

April
2016

US Interest Rates
Chartbook



Takeaways

The FOMC April statement, while not explicit, left the door open for a June rate hike, with the lack of dovish sentiment, and neutrality on both the domestic and global outlook. The likelihood for a June rate hike was also reestablished with the statement's downgrade of the impact of global turbulence from "continue to pose risks" to something the committee will "closely monitor"

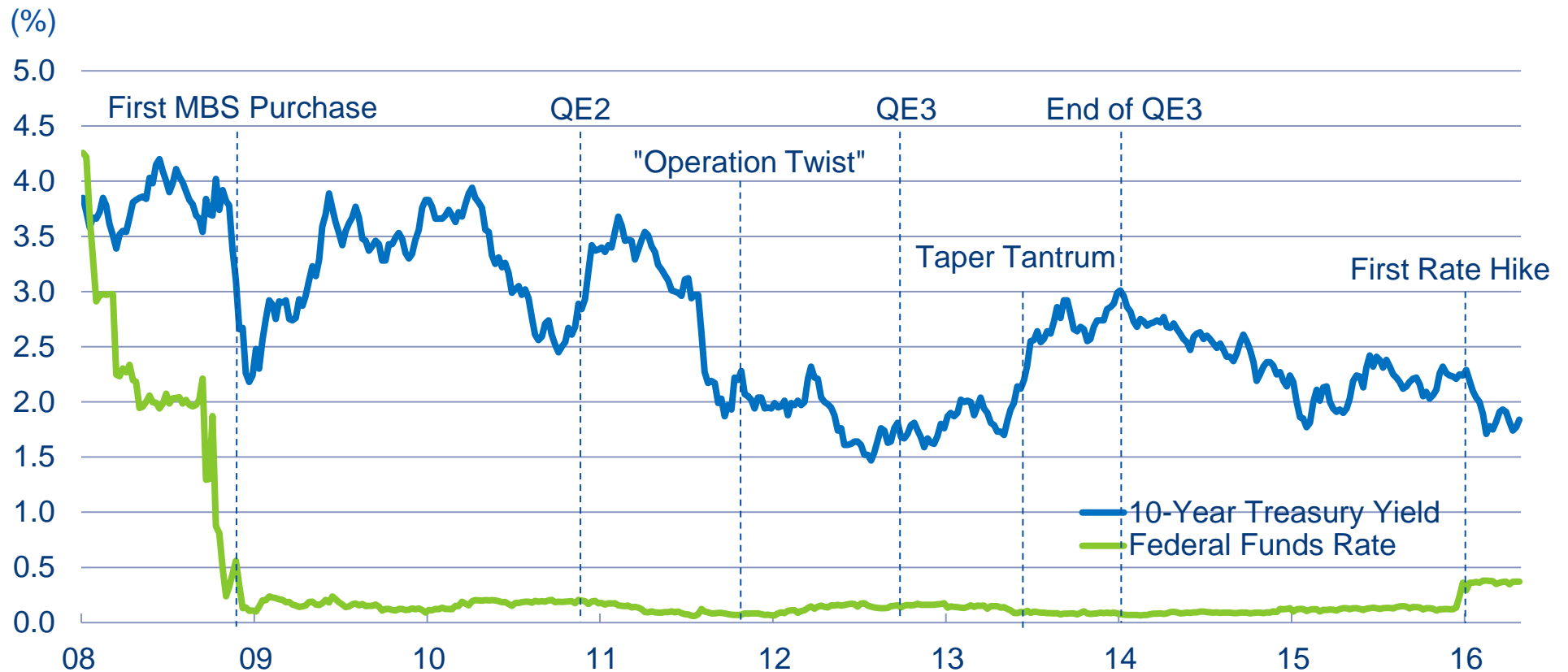
The futures market's disparity from FOMC projections and the New York Fed's Dealers Survey persists with the Fed funds futures priced at only one rate increase per year in both 2016 and 2017

Persistent downward pressure on long-term yields is unchanged as term-premium is solidified in negative territory and long-term duration-risk compression is near zero. The effect of a soft upturn in inflation expectations on the back-end of the curve has weakened

We continue to expect limited increase in long-term yields in the long run due to low inflation risk, moderate growth expectations, and a condensed duration risk environment. The downward bias in mid-term to long-term baseline yield forecasts toward a "prolonged flight to safety" scenario remains

