

U.S. Interest Rates Chartbook

November 2017

Takeaways

- ◆ A December Federal funds rate increase to the 1.25%-1.50% range is warranted given upbeat third quarter economic performance with the GDP annualized growth rate revised upward to 3.3% and unemployment at a 17 year low.
- ◆ Fedspeak is aligned with forecasts and market expectations:
“I think the case for raising rates at our next meeting is coming together” Powell, Fed Chair nominee, Senate hearing, November 28, 2017
“We continue to expect that gradual increases in the federal funds rate will be appropriate” Yellen, Fed Chair, Congressional testimony, November 29, 2017
- ◆ Fed funds futures are fully pricing in a December rate hike, along with an implied probability of 60% for a subsequent hike in March 2018.
- ◆ 10-Year Treasury note volatility has dropped to a new historic low.
- ◆ Downward pressure on long-term yield term premium remained and duration-risk compression has crossed over into negative territory.
- ◆ The baseline is for a gradual increase in long-term yields with the yield curve slope flattening by an additional 20 basis points.



Unconventional monetary policy

FEDERAL FUNDS RATE AND 10-YEAR TREASURY NOTE

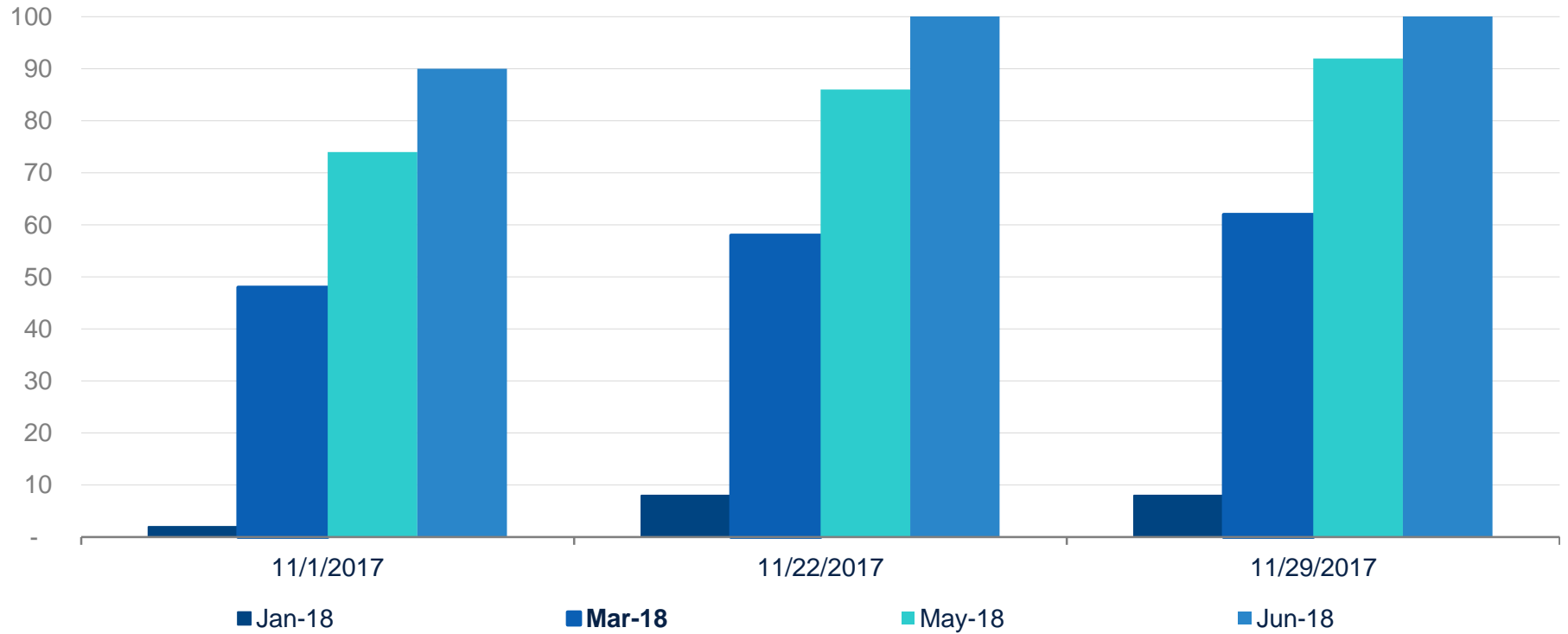
(%)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

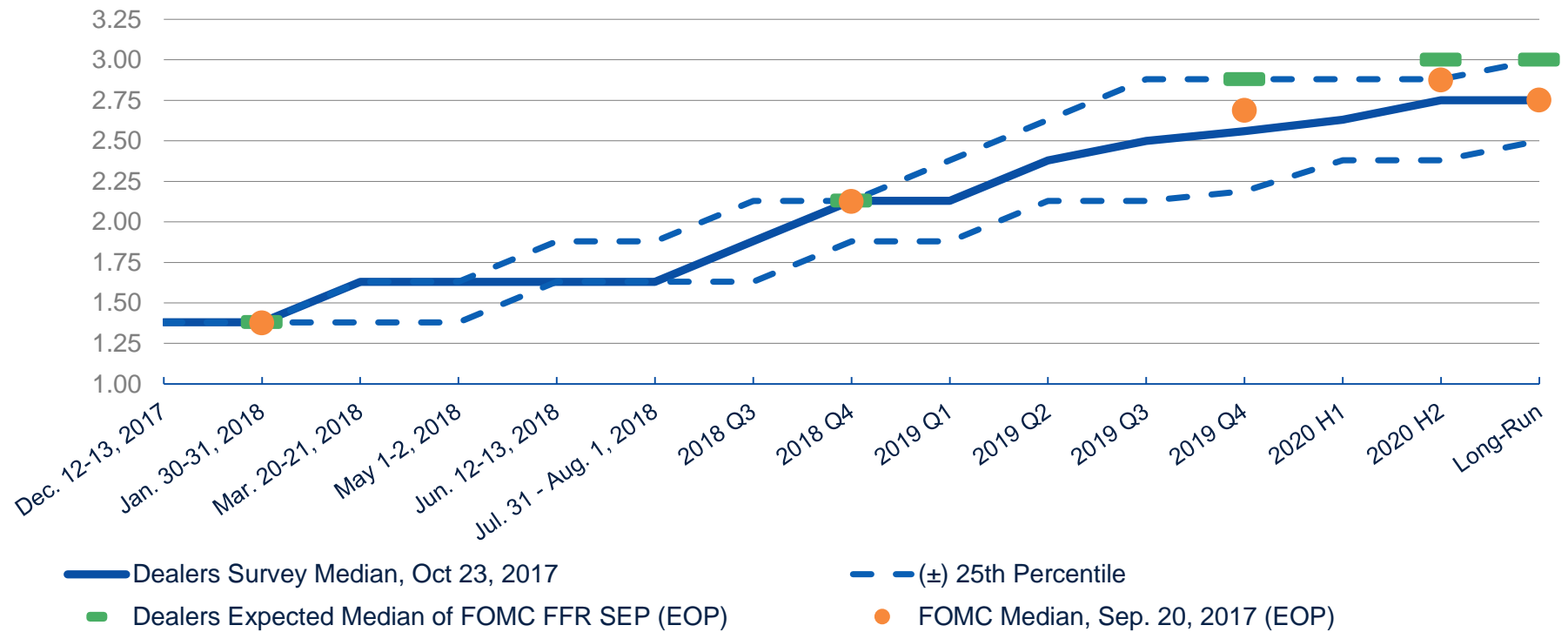
Sixth rate hike is priced in for 1Q18

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



Dealers' expectations for the long-run fed funds rate remains in line with the median FOMC projection of 2.75%

