

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

BBVA Research

U.S. Economic Outlook

September 2018

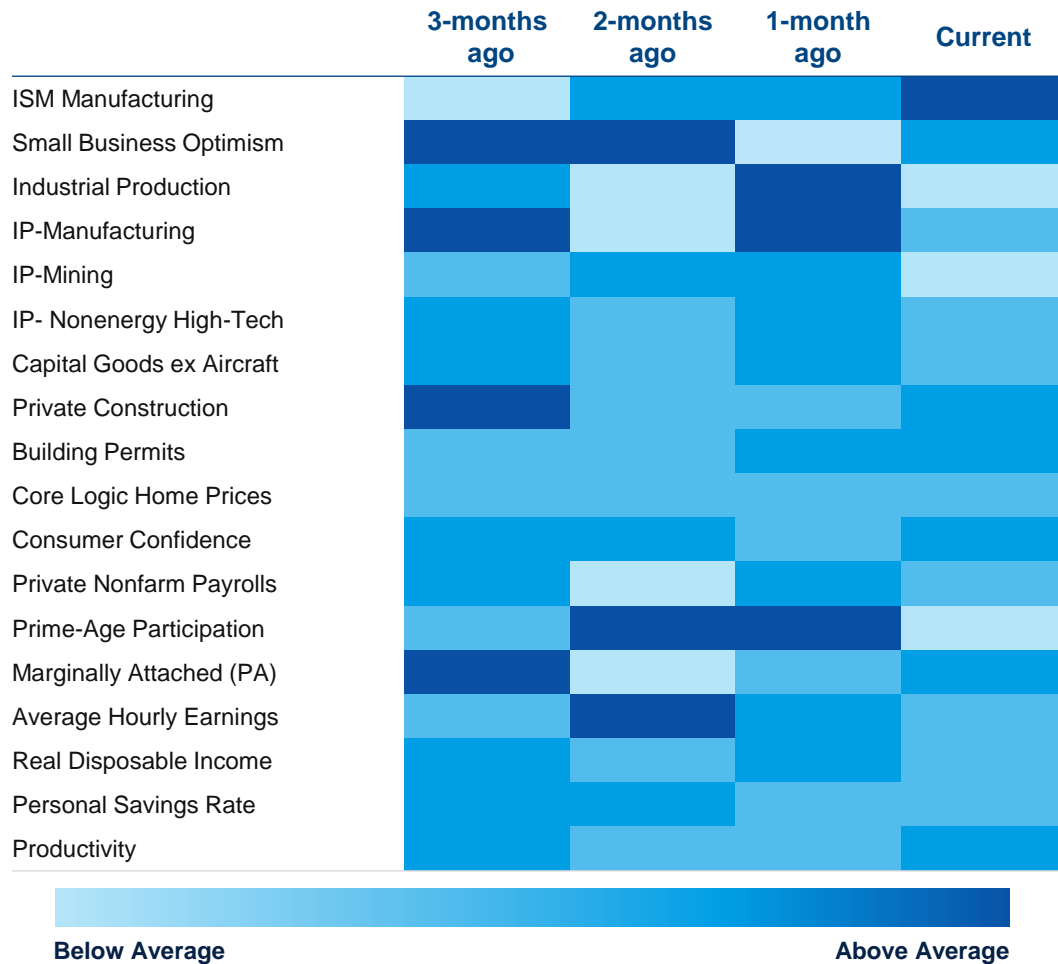
Creating Opportunities

Economic Outlook

- Economic conditions remain consistent with **high growth and moderate inflation** in 2018 & 2019
- **FOMC** remains poised to raise rates at their upcoming meeting in **September** and again in **December**. Baseline assumes **three additional increases** in '19
- **Labor market conditions remain auspicious**: strong job growth, low unemployment, rising wages and record-high job openings
- **Inflation continues to firm with core PCE set to surpass 2% YoY** by end of **3Q18**. Tailwinds from tariffs and rising nonlabor price pressures remain
- Geopolitical uncertainty and trade tensions containing **10-year Treasury yields**
- The **Treasury yield curve slope will continue to flatten**
- **Oil prices** to converge to **long-run equilibrium** despite short-term volatility

