

U.S. Interest Rates Chartbook March 2018

Takeaways

Research

BBVA

- At the March meeting, the FOMC voted unanimously to raise the Fed funds rate to 1.5%-1.75%. The newly appointed Chairman is committed to maintaining continuity with his predecessor.
- On how to calibrate monetary policy when fiscal policy is expansionary, Powell stated that they are "trying to take the middle ground and the committee continues to believe that the middle ground consists of further gradual increases in the federal-funds rate."
- Fed funds futures are pricing in two additional rate increases for 2018. The implied probability for the next rate increase in May is priced with a 64% probability.
- The downward pressure on term premium is resumed, as both the supply and demand imbalance in long-term Treasuries and the amplified role of duration risk as a global shock absorber remain unchanged.
- The yield curve slope between the 2-year and 10-year Treasury notes flattened to 48 basis points, the lowest since August 2007.
- The baseline remains for a gradual increase in long-term yields stabilizing at a higher rate over the forecast horizon due to higher growth, adjustment to higher inflation expectations, and higher term premium.



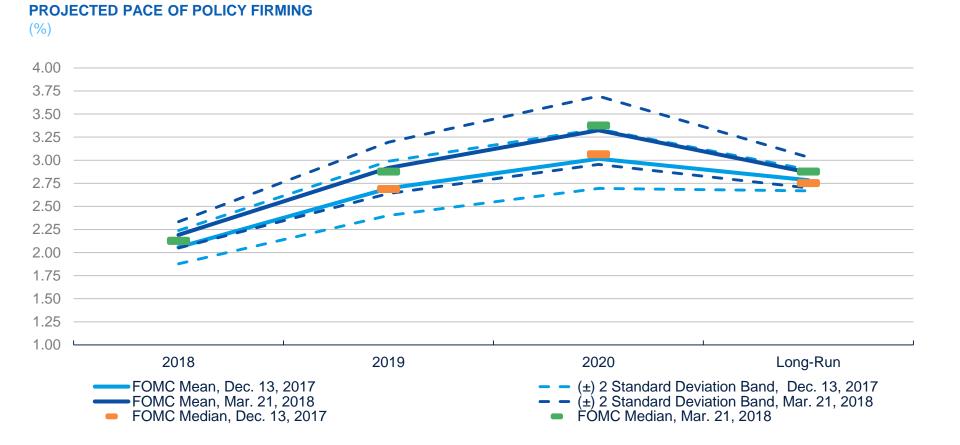
Unconventional monetary policy

FEDERAL FUNDS RATE AND THE 10-YEAR TREASURY NOTE (%)