PROJECTED PACE OF POLICY FIRMING (%)

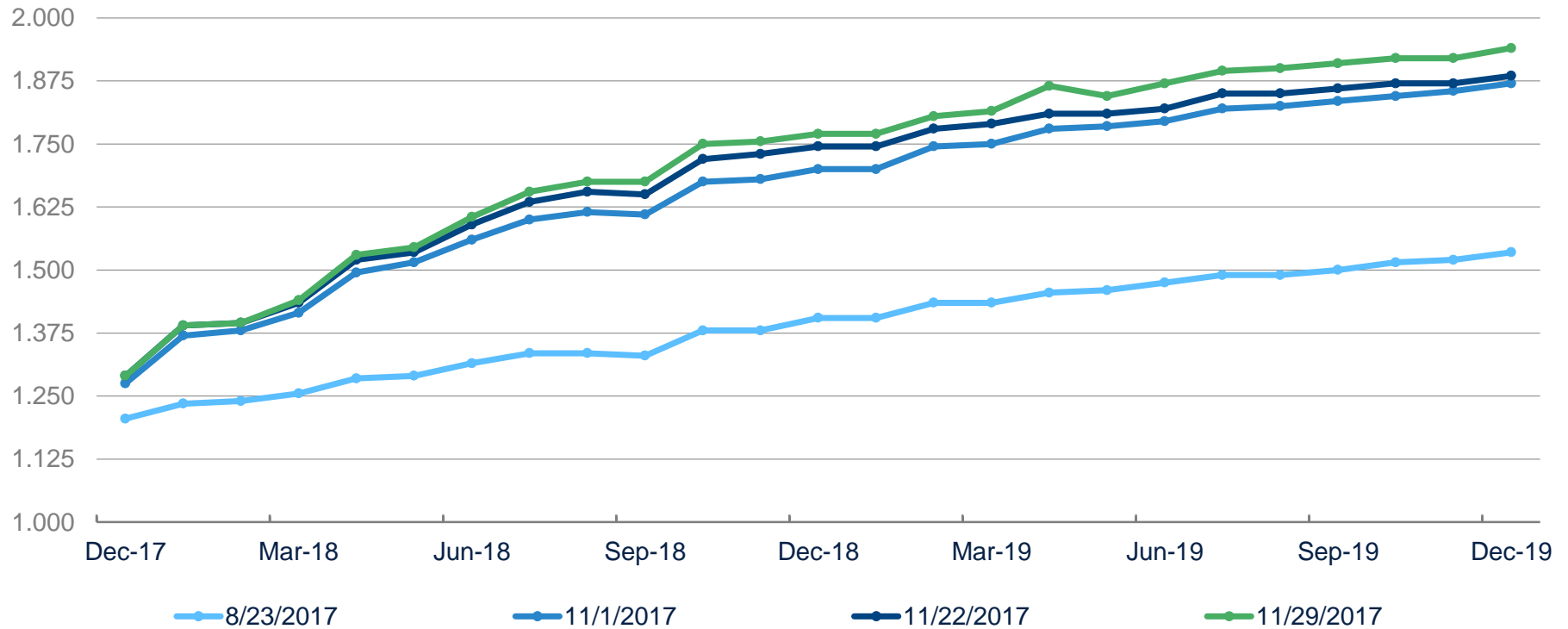


Survey of Primary Dealers is formulated by the Trading Desk at the Federal Reserve Bank of New York. Last received date September 11, 2017

Fed funds futures rise as the FOMC near-term policy outlook has firmed

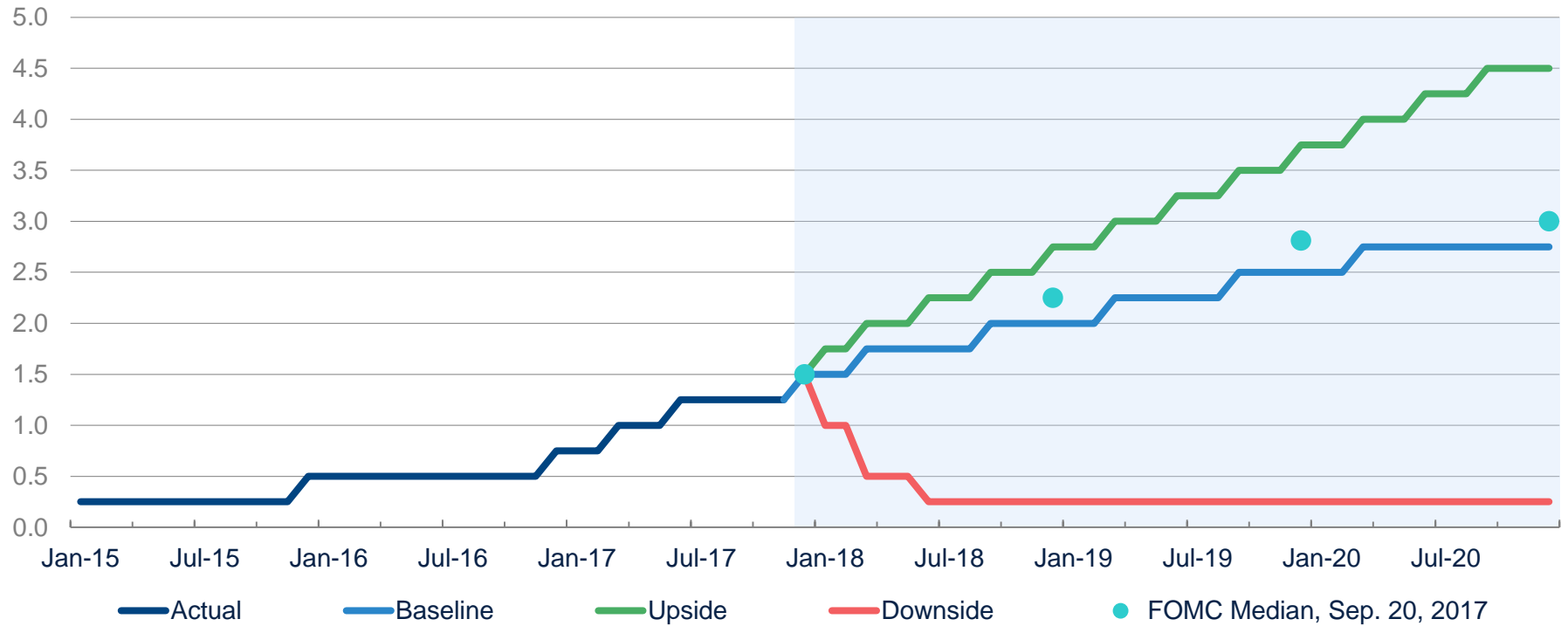
FED FUNDS FUTURES – MOST RECENT, 1 WEEK PRIOR, 1 MONTH PRIOR, 3 MONTHS PRIOR

(%)



