

# U.S. Interest Rates Chartbook

December 2017

# Takeaways

- ◆ The FOMC increased the Fed funds rate to 1.25%-1.50% in December. FOMC median estimates for the Fed funds rate for 2018 and 2019 remained unchanged.
- ◆ The FOMC December statement emphasized that “economic activity has been rising at a solid rate,” that “job gains have been solid,” and that inflation is expected to converge towards the 2% target.
- ◆ Fed funds futures steepen on an optimistic economic growth outlook for 2018 and on a firm FOMC standing on the Fed funds rate path. Futures are pricing in the next rate increase for March with a 78% probability along with an 88% implied probability for a subsequent hike in the third quarter of 2018.
- ◆ The 10-year Treasury yield has moved sideways in 2017, ending the year at the same rate as the 2016 year end rate. Meanwhile the 2-year Treasury yield has increased by 70 basis points to its highest point since September 2009 in line with three 2017 Fed funds rate hikes.
- ◆ The yield curve slope between the 2-year and 10-year Treasury notes flattened to 53 basis points, the lowest since September 2007.
- ◆ The baseline is for a gradual increase in long-term yields with the yield curve slope flattening by an additional 15 basis points.



# Unconventional monetary policy

## FEDERAL FUNDS RATE AND 10-YEAR TREASURY NOTE

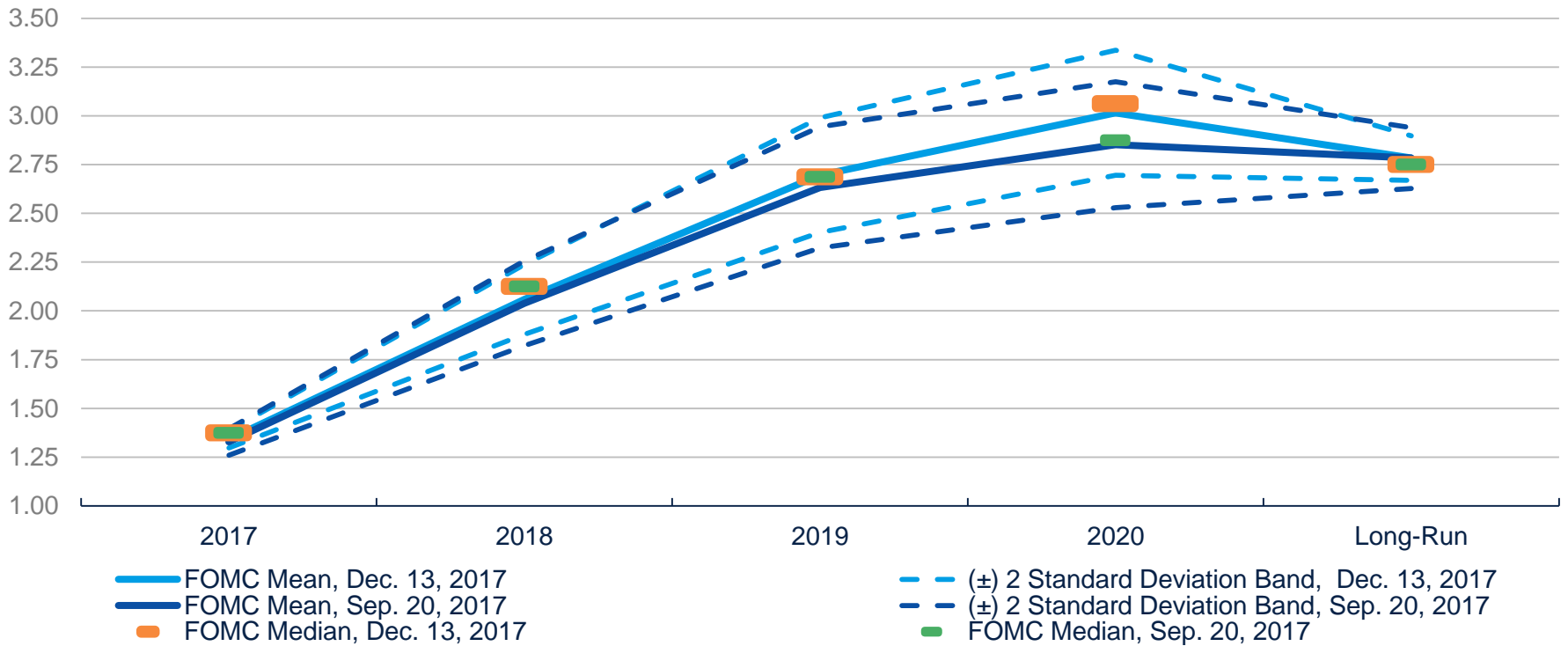
(%)



# FOMC 2018 and 2019 policy firming trajectory medians remain unchanged

## PROJECTED PACE OF POLICY FIRMING (%)

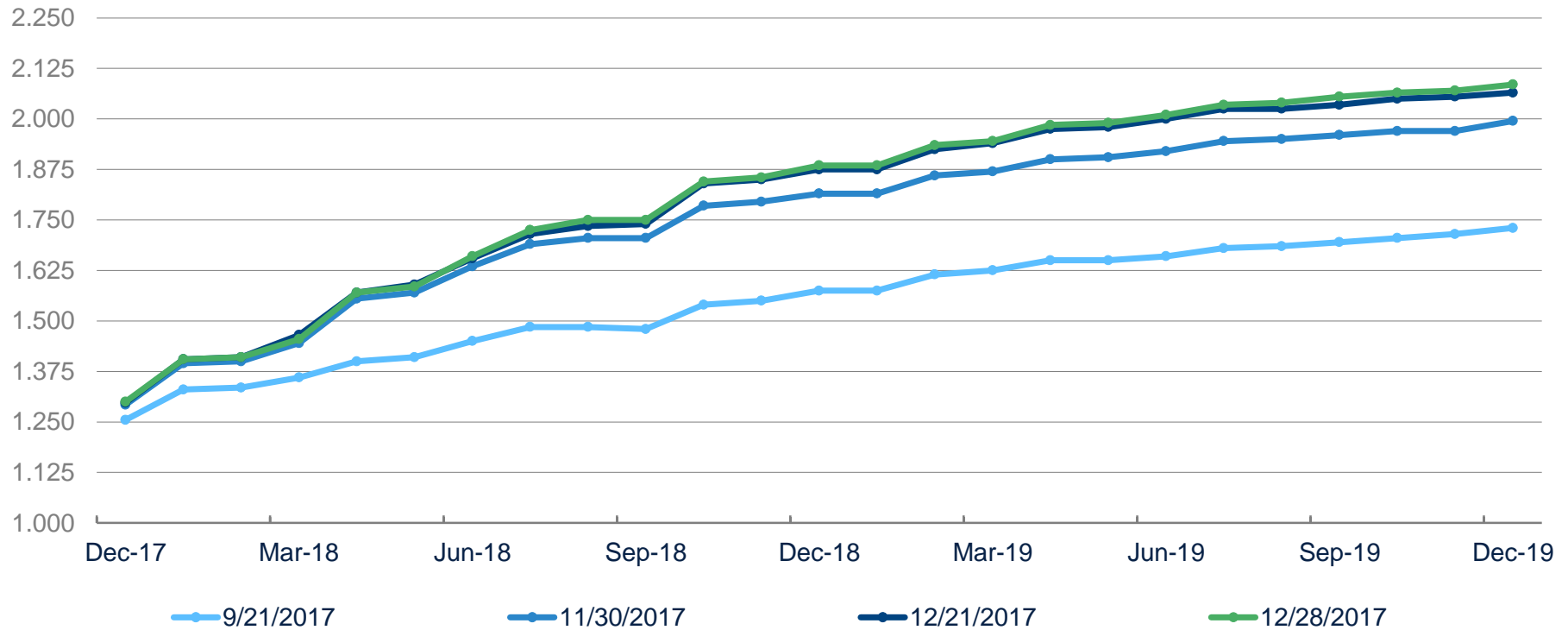
(%)



