

U.S. Interest Rates Chartbook

July 2017

Takeaways

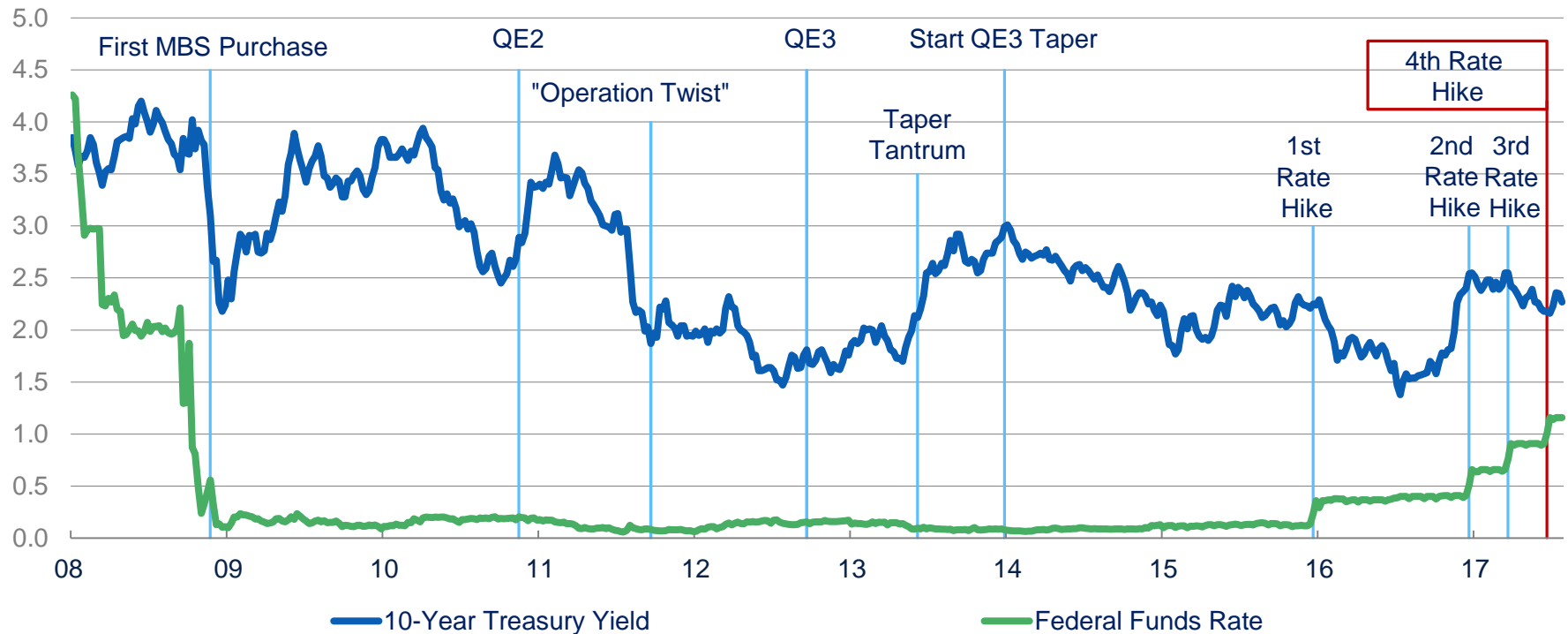
- ◆ The FOMC voted unanimously to leave its benchmark rate unchanged, between 1% and 1.25%, signaling a “relatively soon” taper of maturing Treasuries and mortgage securities reinvestments, in their July meeting
- ◆ The Dealers Survey reveals flatter expectations for the 2018 and 2019 Fed funds rate firming path but accounts for one more rate increase before year-end 2017. The futures market implies a similar flatter path
- ◆ Despite a 15 basis point increase in 10-Year Treasury term premium, the downward pressure on the term premium is expected to remain, as many central banks continue to embark on highly accommodative policies and hold downward pressure on global term premium
- ◆ Long-term yield volatility has declined to a historic low, last observed in May 2013
- ◆ Under the baseline projections, the yield curve is expected to flatten due to upward pressure on short-term rates from the Fed funds rate hikes while long-term yields will remain under downward pressure from low term-premium, a decline in inflation expectations, and from continued risk-off sentiment



Unconventional Monetary Policy

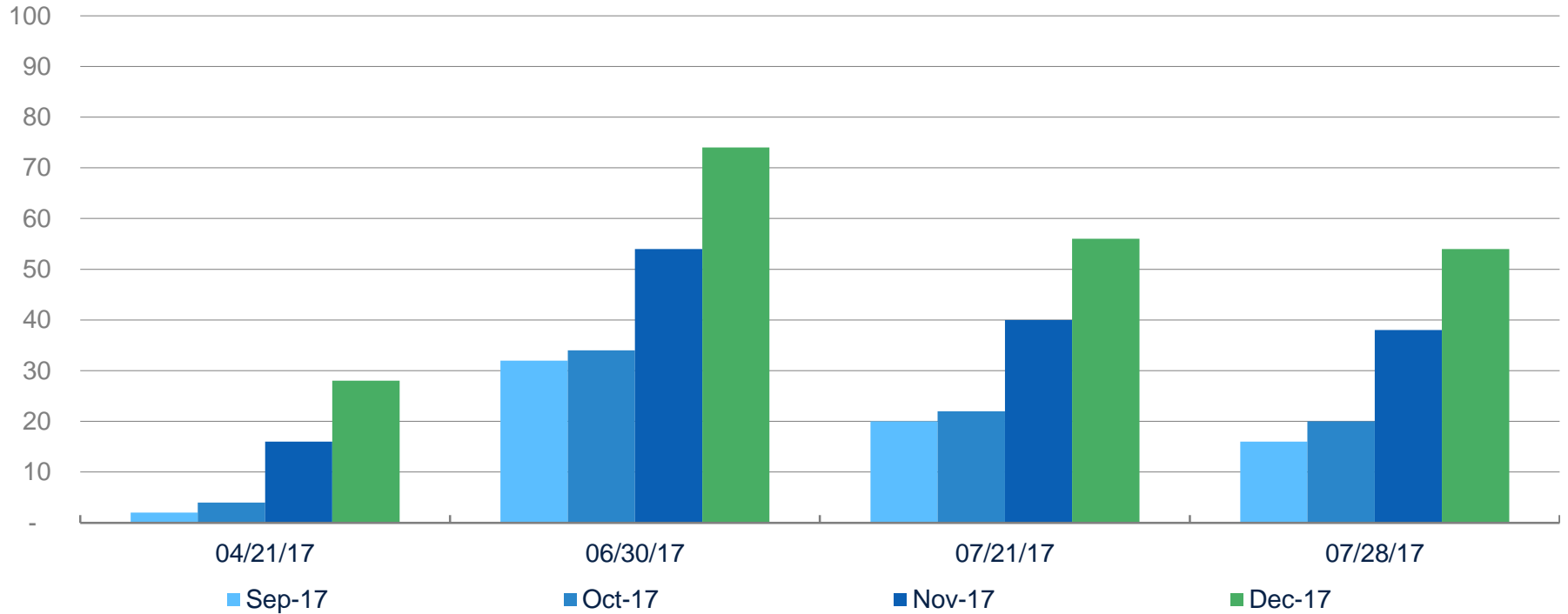
FEDERAL FUNDS RATE AND 10-YEAR TREASURY NOTE