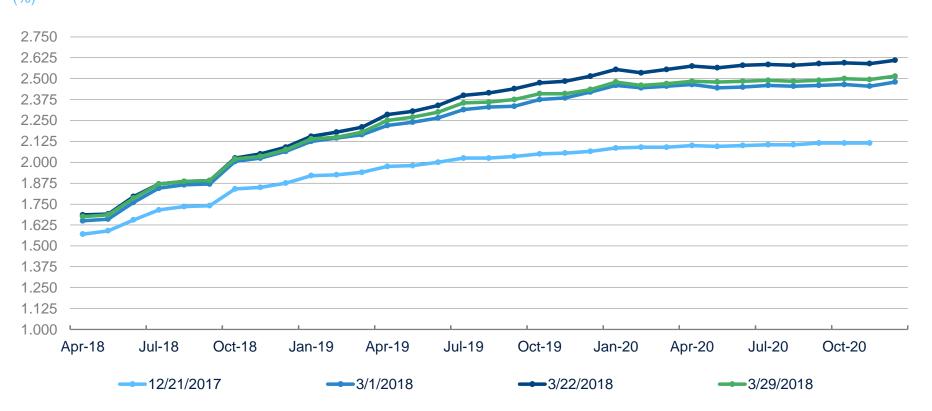


FOMC 2019 and 2020 policy firming trajectory shifted upwards





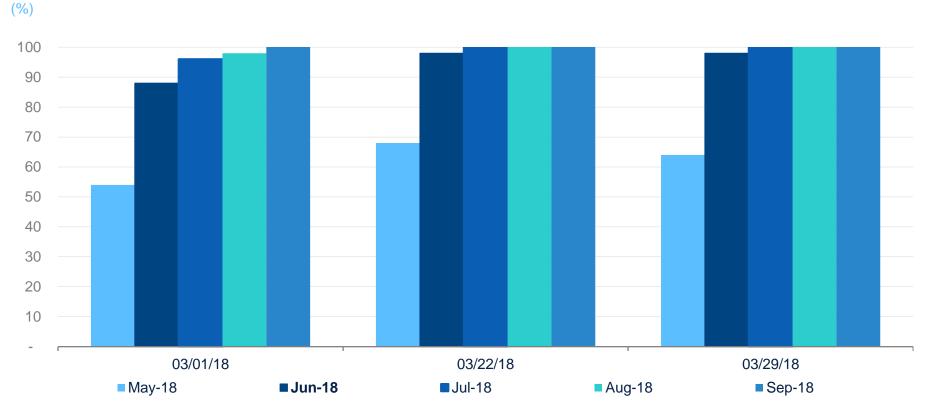
Fed funds futures are aligned with the FOMC 2018 trajectory



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



64% probability of a seventh rate increase in May



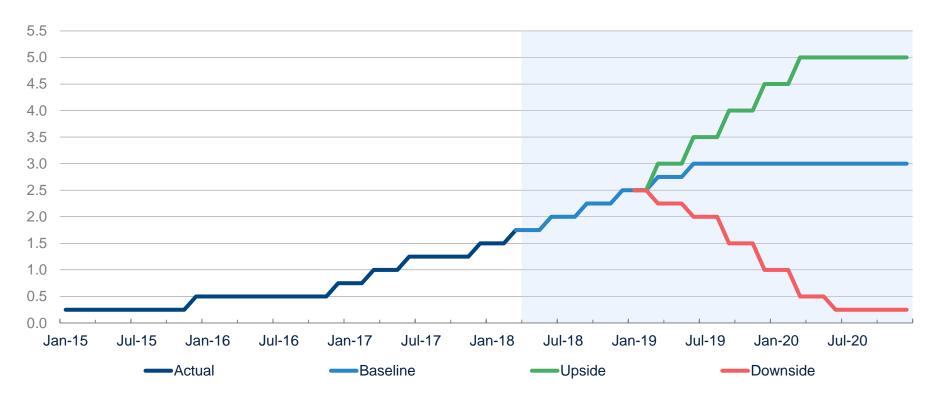
FED FUNDS FUTURES IMPLIED PROBABILITIES, SEVENTH 25BP HIKE



Fed funds firming pace forecast

FEDERAL FUNDS RATE

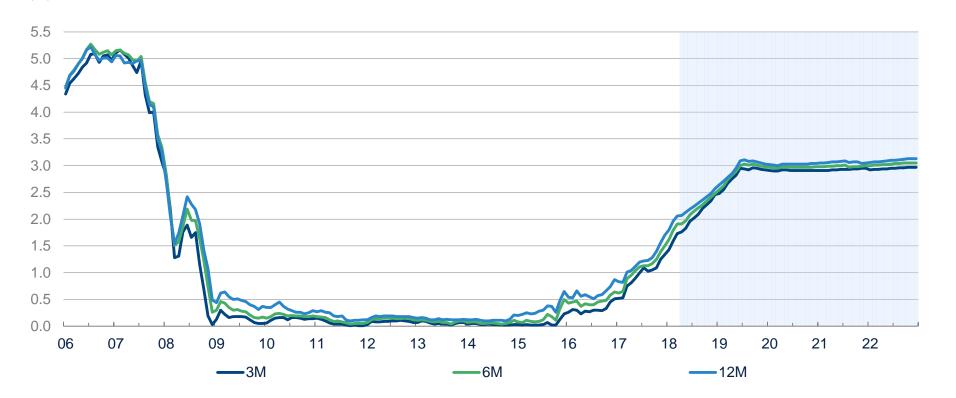
(%, Upper Bound, End of Period)





Baseline forecasts of treasury bill yield

3-MONTH TO 12-MONTH RATES (%)





(Daily index)

