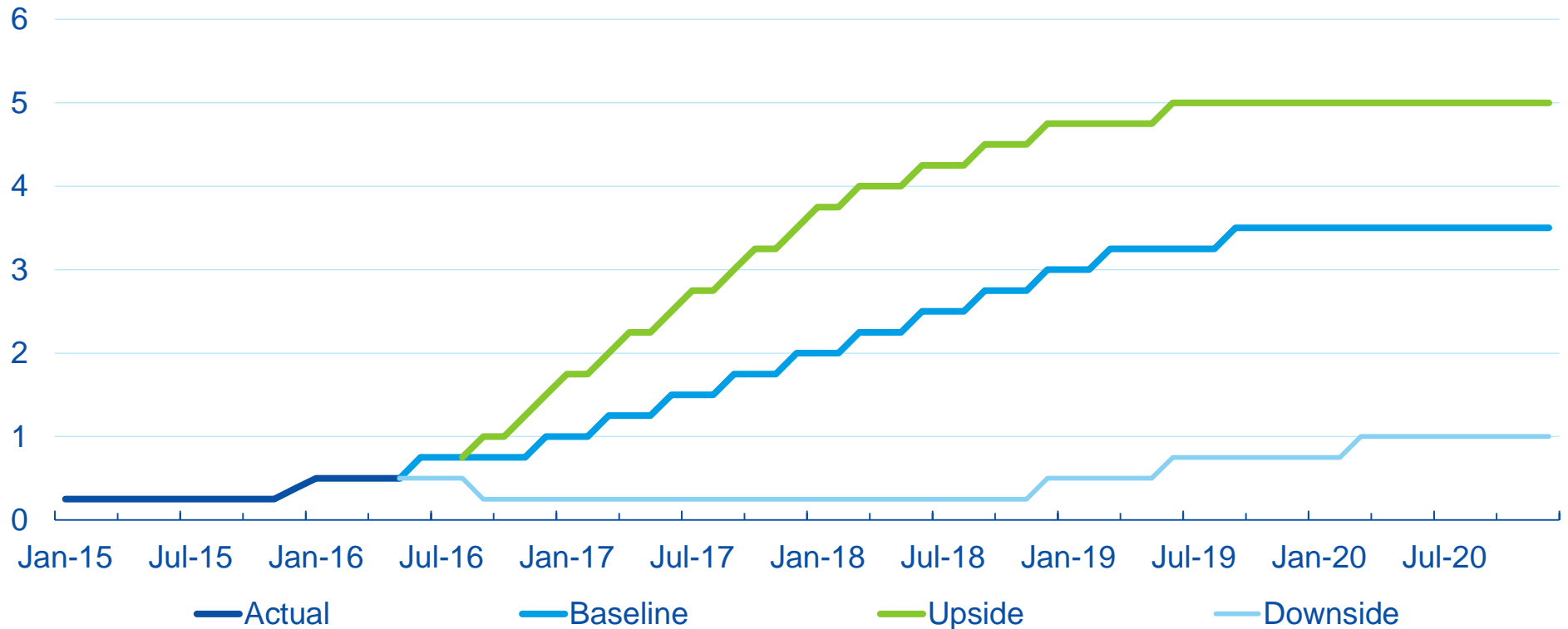
(%)