(%)



Fifth Rate Hike is Priced in for 4Q17

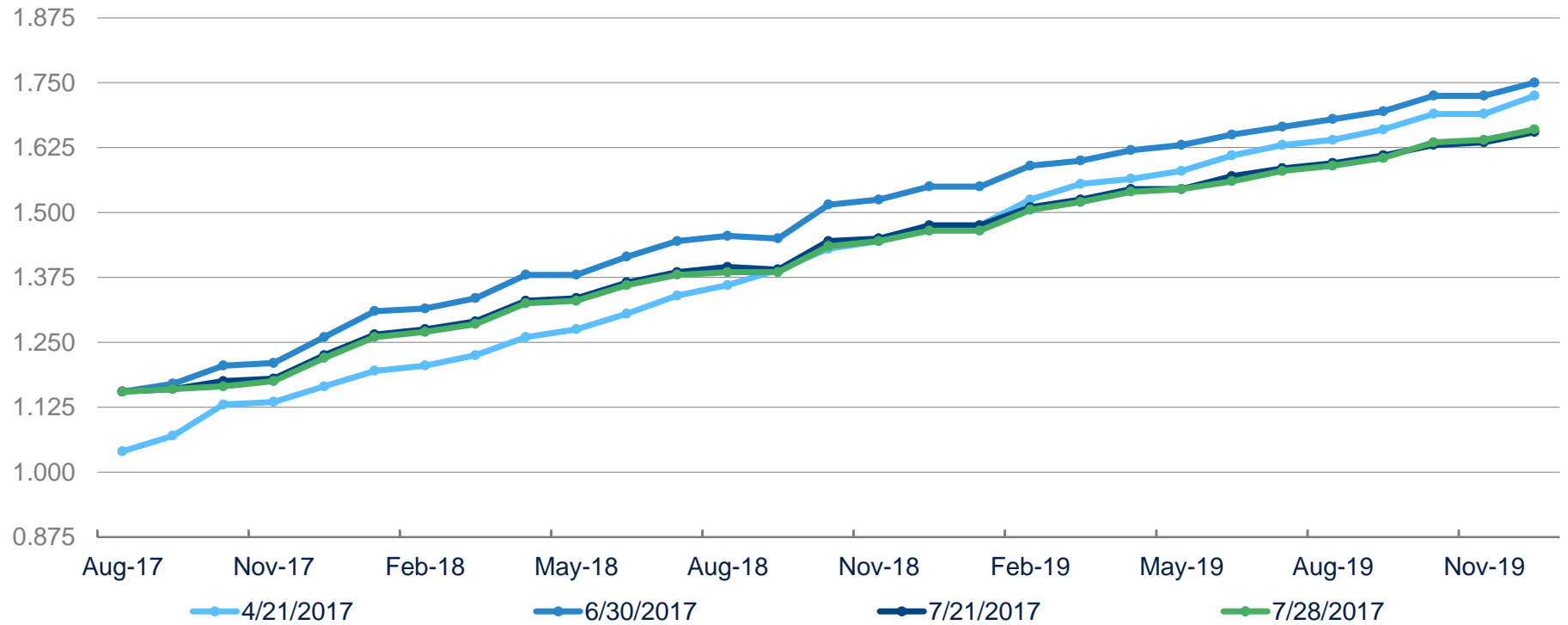
FED FUNDS FUTURES IMPLIED PROBABILITIES, FIFTH 25BP HIKE
(%)



Fed Funds Futures Curve

FED FUNDS FUTURES – MOST RECENT, 1 WEEK PRIOR, 1 MONTH PRIOR, 3 MONTHS PRIOR

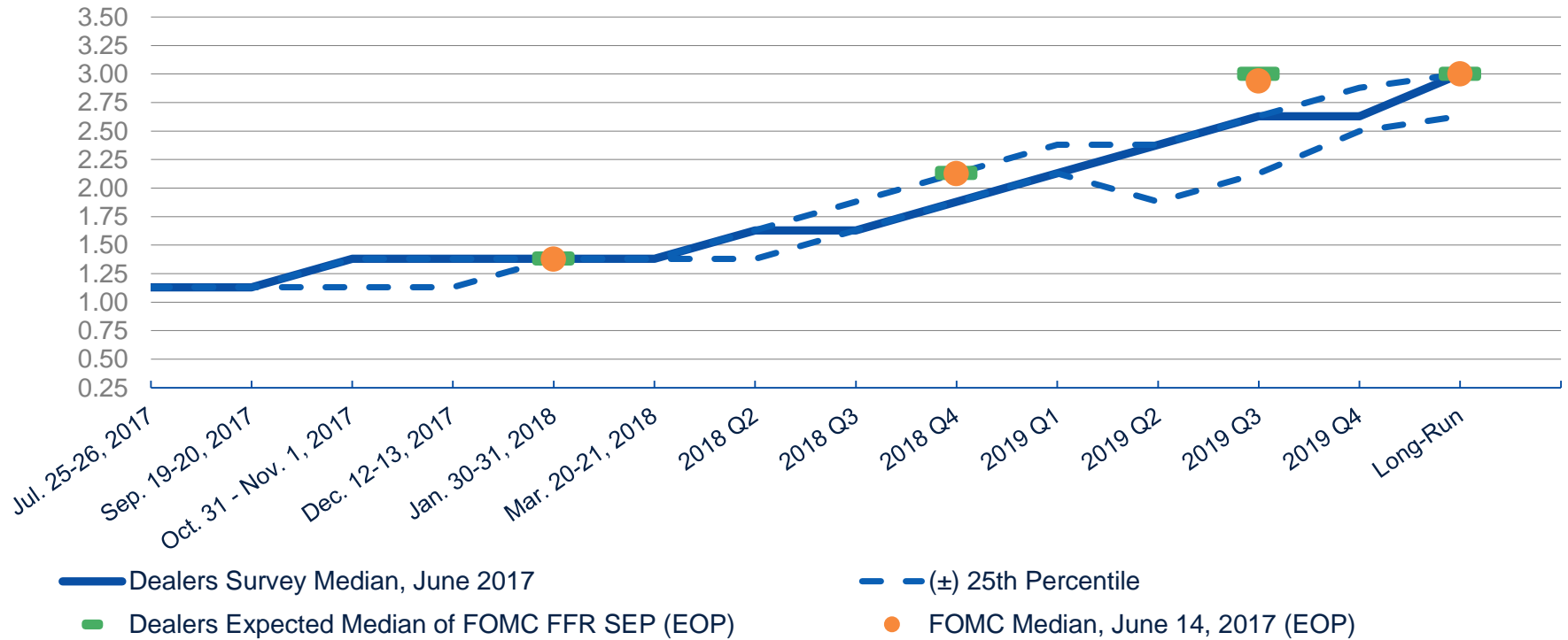
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Dealers' Expectations Match the FOMC Policy Firming Path for the End of 2017 and Expect a Flatter Path for 2018