10-YEAR U.S. TREASURY NOTE VOLATILITY

Long-term yield volatility remains low relative to historic mean

8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 1 3.0 -Jul-15 Oct-15 Jan-16 Apr-16 Jul-16 Oct-16 Jan-17 Apr-17 Jul-17 Oct-17 Jan-18 Jan-15 Apr-15 Mean since 2003 Index

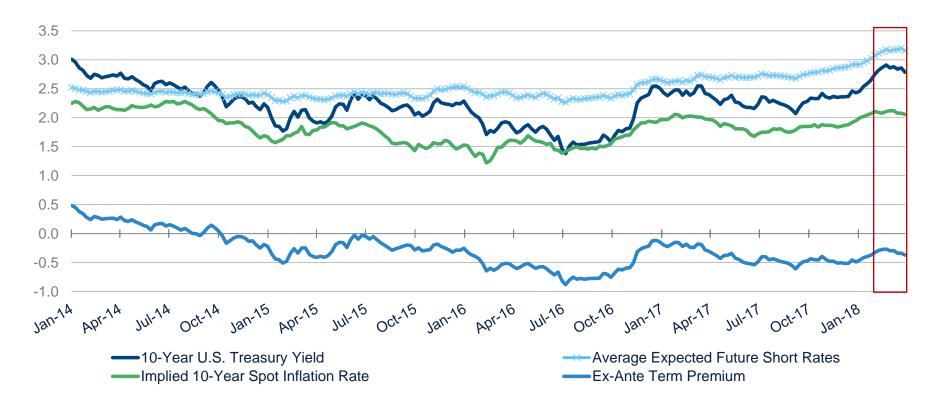
Index measures a constant 30-day expected volatility of 10-Year Treasury Note futures prices, and is calculated based on transparent pricing from the Chicago Board of Trade's actively traded options on the Treasury Note futures

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Downward pressure on term premium resumes

10-YEAR U.S. TREASURY TERM PREMIUM & MARKET INFLATION EXPECTATIONS (Weekly, %)





Mid-term duration-risk compression declines to 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.



Long-term duration-risk compression returns to negative territory

DURATION-RISK COMPRESSION

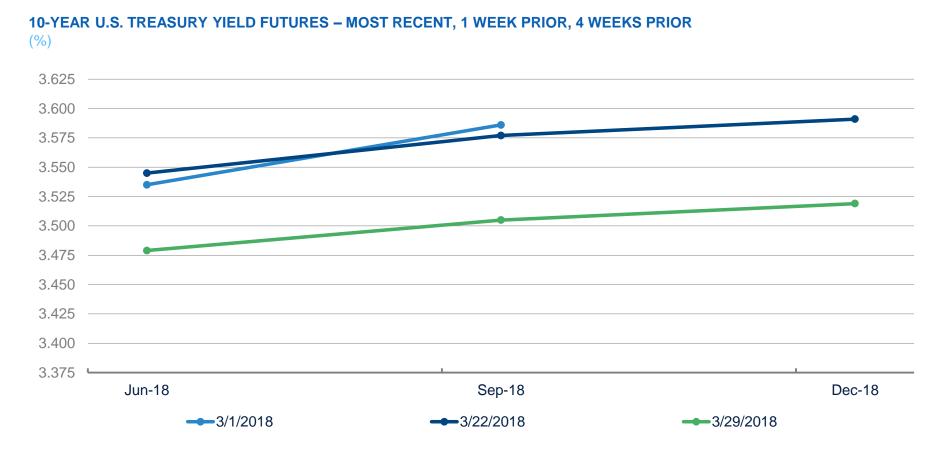
(Daily, %)



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 a 4 basis point rise in 10-year Treasury yields over the next 3 quarters



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 March 25, 2018

** Survey of Professional Forecasters (SPF) conducted by Federal Reserve Bank of Philadelphia. Last release date February 9, 2018