BBVA forecast of the pace of Fed funds firming remains unchanged

Federal Funds Rate

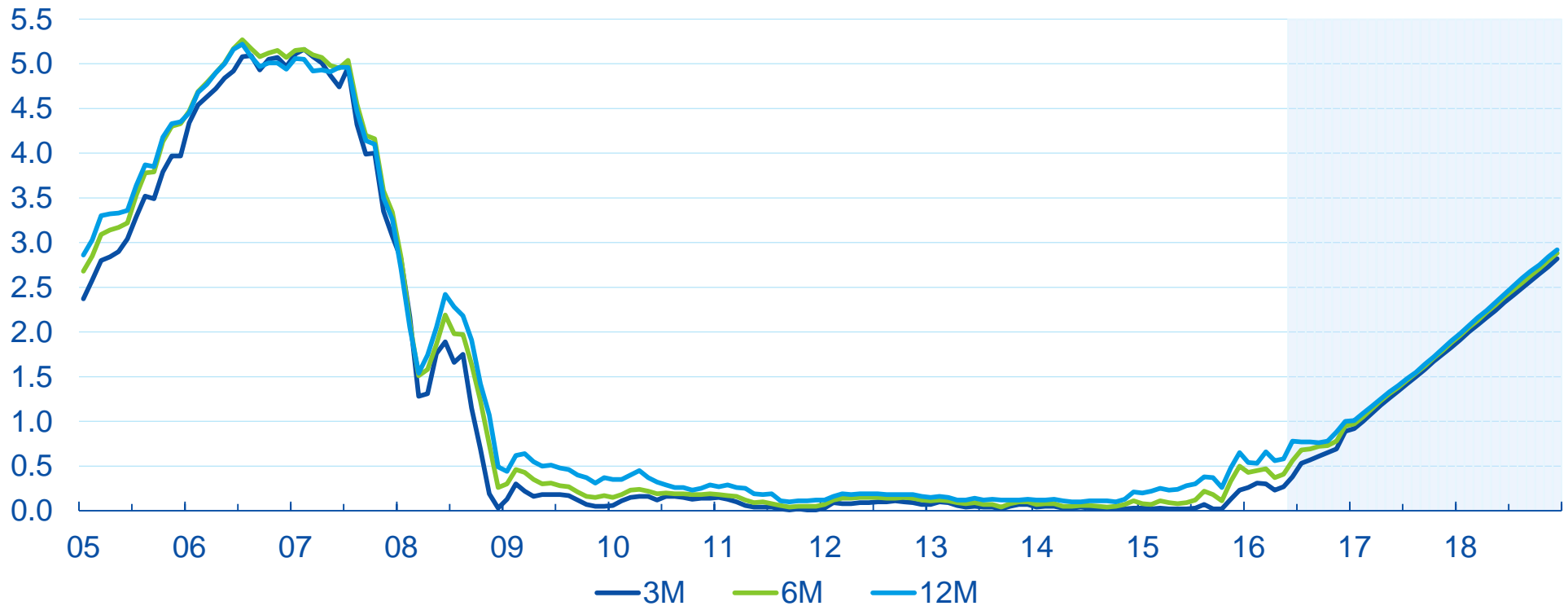
(Upper Bound, %)



Treasury bill yields baseline forecasts

3-Month to 12-Month Rates

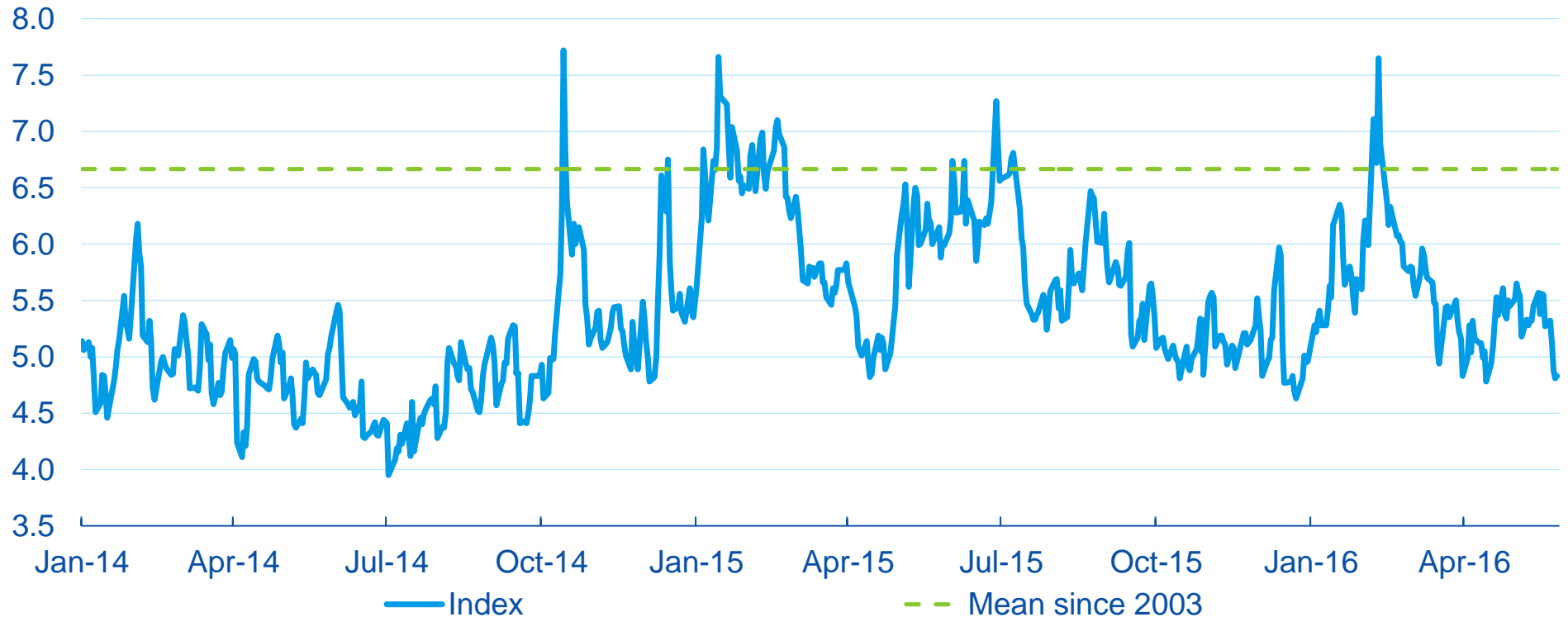
(%)