PROJECTED PACE OF POLICY FIRMING (%)

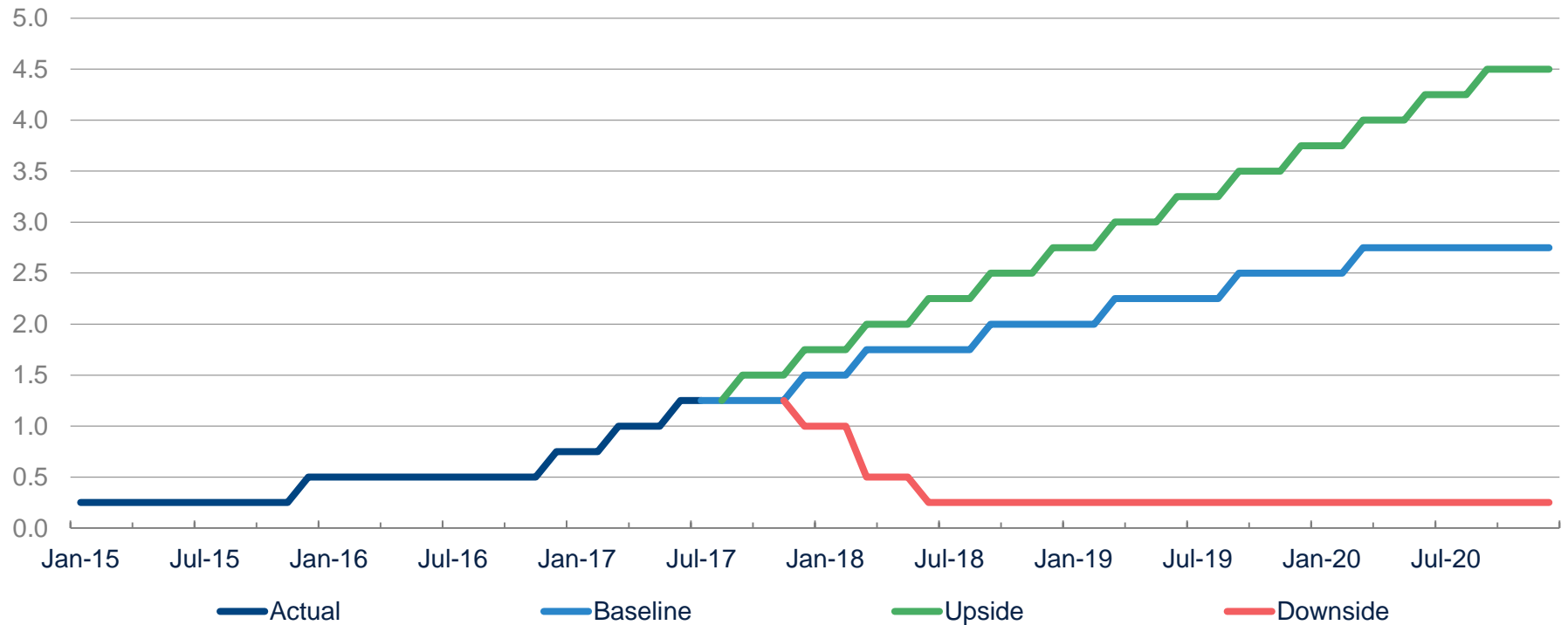
(%)



Survey of Primary Dealers is formulated by the Trading Desk at the Federal Reserve Bank of New York. Last received date June 5, 2017

BBVA Fed Funds Firming Pace Forecast

FEDERAL FUNDS RATE
(%, Upper Bound, End of Period)

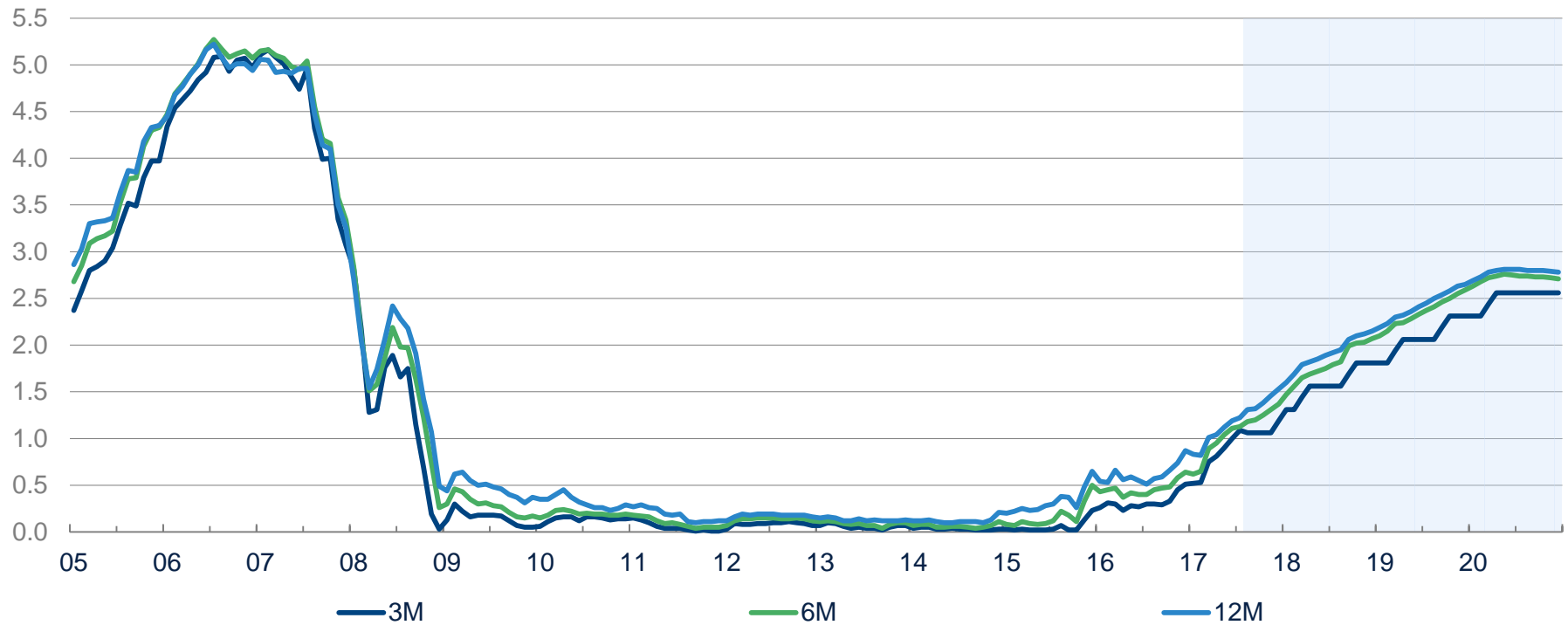


Source: BBVA Research, Federal Reserve Board and Haver Analytics

BBVA 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 Further Declined to a Historic Low, Last Observed in May 2013