# Fed funds futures rise as the FOMC acts on the December rate hike

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

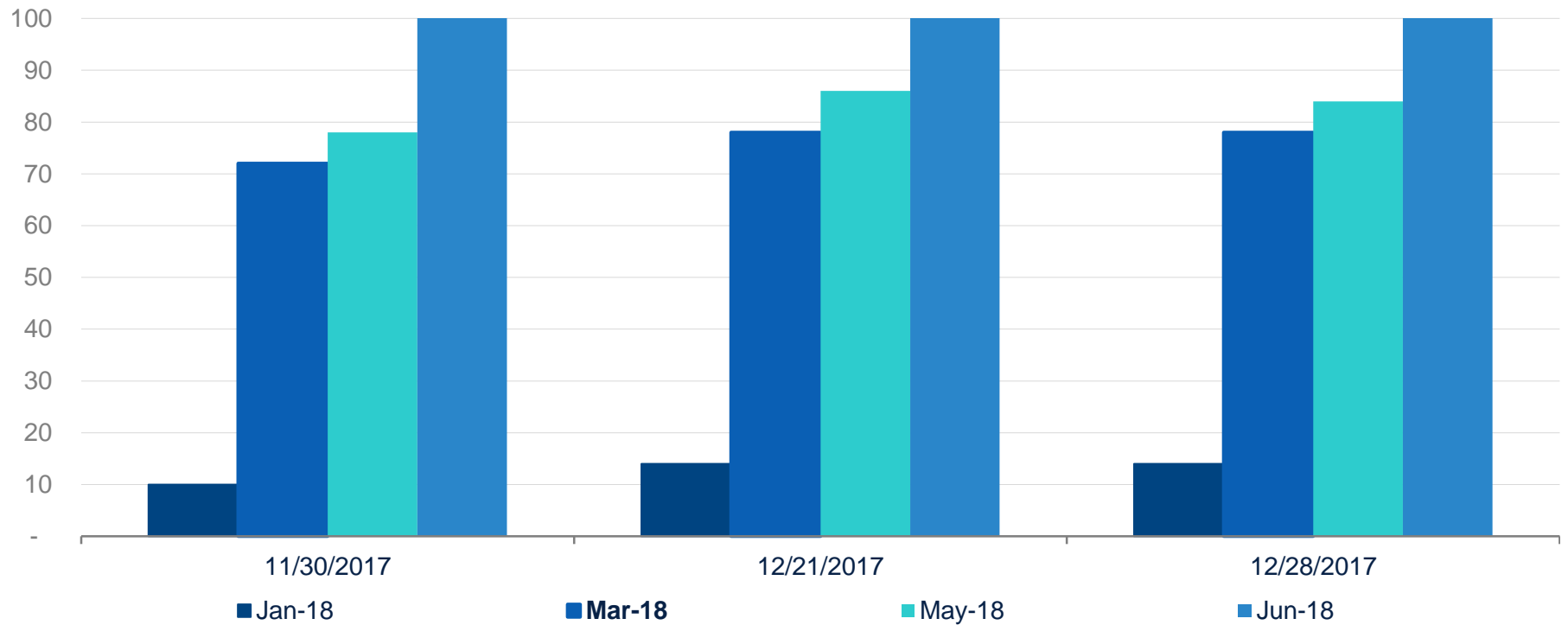
(%)



# A sixth rate hike is priced in for March 2018

FED FUNDS FUTURES IMPLIED PROBABILITIES, SIXTH 25BP HIKE

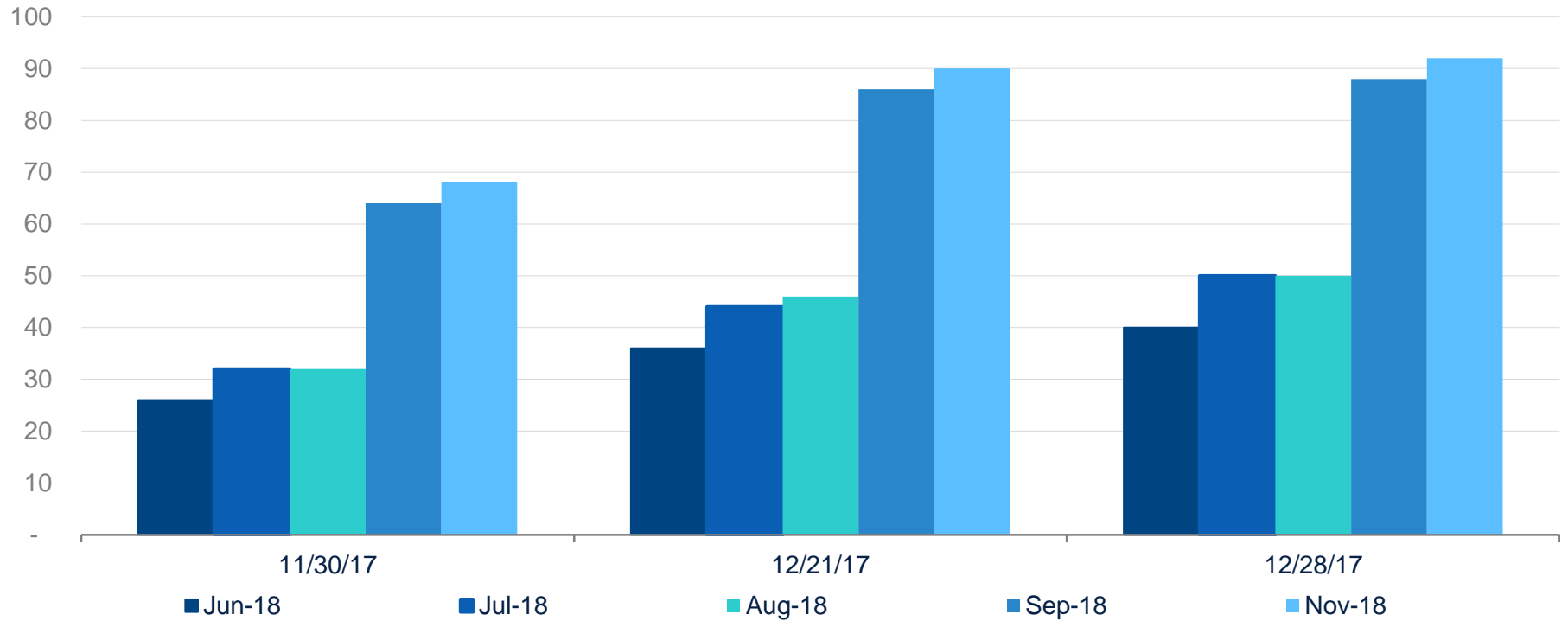
(%)