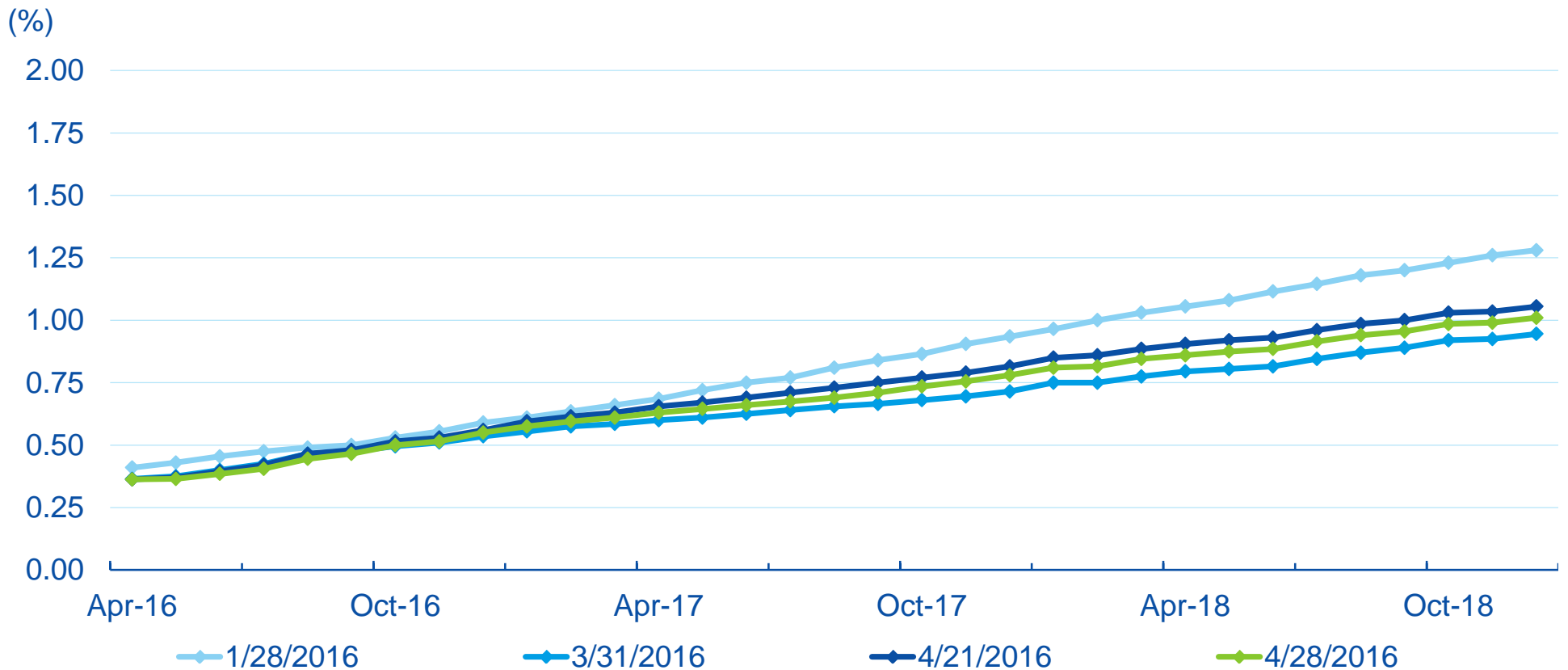
Unconventional monetary policy

Federal Funds Rate and 10-Year Treasury Note



A flatter Fed funds futures curve

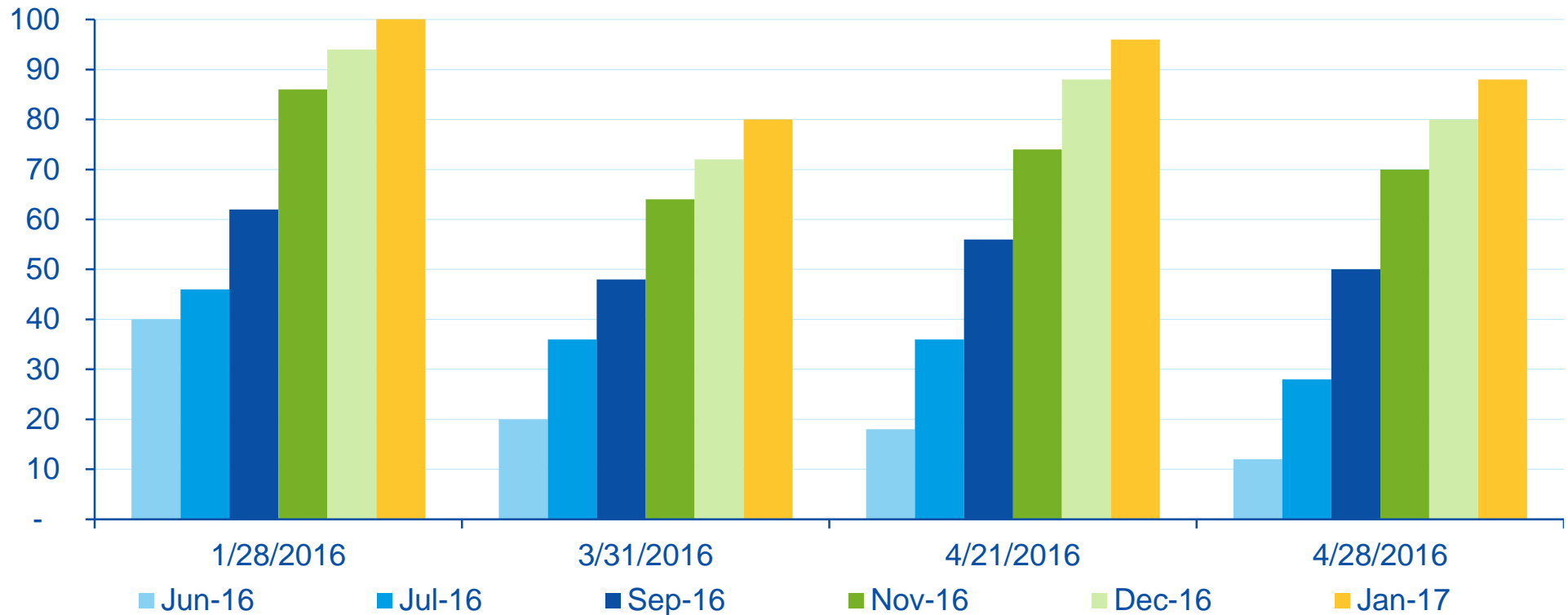
Fed Funds Futures – Most Recent, 1 Week Prior, 1 Month Prior, 3 Months Prior



June rate hike probability at 12%

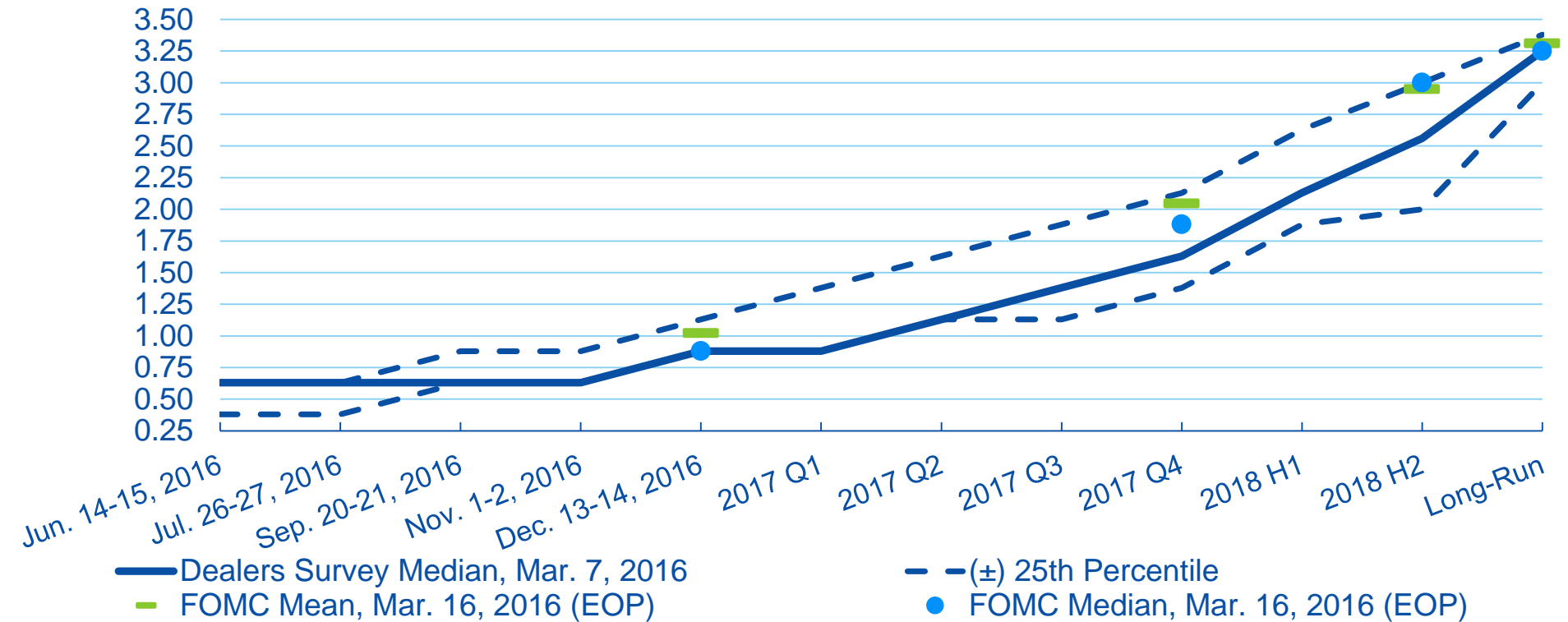
Fed Funds Futures Implied Probabilities, Second 25bp