Long-term rates futures volatility normalizes below historic mean

10-Year U.S. Treasury Note Volatility

(Daily Index)

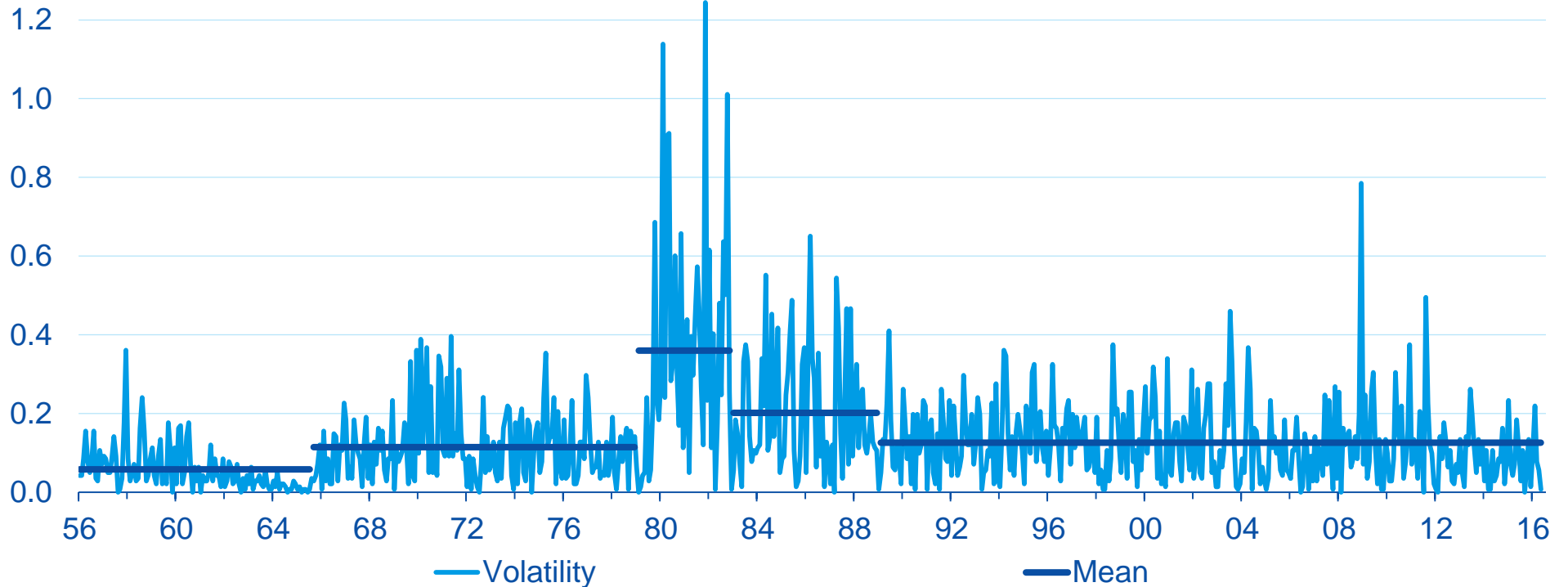


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from Chicago Board of Trade's actively traded options on the Treasury Note futures.