# A seventh rate hike is priced in for 3Q18

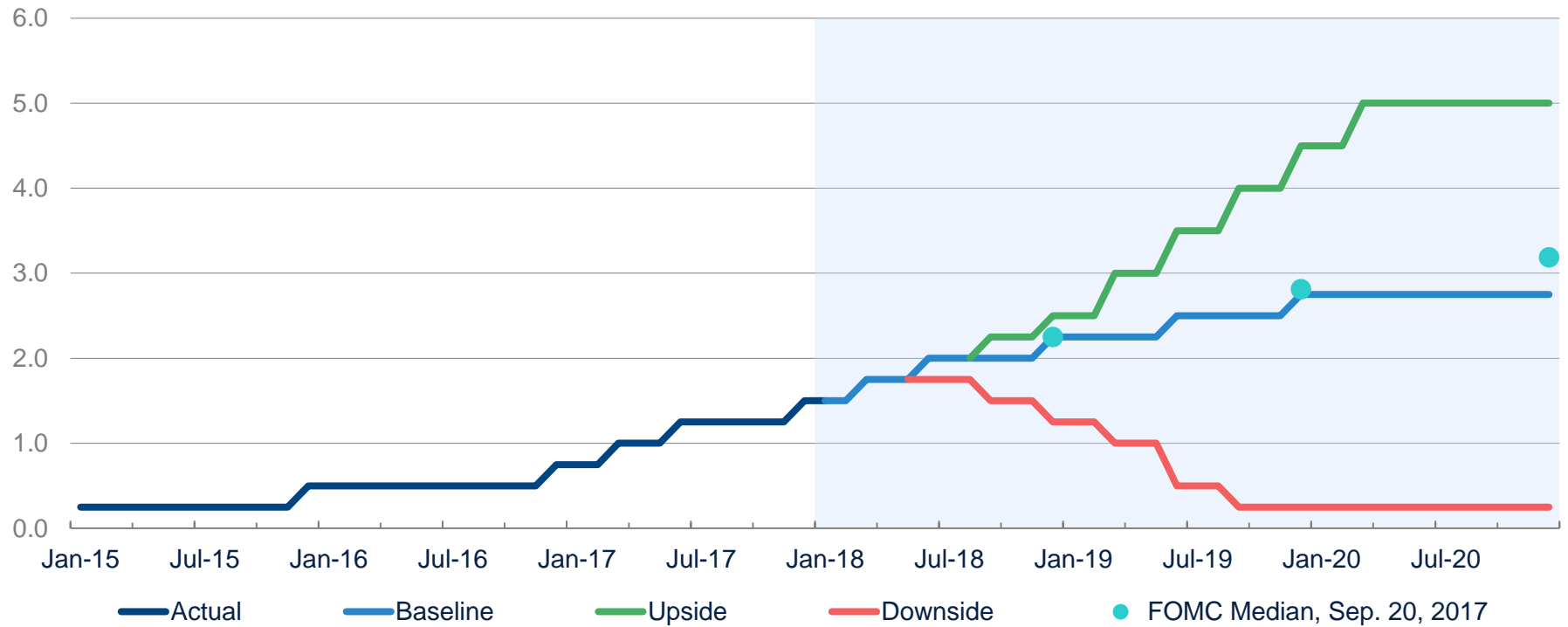
**FED FUNDS FUTURES IMPLIED PROBABILITIES, SEVENTH 25BP HIKE**

(%)



# Fed funds firming pace forecast

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



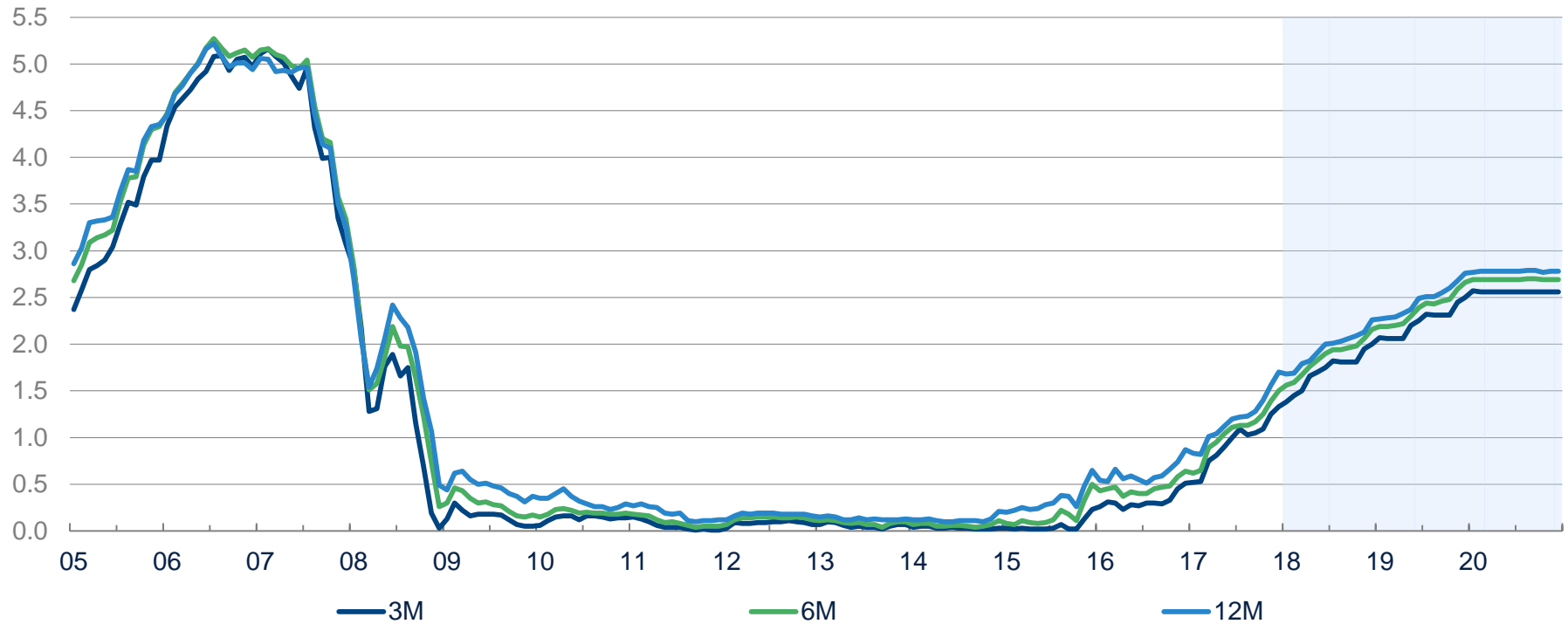
Source: BBVA Research, Federal Reserve Board and Haver Analytics