Fed funds firming pace forecast

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

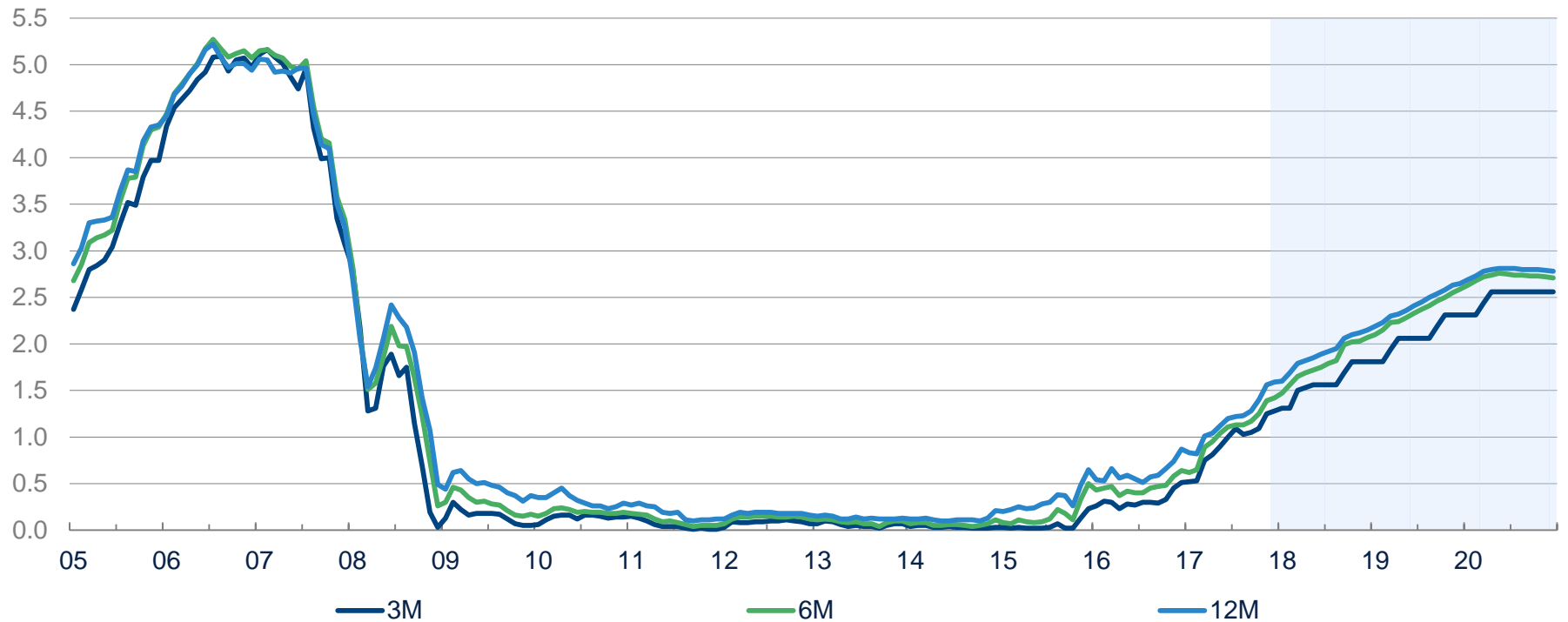


Source: BBVA Research, Federal Reserve Board and Haver Analytics

Baseline forecasts of treasury bill yield

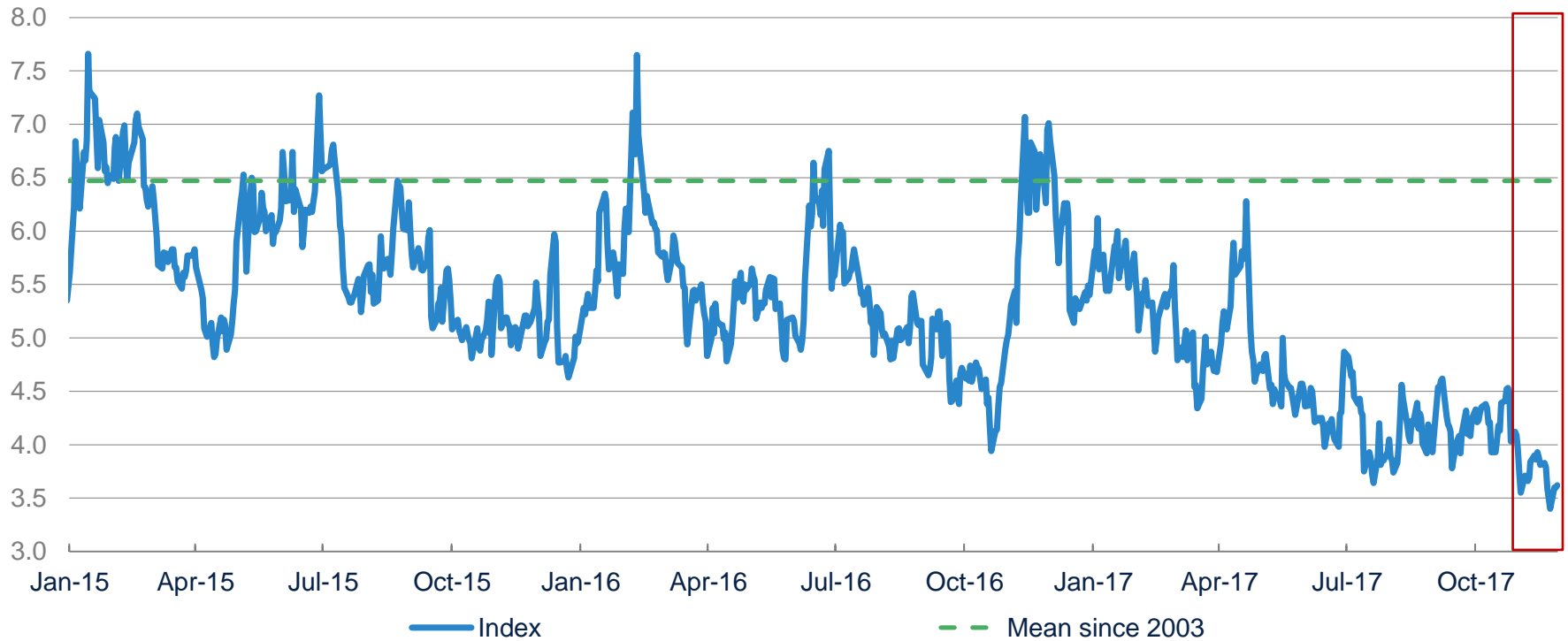
3-MONTH TO 12-MONTH RATES

(%)