Economic activity

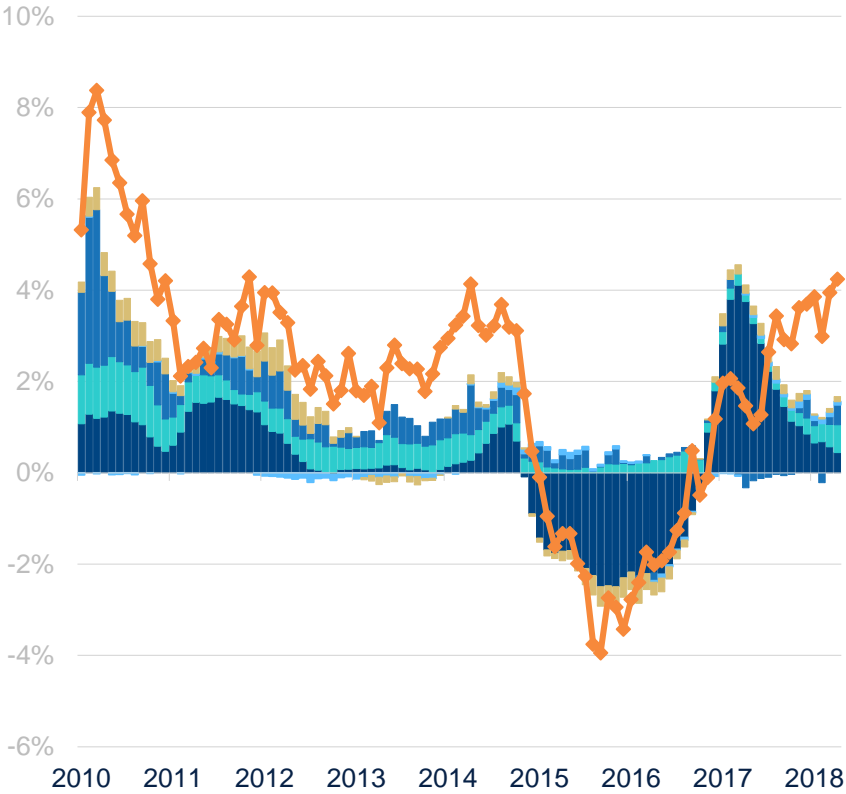
Real-Time Economic Momentum Heat Map



- Soft indicators for manufacturing sector remain upbeat
- Momentum in O&G sector slowing somewhat
- Strong retail sales data suggests another strong quarter for consumption
- Despite strong labor market signals, labor force participation declined
- Home price growth continues, but cost pressures putting a crimp in demand

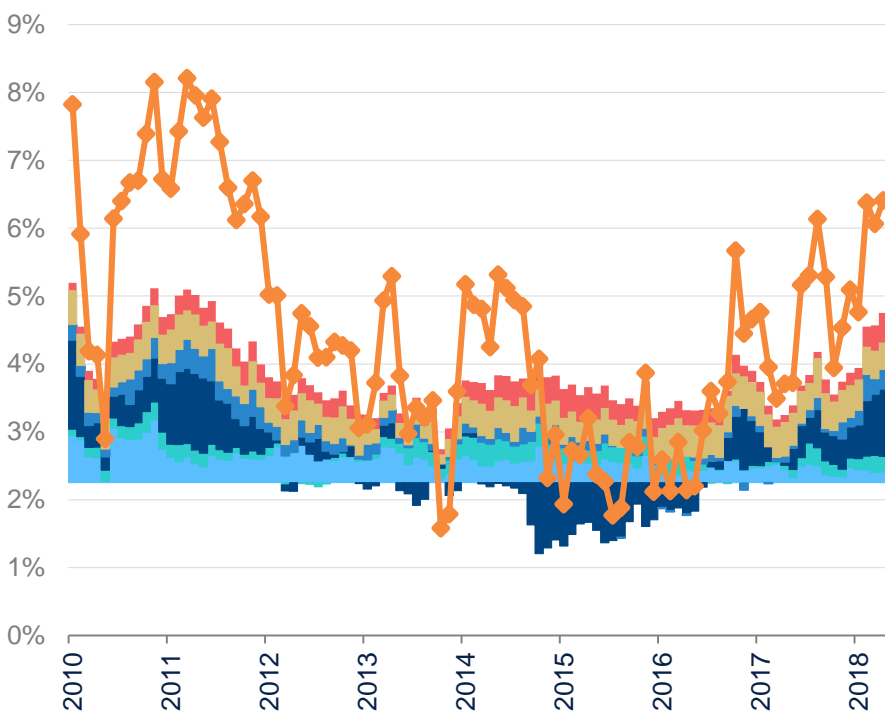
Economic trends: Consumer and industrial activity accelerating

Industrial Production (Year-over-year %)



- Oil & Gas
- High-Tech
- Motor Vehicles
- Consumer Gds
- Biz Equip
- Headline (lhs)

Retail Sales (Year-over-year %)