10-YEAR U.S. TREASURY NOTE VOLATILITY
(Daily index)

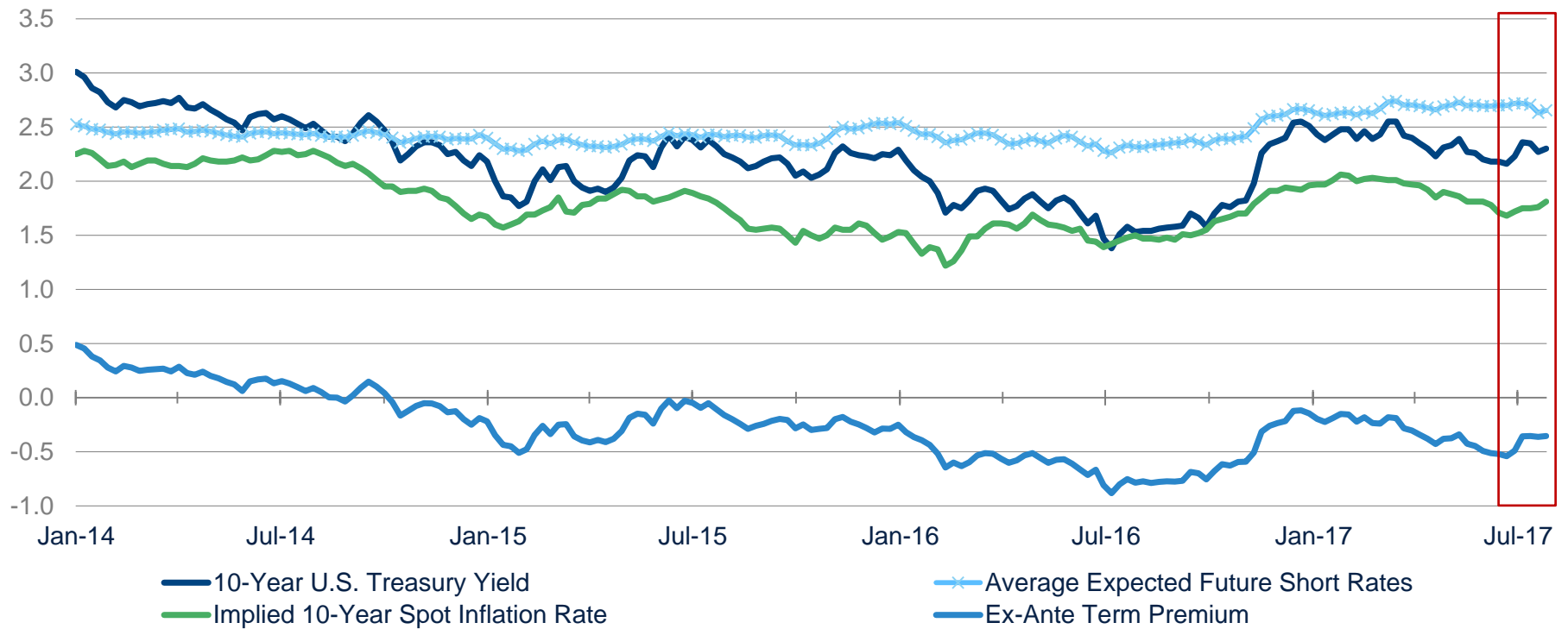


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from the Chicago Board of Trade's actively traded options on the Treasury Note futures

Downward Pressure on Term Premium Resumed

10-YEAR U.S. TREASURY TERM PREMIUM & MARKET INFLATION EXPECTATIONS

(Weekly, %)

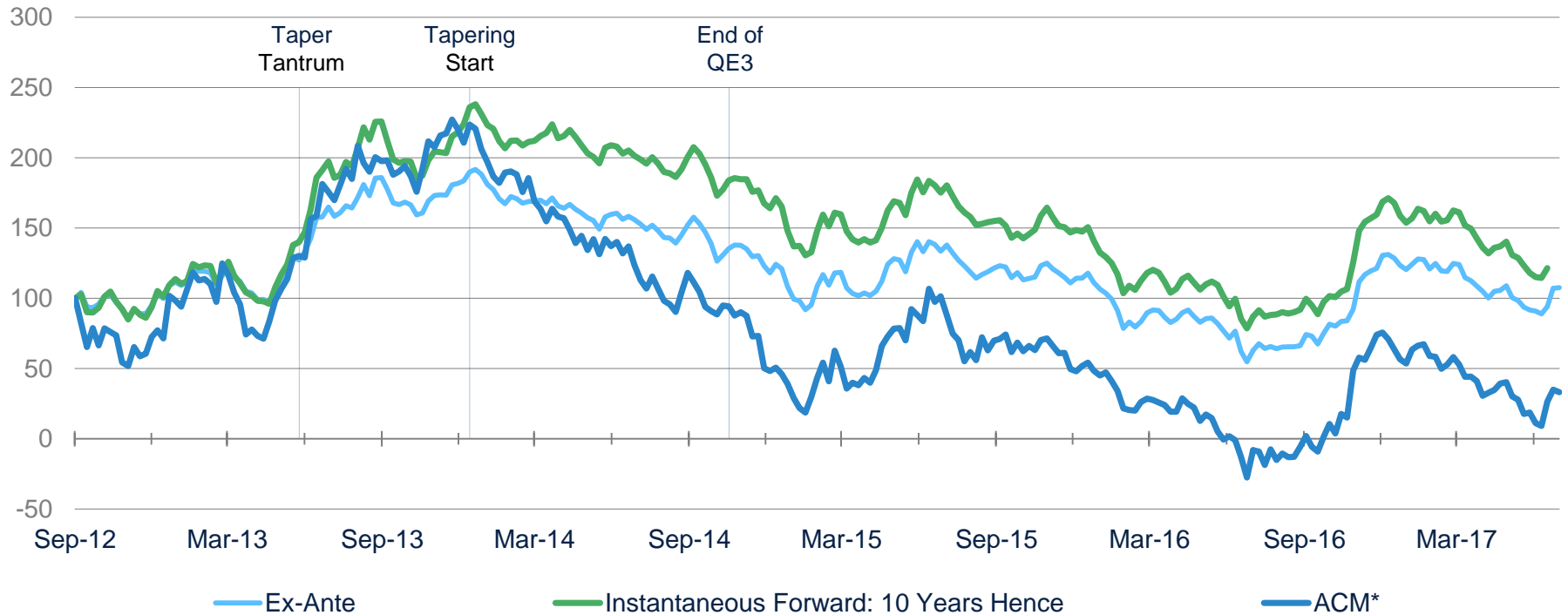


Source: BBVA Research, Federal Reserve Board and Federal Reserve Bank of New York