Long-term yield volatility has further declined to a new historic low

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

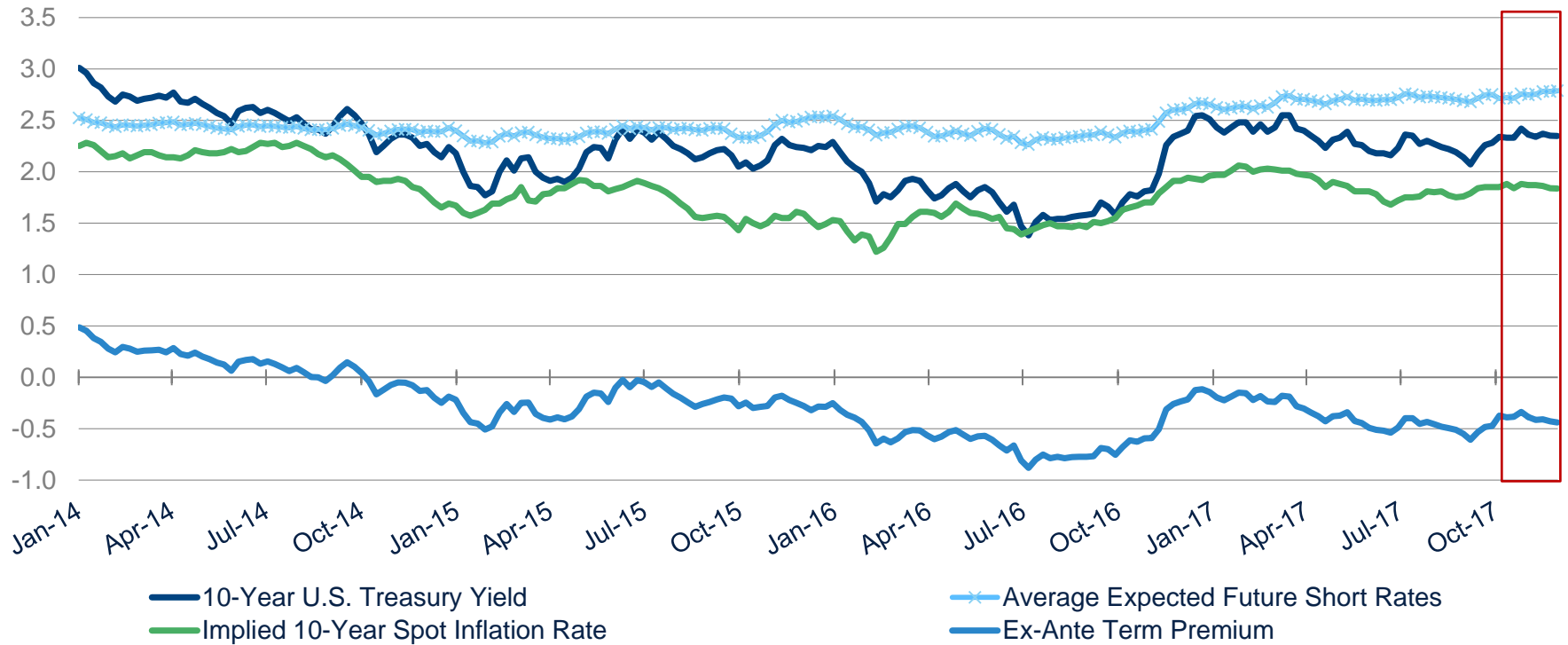


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from the Chicago Board of Trade's actively traded options on the Treasury Note futures

Downward pressure on term premium is unchanged

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

(Weekly, %)

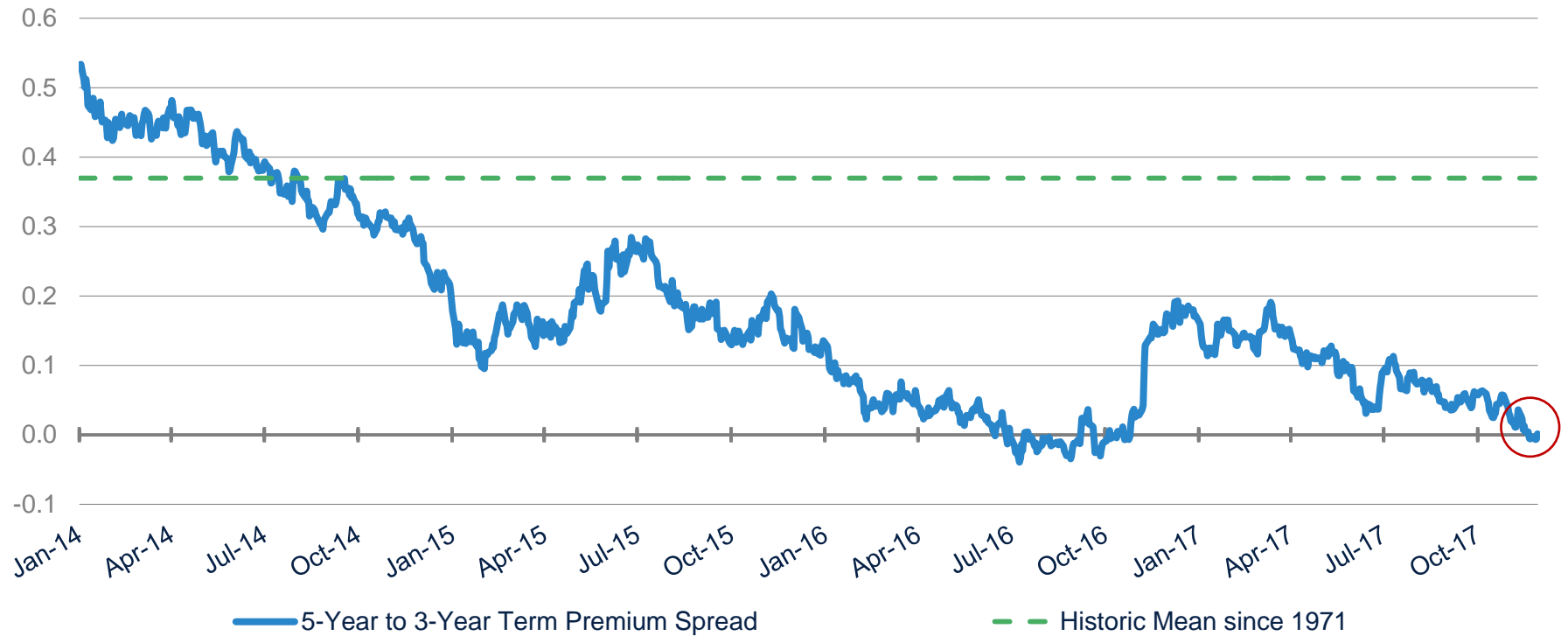


Source: BBVA Research, Federal Reserve Board and Federal Reserve Bank of New York