# Baseline forecasts of treasury bill yield

## 3-MONTH TO 12-MONTH RATES

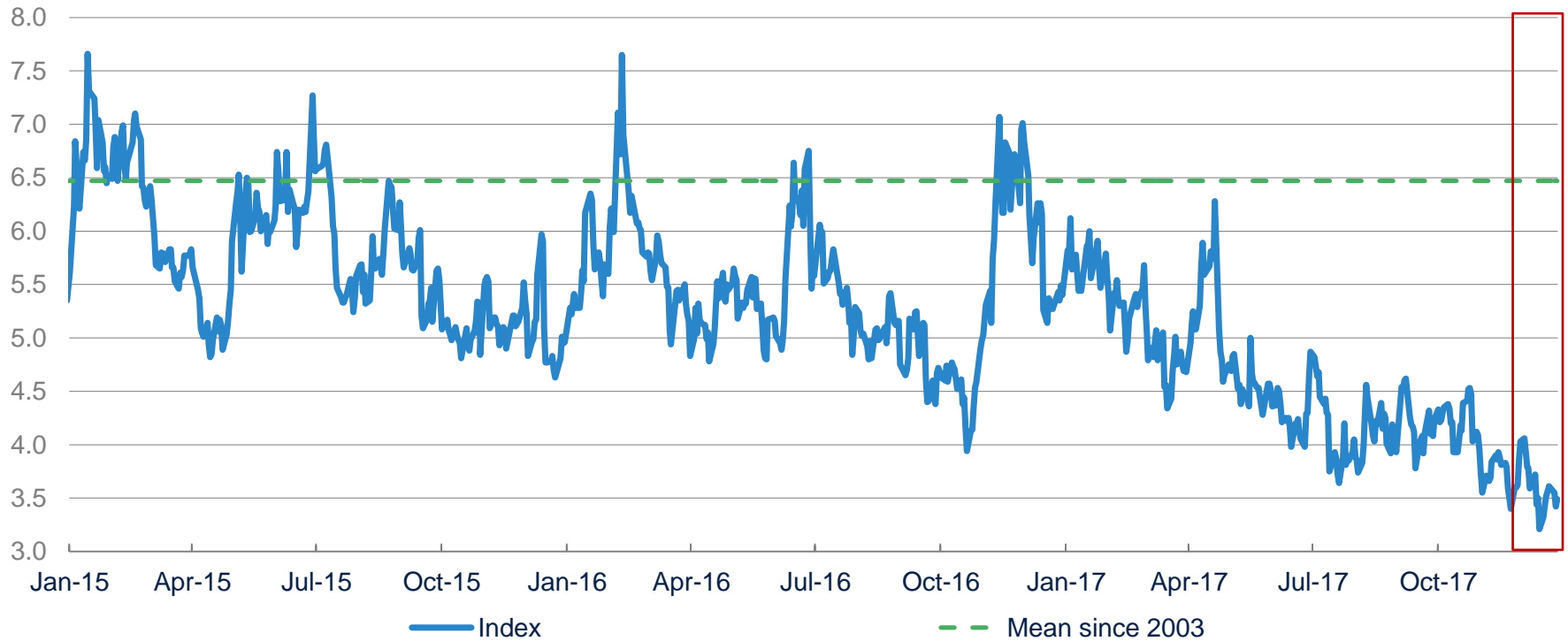
(%)



Source: BBVA Research, Federal Reserve Board and Haver Analytics

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

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

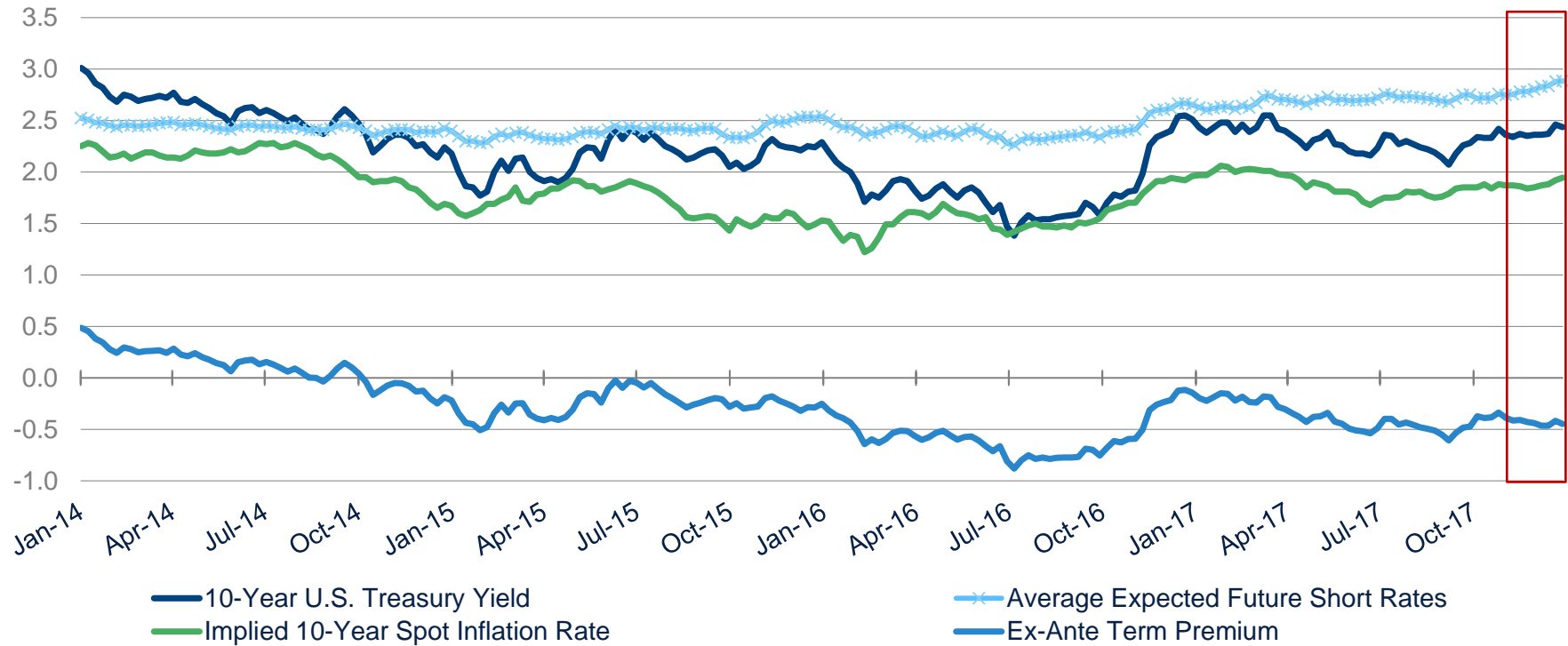


Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from the Chicago Board of Trade's actively traded options on the Treasury Note futures

# Downward pressure on term premium is unchanged

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

(Weekly, %)

