

The logo for BBVA Research, featuring the text "BBVA" in a bold, white, sans-serif font, followed by "Research" in a smaller, lighter weight sans-serif font. A small teal square is positioned to the right of the word "Research".

BBVA Research

U.S. Economic Outlook

April 2019

Creating Opportunities

Economic Outlook



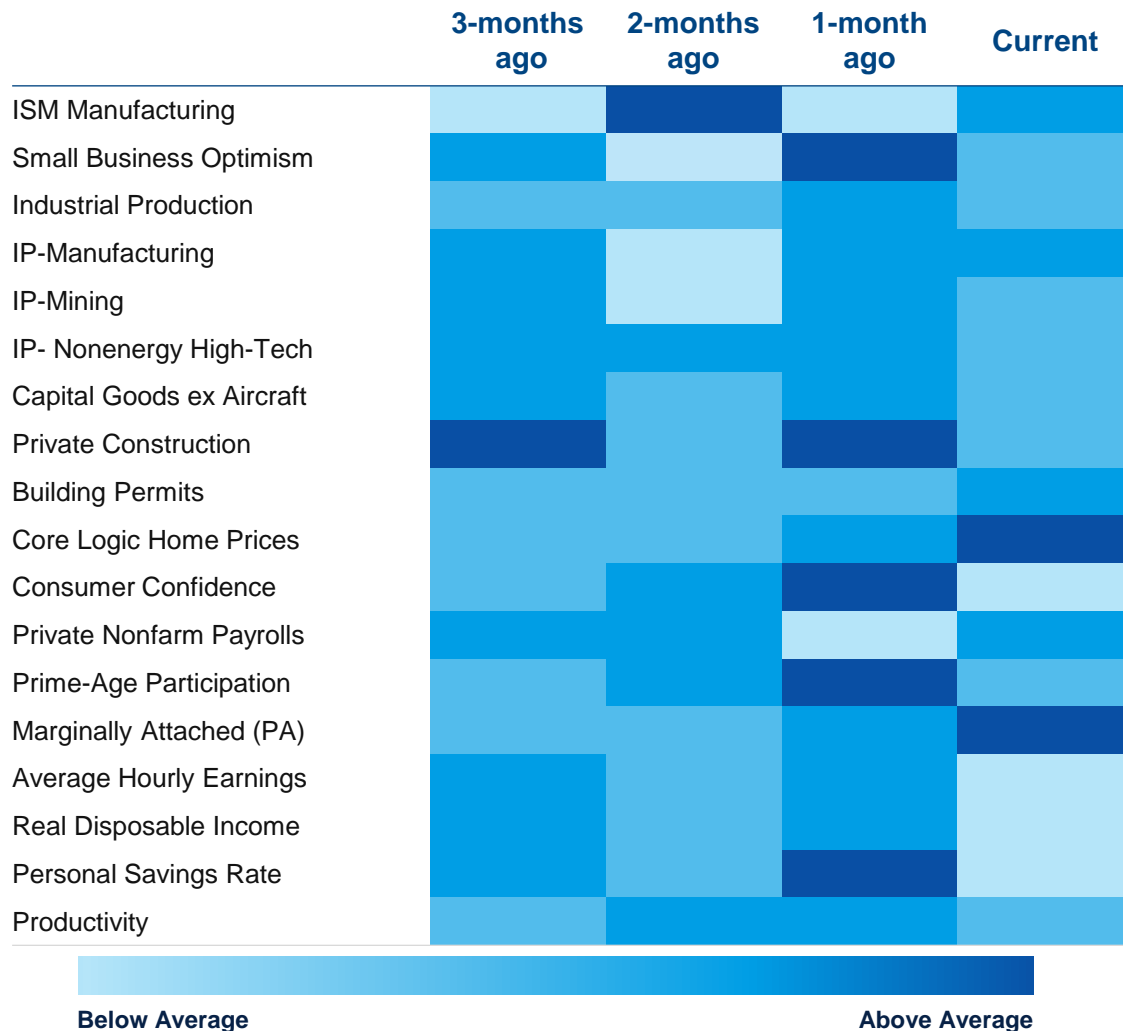
- GDP growth 2.5% in 2019, and 2.0% in 2020
- Model based recession probability above 50%
- Probability of Fed rate hike in 2019 diminished; quantitative tightening end in September
- Labor market stabilizes after whipsawing
- Core inflation stable, headline below 2.0% in 2019
- Short-lived technical yield curve inversion, but signaling power altered by structural changes
- Geopolitics pressuring oil prices; short-term risks tilted to the upside

Macro Fundamentals

- Residual seasonality, government shutdown & consumption headwinds underlie our 1Q19 growth forecasts of 1.8%
- Rebound in job creation amid solid wage growth and low borrowing costs will continue supporting private consumption
- Export balance unlikely to worsen dramatically from year-end 2018 levels due to easing of trade tensions, stable dollar, reduced global headwinds and lower domestic consumption
- Hard and soft indicators suggests moderate growth in investment despite tepid outlook for residential and nonresidential structures
- Boost from fiscal stimulus should remain in place in 1H19; impetus to fade in 2H19 if no additional measures taken

Economic activity

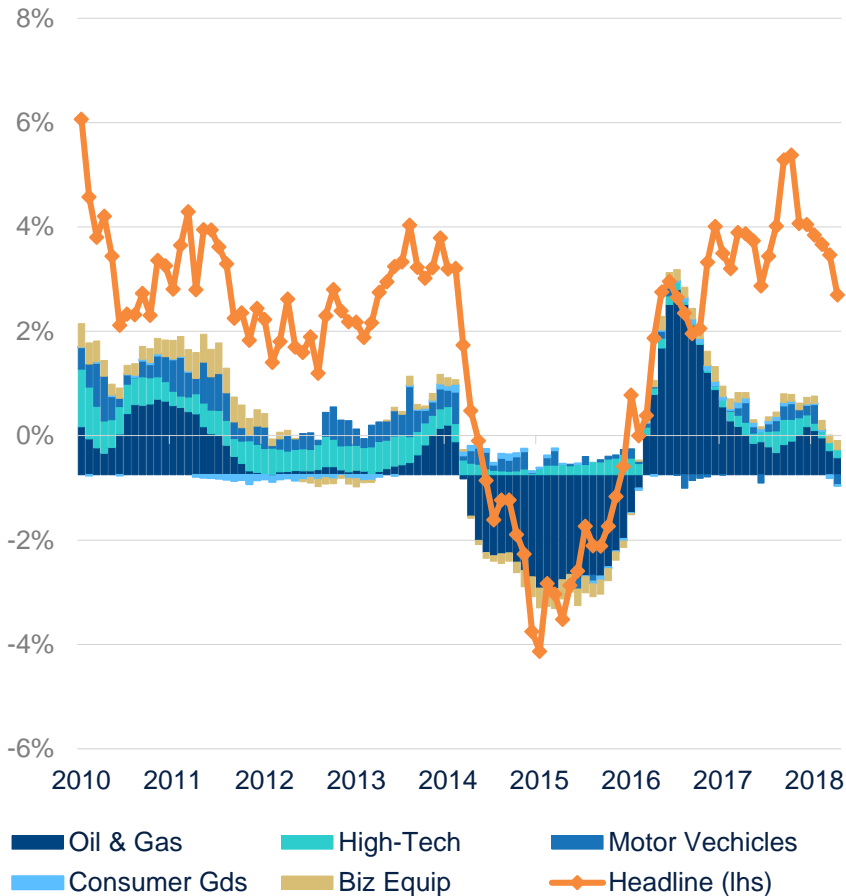
Real-Time Economic Momentum Heat Map



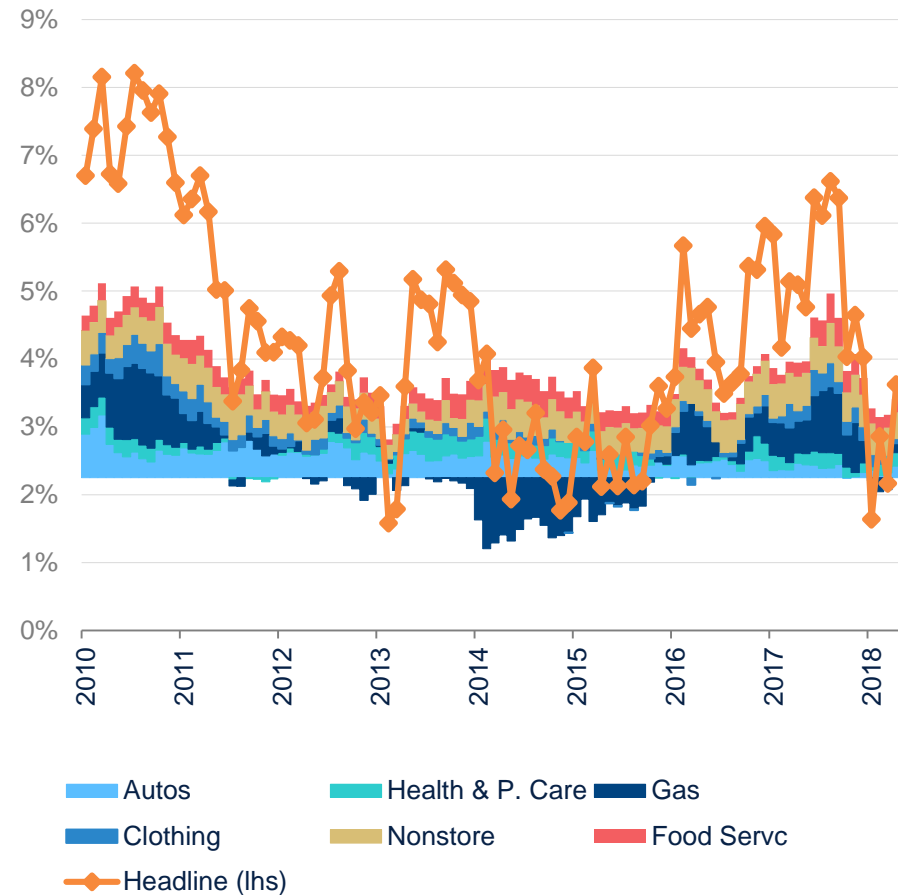
- While industrial indicators still signal expansion, momentum slowing
- Pause in interest rate increases supporting demand-side housing market conditions
- Nonfarm productivity accelerating despite stagnant productivity growth in manufacturing sector
- Market volatility and financial tightening weighing on small business confidence
- Wage momentum slowed despite tight labor market conditions

Economic trends: Disparate trends in industrial activity and consumer spending

Industrial Production (Year-over-year %)



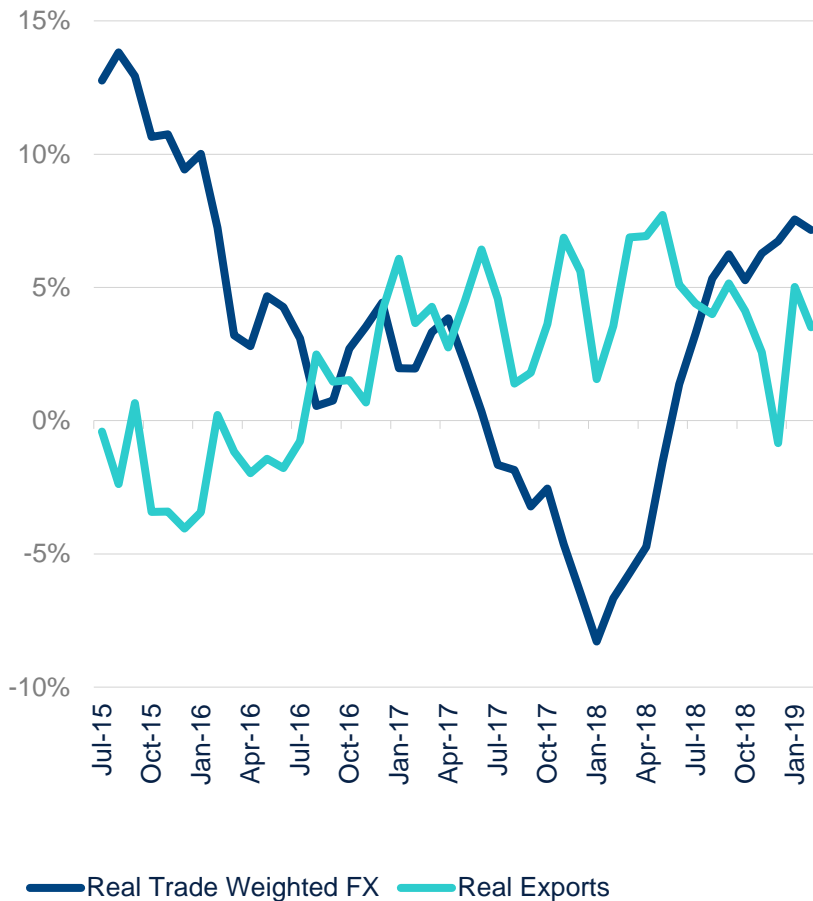
Retail Sales (Year-over-year %)



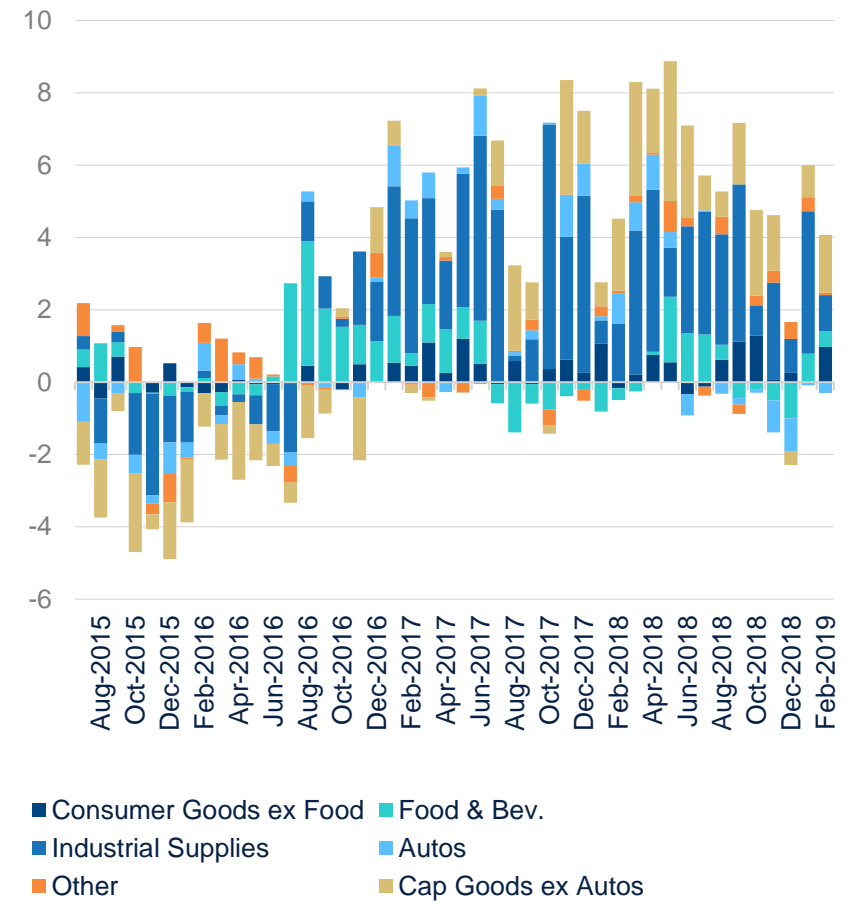
Source: BBVA Research, FRB & BEA

Economic trends: Stable exchange rate and less downbeat global outlook support rebound in exports