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

DURATION-RISK COMPRESSION

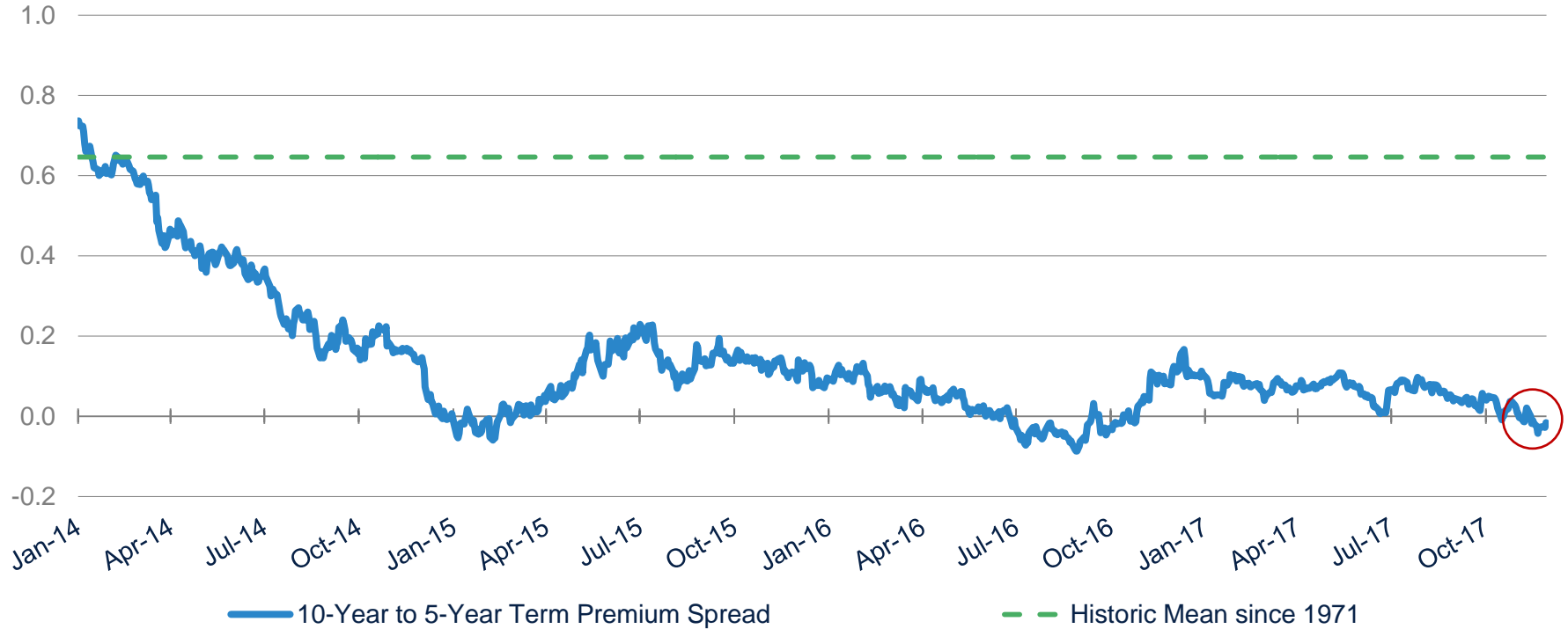
(Daily, %)



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.

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

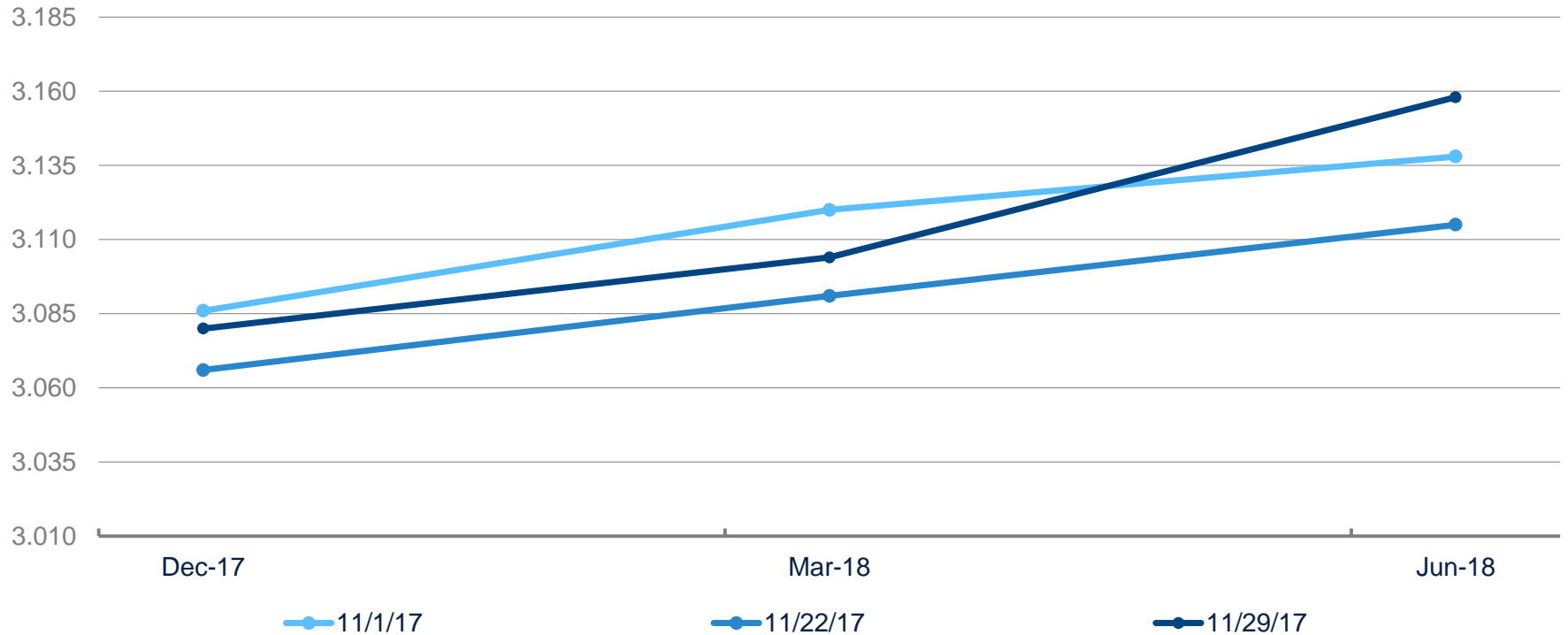
DURATION-RISK COMPRESSION
(Daily, %)



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.

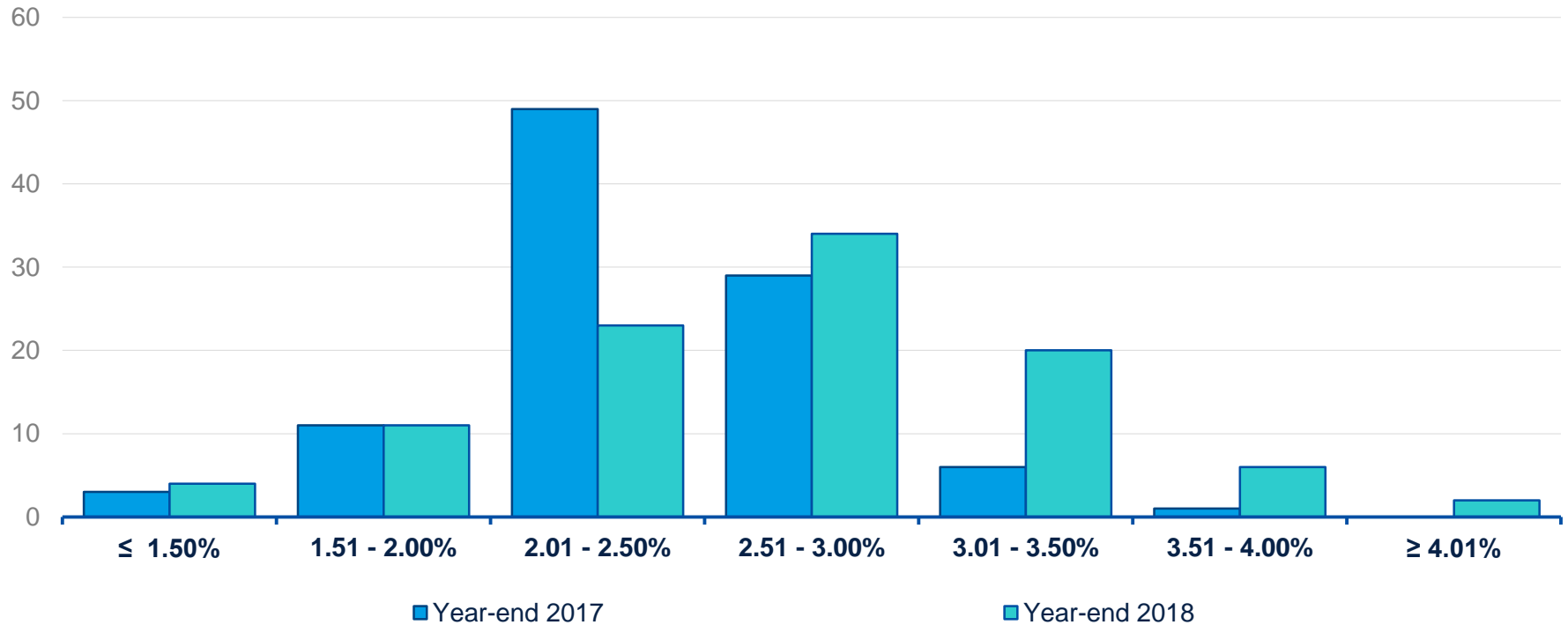
Futures discount an 8 basis point rise in 10-year Treasury yields over the next 3 quarters