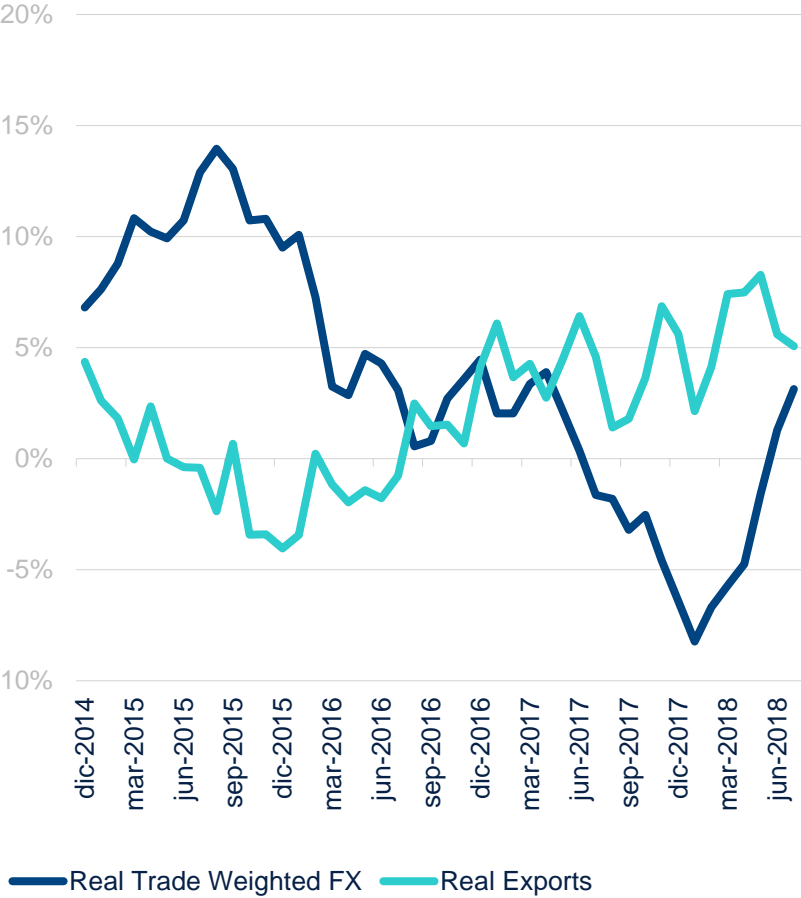


- Autos
- Health & P. Care
- Gas
- Clothing
- Nonstore
- Food Service
- Headline (lhs)