Real Exchange Rate and Exports (Year-over-year %)



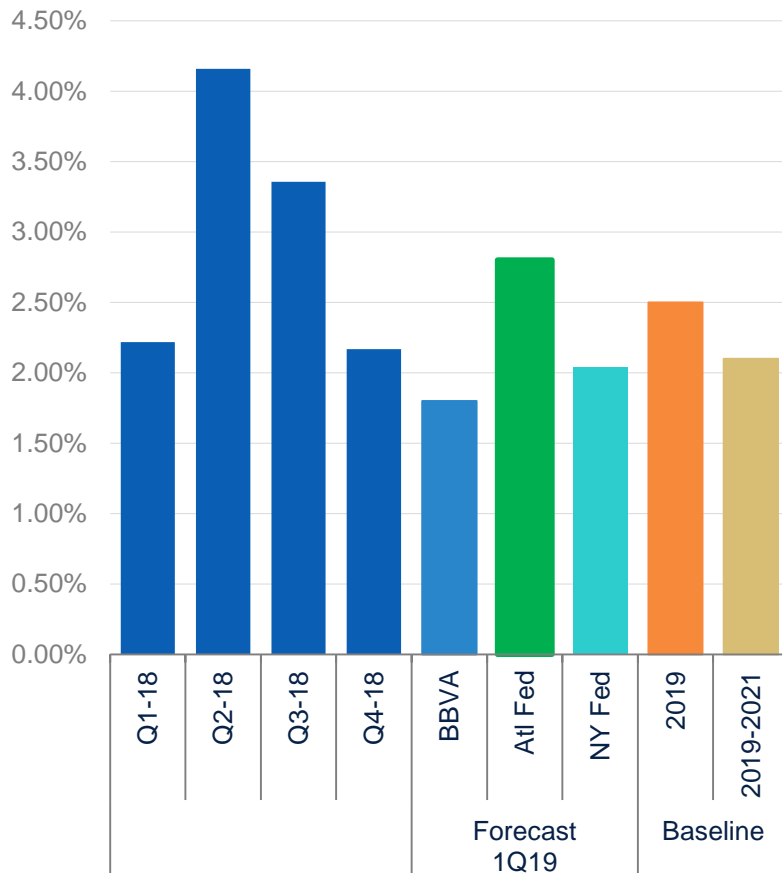
Real Exports (Contribution to year-over-year %)



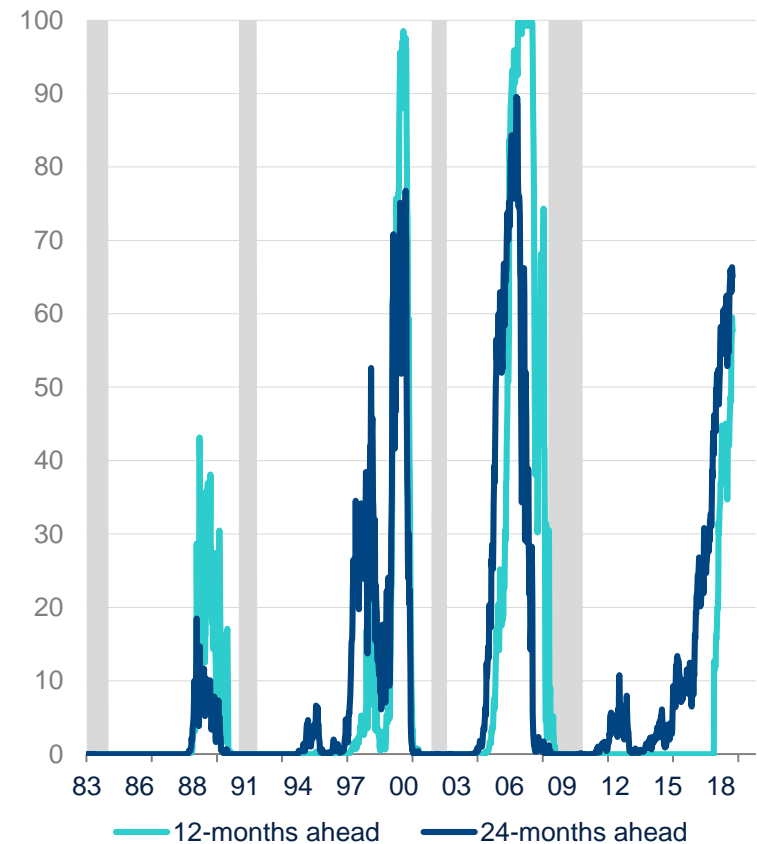
Source: BBVA Research, FRB & Census

Economic trends: Moderate growth in 1Q19, model-based recession projections remain above 50%

Real GDP
(QoQ SAAR, %)



Probability of Recession in 12 Months
(%)

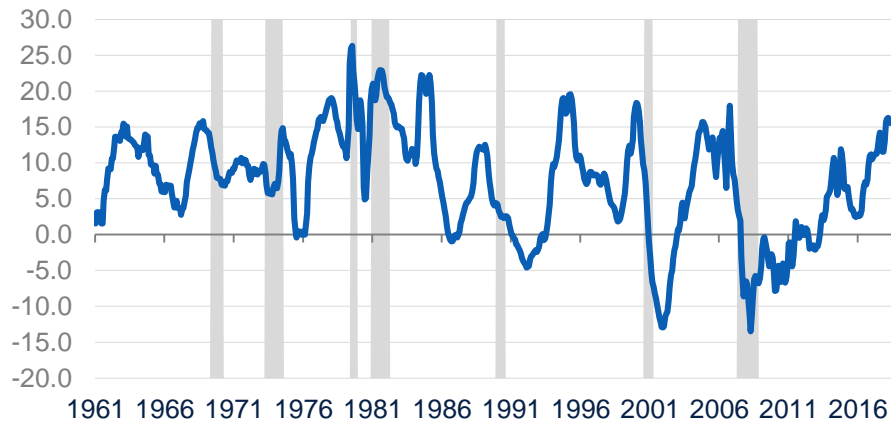


Source: BBVA Research, and ATL & NY Fed

Consumer credit cycle: Consumer leverage growing, but risks remain muted relative to previous cycles

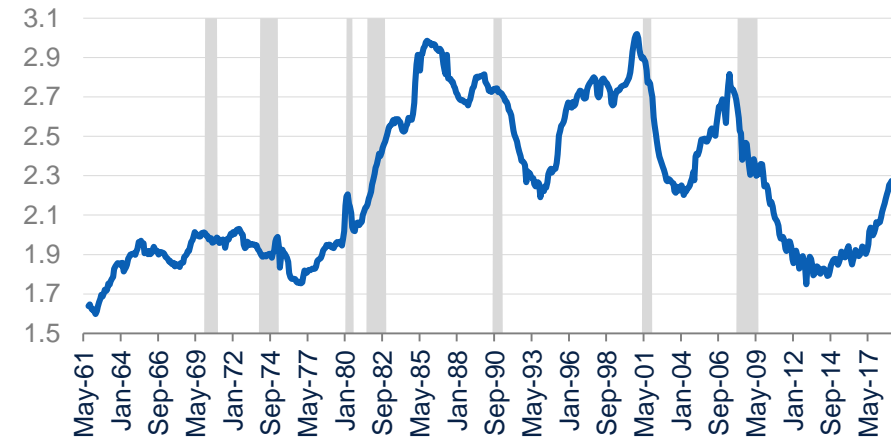
Personal Interest Expense

Year-over-year %



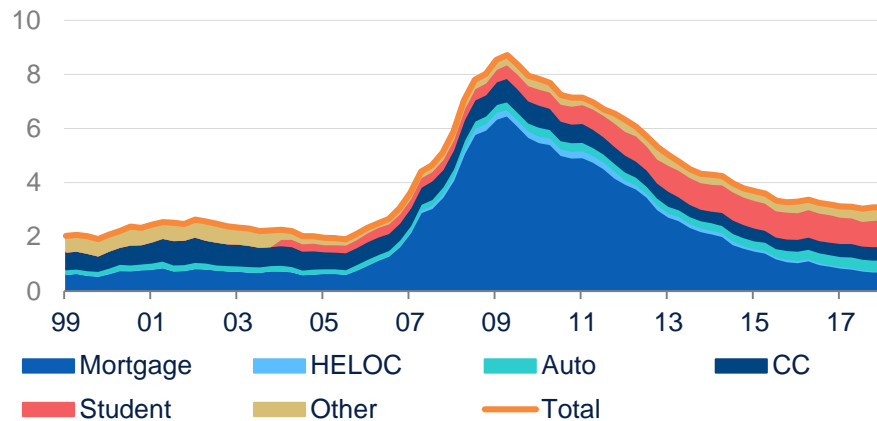
Personal Interest Expense to Disp. Income

Ratio, %



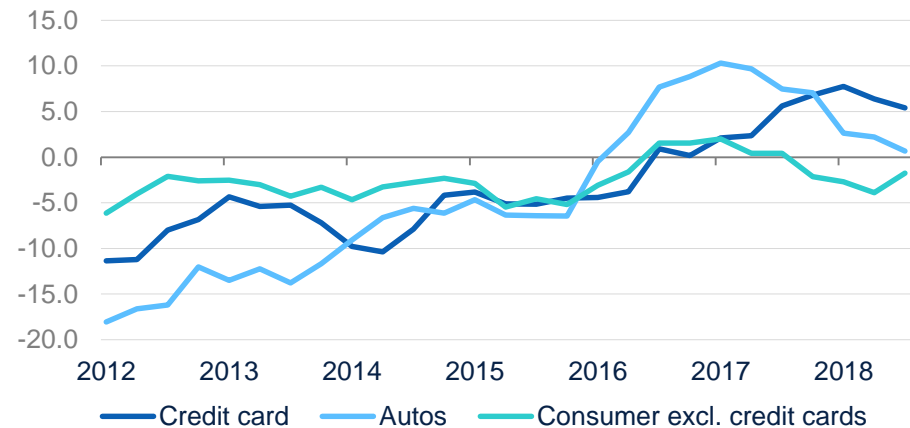
New 90+ Day Consumer Delinquencies Rates

%



Senior Loan Officers Lending Standards

+ tightening / - loosening



Source: BBVA Research, FRB, NY Fed & BEA

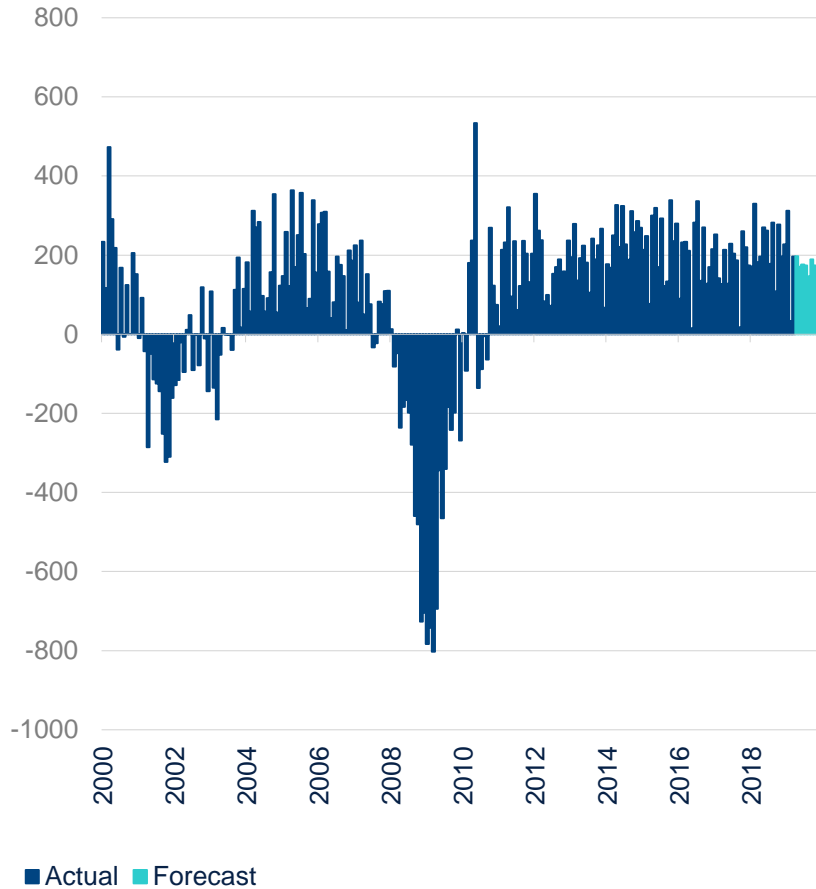
Labor Market



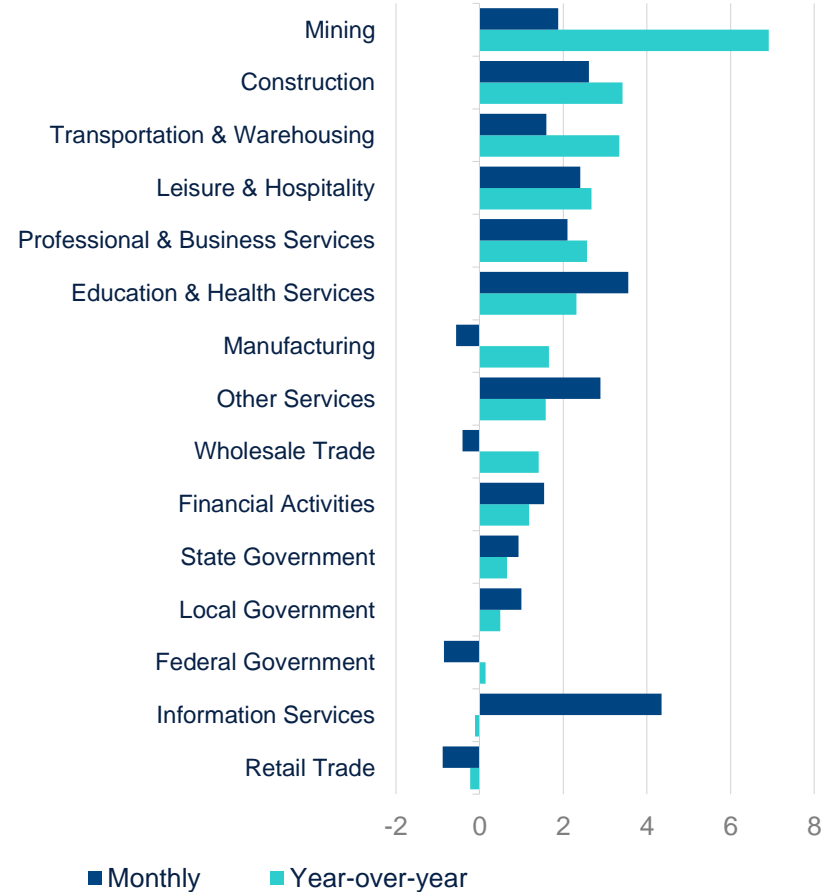
- In March, nonfarm payroll employment grew 196,000; a nontrivial rebound from February (33,000)
- Major industry strengths included health care and social assistance (61K), professional and business services (37K), and leisure and hospitality (33K).
- The unemployment rate (UR) held steady 3.8% while average hourly earnings grew 3.2% year-over-year
- The labor force participation rate and employment-to-population edged down to 63.0% and 60.6%, respectively
- We expect the UR to reach its low point in this business cycle soon (3.6%). Average monthly job growth to slow to 173K this year, from 223K in 2018