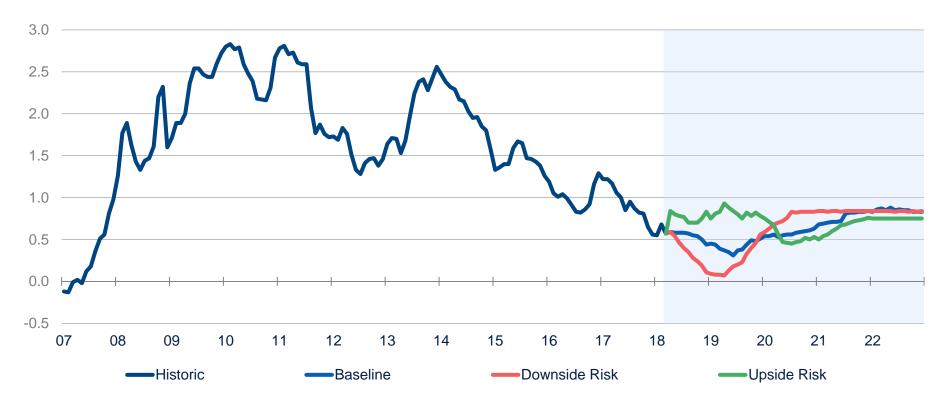
*** Administration: 2018 Budget. Last release date February 12, 2018

^ Economic Forecasting Survey. The Wall Street Journal surveys a group of more than 60 economists on a monthly basis. Last release date March 1, 2018

Yield curve slope forecasts

TREASURY YIELD CURVE SLOPE

(%, 10Y-2Y)

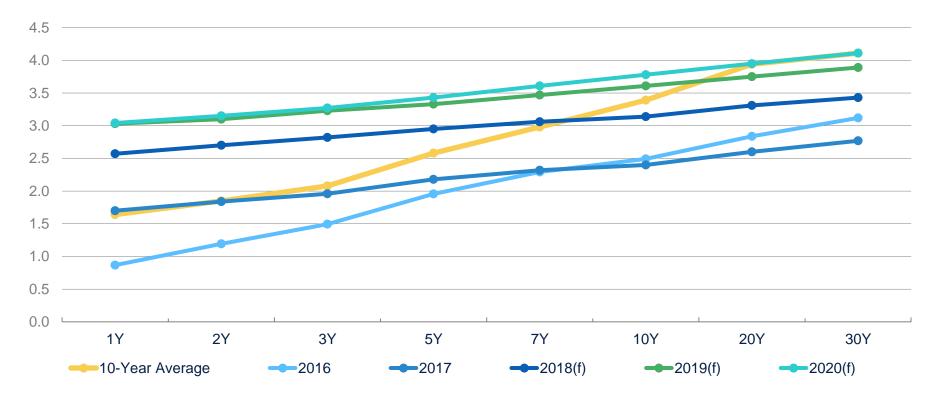




Yield curve forecasts

TREASURY YIELD CURVE BASELINE FORECAST

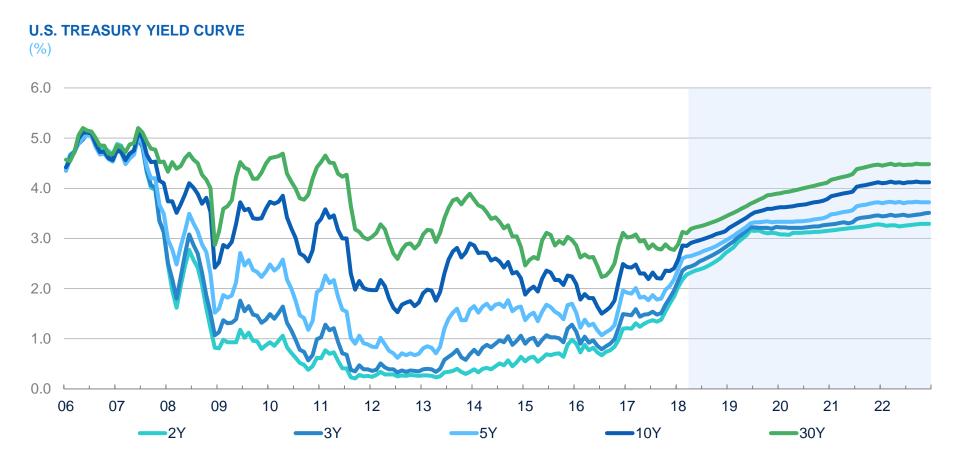
(%, End of Period)



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.



Treasury yield curve baseline forecasts



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. DOLLAR LIBOR RATES

LIBOR curve baseline forecasts

(%) 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 80 09 10 11 12 13 14 15 16 17 18 19 20 21 22 06 07 1M **—**3M 6M **—**12M



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