10-Year Treasury Term Premium Cumulative Change from the Start of QE3

10-YEAR U.S. TREASURY TERM PREMIUM NORMALIZED TO THE QE3 ANNOUNCEMENT DATE

(Weekly, basis points, announcement date = 100)

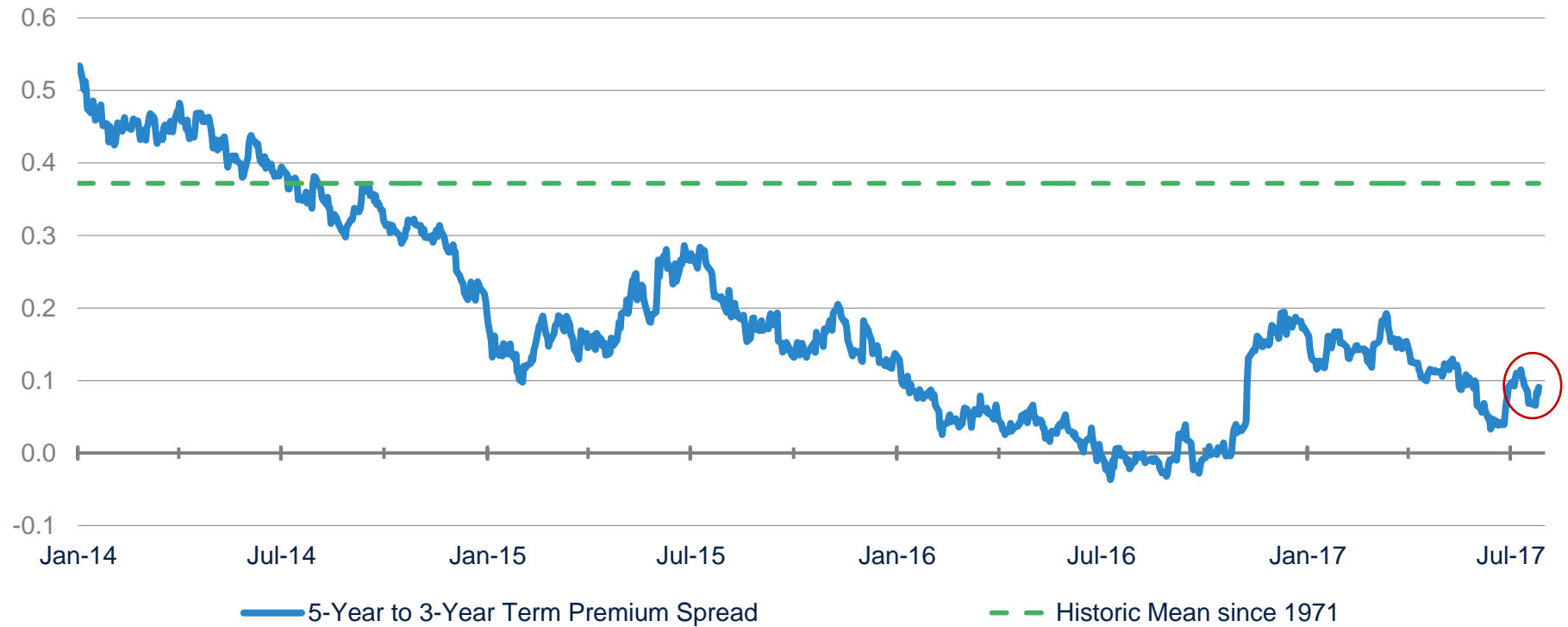


* Reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

Mid-Term Duration-Risk Compression Has Normalized at 9 Basis Points

DURATION-RISK COMPRESSION

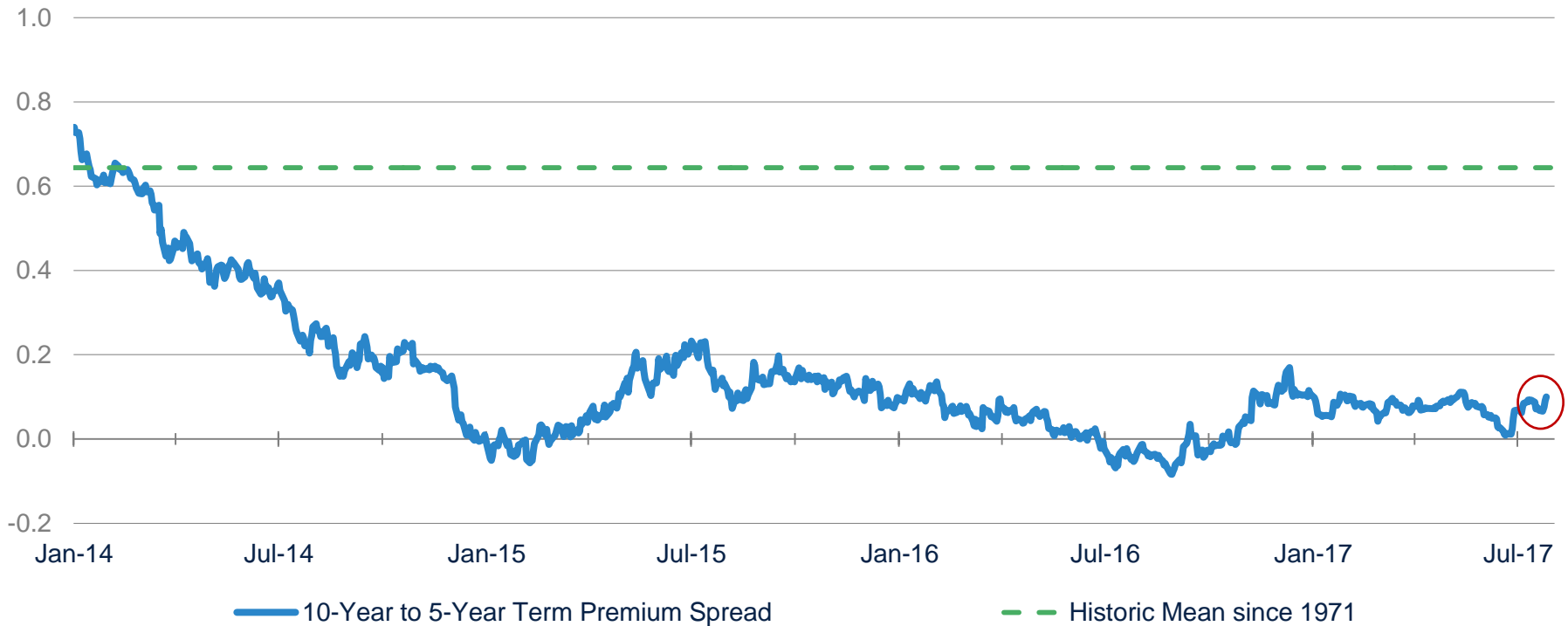
(Daily, %)



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.