Source: BBVA Research, Chicago Board Options Exchange and Bloomberg

Long-term rates yield volatility is near historic mean

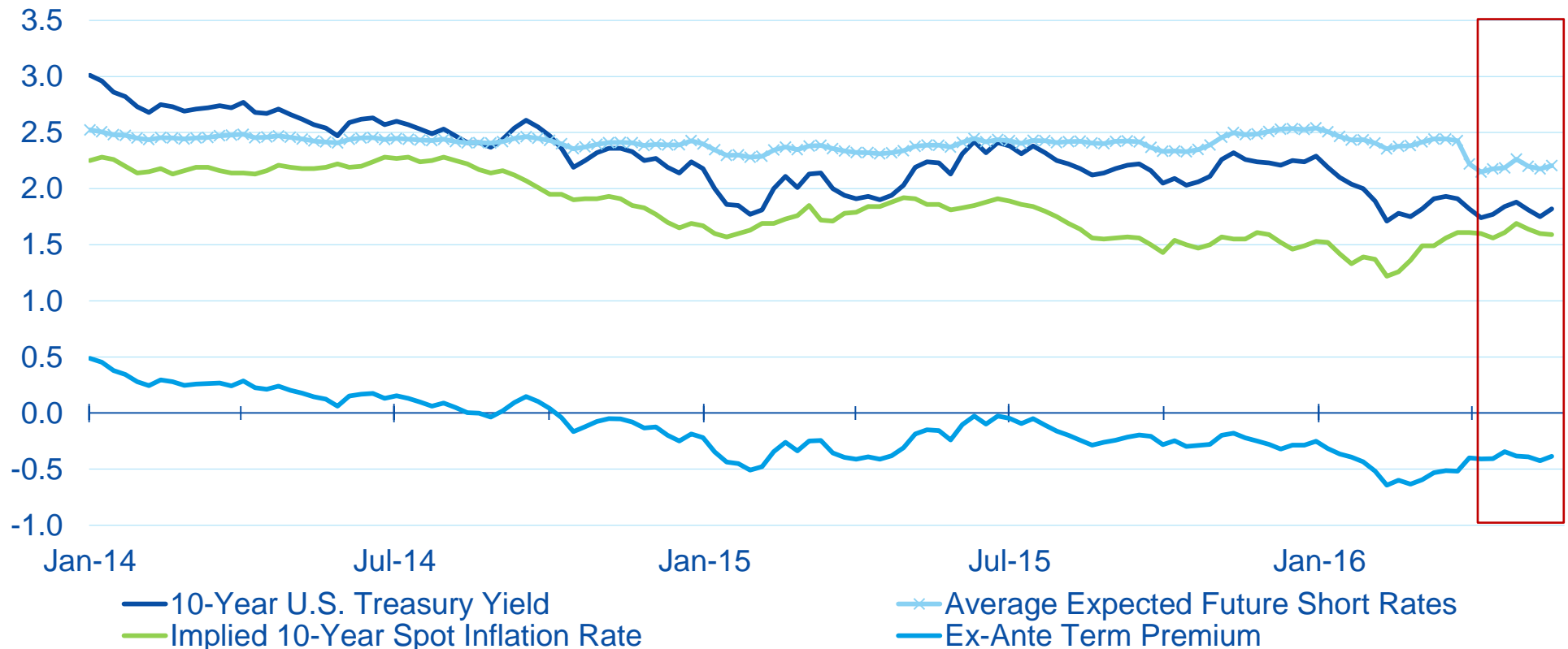
10-Year U.S. Treasury Yield Volatility
(MoM, %)



Downward pressure on term premium unchanged

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

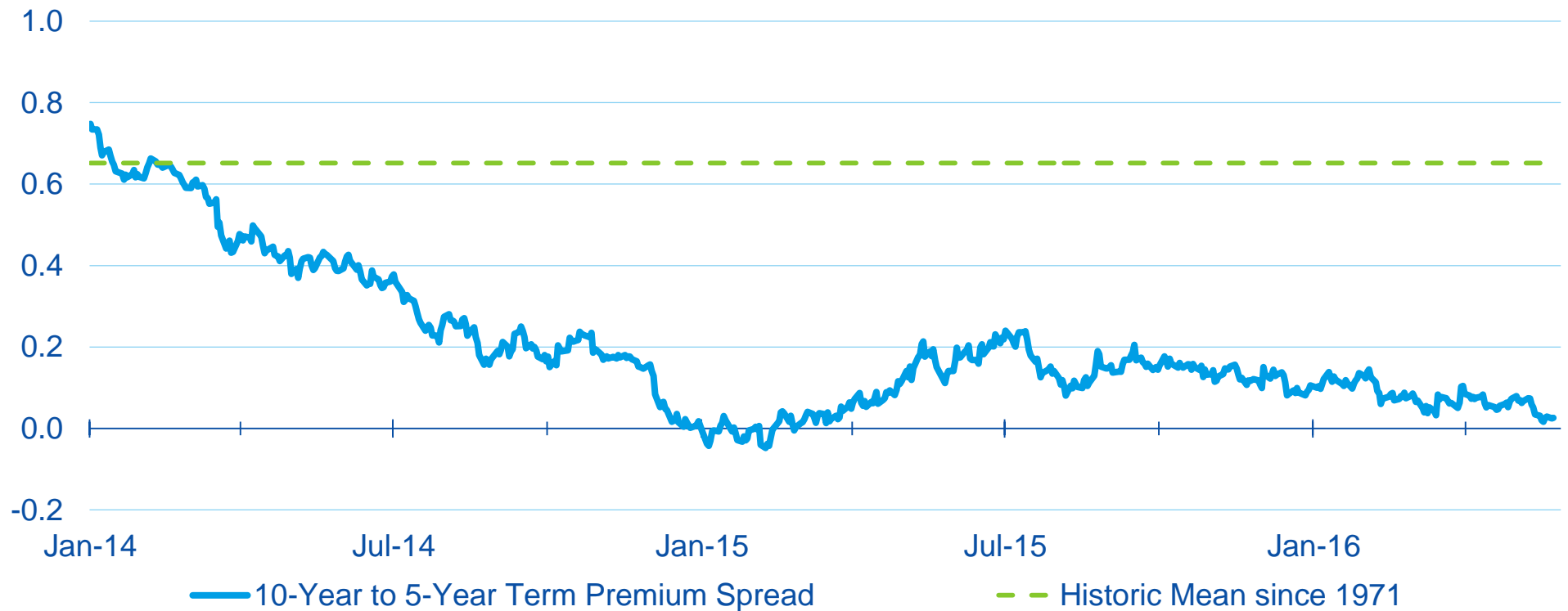
(Weekly, %)