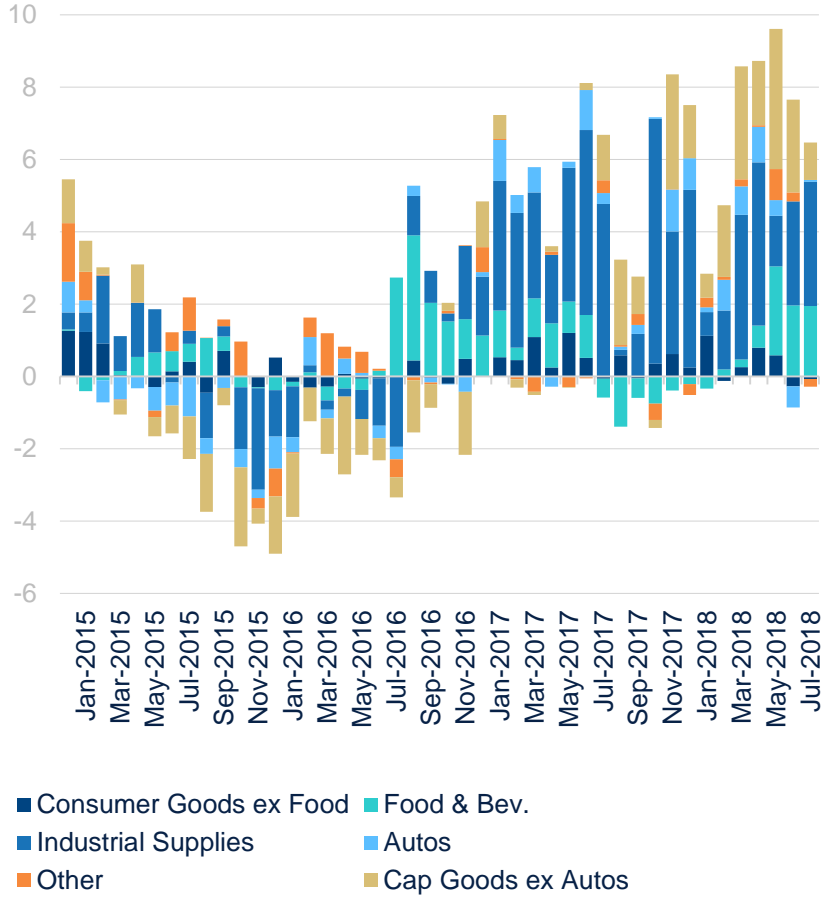
Source: BBVA Research, FRB & BEA

Economic trends: Exports facing headwinds from tariffs and dollar strength

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



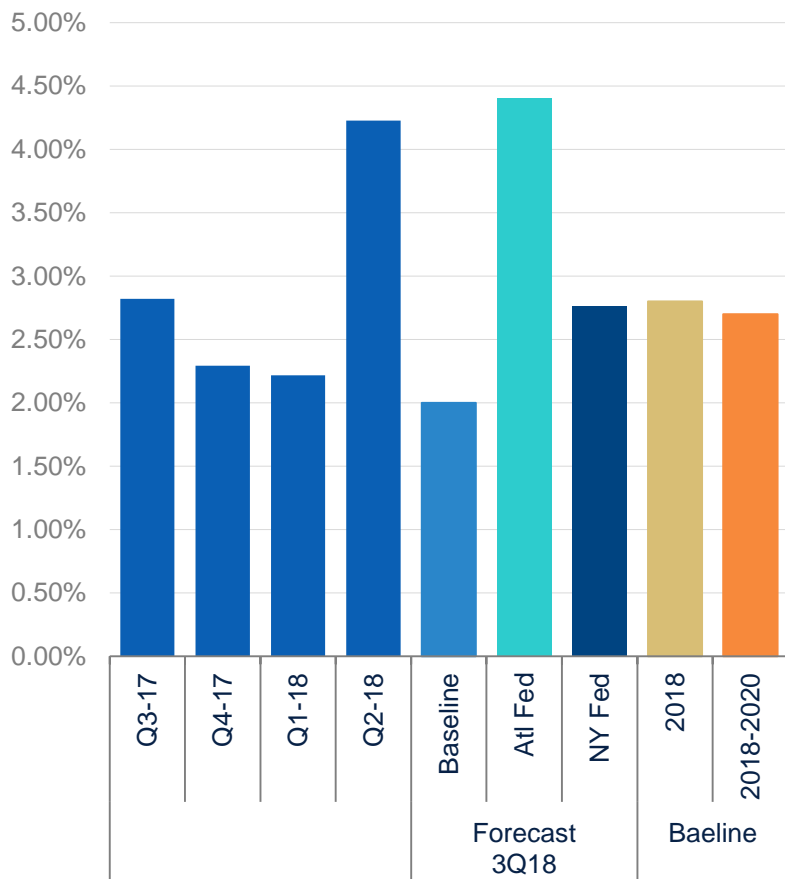
Real Exports (Contribution to year-over-year %)



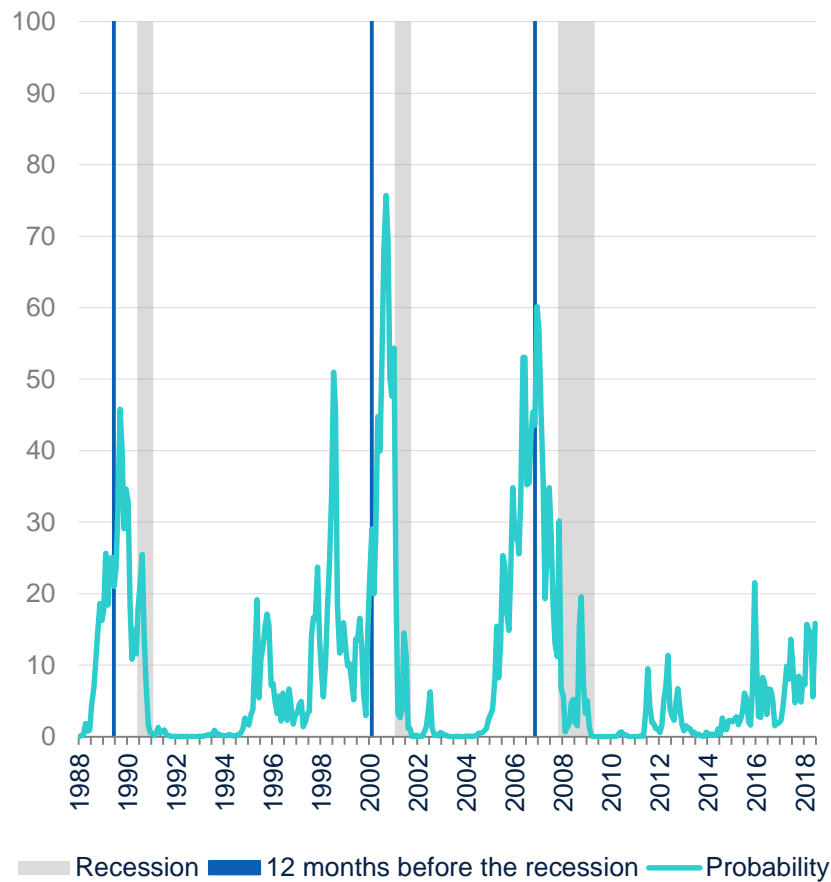
Source: BBVA Research, FRB & Census

Economic trends: Despite increased probability of slower growth in 3Q, still on track for 2.8% in '18

Real GDP
(QoQ SAAR, %)