(%)



Dealers' expectations match FOMC policy firming path: expecting June hike

Projected Pace of Policy Firming (%)

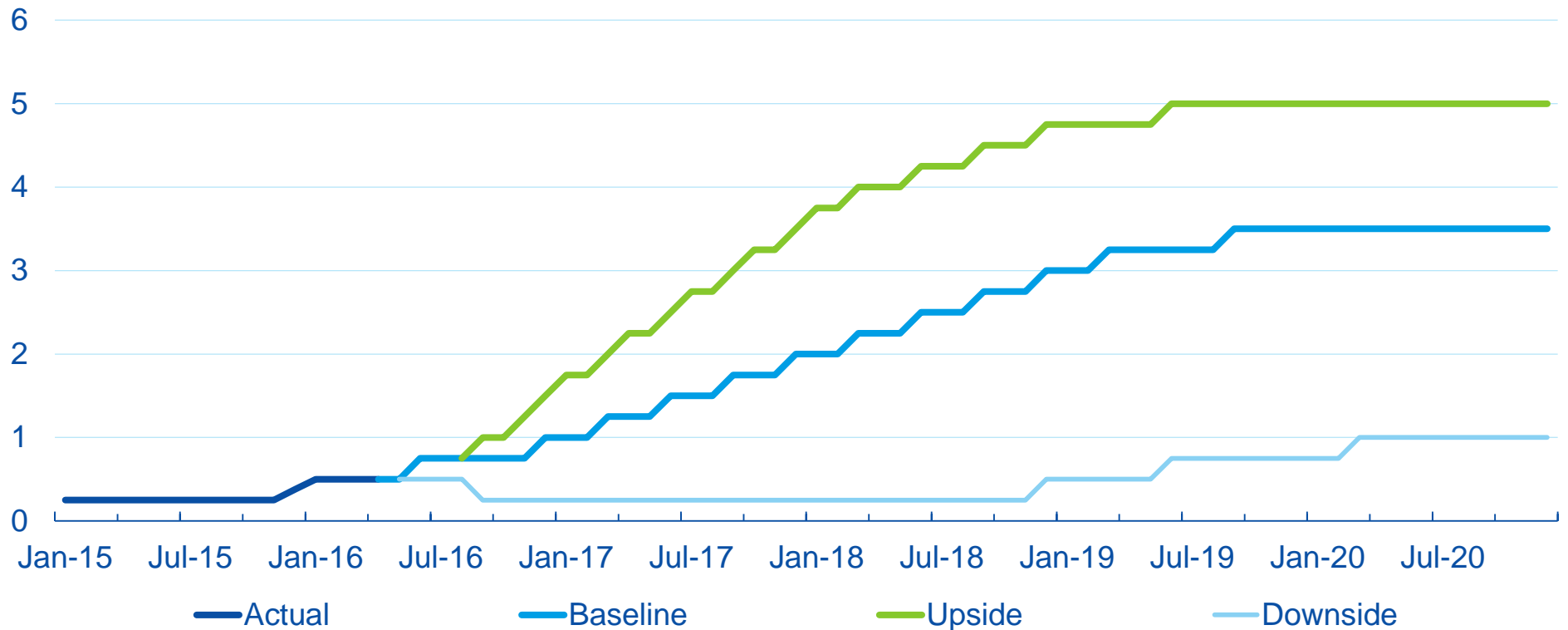


Source: BBVA Research, Federal Reserve Bank of New York and Federal Reserve Board