Labor market: After whipsawing as a result of government shutdown payrolls stabilize

Nonfarm Payrolls (Monthly Change, K)

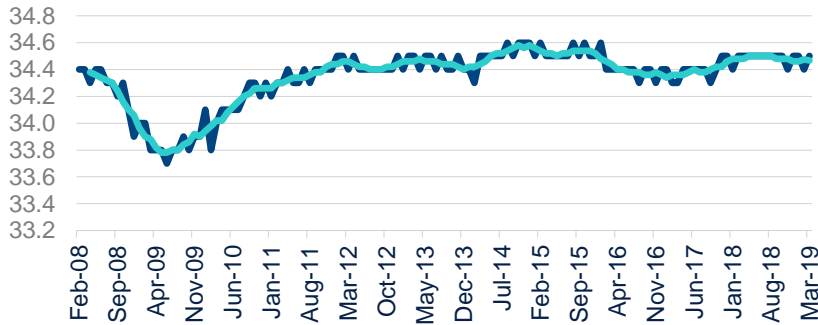


Industry Employment (Annualized % change)

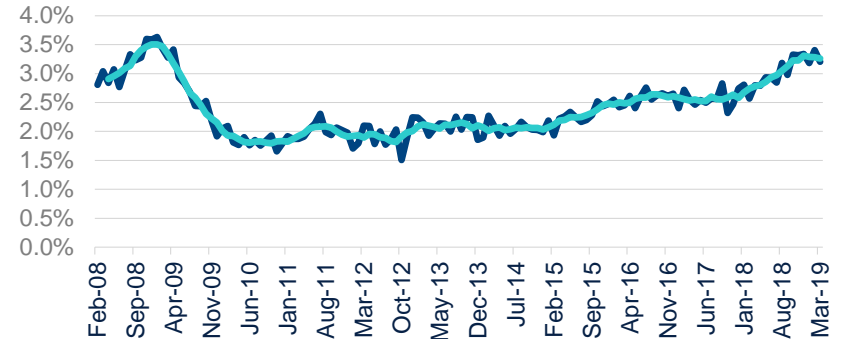


Labor market: Strong labor market conditions persist in spite of slower wage growth

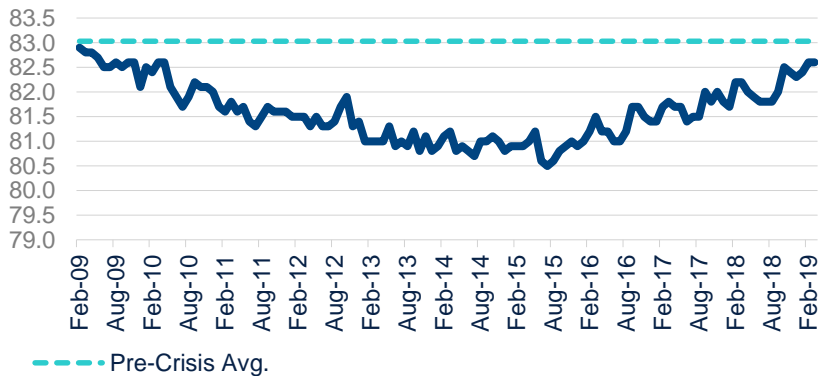
Average Weekly Hours (number & 5mcm)



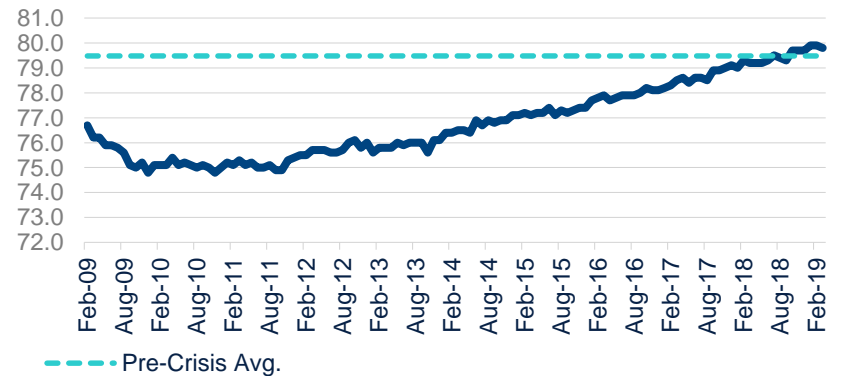
Average Hourly Earnings (YoY% & 5mcm)



Prime Age Labor Force Participation (%)

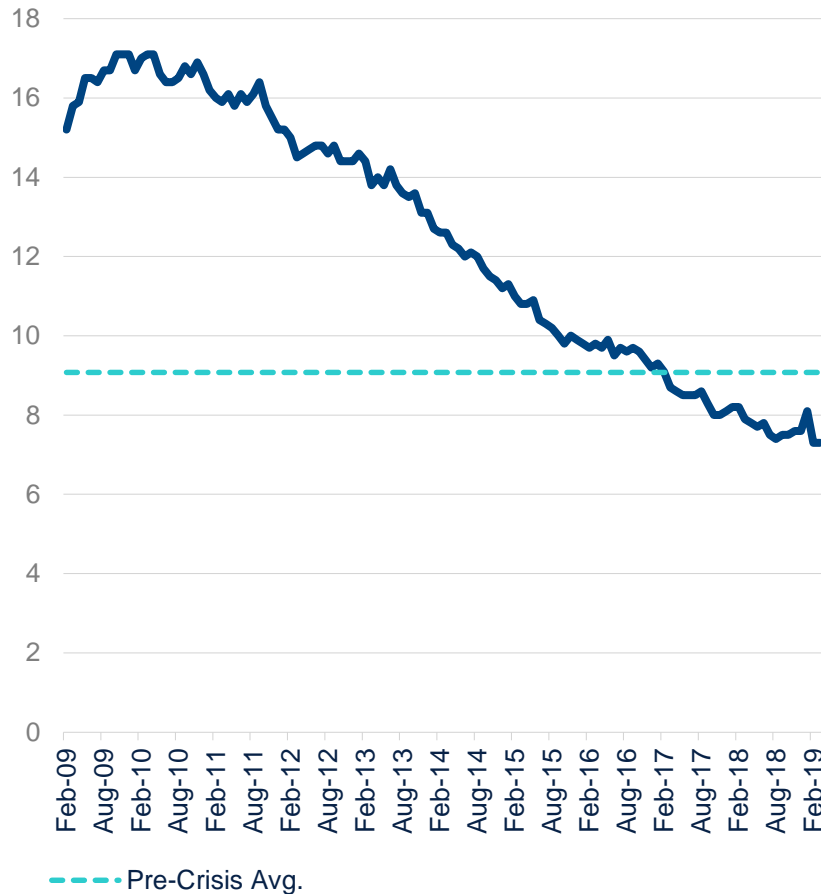


Prime Age Employment-to-Population (%)

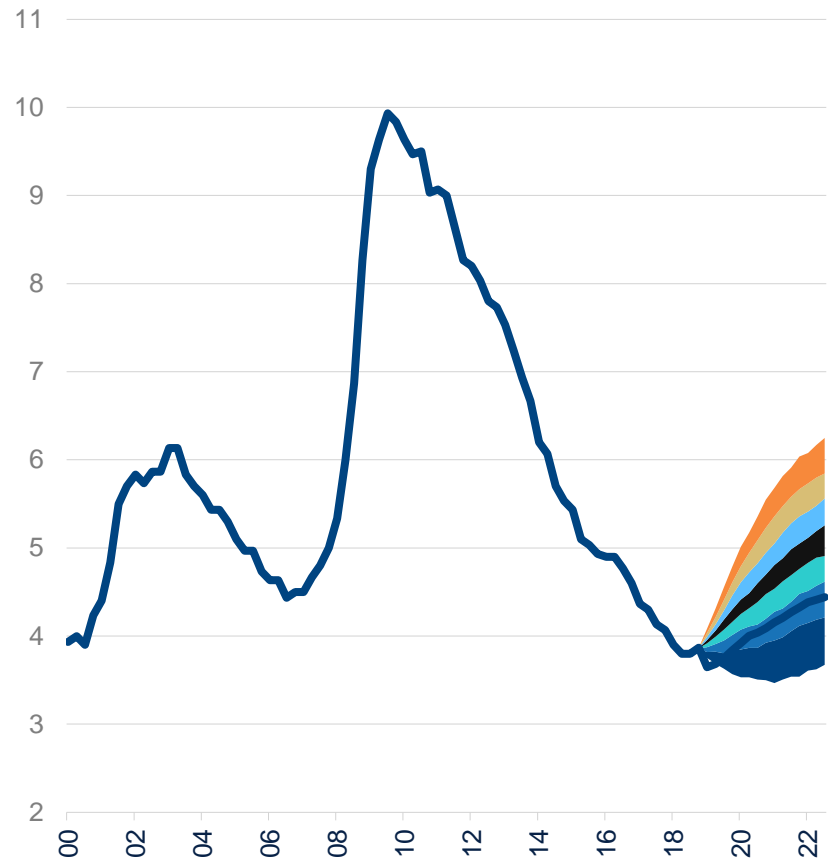


Labor market: Outlook for U.S. economy continues to imply further declines in UR despite low level

U-6
(%)



Unemployment Rate
(%)

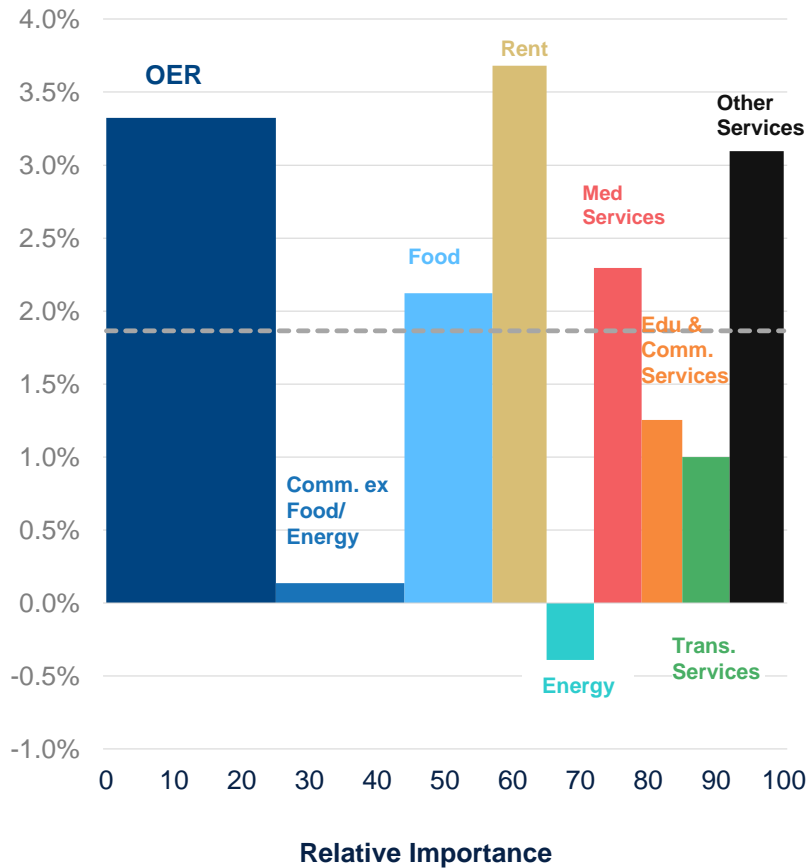


Inflation

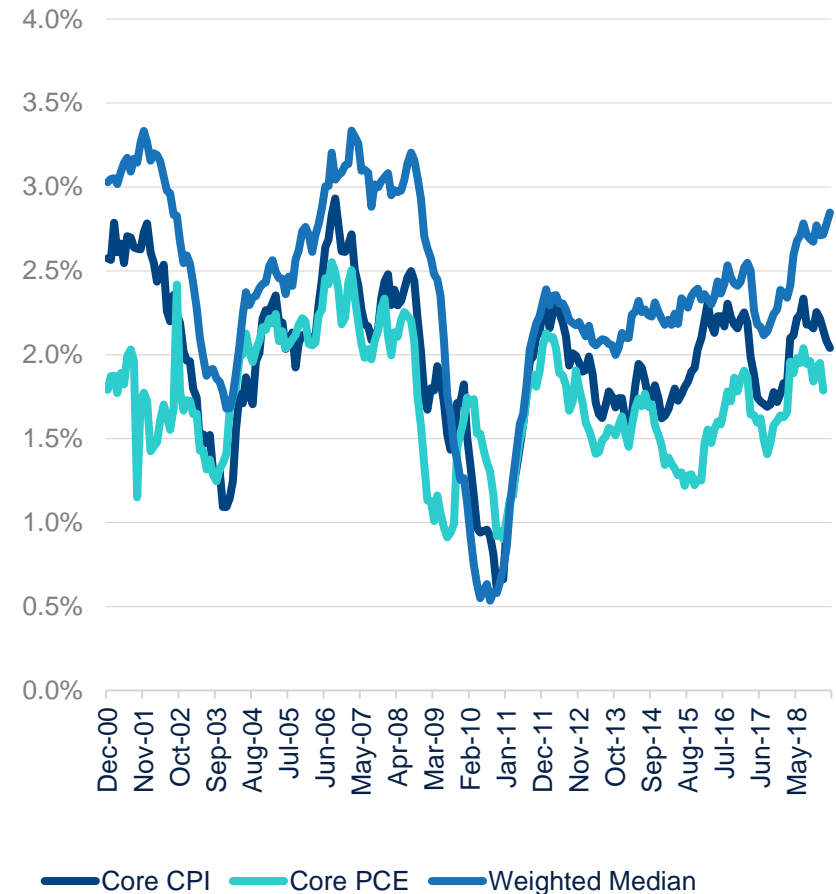
- Headline consumer price index (CPI) increased 0.4% MoM in March with a nontrivial rebound in energy prices
- On a year-over-year basis, headline CPI increased 1.8% while core decelerated to 2.0%
- The probability of entering high-inflation regime is nonexistent; deflation risks are also low
- Implied 5-year spot and forward inflation expectations have stabilized at 2.0%
- Baseline assumes average headline inflation to decelerate to 1.8% in 2019, before rebounding in 2020; core inflation to average 2.0% in 2019

Inflation: Rebound in energy prices lifts headline CPI, core inflation subdued

Consumer Price Inflation (12m change)



Core Inflation Measures (12m change)