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



Primary dealers expect the 10-year Treasury yield to remain in the range of 2.01-2.50% at year-end 2017

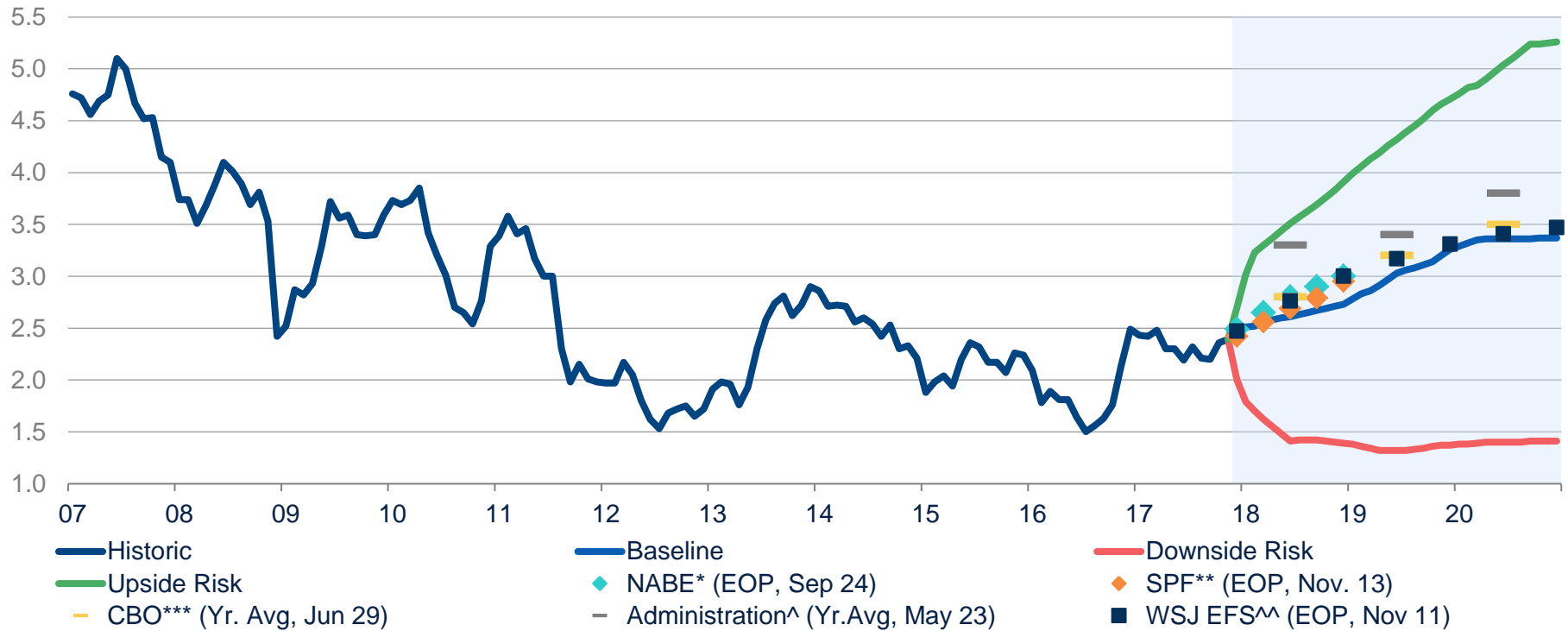
PROBABILITY OF THE 10-YEAR U.S. TREASURY YIELD FALLING IN EACH OF THE FOLLOWING RANGES
(%, Average)



Survey of Primary Dealers is formulated by the Trading Desk at the Federal Reserve Bank of New York. Last received date October 23, 2017

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 September 24, 2017

** Survey of Professional Forecasters (SPF) conducted by Federal Reserve Bank of Philadelphia. Last release date November 13, 2017

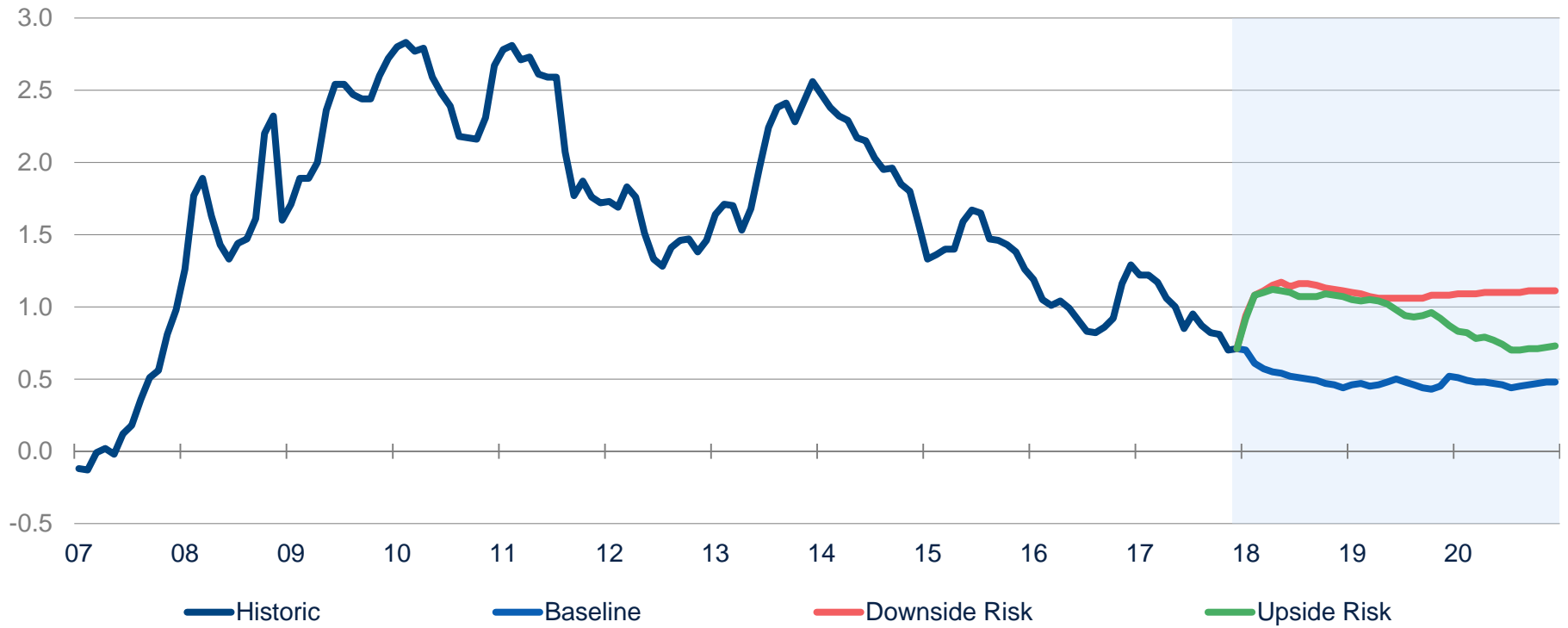
*** Congressional Budget Office (CBO). Last release date June 29, 2017