BBVA forecast of the pace of Fed funds firming remains unchanged

Federal Funds Rate

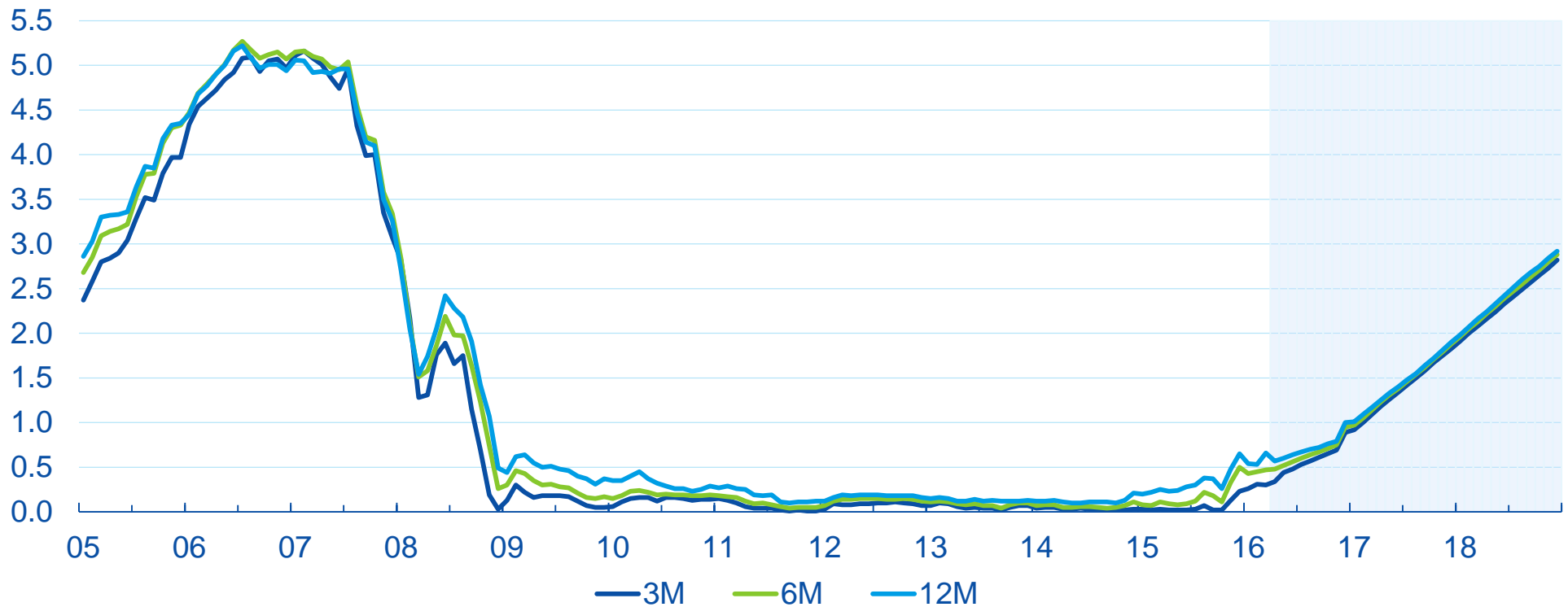
(Upper Bound, %)



Treasury bill yields baseline forecasts

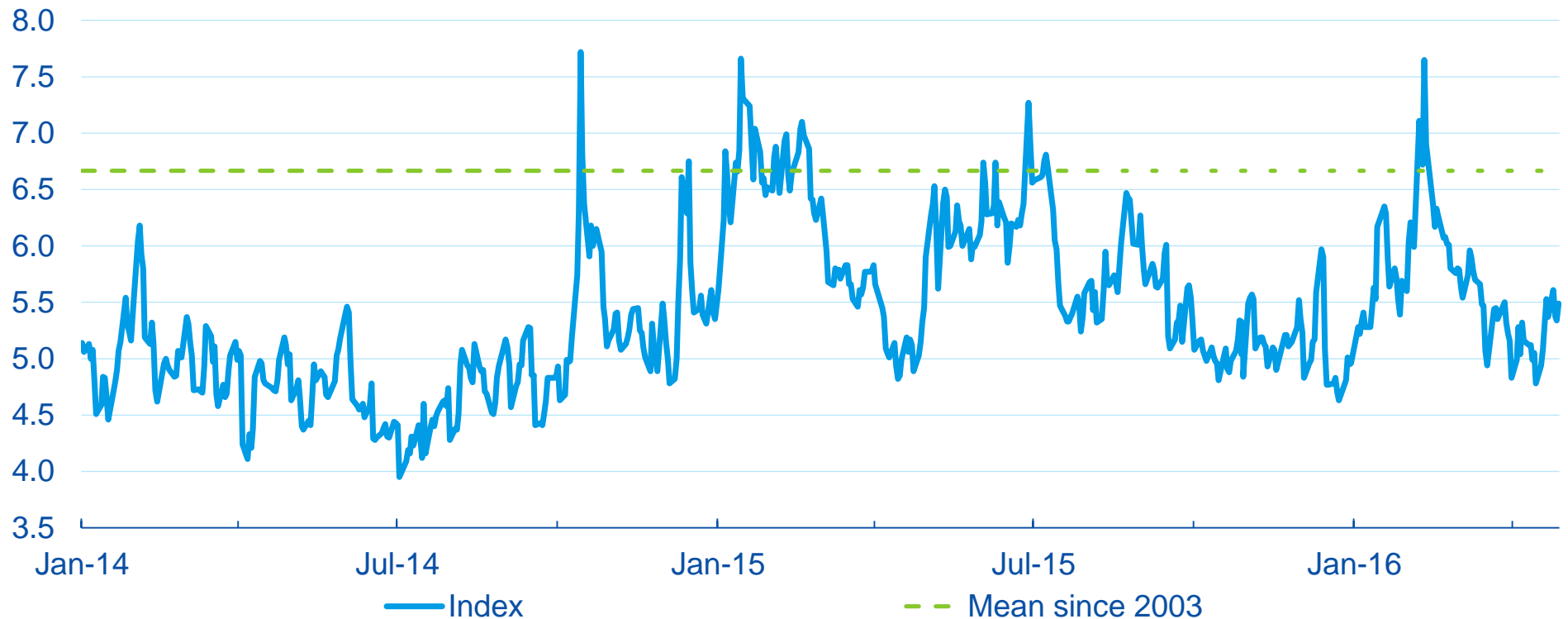
3-Month to 12-Month Rates

(%)



Long-term rates futures volatility normalizes below historic mean

10-Year U.S. Treasury Note Volatility (Daily Index)