Long-Term Duration-Risk Compression Has Averaged at 8 Basis Points

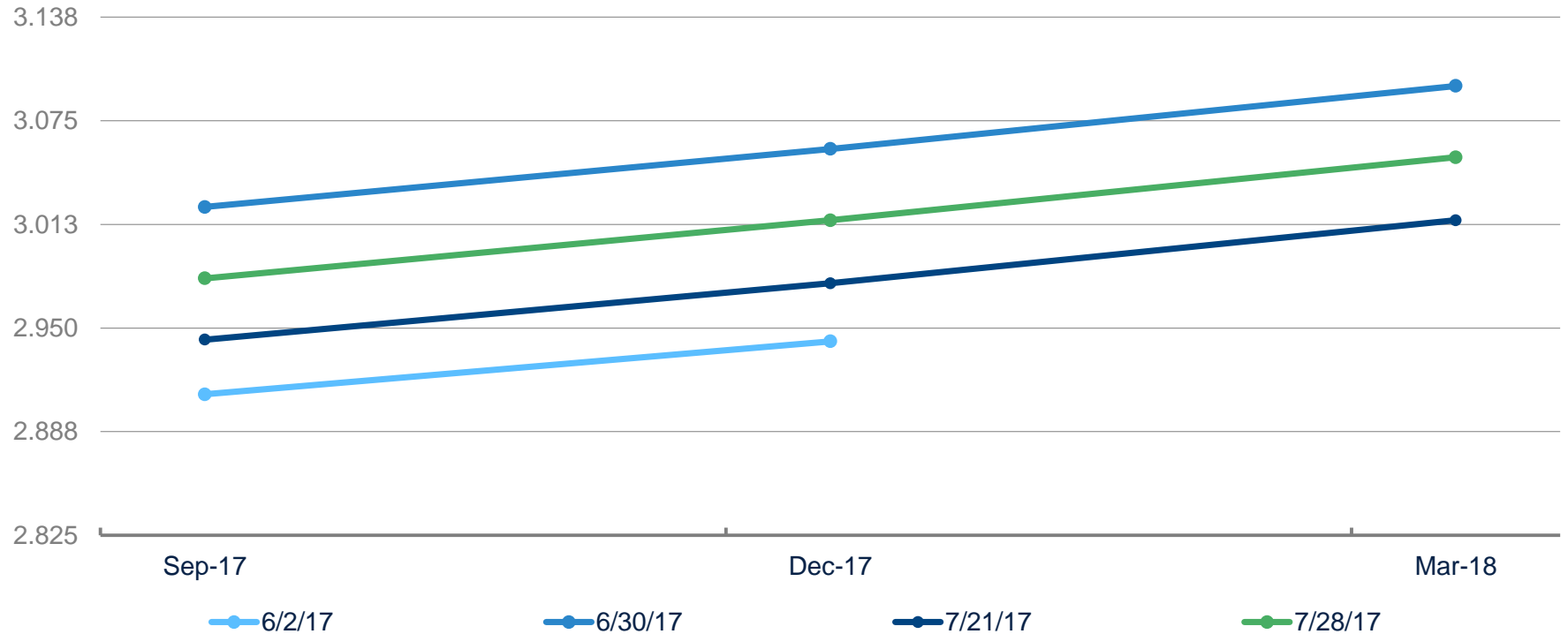
DURATION-RISK COMPRESSION
(Daily, %)



Calculated as the difference between 10-Year and 5-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 Declined, Discounting a 7bp Raise in 10YTN Yields Over the Next 3 Quarters

10-YEAR U.S. TREASURY YIELD FUTURES – MOST RECENT, 1 WEEK PRIOR, 4 WEEKS PRIOR, 8 WEEKS PRIOR (%)



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 4, 2017

** Survey of Professional Forecasters (SPF) conducted by Federal Reserve Bank of Philadelphia. Last release date May 12, 2017

*** Congressional Budget Office (CBO). Last release date June 29, 2017

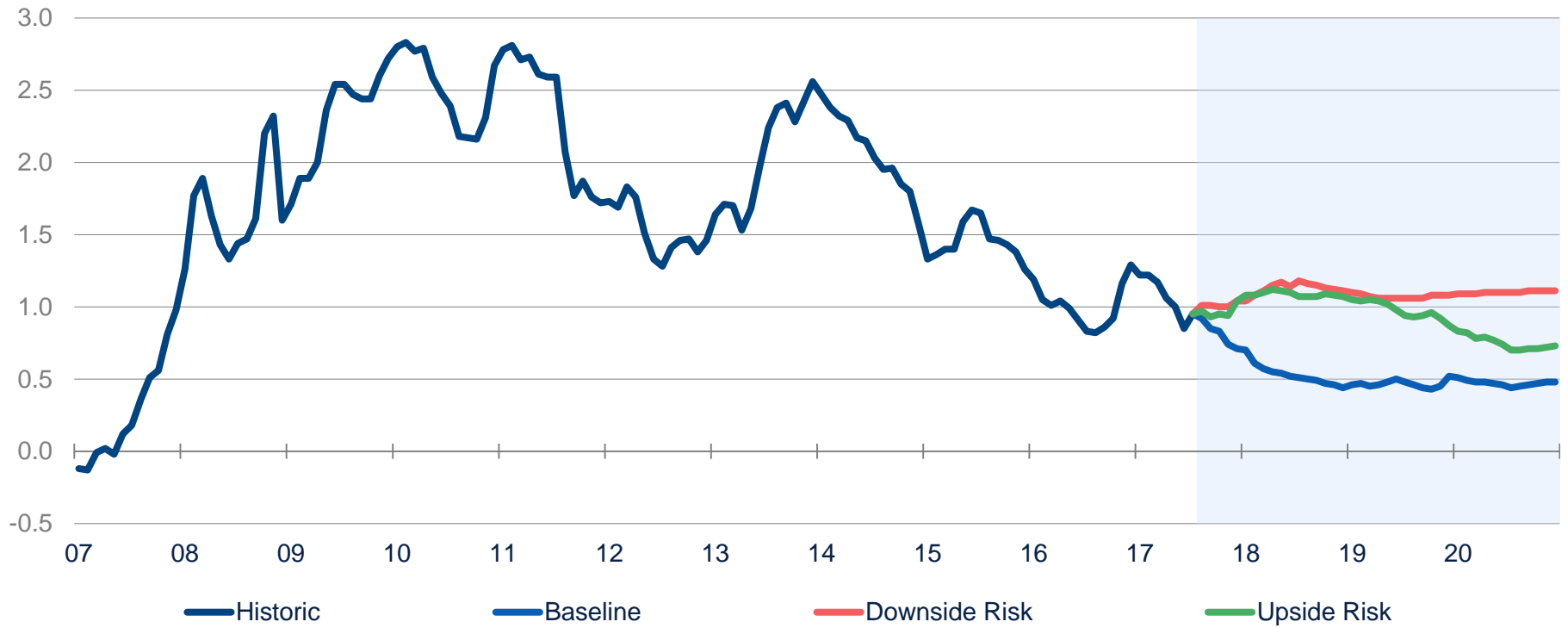
^ Administration: 2018 Budget. Last release date May 23, 2017