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

^^ Economic Forecasting Survey. The Wall Street Journal surveys a group of more than 60 economists on a monthly basis. Last release date November 11, 2017

Yield curve slope forecasts

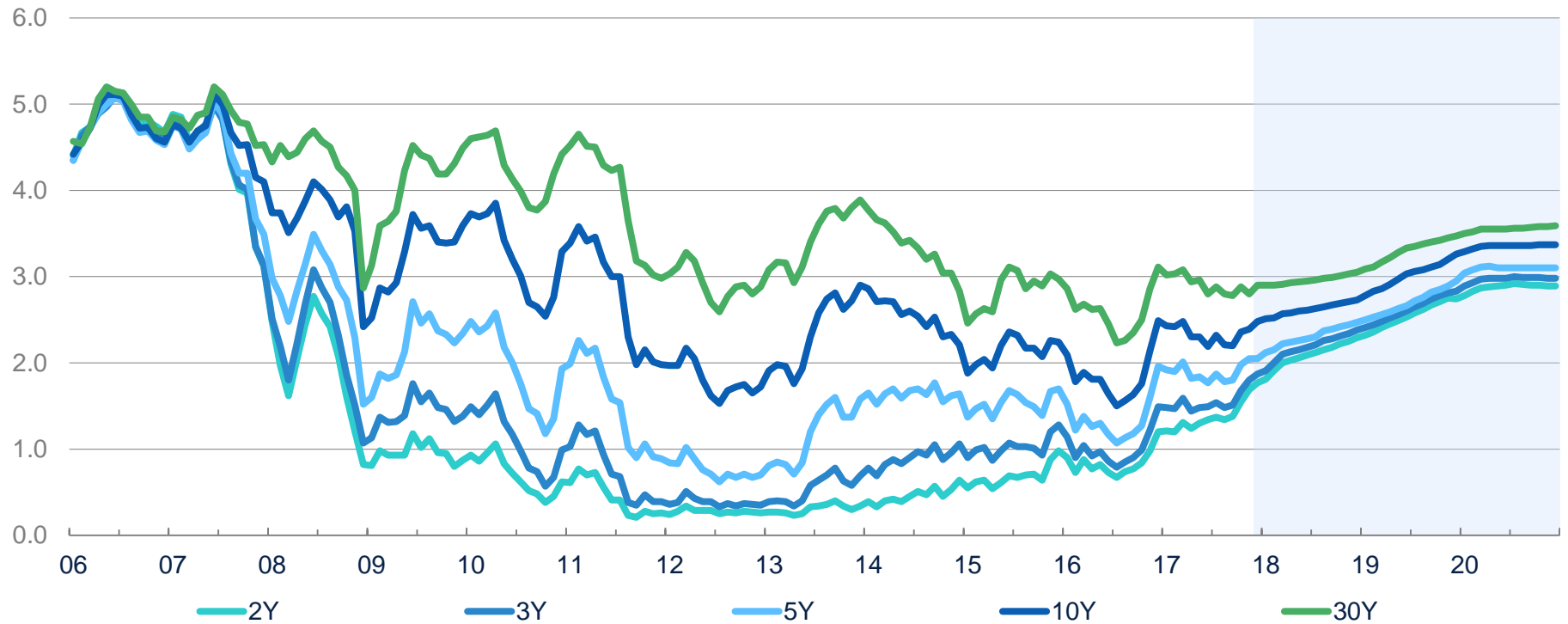
TREASURY YIELD CURVE SLOPE
(%, 10Y-2Y)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

Treasury yield curve baseline forecasts

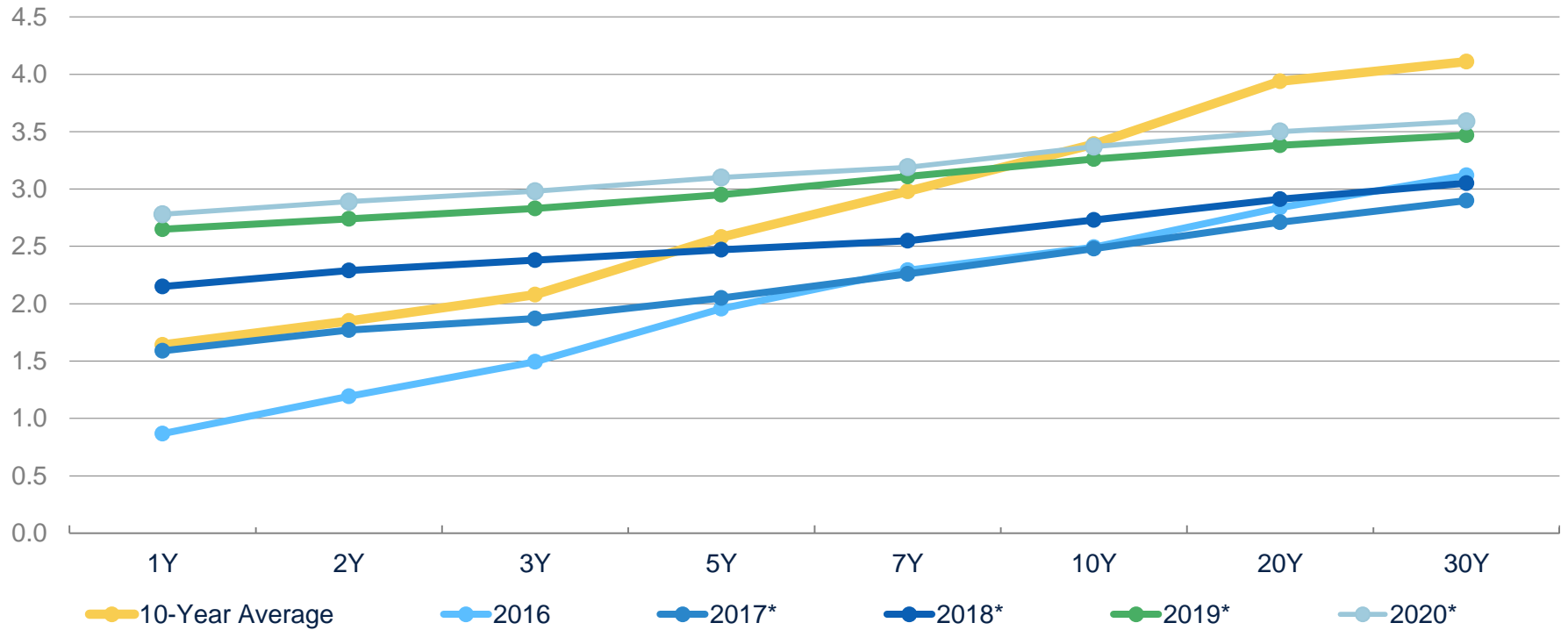
U.S. TREASURY YIELD CURVE
(%)