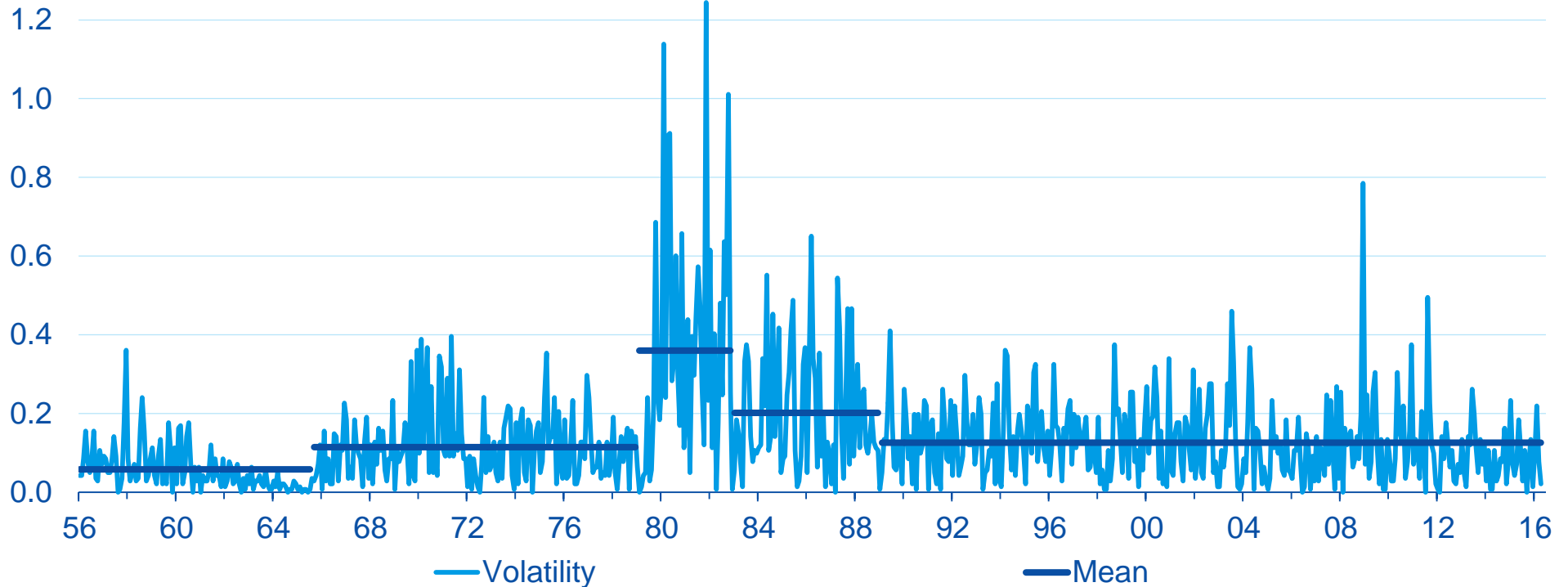


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from Chicago Board of Trade's actively traded options on the Treasury Note futures.

Source: BBVA Research, Chicago Board Options Exchange and Bloomberg

Long-term rates yield volatility is near historic mean

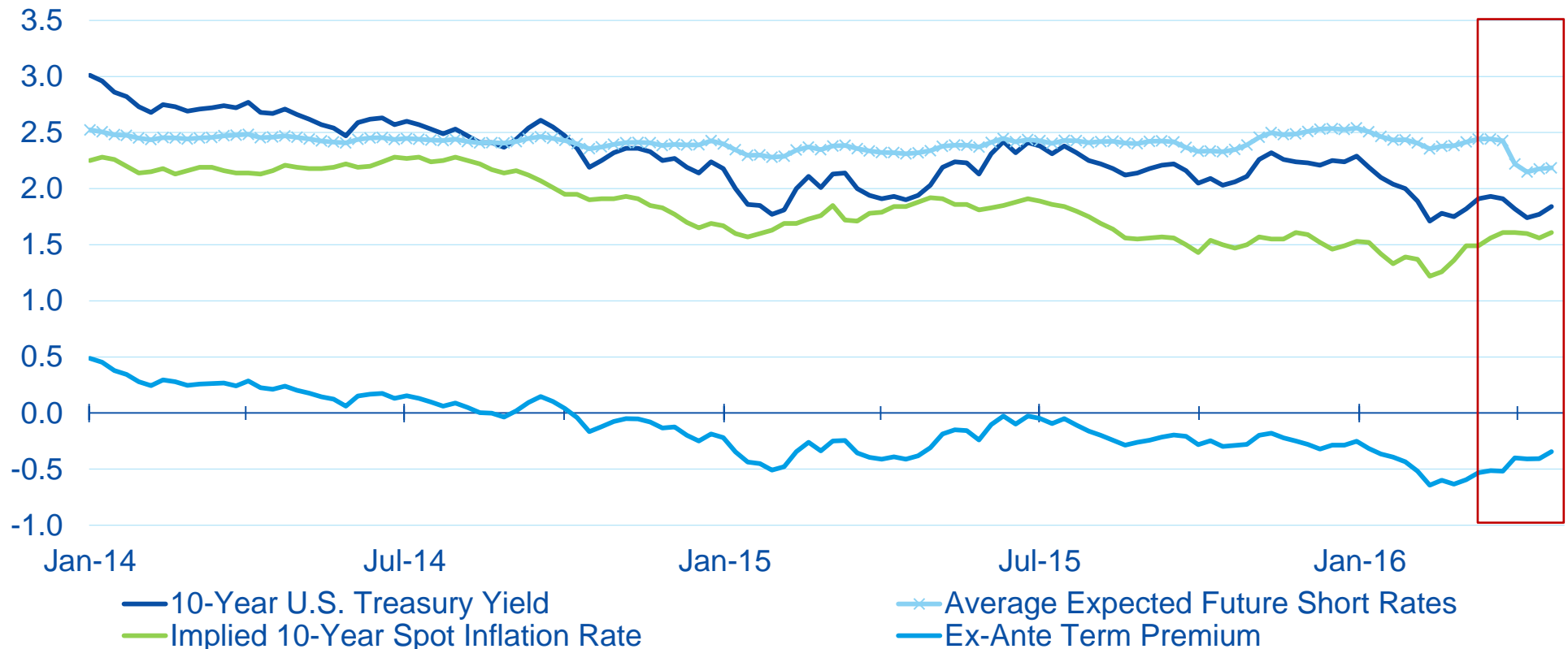
10-Year U.S. Treasury Yield Volatility
(MoM, %)