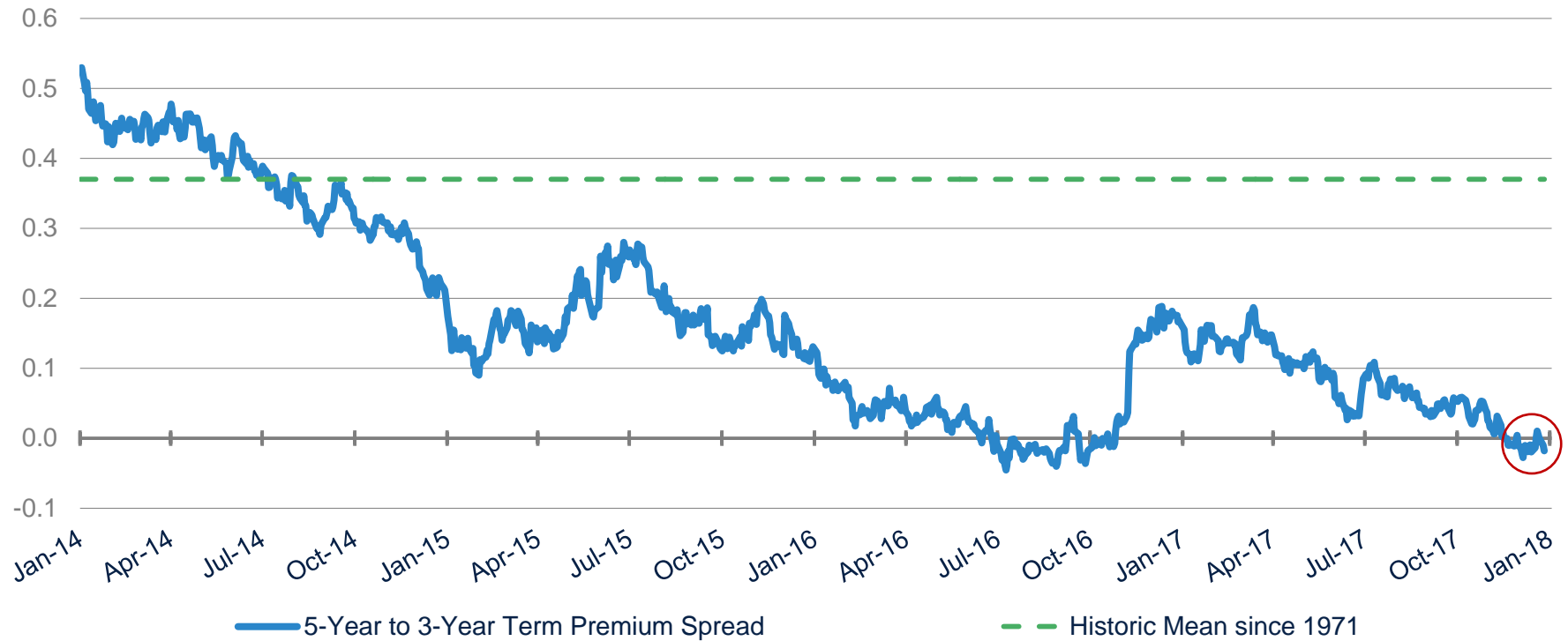


Source: BBVA Research, Federal Reserve Board and Federal Reserve Bank of New York

# Mid-term duration-risk compression lingers in near zero territory

## DURATION-RISK COMPRESSION

(Daily, %)

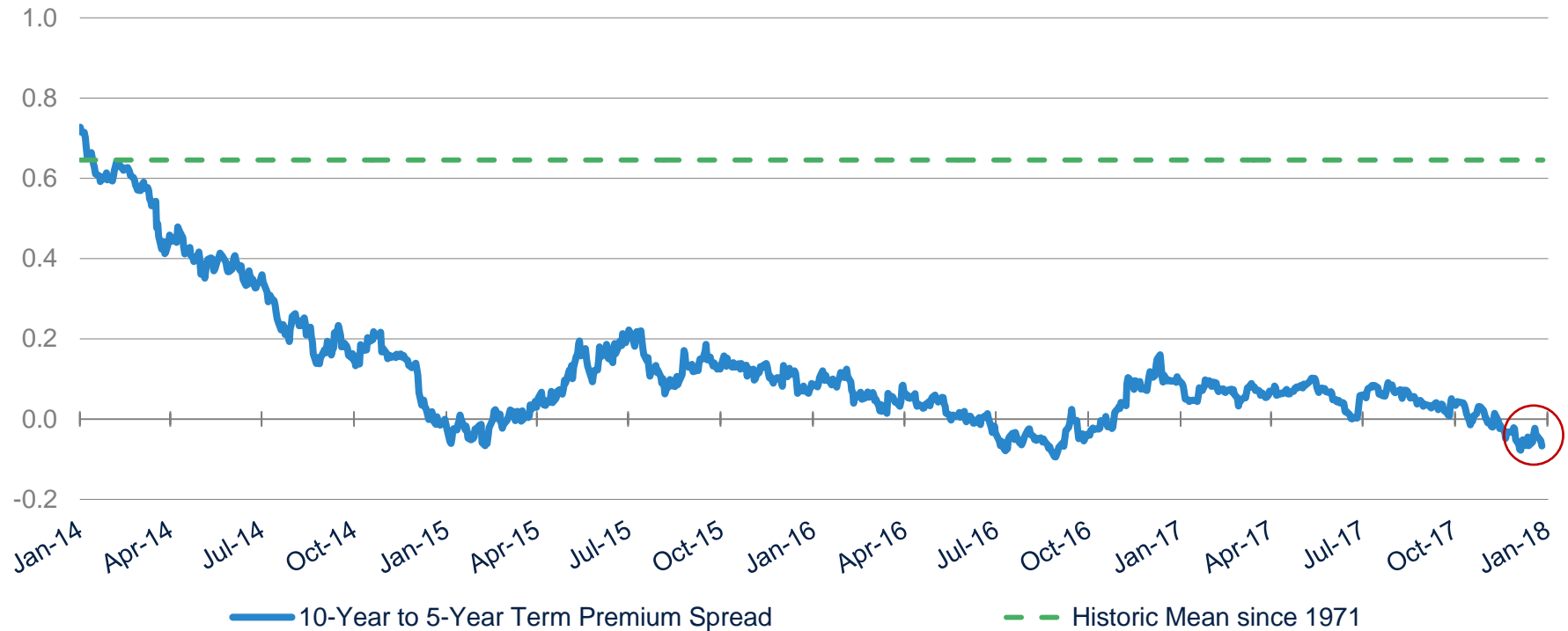


Calculated as the difference between 5-Year and 3-Year term premium reported by the New York Fed ACM (Adrian, Crump, and Moench) five-factor, no-arbitrage term structure model incorporating pricing factors.