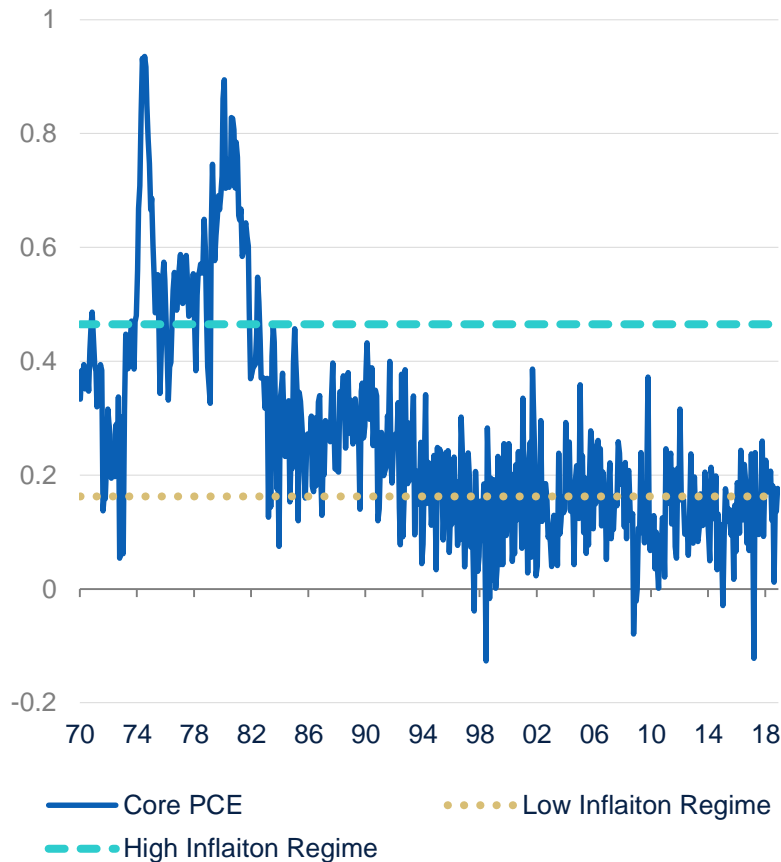


Source: BBVA Research, BLS & BEA

Inflation: Lack of inflationary pressures bigger concern, but deflation risk minimal

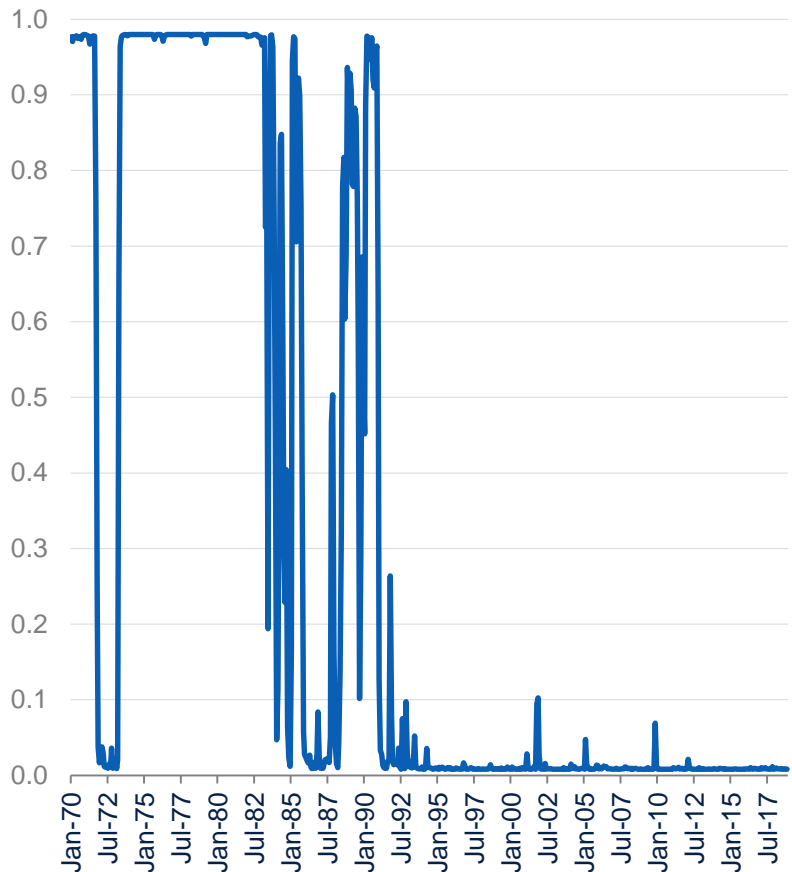
Core PCE Price Index & Inflation Regimes

Month-over-month %



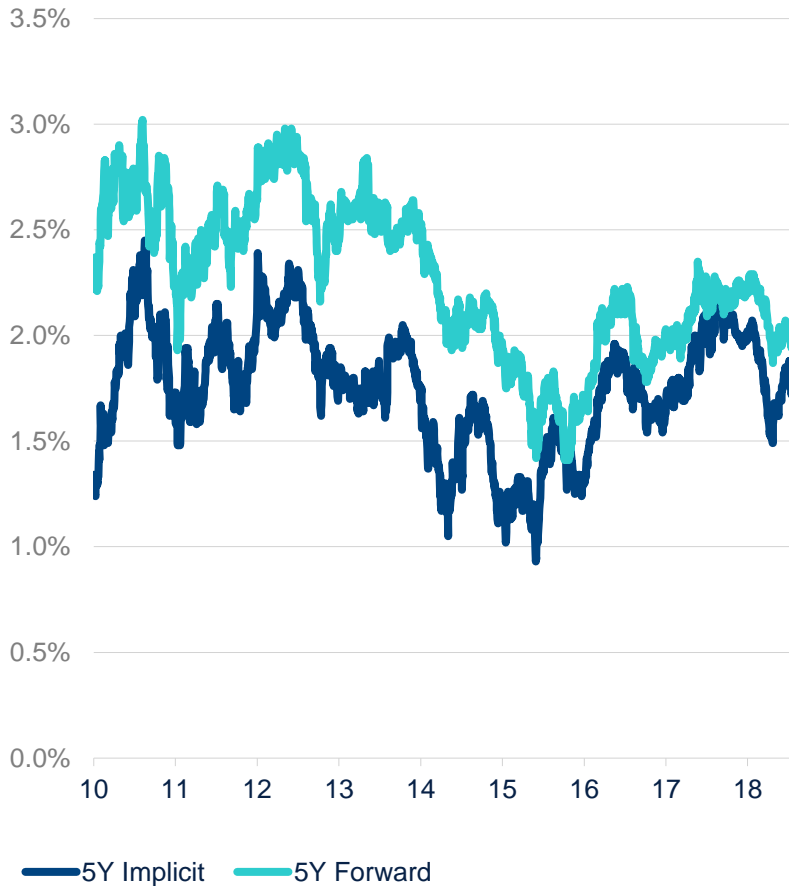
Inflation Regime Change Probability

%

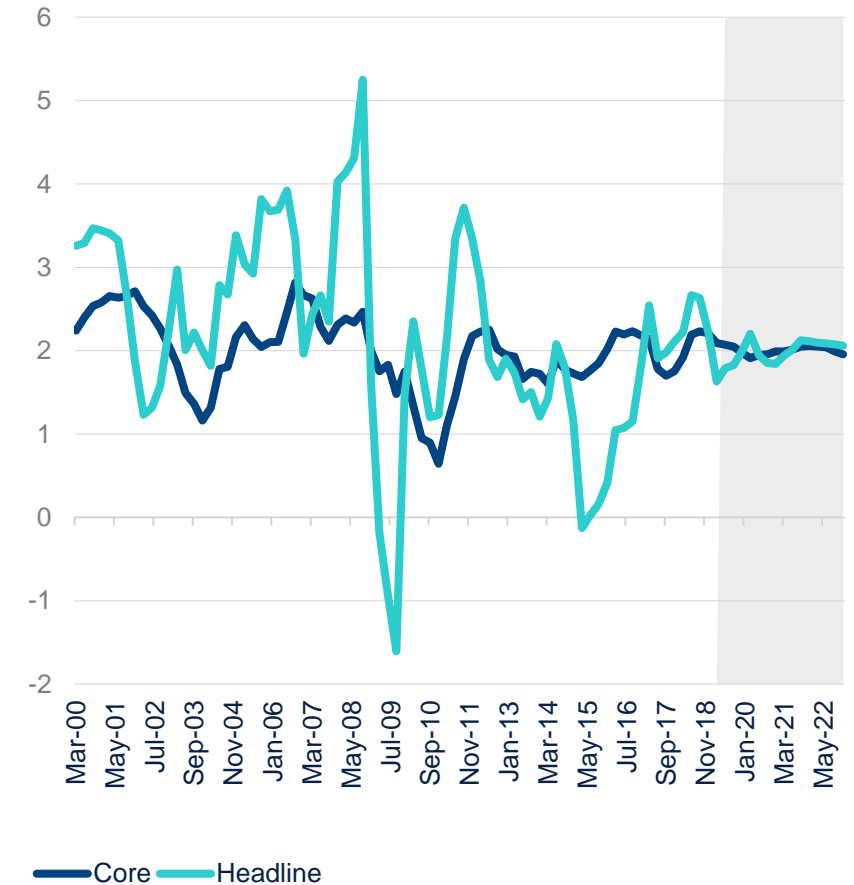


Inflation: Modest undershoot for headline in 2019, core prices to remain low and stable

Inflation Expectations (%)



Headline & Core CPI (Year-over-year %)

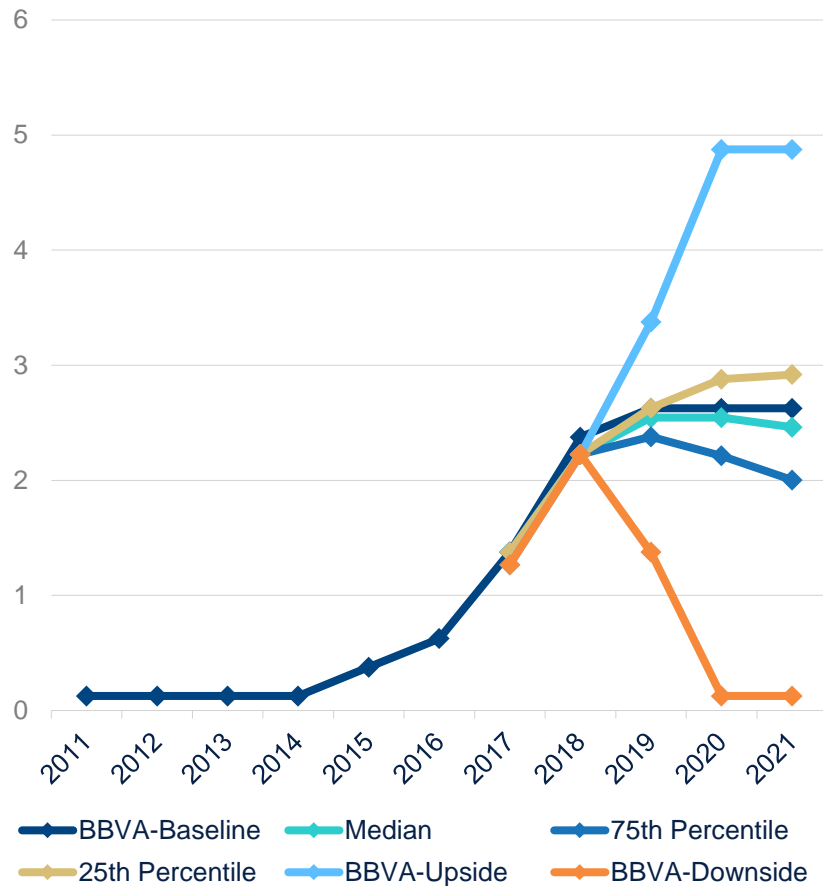


Monetary Policy: Federal Reserve

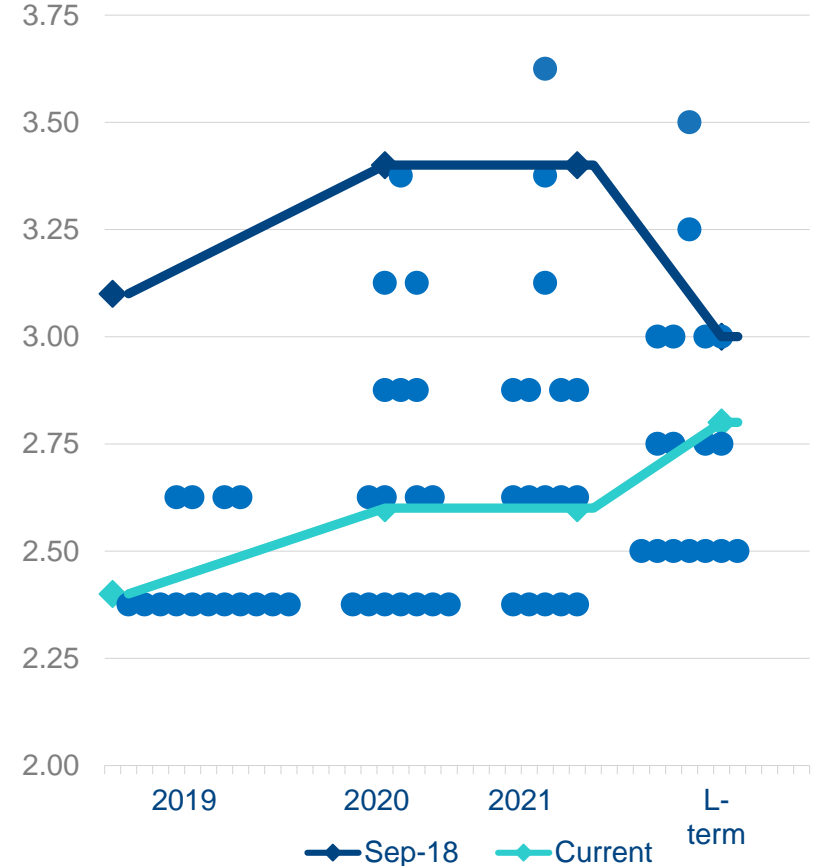
- Fed to keep interest rates unchanged at their April 30th-May 1st, as crosscurrents, global uncertainty, muted inflation and concerns on prolonging the expansion cycle remain
- FOMC statement will likely strike a slightly more optimistic tone while maintaining the “patient” forward guidance
- On track to end Balance Sheet Normalization (BSN) in September. Technical adjustments to caps to begin in May
- The drawdown on cash assets at domestic financial institutions has slowed following the announcement of changes to the BSN plans
- Markets now fully discounting rate cuts in 2019, but survey-based measures suggests hikes still possible
- Possibility of rate increase in 2019 diminished, but we maintain our hike bias

Fed: Dramatic shift in Fed projections suggests committee focused on sustaining expansion

BBVA & Dealers Projections of Fed Funds (% Effective)