Downward pressure on term premium remains, turn around in inflation expectations

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

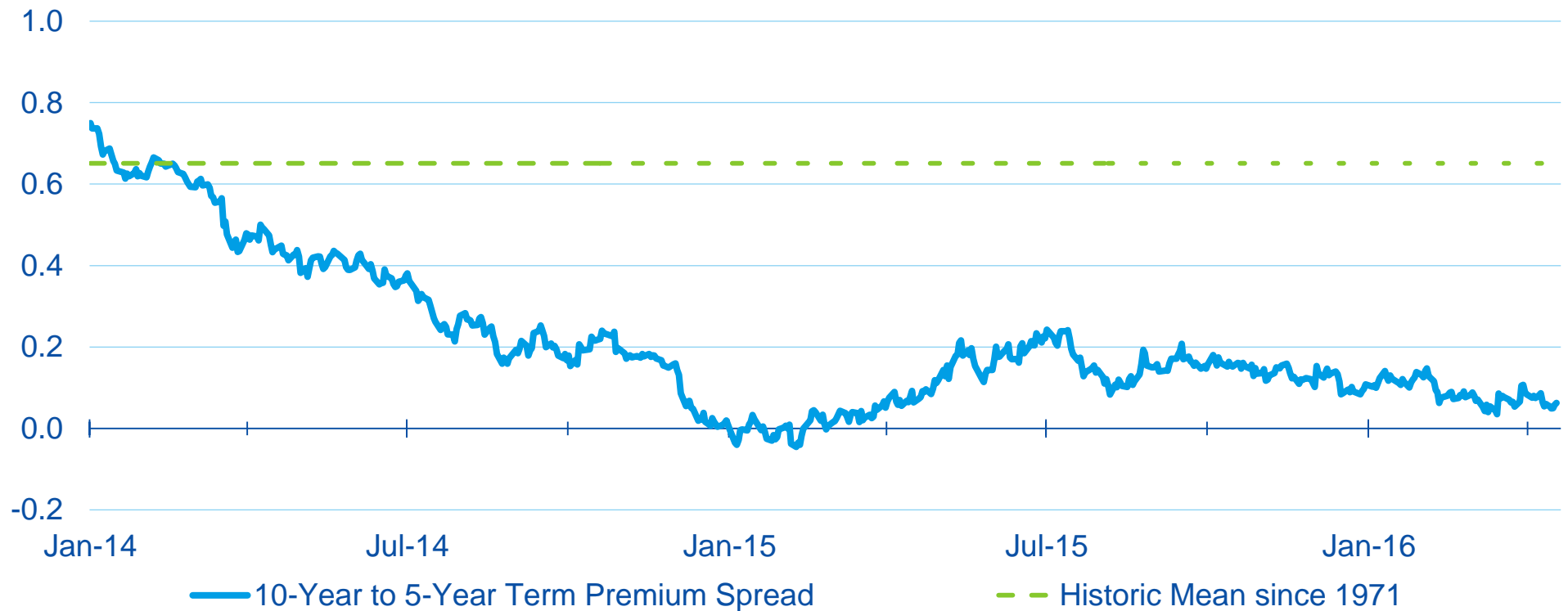
(Weekly, %)



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.

Mid-term duration-risk compression dropped farther below historic mean

Duration-Risk Compression

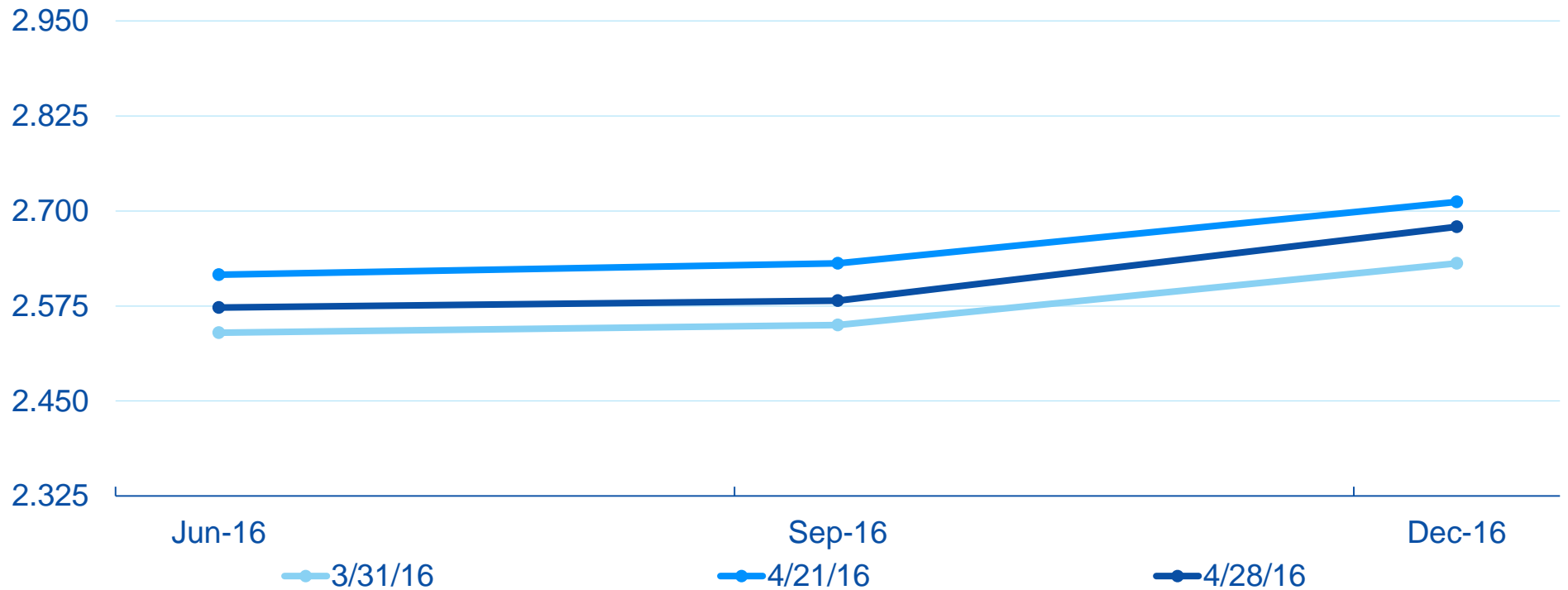
(Daily, %)



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.

Futures discount at 11bp 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 (%)