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)

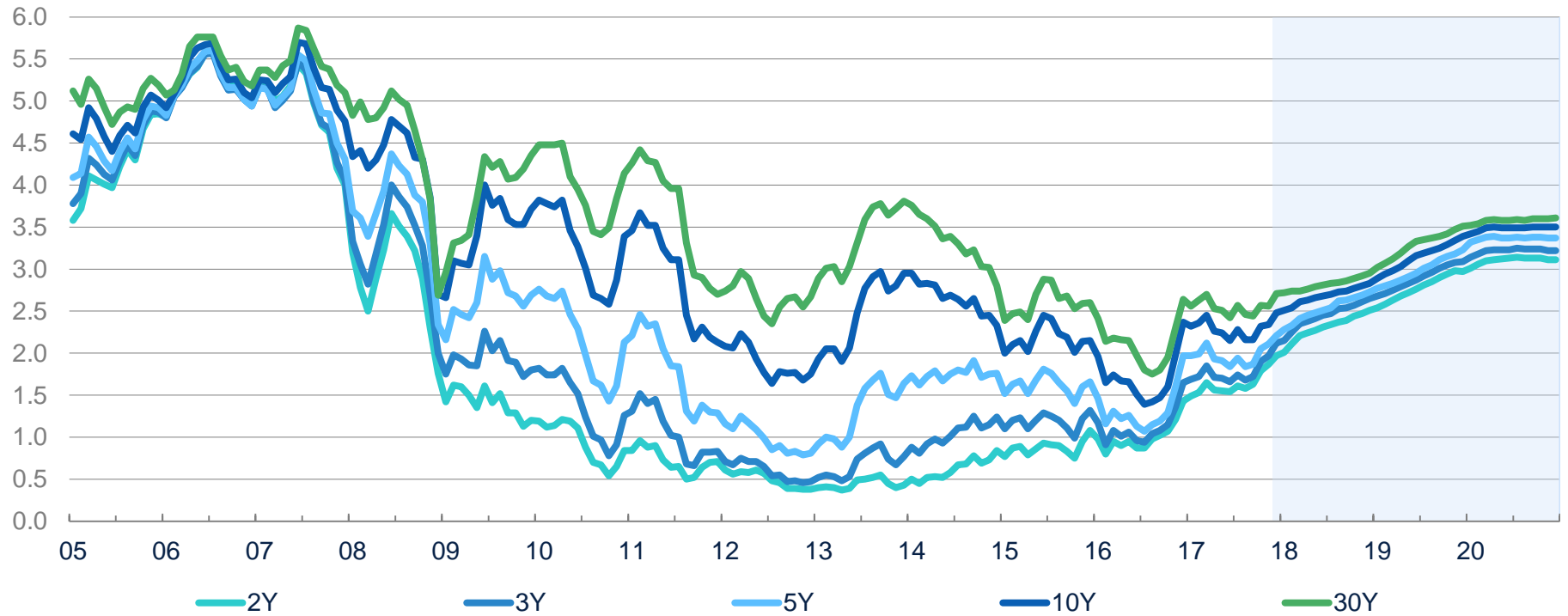


*BBVA Research baseline forecast. Treasury yield curve is estimated with a three-factor no-arbitrage model linked to macroeconomic factors measuring growth, inflation and monetary policy. Estimates are based on BBVA Research baseline forecast for GDP growth, inflation and Fed funds rate.

Swap curve baseline forecasts

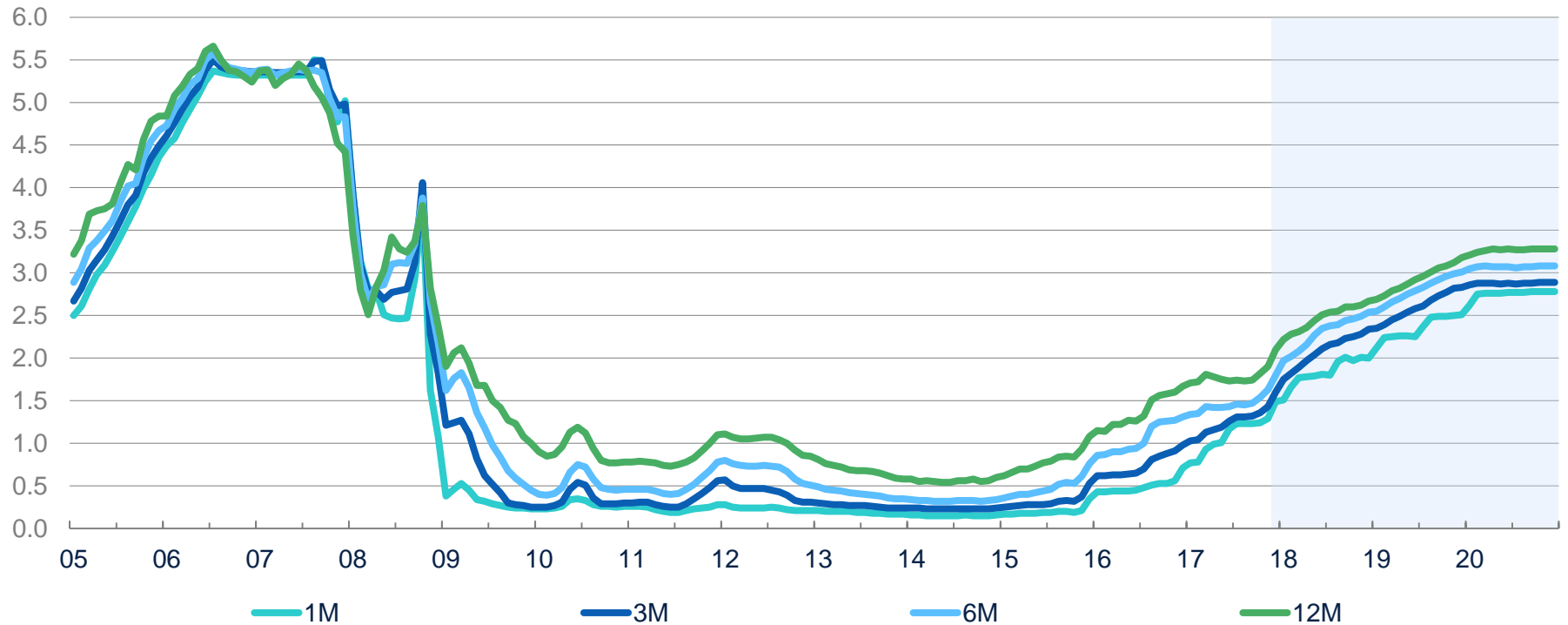
U.S. SWAP RATES

(%)



LIBOR curve baseline forecasts

U.S. DOLLAR LIBOR RATES
(%)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

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