Long-term duration-risk compression near zero

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 dropped farther below historic mean

Duration-Risk Compression

(Daily, %)

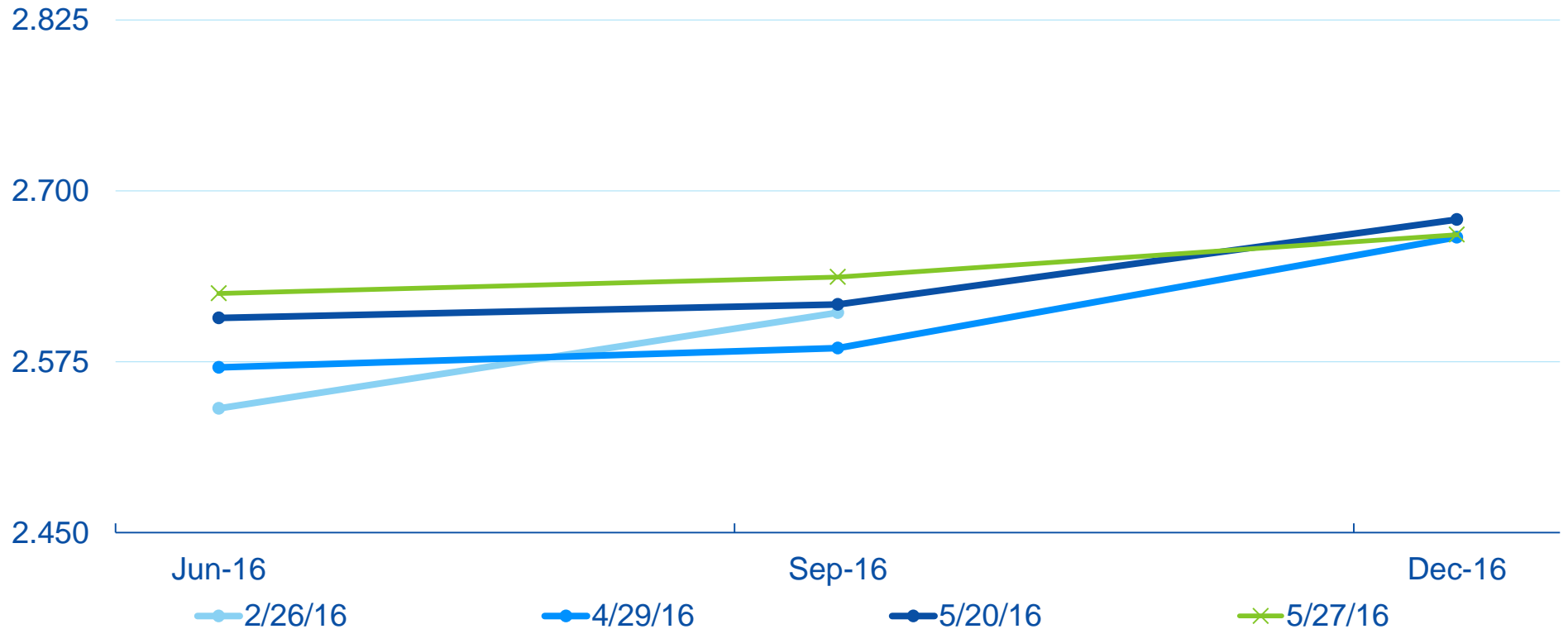


Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

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

Futures discount at 4bp 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 (%)