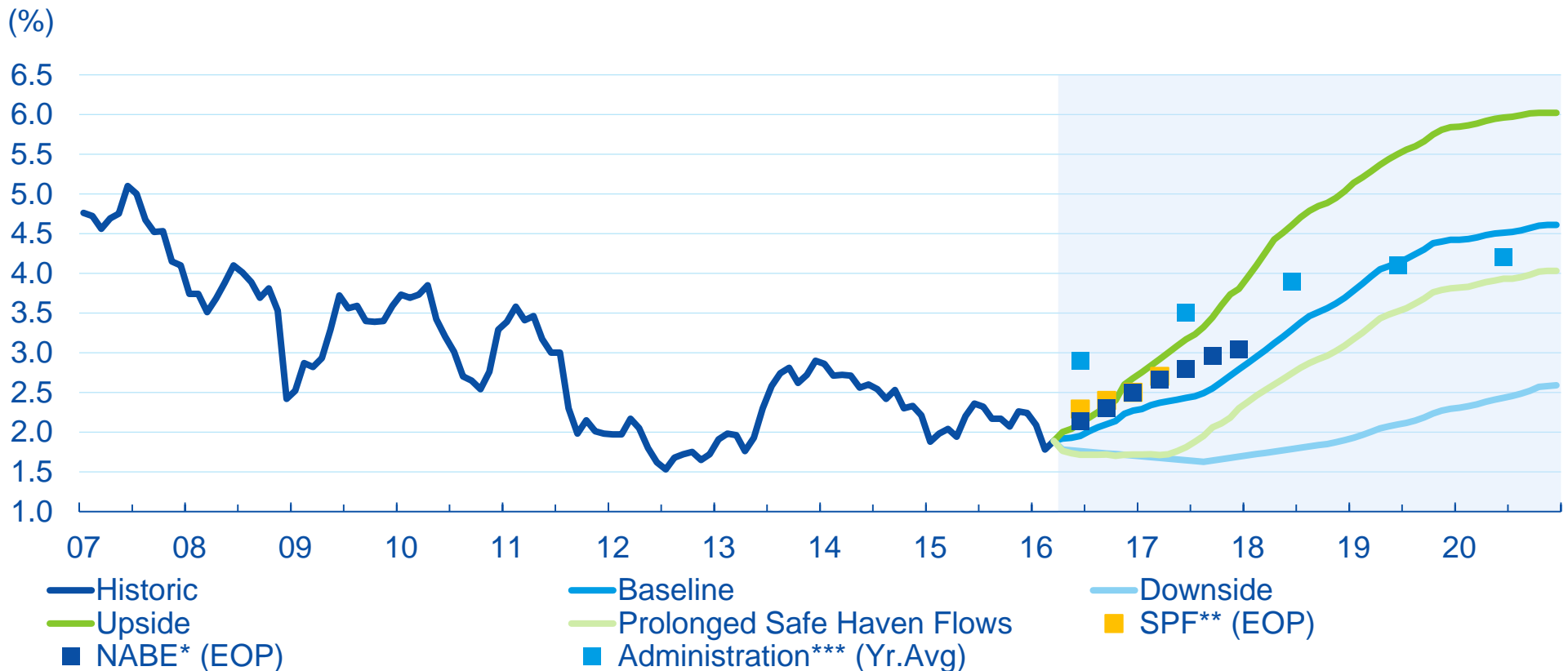
Treasury yield curve scenarios

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 Feb. 12, 2016

*** Administration: 2017 Budget. Last release date Feb. 10, 2016

Yield curve slope forecasts

Treasury Yield Curve Slope

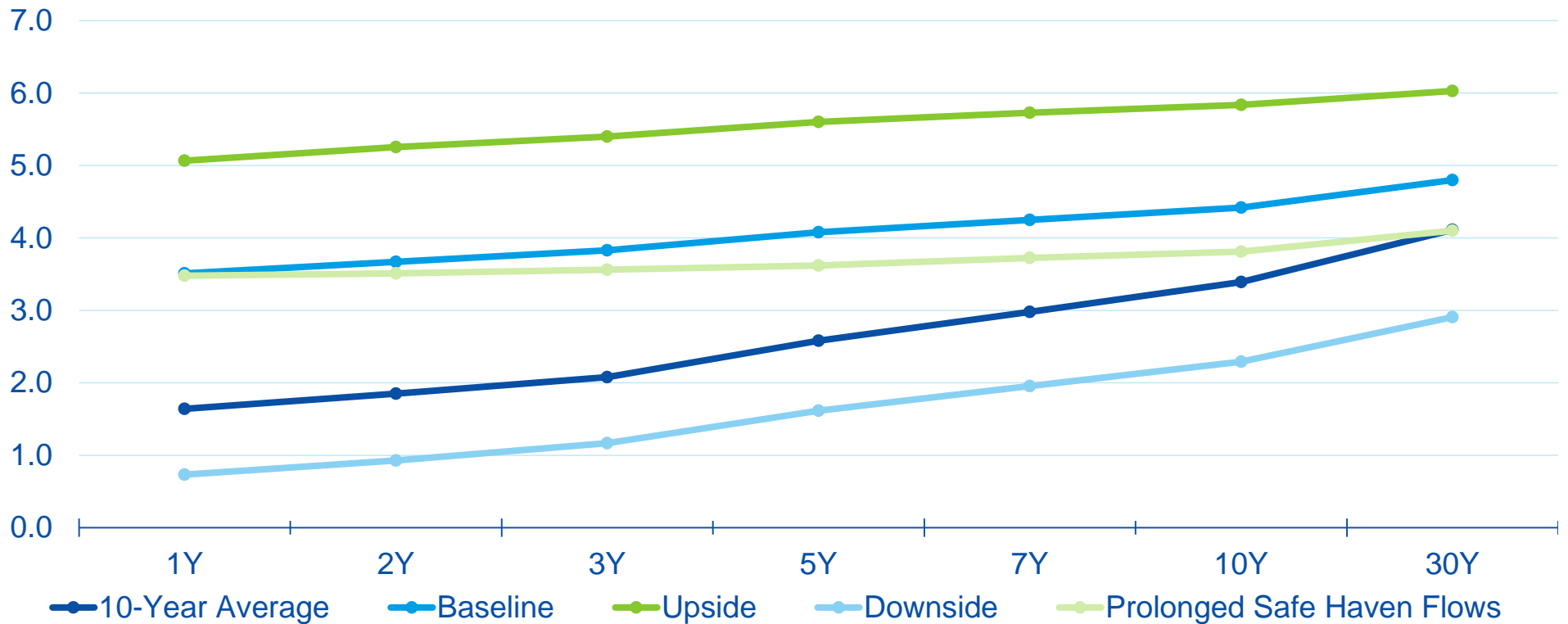
(10Y-2Y, %)