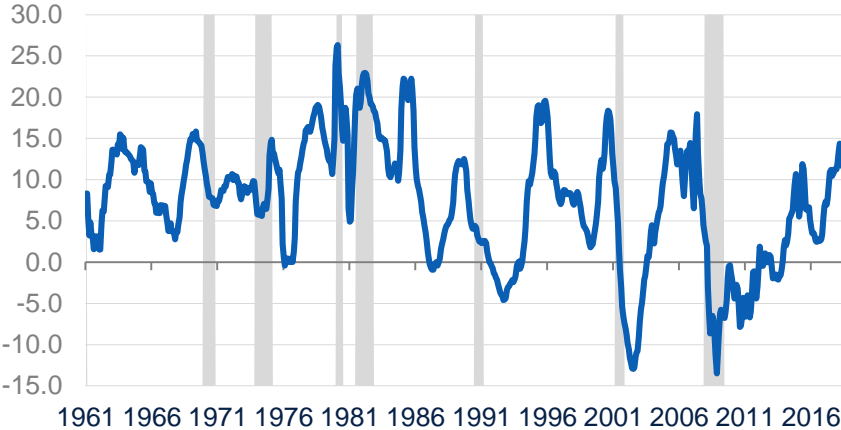
Probability of Recession in 12 Months
(%)



Consumer credit cycle: leverage metrics elevated, but standards remain robust in post-crisis period

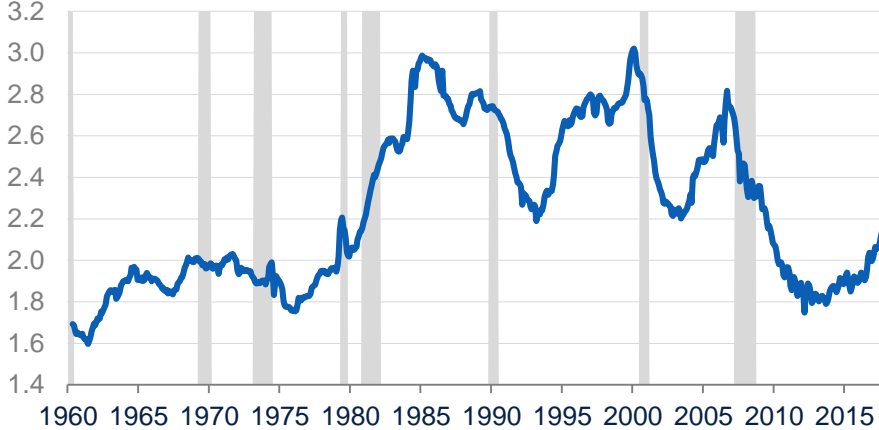
Personal Interest Expense

Year-over-year %



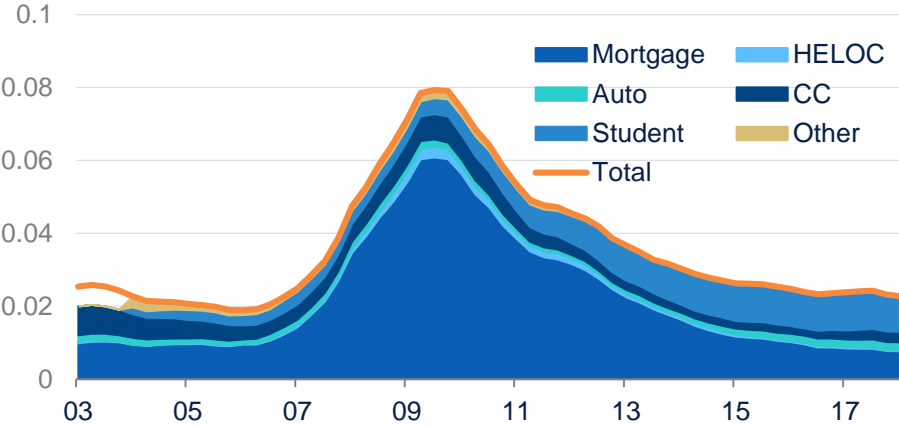
Personal Interest Expense to Disp. Income

Ratio, %



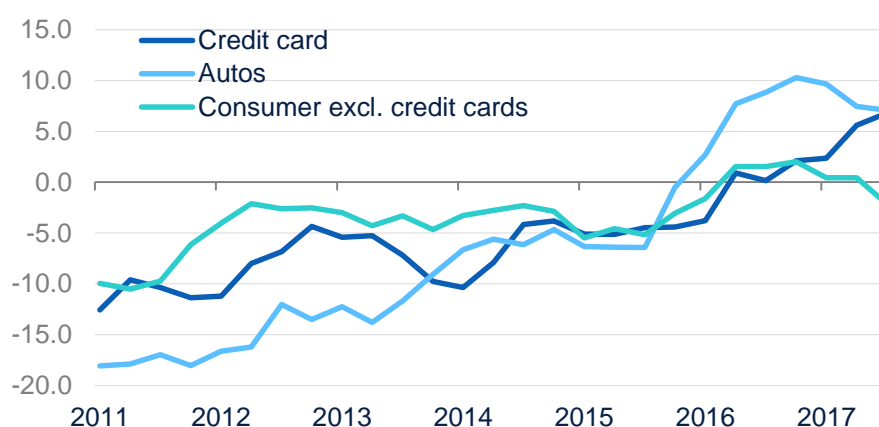
New 30+ Day Consumer Delinquencies Rates