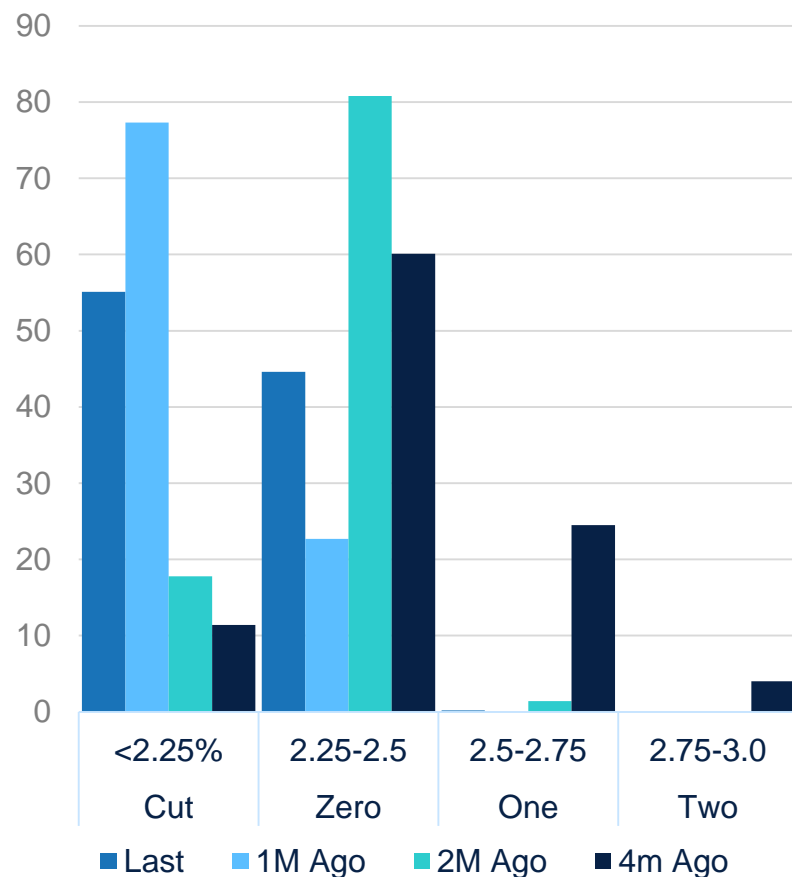
FOMC Projections of Fed Funds (Year-over-year %, Mid-point)



Monetary policy: Markets fully priced in rate cut in 2019

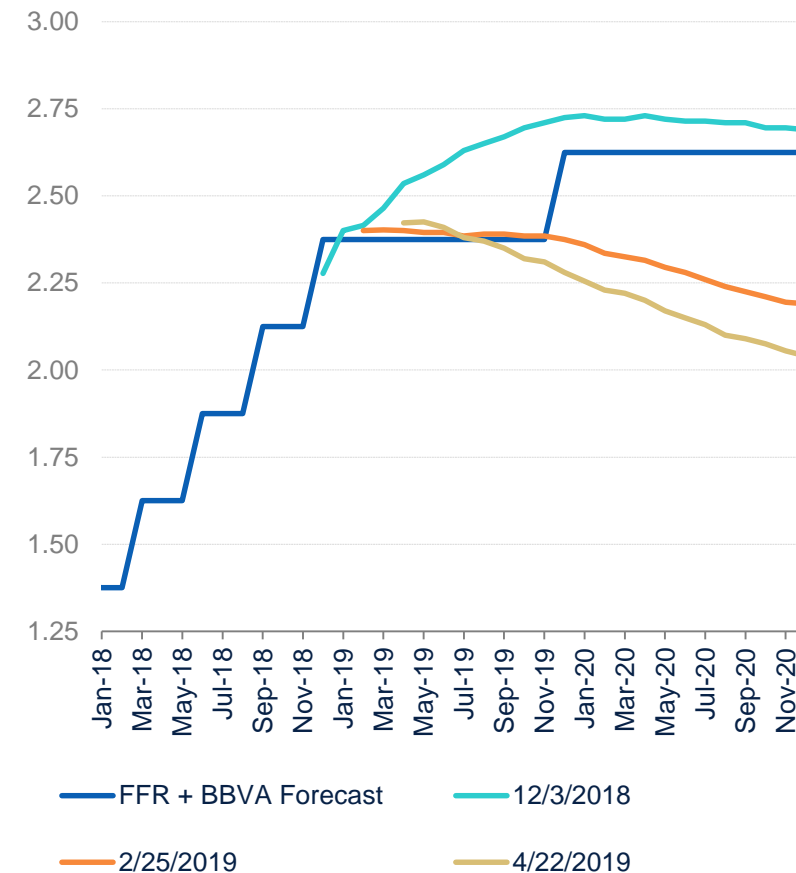
Fed Funds Implied Probability

(Number of rate increases through 2019, %)



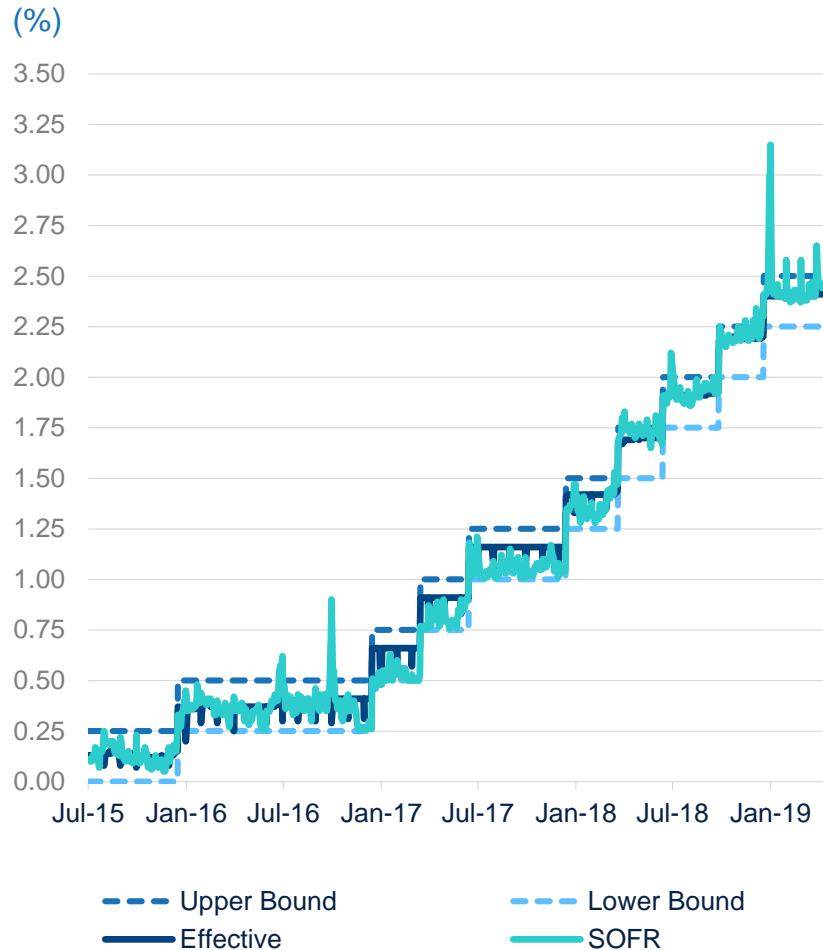
Fed Funds Futures & BBVA Baseline

(%)

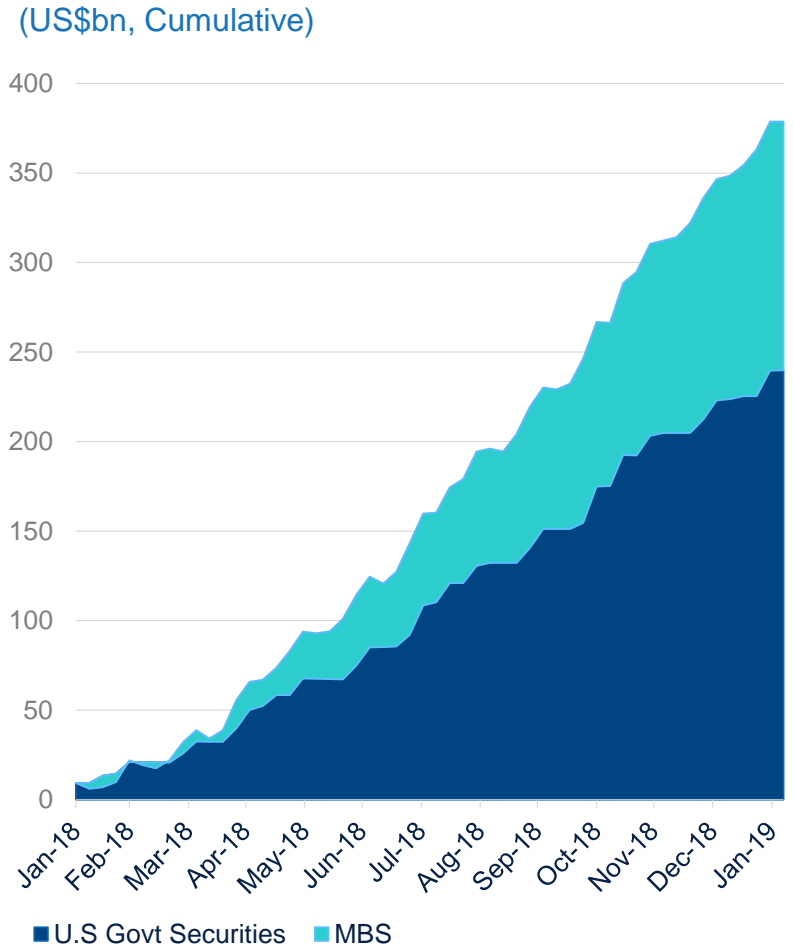


Monetary Policy: Fed to begin slowing the pace of quantitative tightening in May, end balance sheet normalization by September

Fed Funds & Repo Rates (%)



Balance Sheet Attrition (US\$bn, Cumulative)

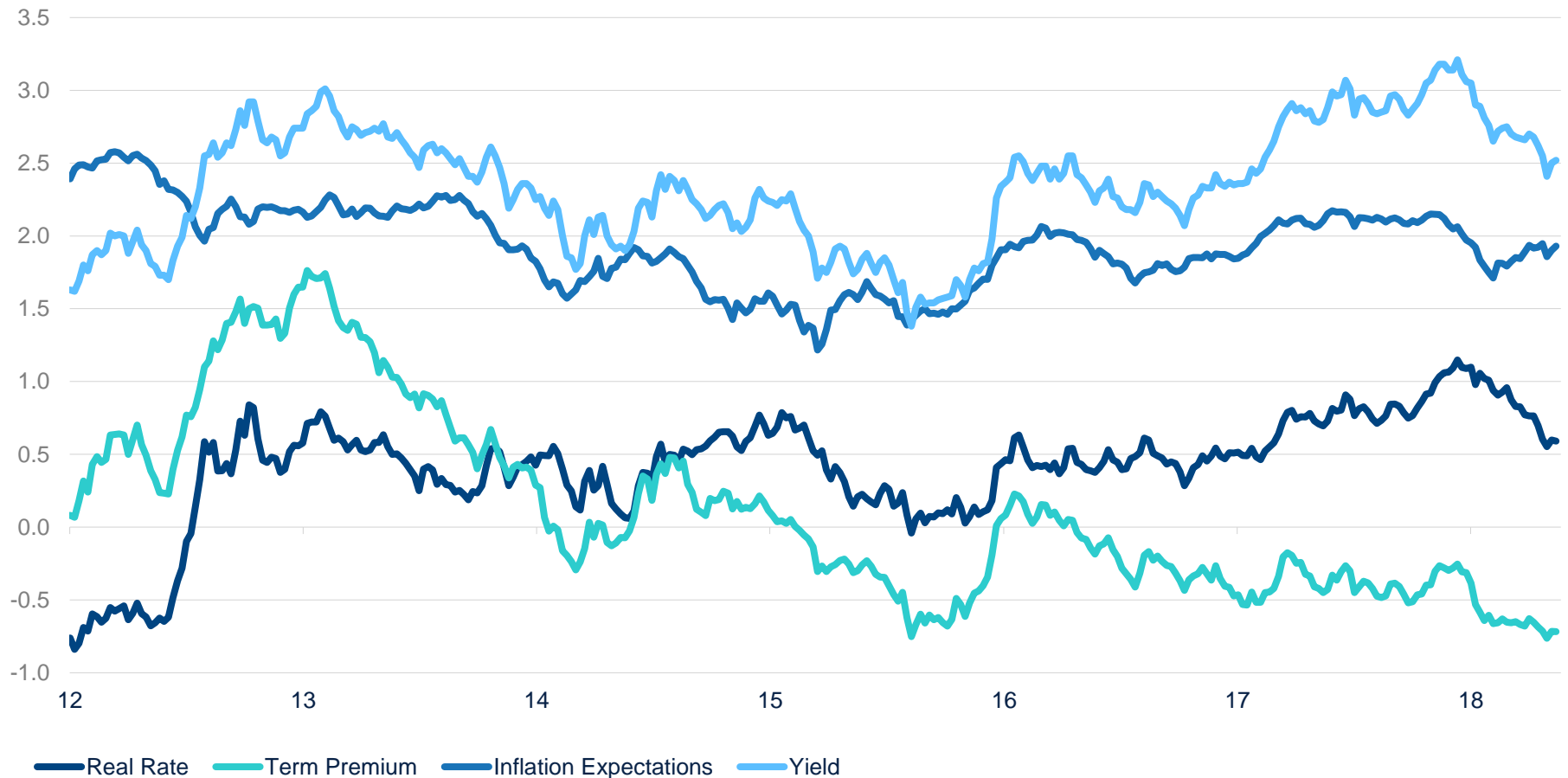


Interest Rates

- 10-yr Treasury at 2.5%, up 14bp from 1Q19 lows, while 2-yr Treasury up 10bp at 2.3%
- Dramatic shift in Fed's balance sheet strategy and U-turn on policy rates guidance suggests further compression in the term premium in medium-term
- Easing of global tensions and uncertainty leading to modest increase in term premium
- Dovish monetary policy abroad and growth uncertainty will continue to limit term premium upside, implying a flatter-for-longer scenario for the yield curve and potential for prolonged inversion
- Central bank balance sheet expansion and changes in savings preferences continue to influence interpretation of yield curve inversion
- 10-yr Treasury to reach 2.8% by end of 2019, downside risks elevated