# Long-term duration-risk compression remains in negative territory

## DURATION-RISK COMPRESSION

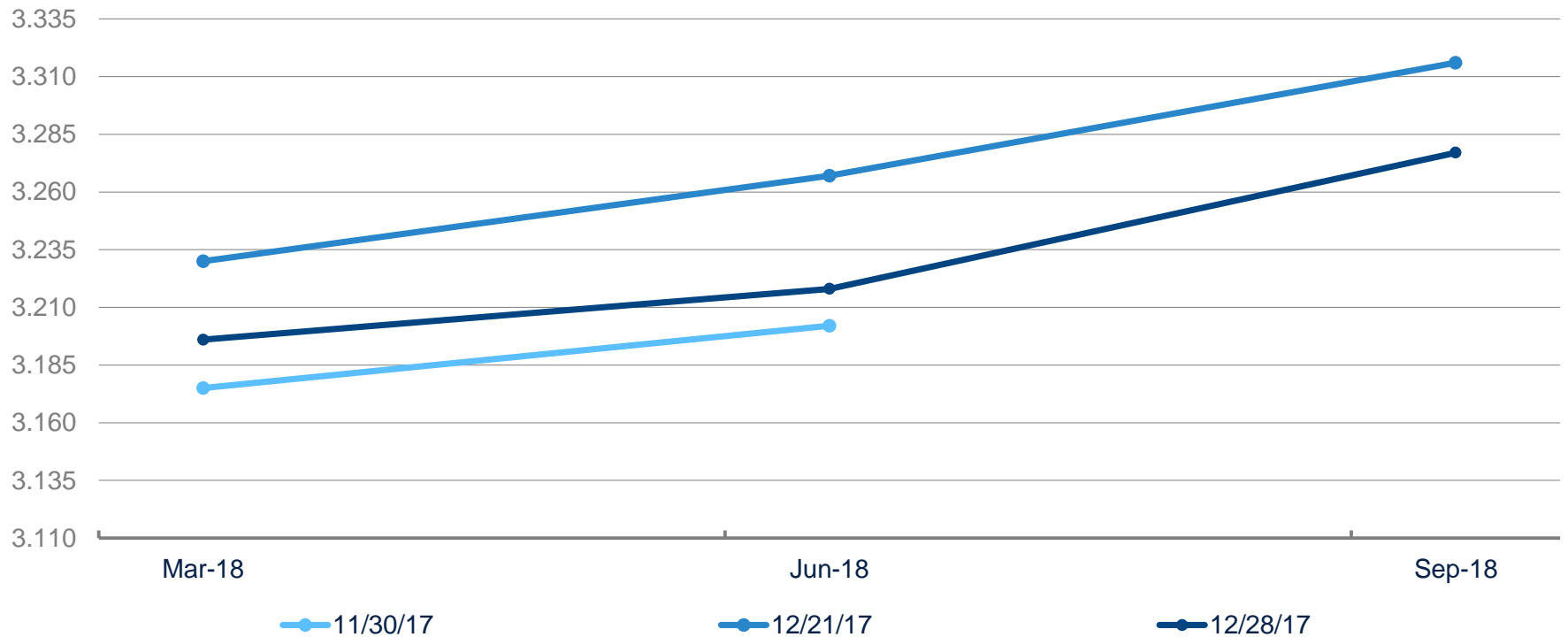
(Daily, %)



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.

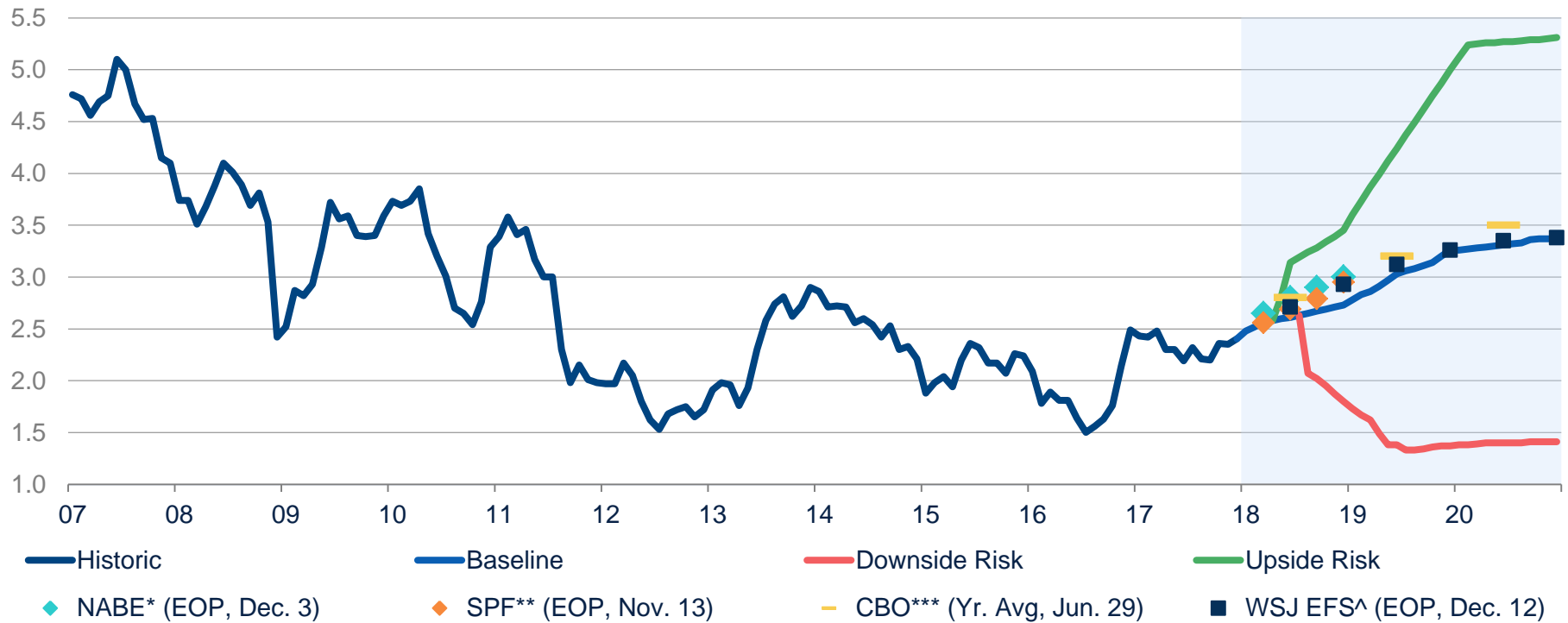
# Futures discount an 8 basis point rise in 10-year Treasury yields over the next 3 quarters