%



Senior Loan Officers Lending Standards

+ tightening / - loosening



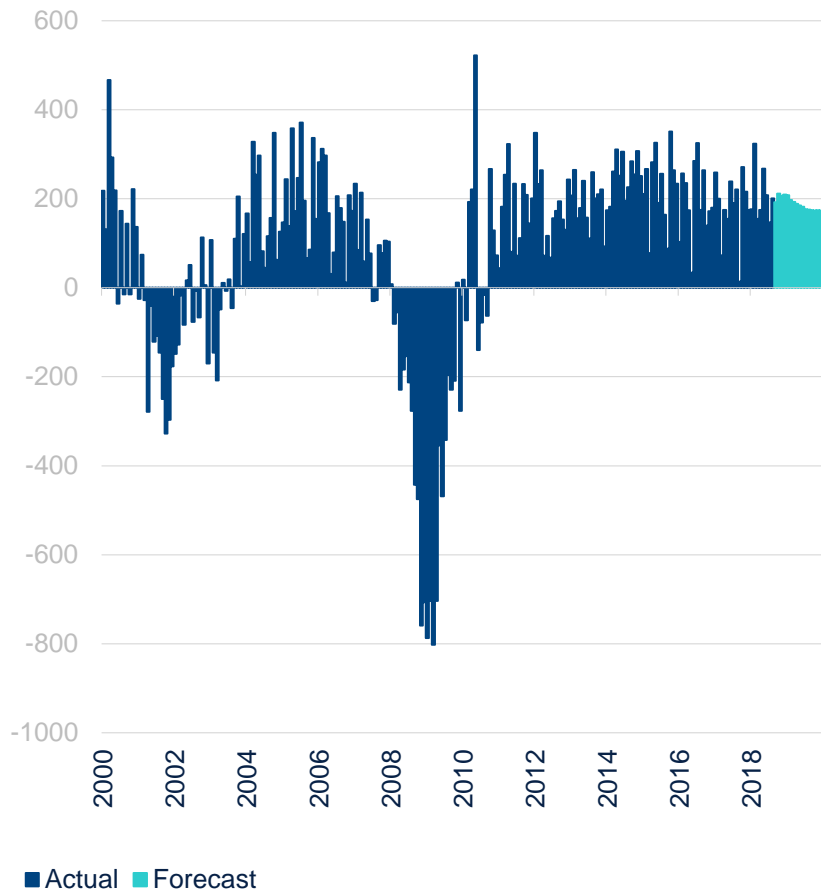
Source: BBVA Research, FRB, NY Fed & BEA

Labor Market

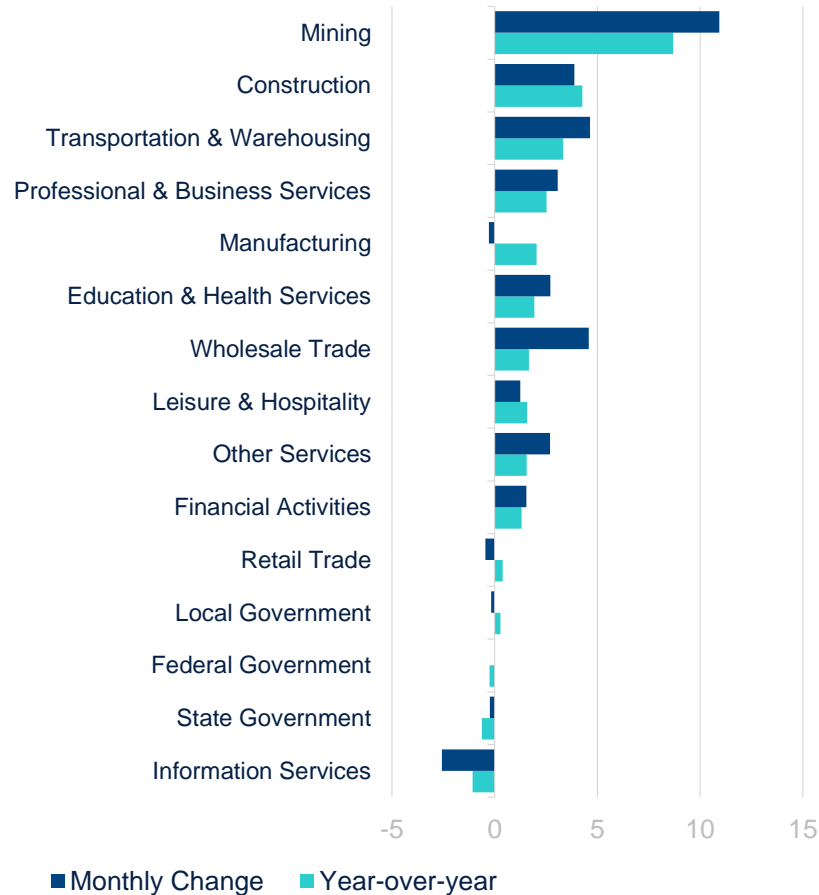
- In August, nonfarm payrolls increased by 201K, supported by solid gains in professional and business services (53K), health care (33K), construction (23K), wholesale trade (22K), and transportation and warehousing (20K)
- The revisions to payroll for June and July implied 50K less jobs than originally reported
- The unemployment rate was unchanged at 3.9% while the employment-to-population and participation rate edged down
- Average hourly earnings increased 0.4% during the month and 2.9% YoY, in what represents the largest increase since May 2009
- We expect the UR to reach 3.7% by the end of the year, as our baseline assumes average monthly job growth that is well above the amount needed to absorb any remaining slack