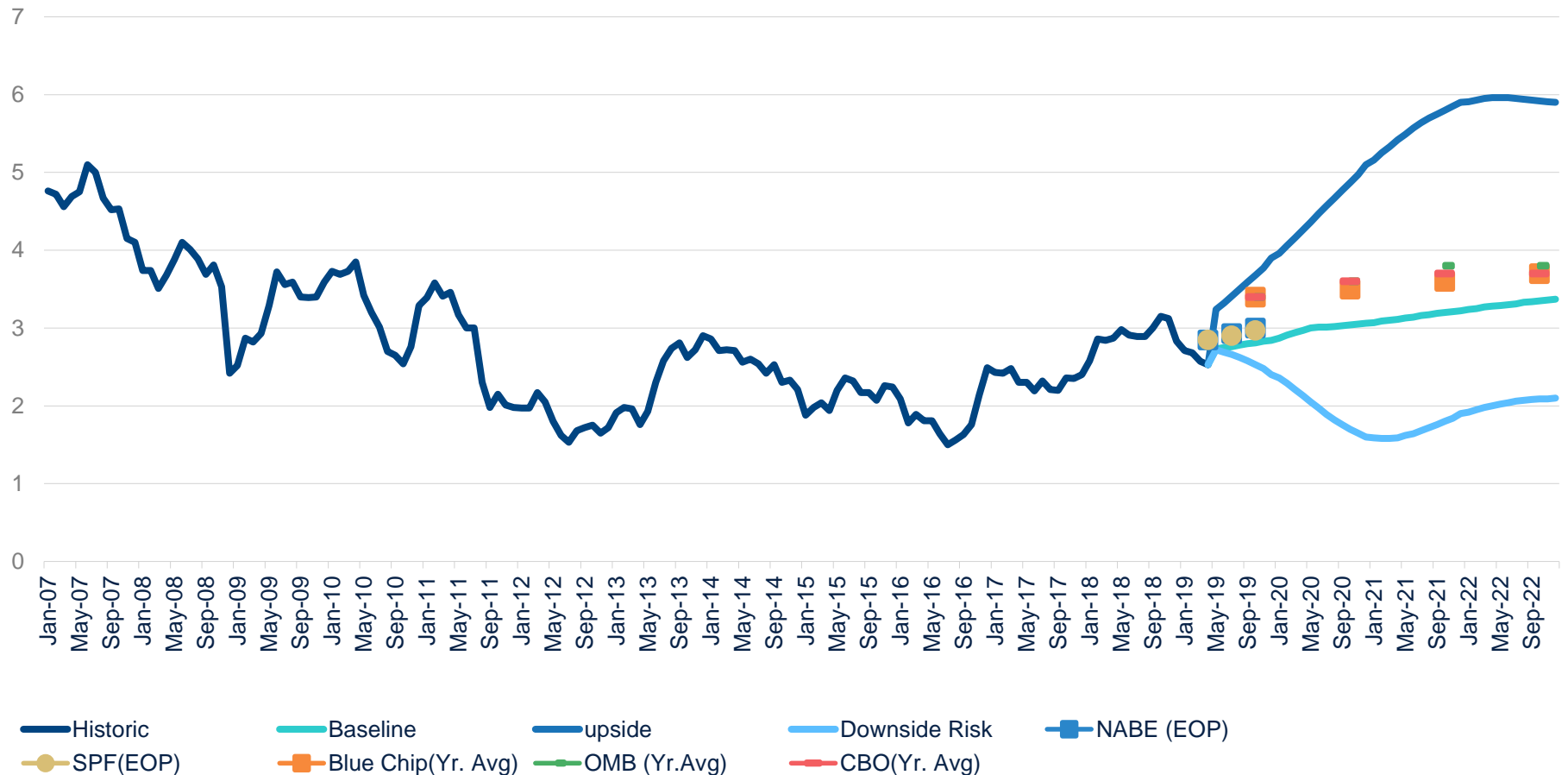
Interest rates: Risk aversion and savings preferences lowering term premium, decompression unlikely in short-term

10-Year Treasury Yield Decomposition (%)



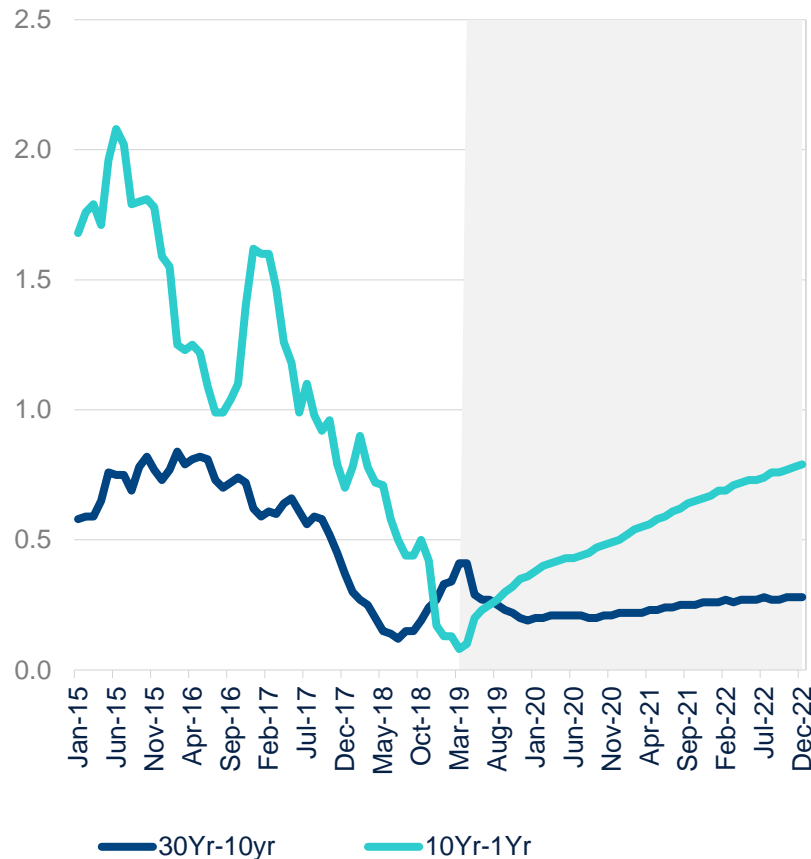
Interest rates: 10-year yields to remain lower for longer, bias to the downside

10-Year Treasury Yield (%)

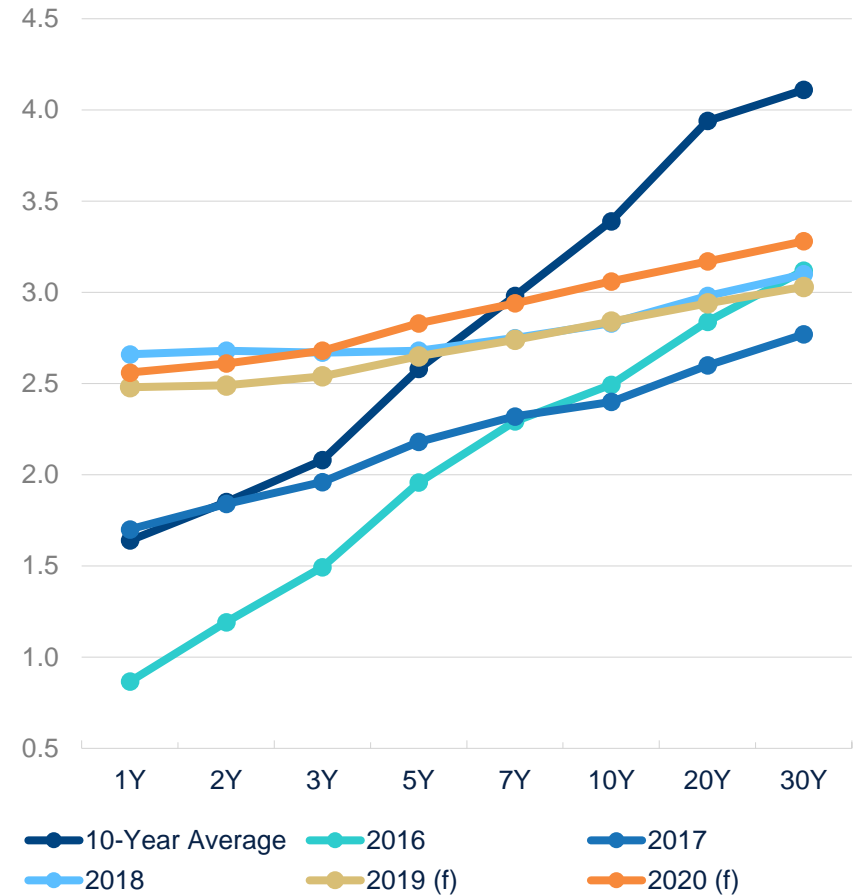


Interest rates: Yield curve slope edging closer to full inversion. Structural changes distort traditional inversion signal

Yield Curve Slope (Bp)



Yield Curve (% eop)



Oil Prices

- OPEC+ cuts are tightening the market and driving up prices. The deal could be extended for the entire year
- Sanctions to Venezuela and Iran could tighten supply further. However, OPEC has significant spare capacity to offset upward price pressures
- In 2019, U.S oil production will expand further while substantial transportation capacity will be added
- Prospects for lower prices in 2H19 and 2020 assume slower global growth. Crude oil demand is contracting in Europe but remains supportive in U.S. & Asia
- We maintain our view of convergence to long-term equilibrium of around \$60/b
- Elevated uncertainty around long-term equilibrium: CAPEX, protectionism, transportation infrastructure, alternative energy sources, EM convergence, EVs, climate change, efficiency and technology

Upward trend supported by OPEC+ cuts, but contained by expectations of rising U.S. production and concerns on global economic growth

Crude oil prices October 2018 to April 2019

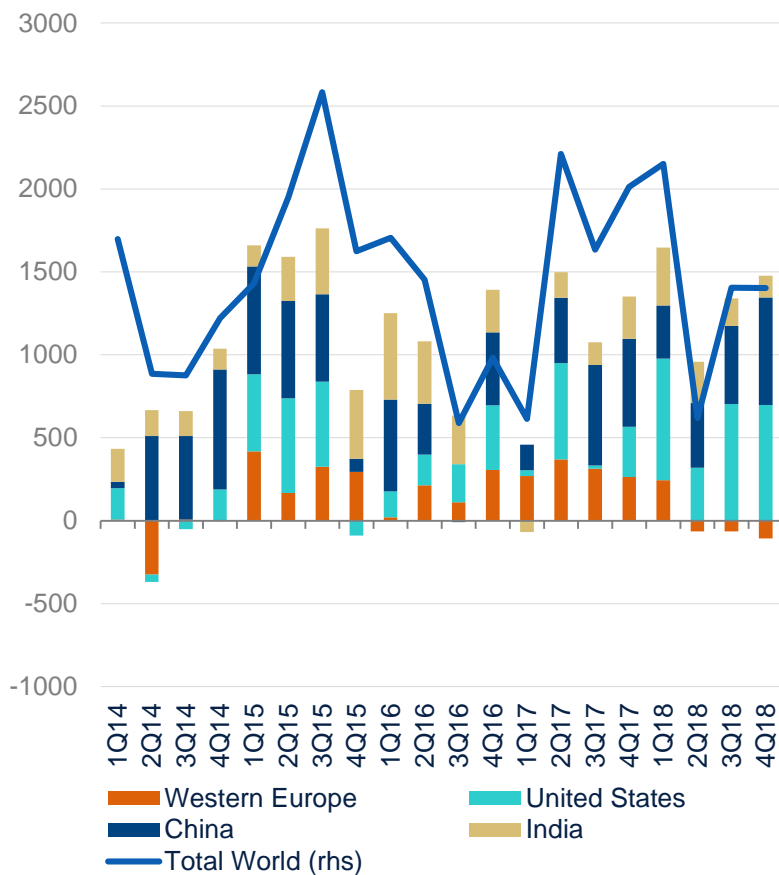
(\$ per barrel)



Demand has declined in Europe, but remains supportive in China, India and the U.S. The outlook for global trade has deteriorated

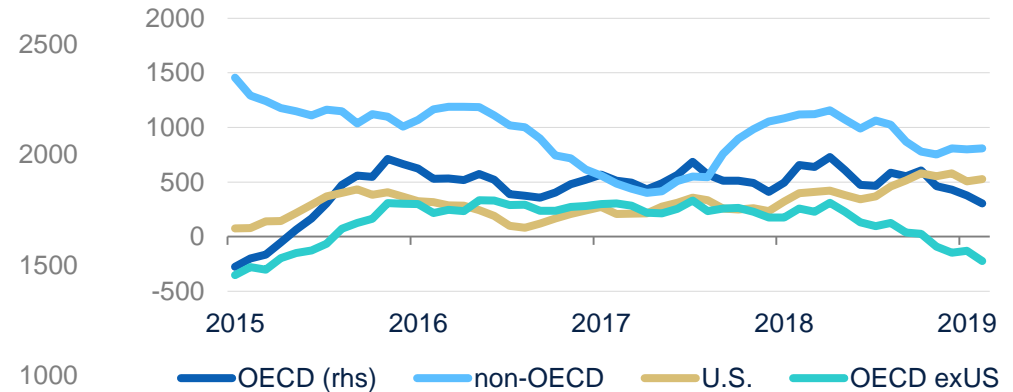
Oil product demand: total world

(Thousand barrels per day, yoy change)



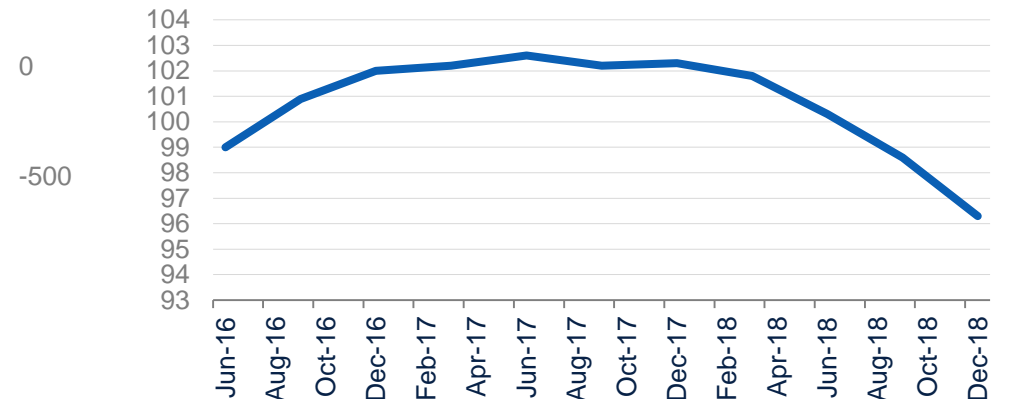
Oil product demand

(Million barrels per day)



World trade outlook indicator

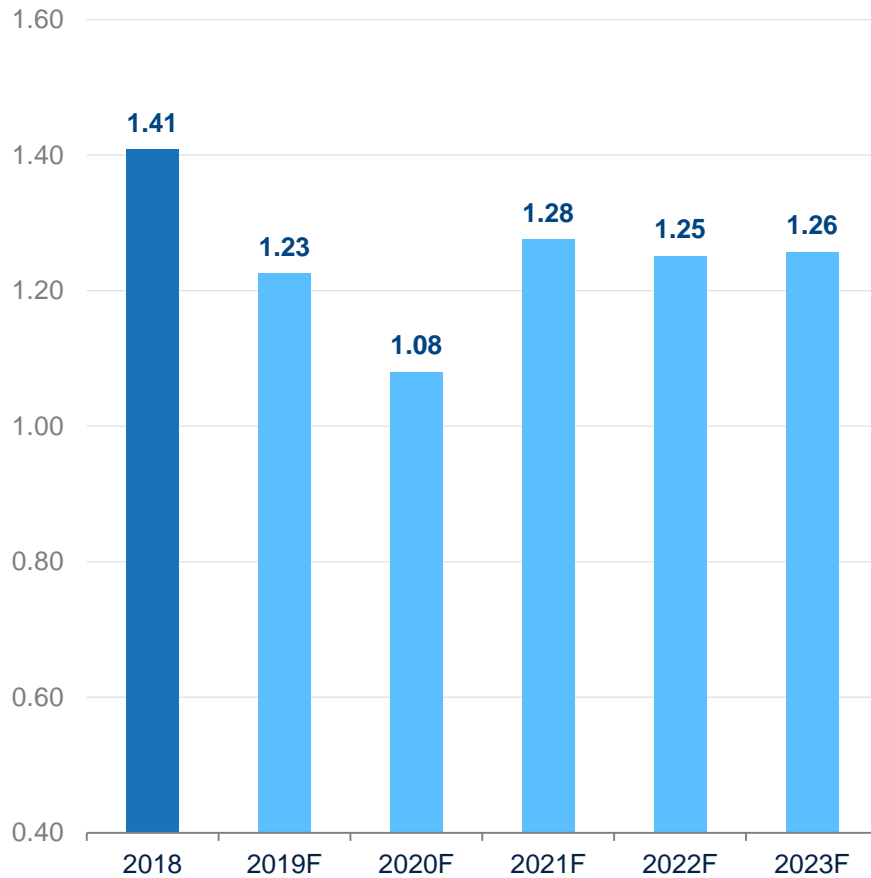
(SA, Trend = 100)