2019 yield curve forecasts

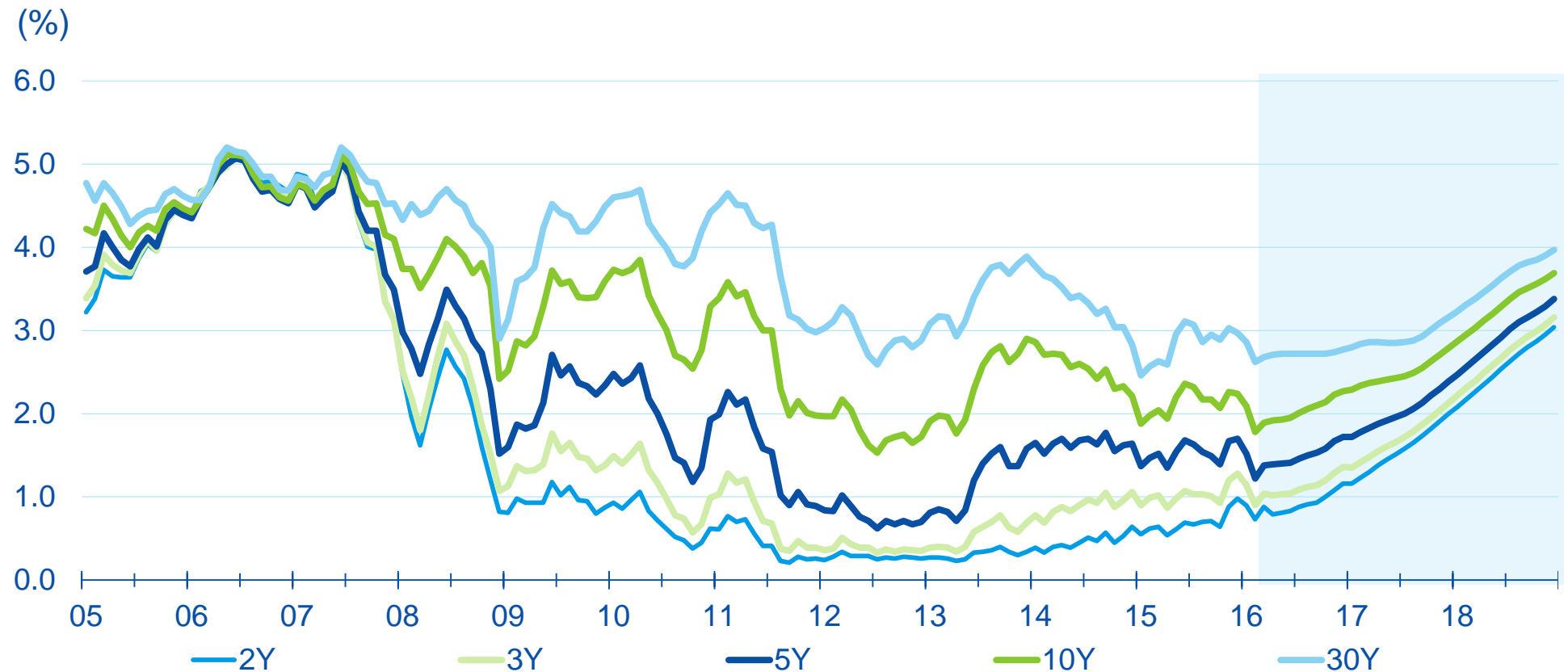
2019 Treasury Yield Curve

(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.

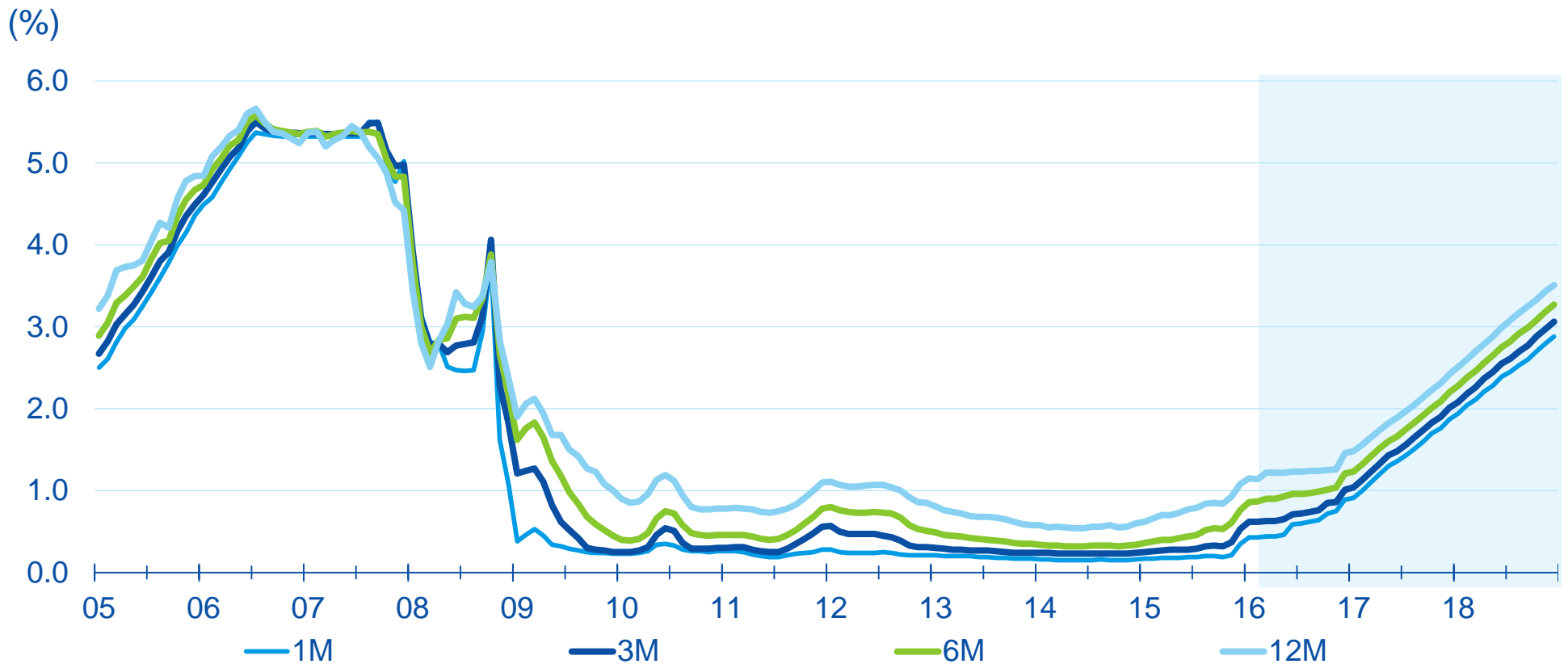
Swap curve baseline forecasts

U.S. Swap Rates



LIBOR curve baseline forecasts

U.S. LIBOR Rates



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