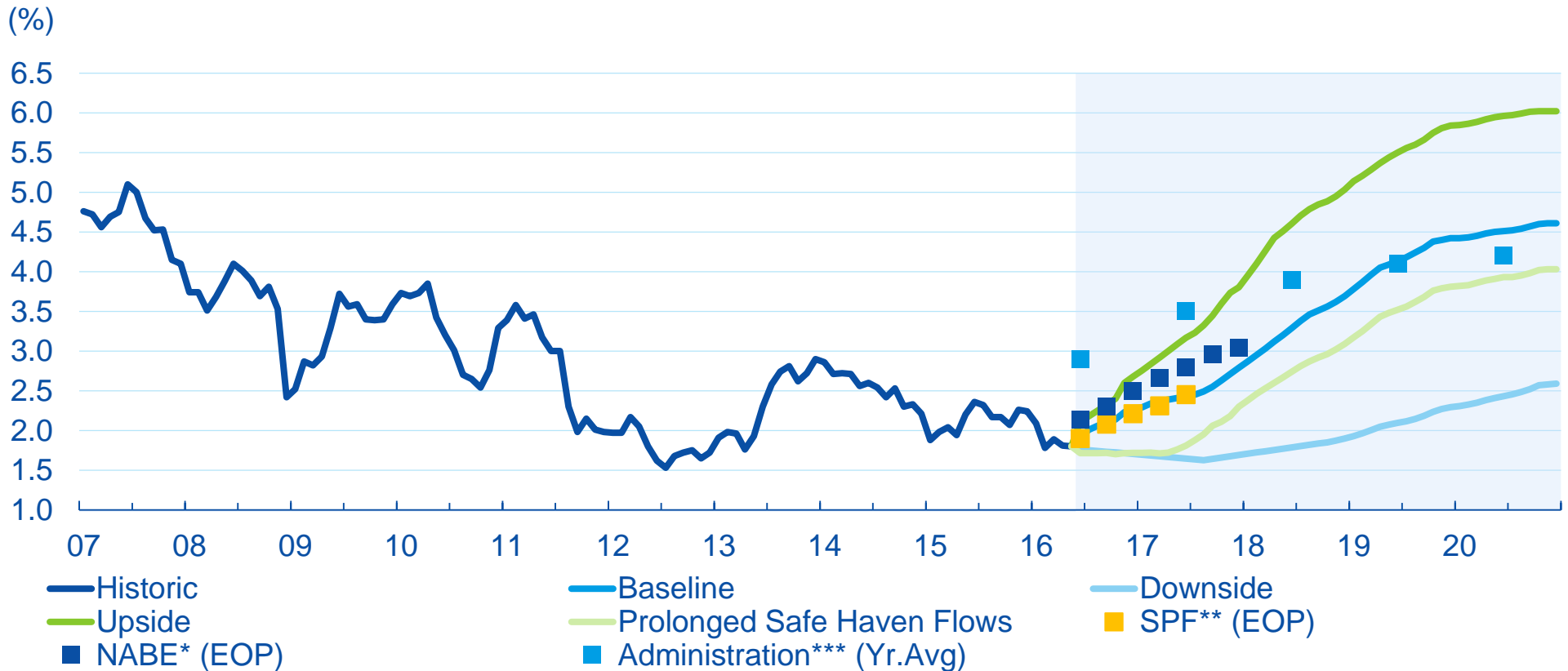
Treasury yield curve scenarios

Averages for 2016-2020	Baseline	Prolonged Safe Haven Flows	Downside	Upside
GDP Growth	2.3%	2.3%	1.4%	2.9%
Unemployment	4.6%	4.9%	6.3%	4.2%
CPI Inflation	1.9%	1.9%	1.1%	2.6%
FFR EOP	3.5%	3.5%	1.0%	5.0%
10-Year Treasury Yield EOP	4.6%	4.0%	2.6%	6.0%
Treasury Yield Curve Slope 10Y-2YEOP	0.9%	0.4%	1.3%	0.7%

* Prolonged safe haven flows scenario assumes baseline macro economic conditions but also encompasses intensified safe haven flow conditions such as prolonged global financial volatility and risk-off sentiment.

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 Mar 28, 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 Feb. 10, 2016