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



# 10-year Treasury yield forecasts

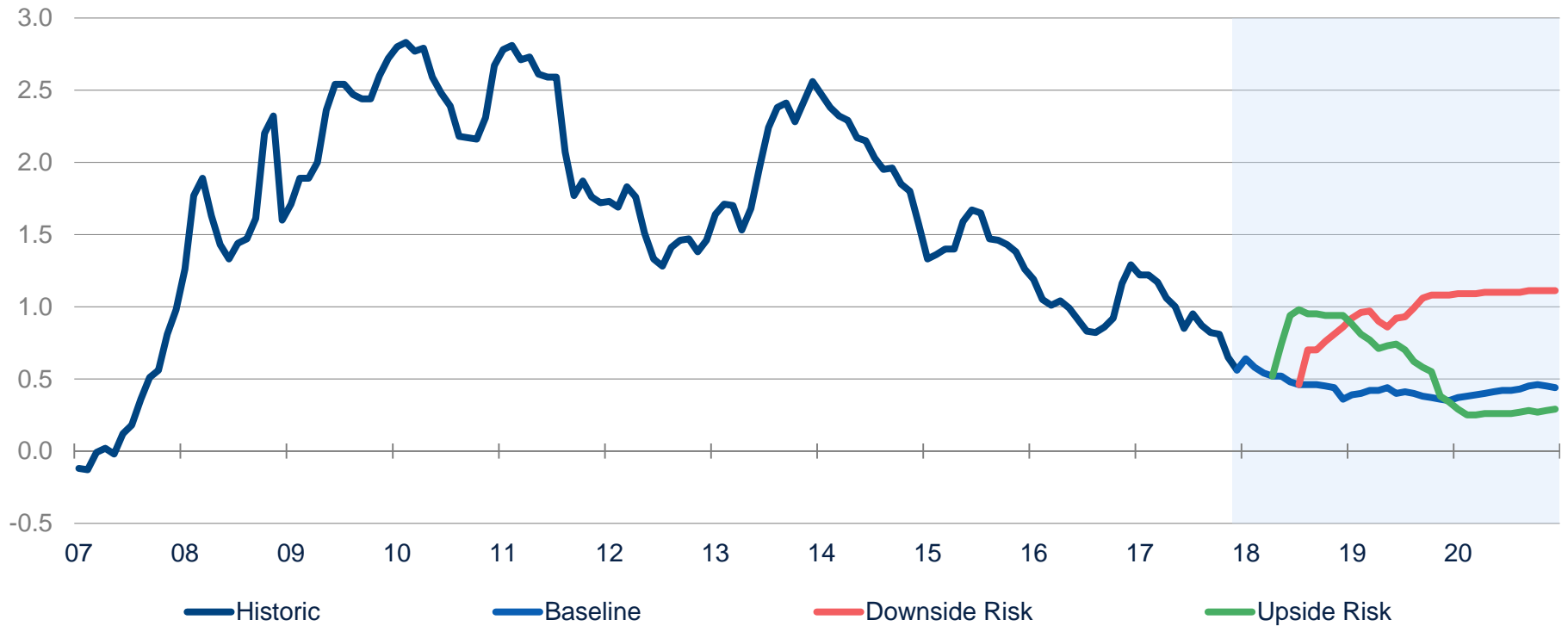
**10-YEAR U.S. TREASURY YIELD (%)**



\* National Association for Business Economics (NABE) Outlook median forecast compiled from a panel of NABE members. Last release date December 3, 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  
 ^ Economic Forecasting Survey. The Wall Street Journal surveys a group of more than 60 economists on a monthly basis. Last release date December 12, 2017

# Yield curve slope forecasts

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

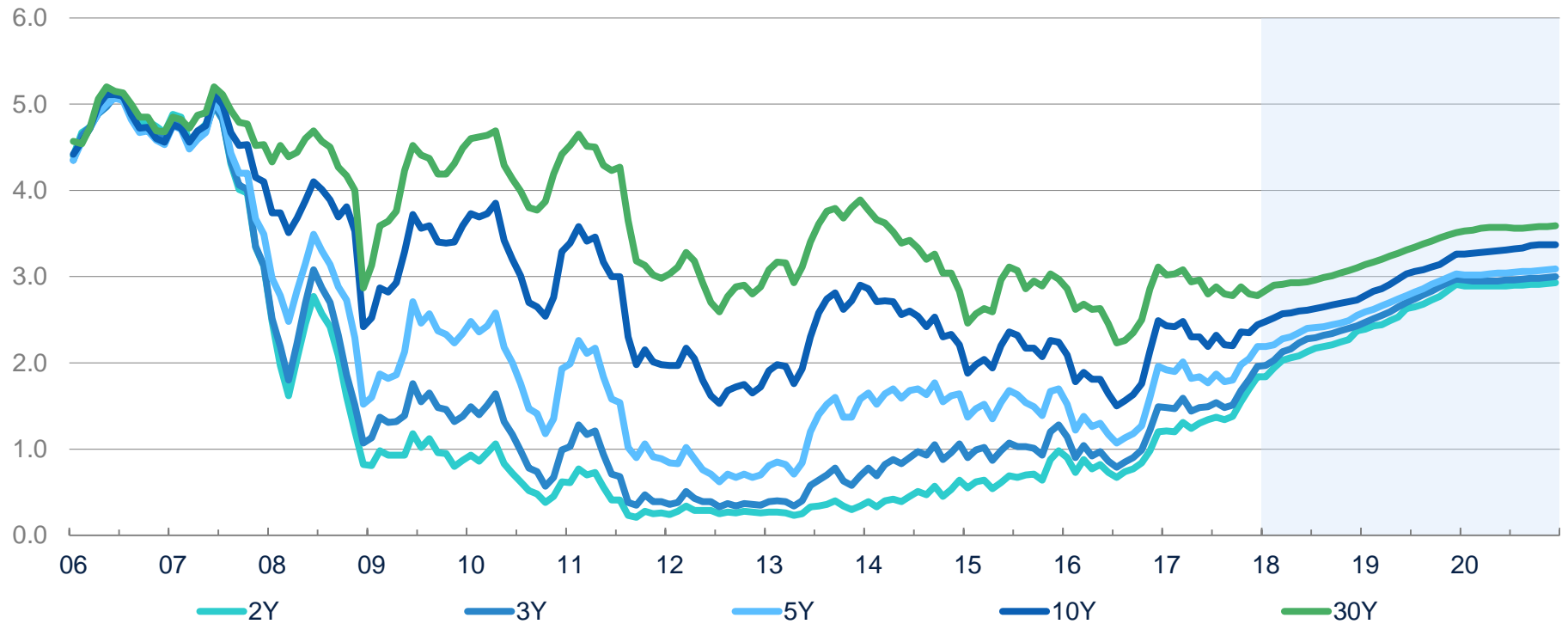


Source: BBVA Research, Federal Reserve Board and Haver Analytics



# Treasury yield curve baseline forecasts

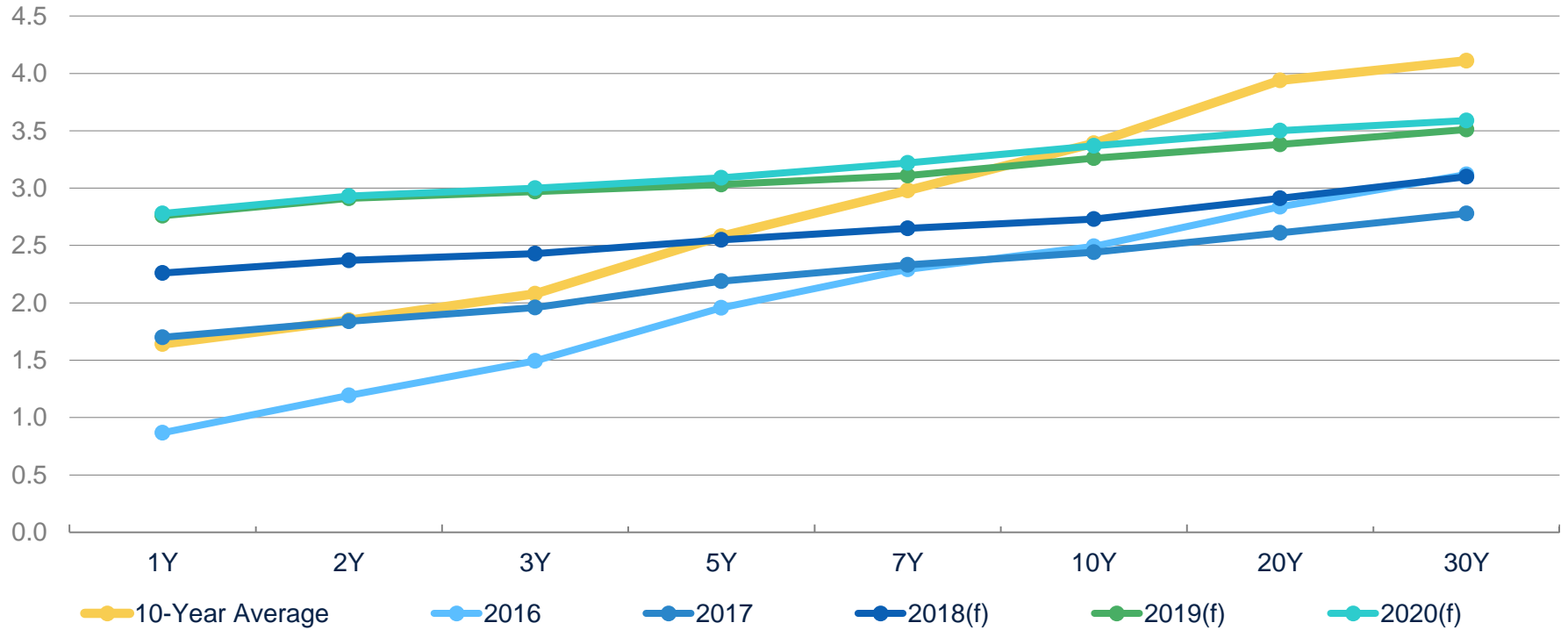
**U.S. TREASURY YIELD CURVE**  
(%)