^^ Survey of Primary Dealers is formulated by the Trading Desk at the Federal Reserve Bank of New York. Last received date June 5, 2017

Source: BBVA Research, NABE, FRB Philadelphia, FRB New York, CBO and Haver Analytics

Yield Curve Slope Forecasts

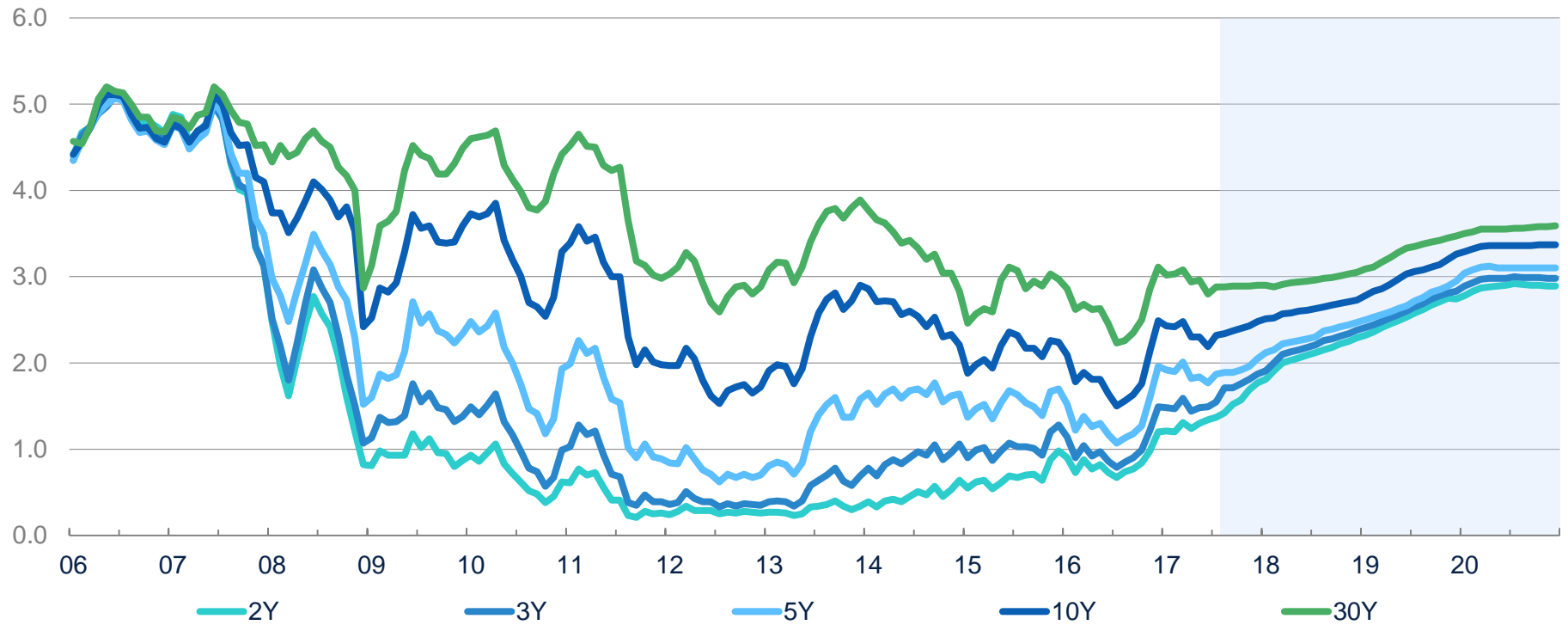
TREASURY YIELD CURVE SLOPE
(%, 10Y-2Y)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

Treasury Yield Curve Baseline Forecasts

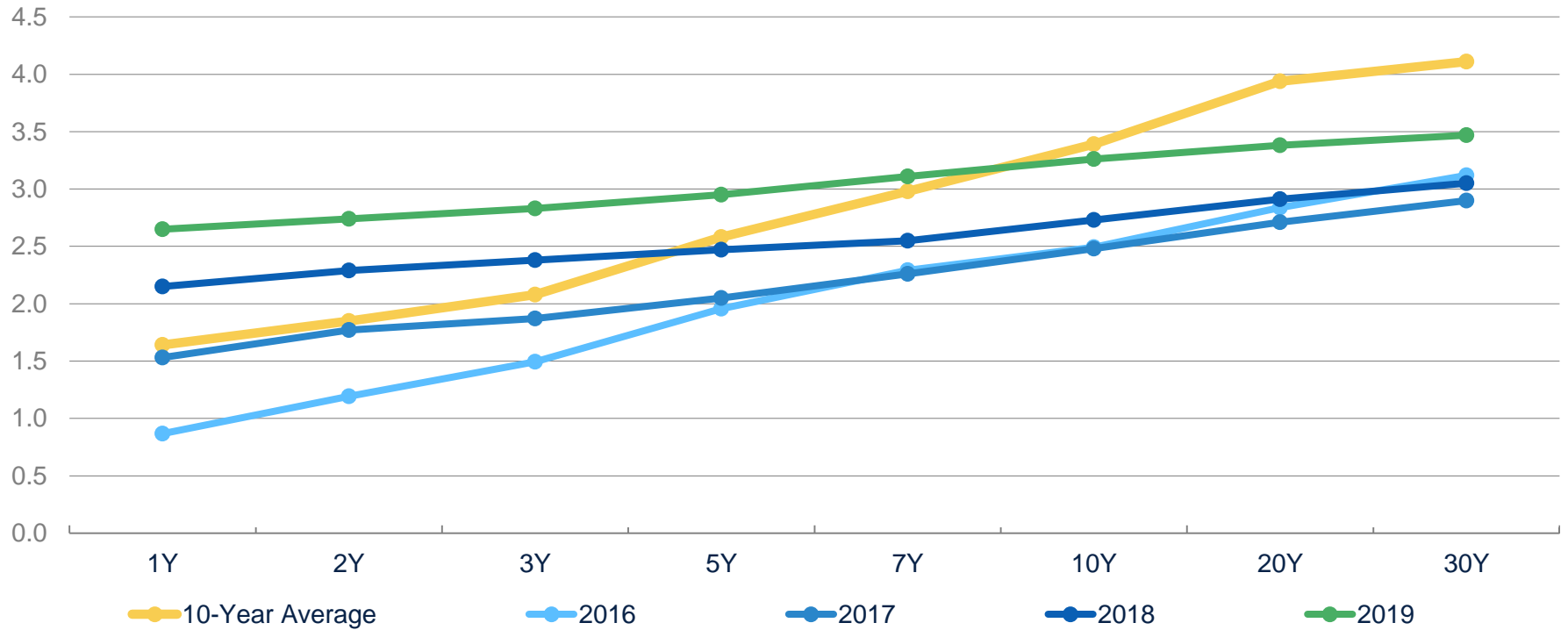
U.S. TREASURY YIELD CURVE
(%)



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.