A weaker economic outlook points to slower demand growth

Oil product demand

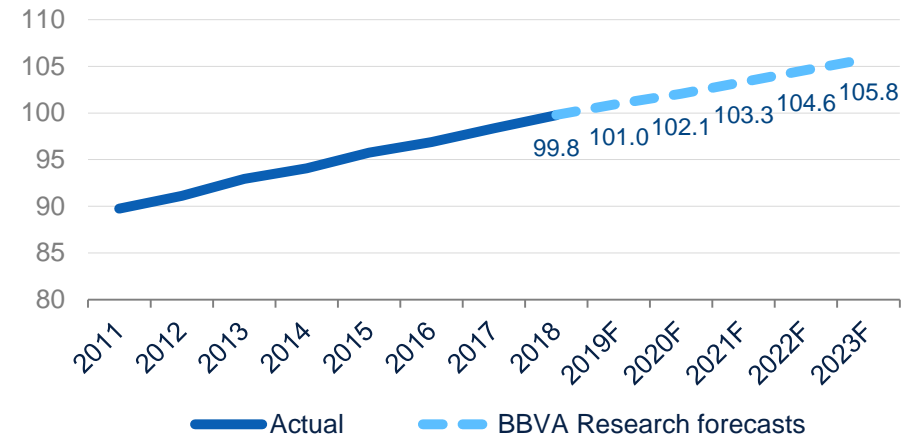
(YoY change, million b/d)



Source: BBVA Research, F = forecasts

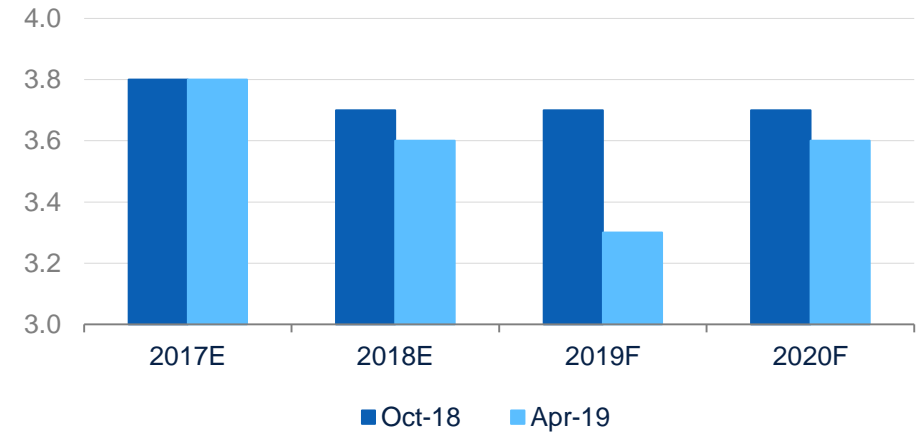
Oil product demand

(million b/d)



IMF World GDP growth

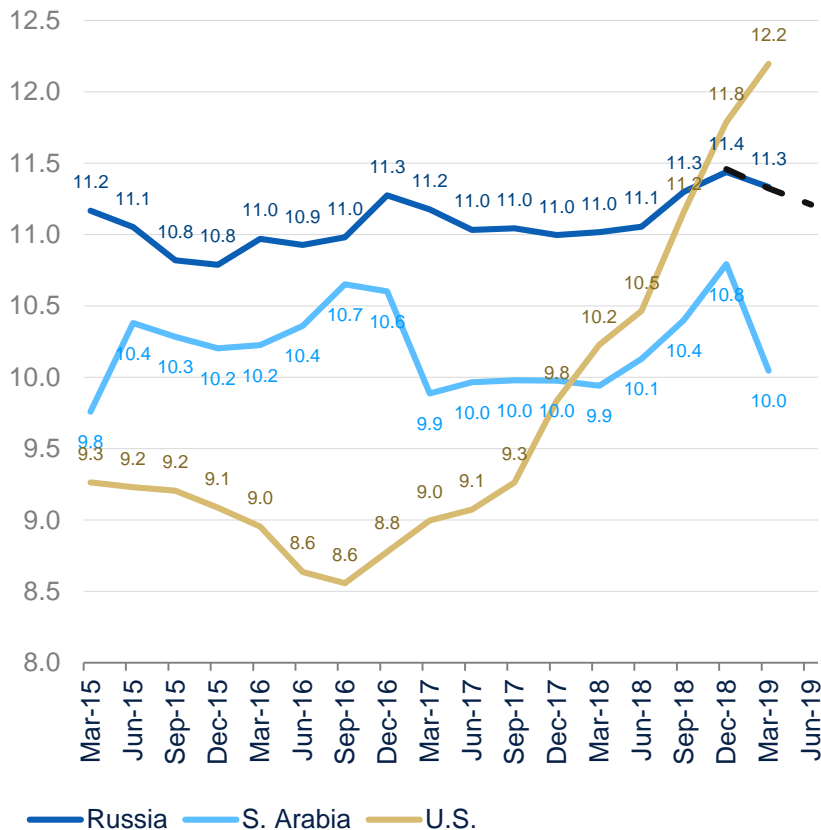
(YoY percent change)



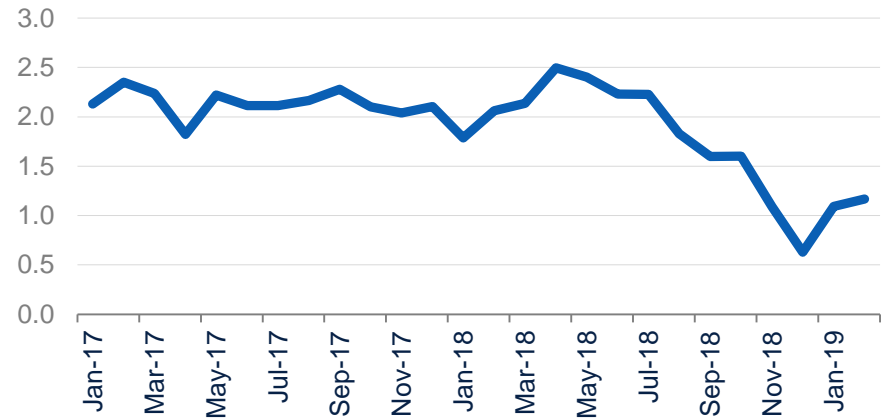
Source: IMF WEO Jan, 2019 update, E = estimates, F = forecast

OPEC+ supply adjustments and U.S. sanctions on Iran and Venezuela will tighten supply throughout 1H19

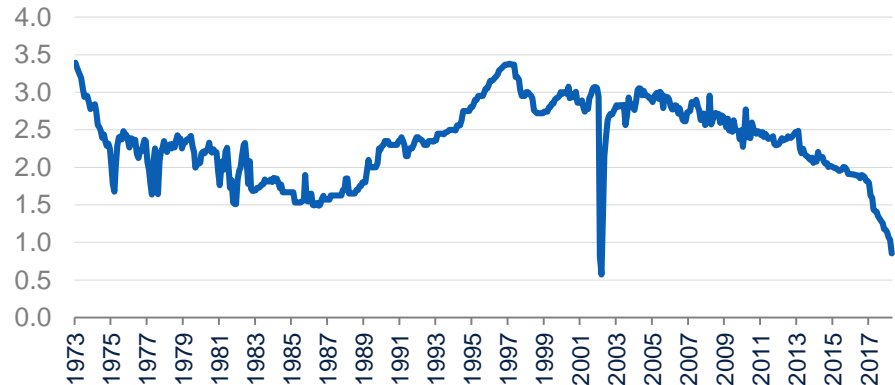
Crude oil production (Million barrels per day)



Iran: exports of crude oil (Million barrels per day)



Venezuela: crude oil production (Million barrels per day)

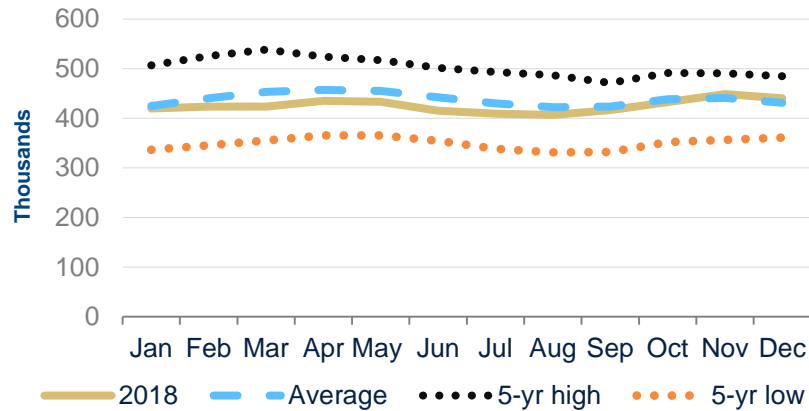


Source: BBVA Research, Haver Analytics, and Bloomberg

U.S. global leadership will remain solid despite declining rig count

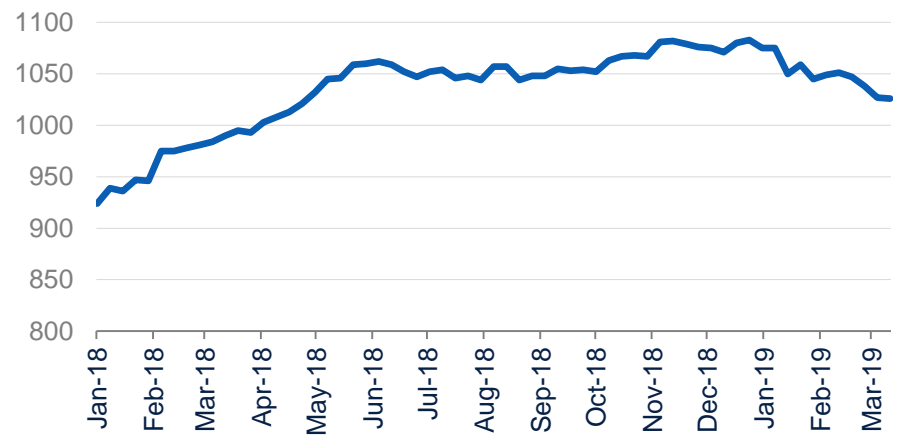
U.S. Crude oil inventories

(Excluding SPR, million barrels)



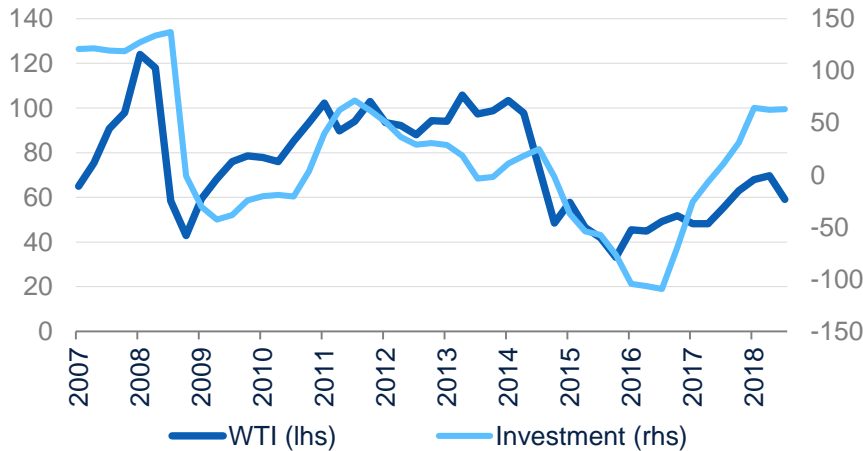
U.S. Active rig count

(units)



U.S. Real private investment in E&P

(Yoy \$billion)



U.S. Estimated crude oil production

(Thousand barrels/day)



Supply adjustments will support prices in 1H19, but demand will be the main driver from 2H19 onwards

Brent prices forecast

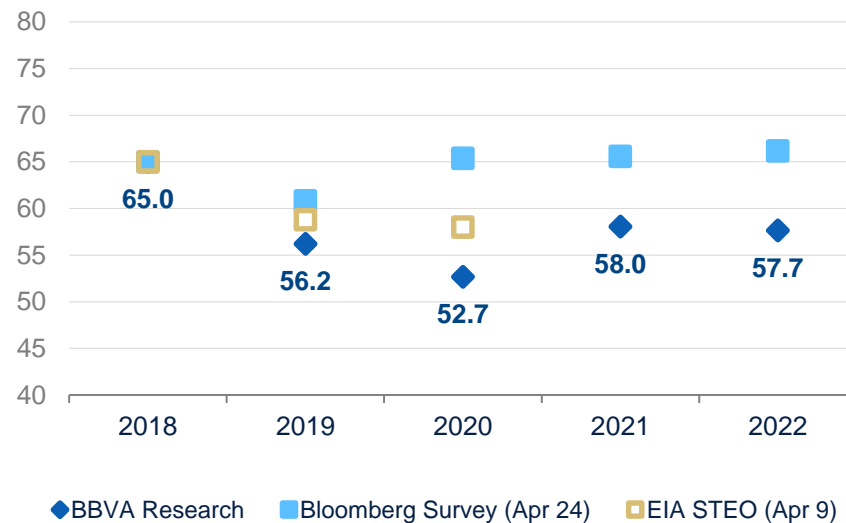
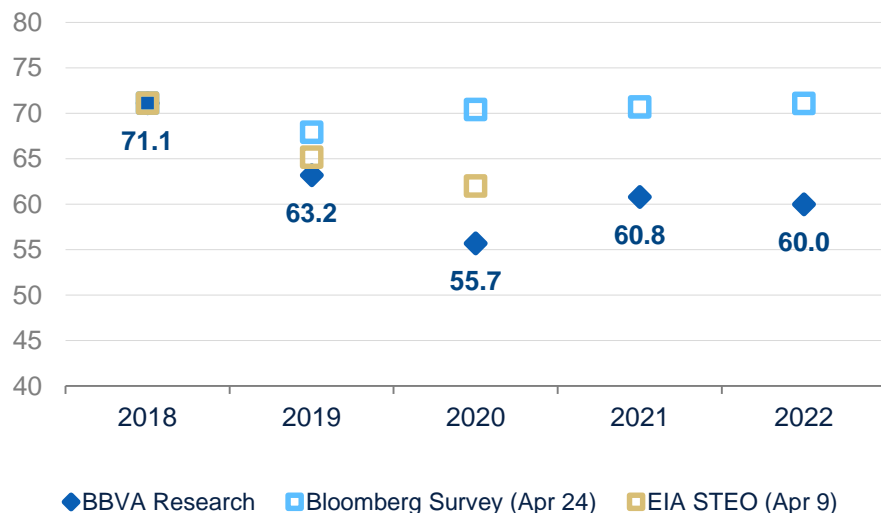
(\$ per barrel)

| | BBVA Research (baseline) | Bloomberg Survey (Apr 5) | EIA STEO (March 12) |
|-------------|--------------------------|--------------------------|---------------------|
| 2017 | 54.2 | 54.2 | 54.2 |
| 2018 | 71.1 | 71.1 | 71.1 |
| 2019 | 63.2 | 67.9 | 65.2 |
| 2020 | 55.7 | 70.4 | 62.0 |
| 2021 | 60.8 | 70.7 | |
| 2022 | 60.0 | 71.1 | |