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)

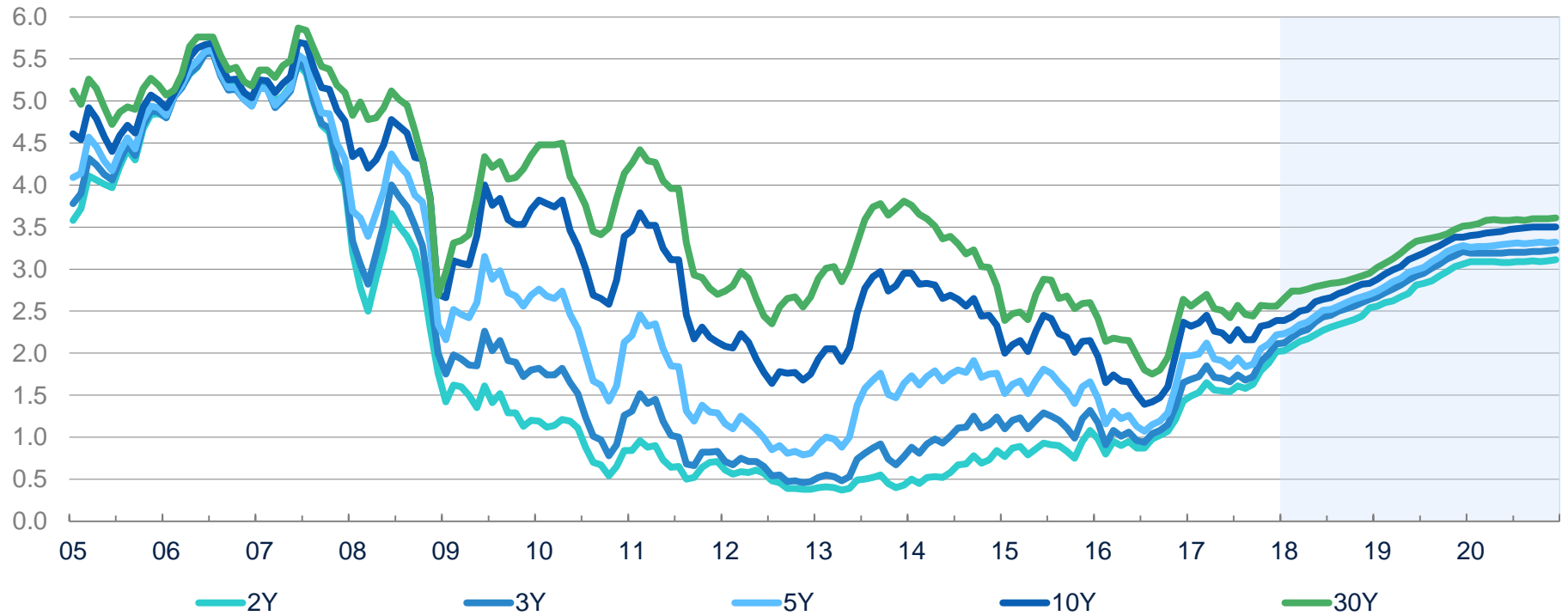


BBVA Research baseline forecast. Treasury yield curve is estimated with a three-factor no-arbitrage model linked to macroeconomic factors measuring growth, inflation and monetary policy. Estimates are based on BBVA Research baseline forecast for GDP growth, inflation and Fed funds rate.

# Swap curve baseline forecasts

## U.S. SWAP RATES

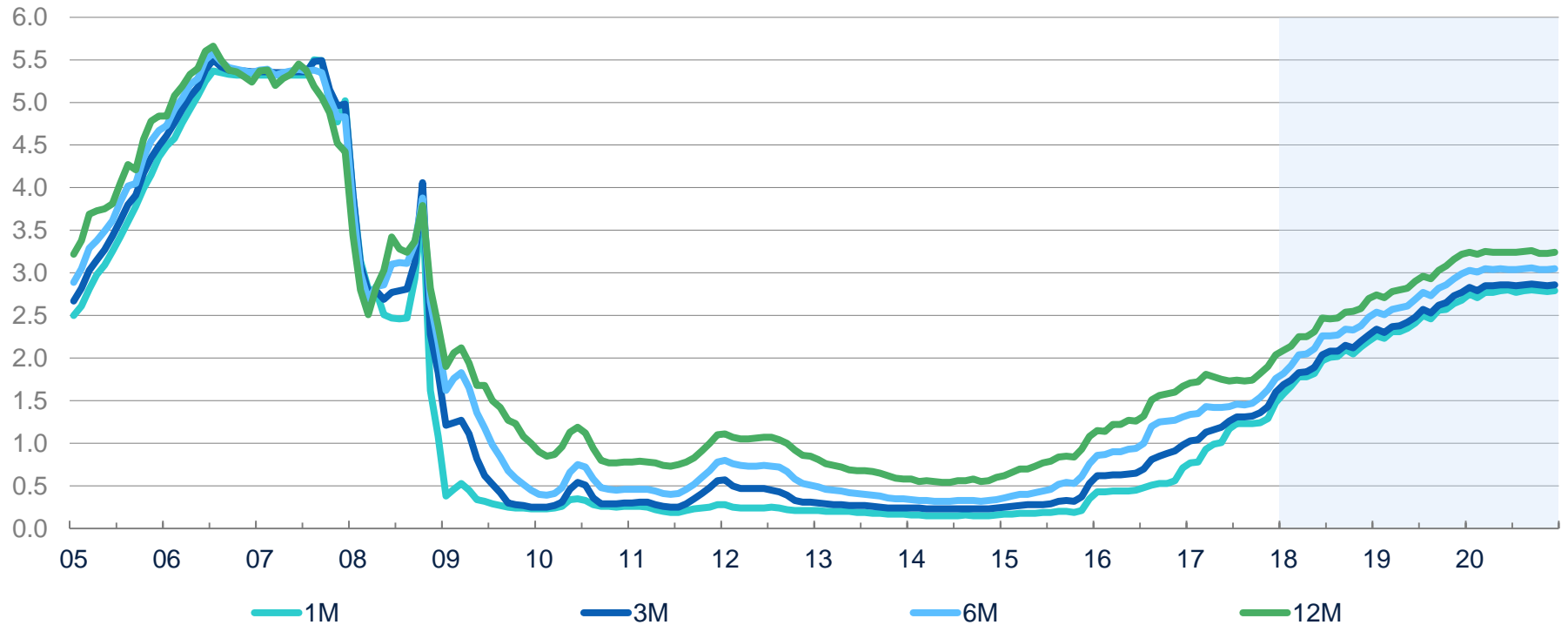
(%)



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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