Yield curve slope forecasts

Treasury Yield Curve Slope

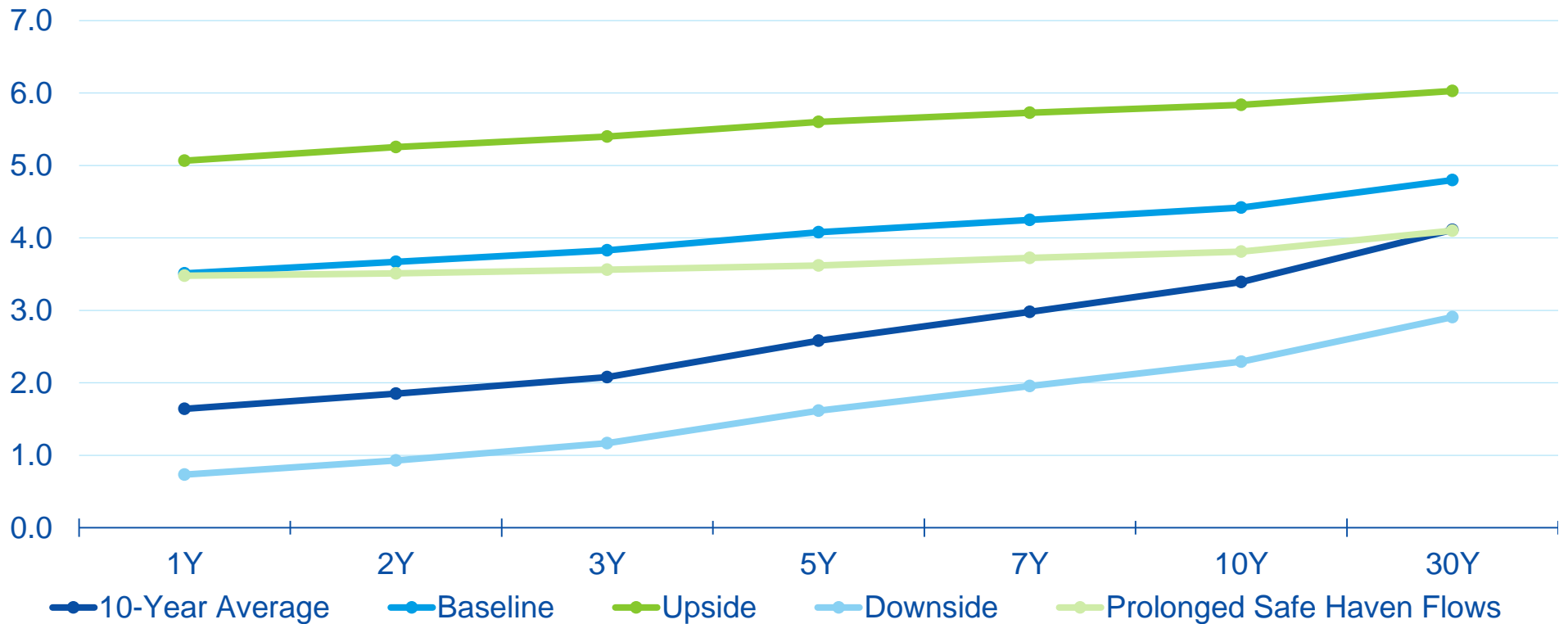
(10Y-2Y, %)