Labor market: Opportunities continue to improve in nontrivial share of industries

Nonfarm Payrolls (Monthly Change, K)

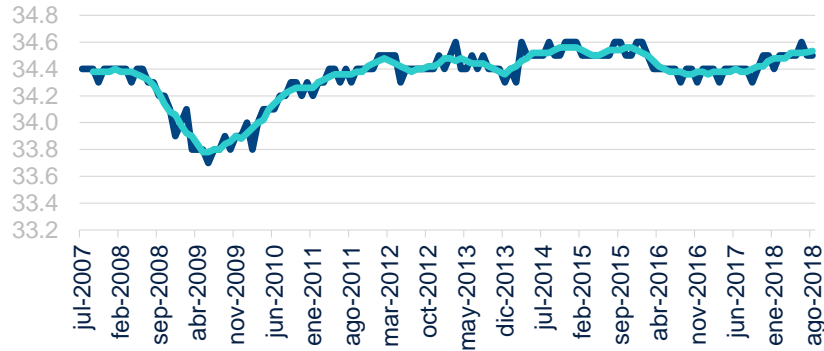


Industry Employment (Annualized % change)

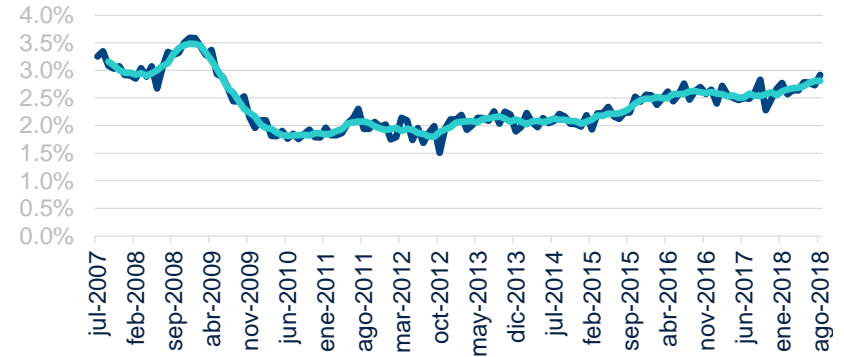


Labor market: Increasing wages and hours worked a reflection of domestic momentum

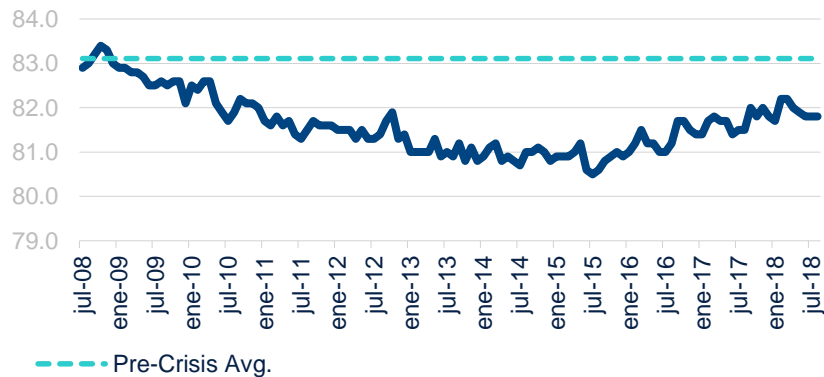
Average Weekly Hours (number & 5mcm)



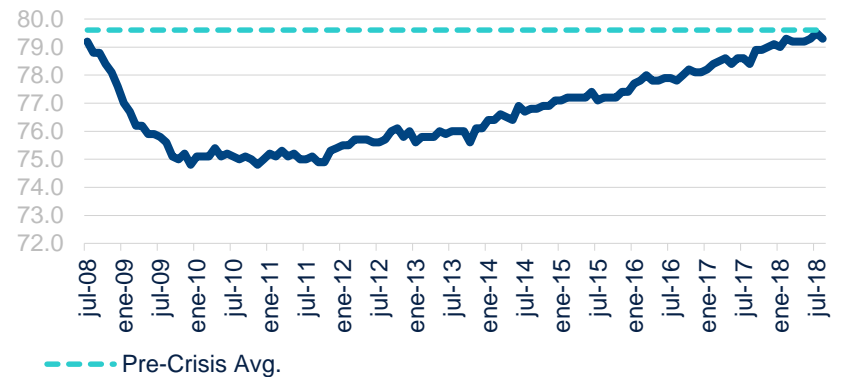
Average Hourly Earnings (YoY% & 5mcm)