Yield Curve Forecasts

TREASURY YIELD CURVE BASELINE FORECAST
(%, End of Period)

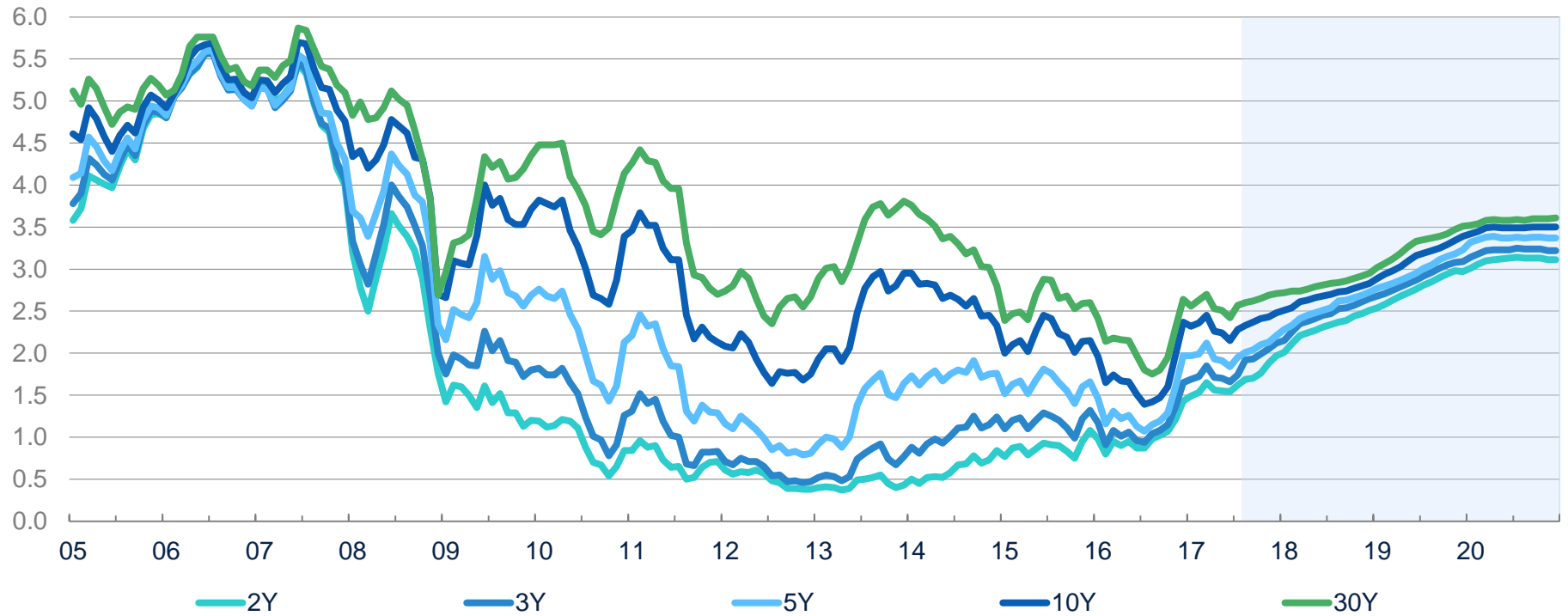


Treasury yield curve is estimated with a three-factor no-arbitrage model linked to macroeconomic factors measuring growth, inflation and monetary policy. Estimates are based on BBVA research baseline forecast for GDP growth, inflation and Fed funds rate.

Swap Curve Baseline Forecasts

U.S. SWAP RATES

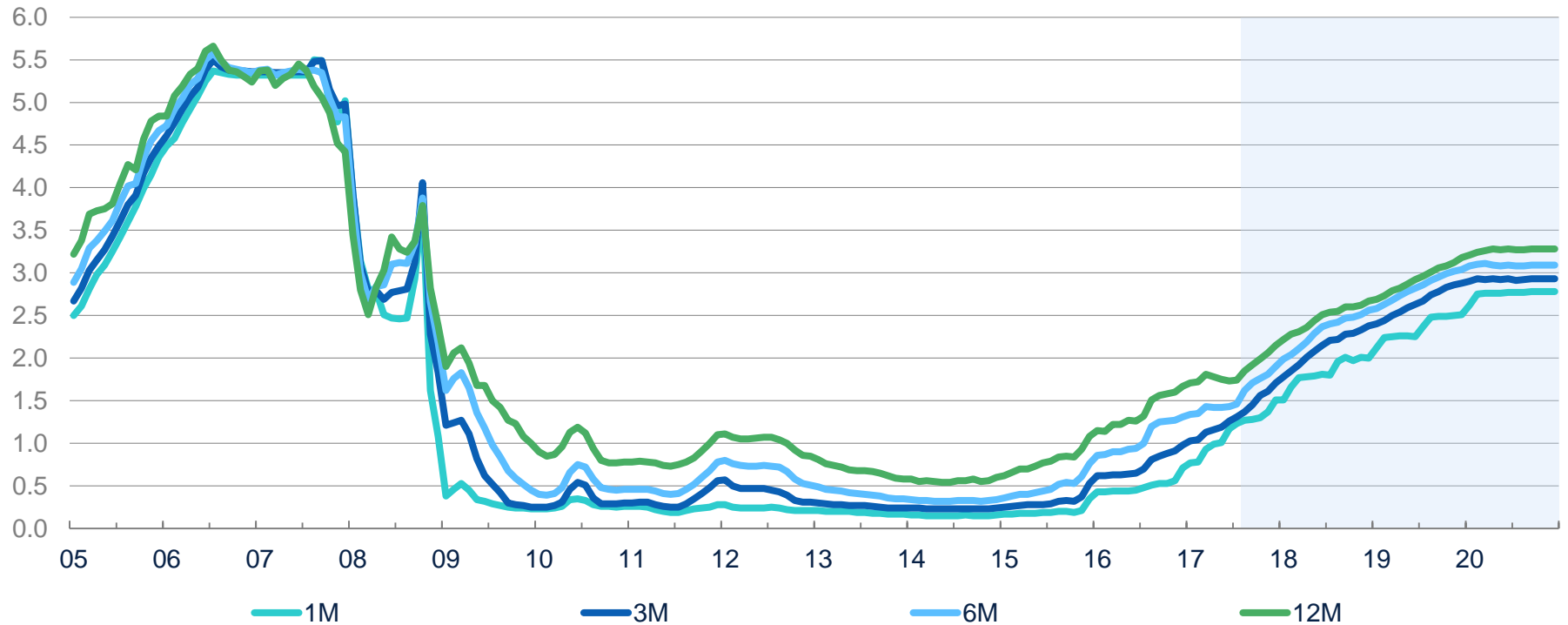
(%)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

LIBOR Curve Baseline Forecasts

U.S. DOLLAR LIBOR RATES
(%)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

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