2019 yield curve forecasts

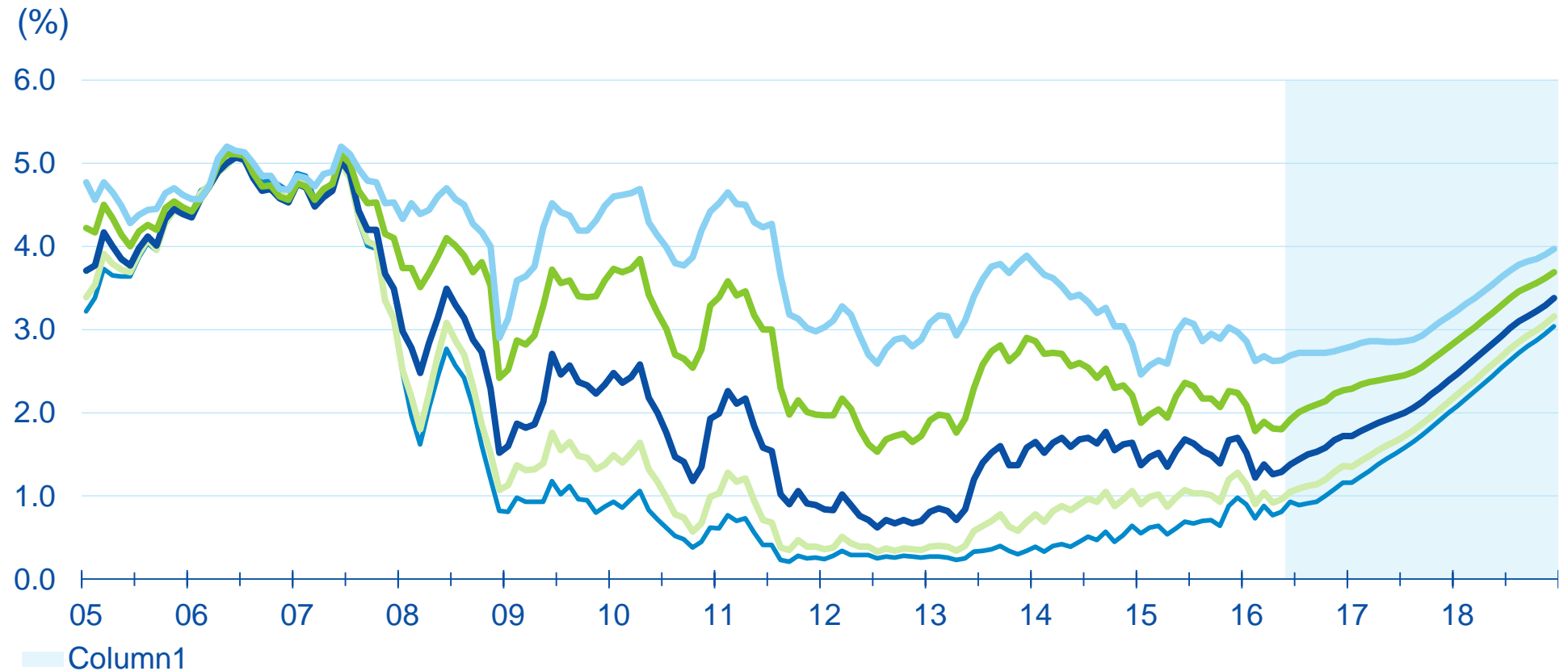
2019 Treasury Yield Curve

(EOP, %)



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.

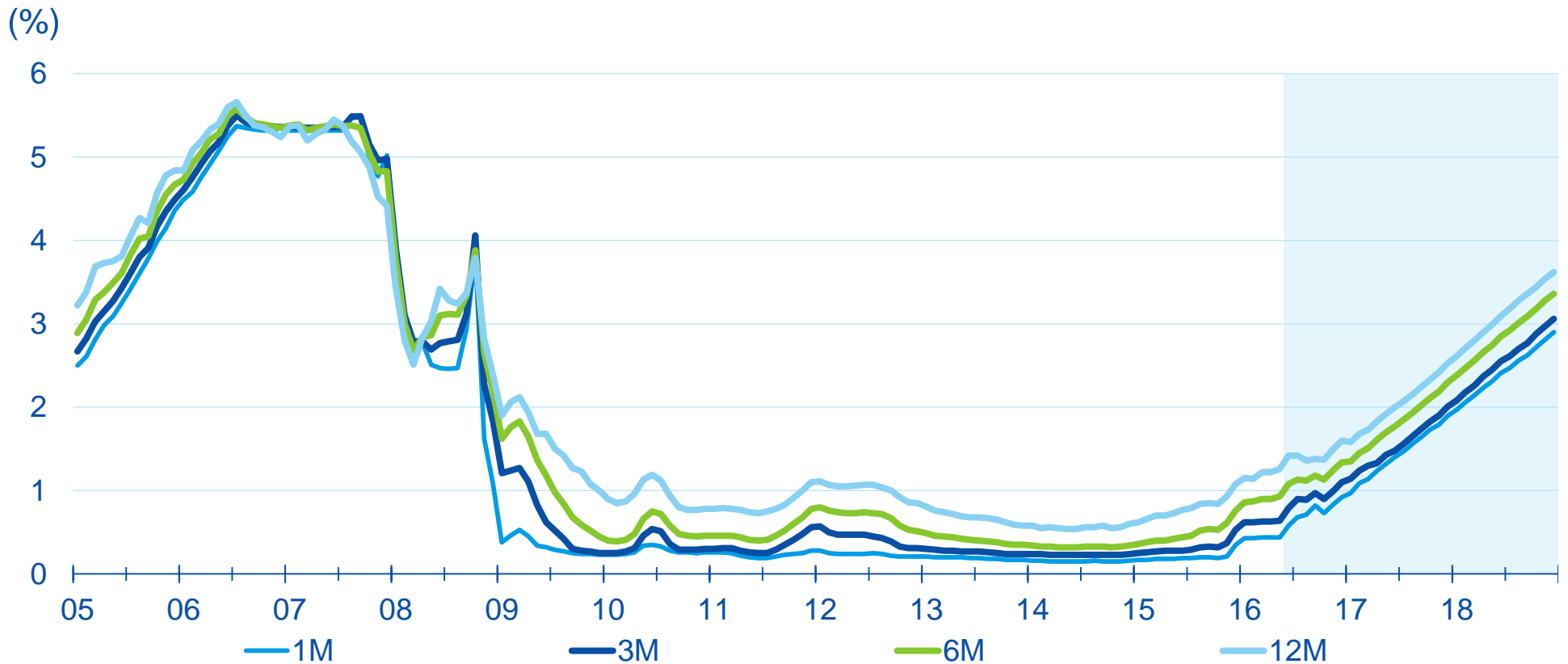
Swap curve baseline forecasts

U.S. Swap Rates



LIBOR curve baseline forecasts

U.S. LIBOR Rates



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