WTI prices forecast

(\$ per barrel)

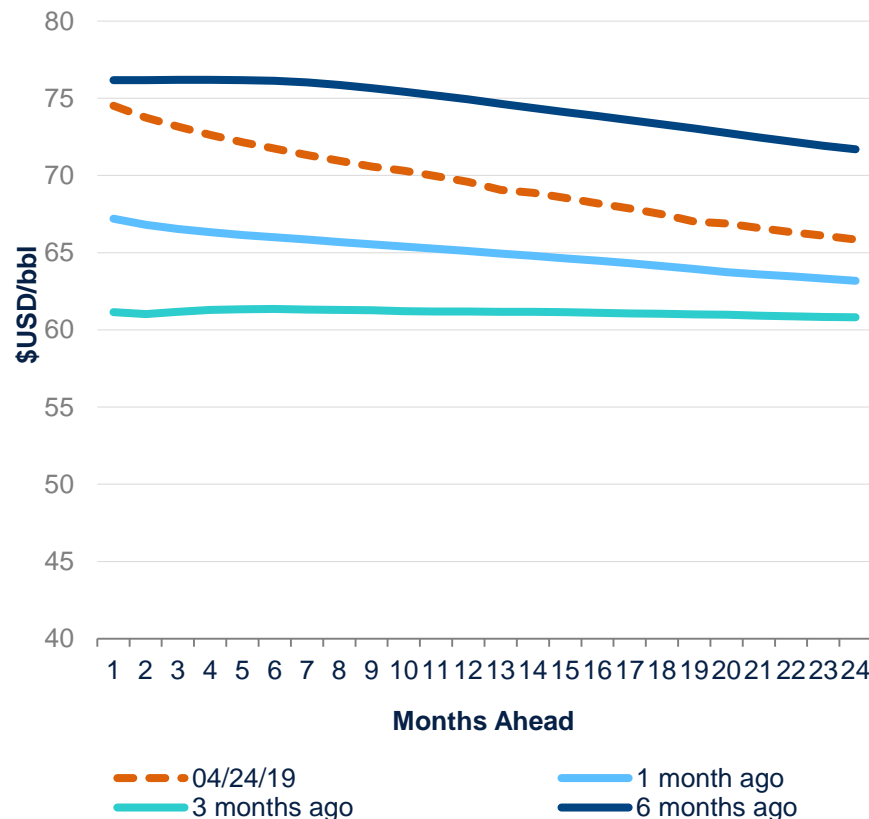
| | BBVA Research (baseline) | Bloomberg Survey (Apr 5) | EIA STEO (Mar 12) |
|-------------|--------------------------|--------------------------|-------------------|
| 2017 | 50.9 | 50.9 | 50.9 |
| 2018 | 65.0 | 65.0 | 65.0 |
| 2019 | 56.2 | 60.8 | 58.8 |
| 2020 | 52.7 | 65.4 | 58.0 |
| 2021 | 58.0 | 65.6 | |
| 2022 | 57.7 | 66.2 | |



A backwardated futures curve points to tighter supply in the short-term, but lower prices in the mid- to long- term

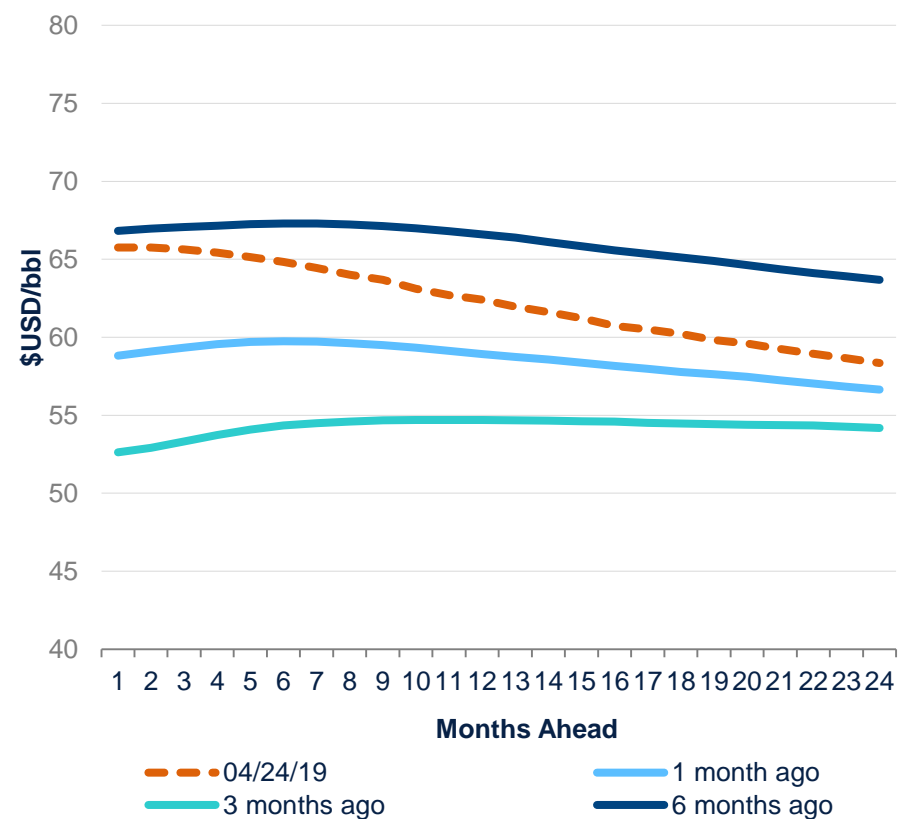
Brent Futures

(\$ per barrel)

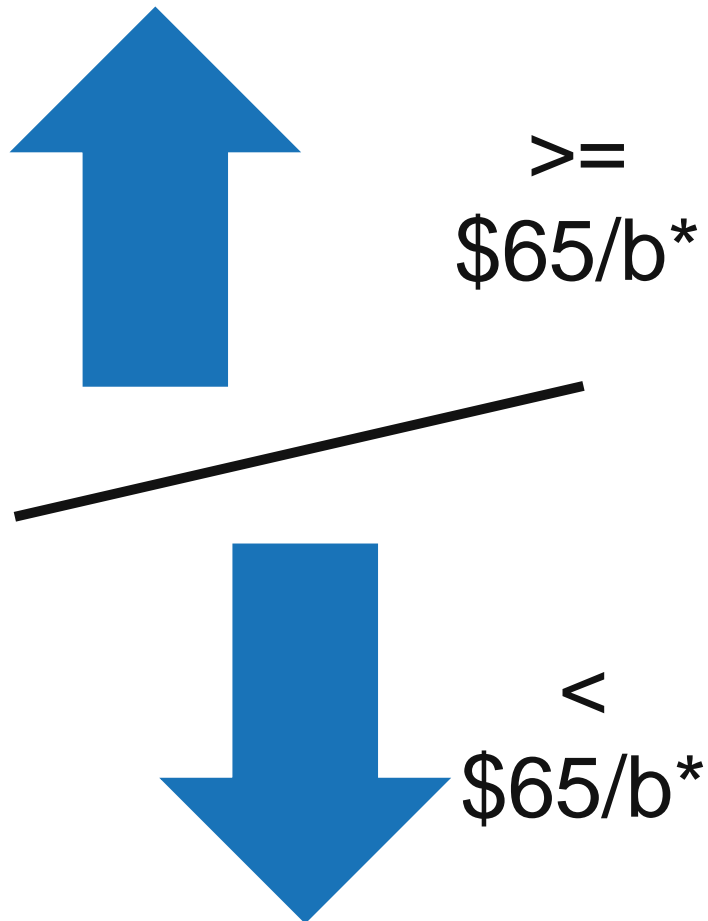


WTI Futures

(\$ per barrel)



Short-term risks are tilted to the upside



- OPEC+ expands output deal to 2H19
 - Oil waivers to importers of Iranian oil expire and are not renewed
 - Significant impact from additional negative supply shocks (e.g. Venezuela and Libya)
 - Consistent signs of progress in trade negotiations between the U.S. and China
 - Milder-than-expected deceleration of global demand
 - Takeaway issues preventing U.S. crude to reach global markets
-
- Weaker global economic outlook
 - Persistent deadlock in trade talks between U.S. and China
 - Dollar appreciation
 - President Trump's pressure on OPEC
 - Limited enforcement of Iranian sanctions
 - Higher-than-expected crude oil production in the U.S.

Macroeconomic Outlook

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 (f) | 2020 (f) | 2021 (f) | 2022 (f) |
|---|------|------|------|------|------|------|------|------|----------|----------|----------|----------|
| Real GDP (% SAAR) | 1.6 | 2.2 | 1.8 | 2.5 | 2.9 | 1.6 | 2.2 | 2.9 | 2.5 | 2.0 | 1.9 | 1.8 |
| Real GDP (Contribution, pp) | | | | | | | | | | | | |
| PCE | 1.3 | 1.0 | 1.0 | 2.0 | 2.5 | 1.9 | 1.8 | 1.8 | 2.0 | 1.5 | 1.3 | 1.2 |
| Gross Investment | 0.9 | 1.6 | 1.1 | 0.9 | 0.8 | -0.2 | 0.8 | 1.1 | 0.9 | 0.8 | 0.9 | 0.9 |
| Non Residential | 1.0 | 1.2 | 0.5 | 0.9 | 0.3 | 0.1 | 0.7 | 1.0 | 0.8 | 0.7 | 0.8 | 0.7 |
| Residential | 0.0 | 0.3 | 0.3 | 0.1 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Exports | 0.9 | 0.5 | 0.5 | 0.6 | 0.1 | 0.0 | 0.4 | 0.5 | 0.4 | 0.6 | 0.7 | 0.7 |
| Imports | -0.9 | -0.5 | -0.3 | -0.9 | -1.0 | -0.3 | -0.8 | -0.8 | -0.9 | -0.9 | -0.9 | -1.0 |
| Government | -0.7 | -0.4 | -0.5 | -0.2 | 0.3 | 0.3 | 0.0 | 0.3 | 0.3 | 0.1 | 0.0 | 0.0 |
| Unemployment Rate (% , average) | 8.9 | 8.1 | 7.4 | 6.2 | 5.3 | 4.9 | 4.4 | 3.9 | 3.7 | 3.9 | 4.2 | 4.4 |
| Avg. Monthly Nonfarm Payroll (K) | 173 | 181 | 192 | 251 | 227 | 193 | 179 | 223 | 173 | 160 | 135 | 113 |
| CPI (YoY %) | 3.1 | 2.1 | 1.5 | 1.6 | 0.1 | 1.3 | 2.1 | 2.4 | 1.8 | 2.0 | 2.0 | 2.1 |
| Core CPI (YoY %) | 1.7 | 2.1 | 1.8 | 1.8 | 1.8 | 2.2 | 1.8 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Fiscal Balance (% GDP, FY) | -8.4 | -6.8 | -4.1 | -2.8 | -2.4 | -3.2 | -3.5 | -4.0 | -4.2 | -4.2 | -4.2 | -4.7 |
| Current Account (bop, % GDP) | -2.9 | -2.6 | -2.1 | -2.1 | -2.2 | -2.3 | -2.3 | -2.4 | -2.8 | -2.9 | -3.0 | -3.1 |
| Fed Target Rate (% , eop) | 0.25 | 0.25 | 0.25 | 0.25 | 0.50 | 0.75 | 1.50 | 2.50 | 2.75 | 2.75 | 2.75 | 2.75 |
| Core Logic National HPI (YoY %) | -2.9 | 4.0 | 9.7 | 6.8 | 5.3 | 5.5 | 5.9 | 5.7 | 3.7 | 3.0 | 3.2 | 3.5 |
| 10-Yr Treasury (% Yield, eop) | 1.98 | 1.72 | 2.90 | 2.21 | 2.24 | 2.49 | 2.40 | 2.83 | 2.84 | 3.06 | 3.22 | 3.37 |
| West Texas Intermediate Oil Prices (dps, average) | 94.9 | 94.1 | 97.9 | 93.3 | 48.7 | 43.2 | 50.9 | 65.0 | 56.3 | 52.7 | 58.0 | 57.7 |

Source: BBVA Research

*Forecasts subject to change

Economic Scenarios

| Probability (%) | Current | Previous |
|-----------------|---------|----------|
| Upside | 5 | 5 |
| Baseline | 55 | 55 |
| Downside | 45 | 40 |

| Macro Scenarios | | | | | | | | | | |
|--------------------|------|------|------|------|------|------|------|------|------|------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| GDP | 2.5 | 2.9 | 1.6 | 2.2 | 2.9 | 2.5 | 2.0 | 1.9 | 1.8 | 1.8 |
| Upside | | | | | | 3.0 | 3.2 | 3.1 | 2.7 | 2.7 |
| Downside | | | | | | 0.7 | -0.9 | 1.9 | 2.1 | 2.3 |
| UR | 6.2 | 5.3 | 4.9 | 4.4 | 3.9 | 3.7 | 3.9 | 4.2 | 4.4 | 4.5 |
| Upside | | | | | | 3.5 | 2.9 | 2.9 | 3.0 | 3.0 |
| Downside | | | | | | 4.5 | 6.2 | 6.6 | 5.7 | 5.0 |
| CPI | 1.6 | 0.1 | 1.3 | 2.1 | 2.4 | 1.8 | 2.0 | 2.0 | 2.1 | 2.1 |
| Upside | | | | | | 2.0 | 3.3 | 3.6 | 3.8 | 3.9 |
| Downside | | | | | | 0.9 | 0.8 | 1.1 | 1.3 | 1.4 |
| Fed [eop] | 0.25 | 0.50 | 0.75 | 1.50 | 2.50 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 |
| Upside | | | | | | 3.50 | 5.00 | 5.00 | 5.00 | 5.00 |
| Downside | | | | | | 1.50 | 0.25 | 0.25 | 0.25 | 0.25 |
| 10-Yr [eop] | 2.21 | 2.24 | 2.49 | 2.4 | 2.83 | 2.84 | 3.06 | 3.22 | 3.37 | 3.48 |
| Upside | | | | | | 3.90 | 5.10 | 5.90 | 5.90 | 5.90 |
| Downside | | | | | | 2.40 | 1.60 | 1.90 | 2.10 | 2.10 |

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U.S. Economic Outlook

April 2019

Creating Opportunities