Prime Age Labor Force Participation (%)

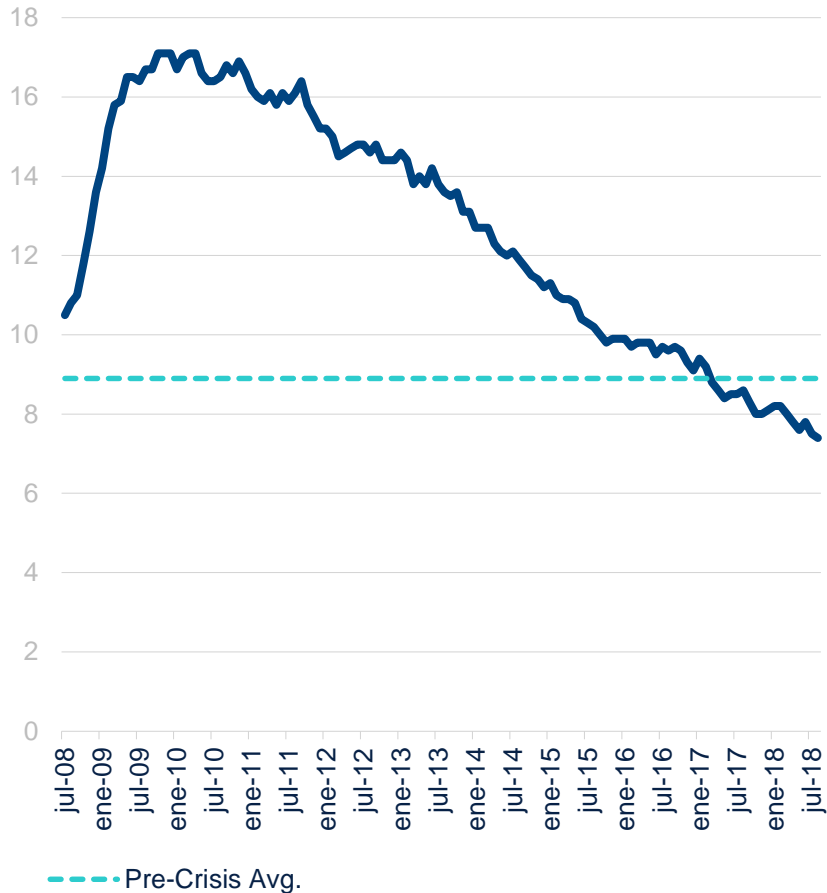


Prime Age Employment-to-Population (%)

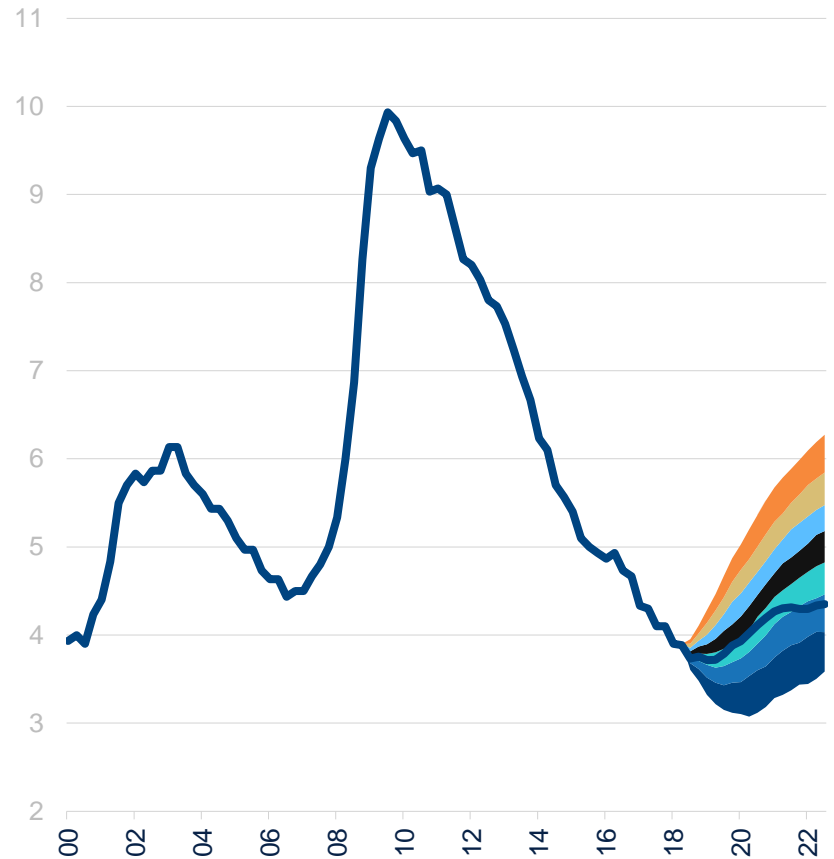


Labor market: Broader measures of labor market utilization strong

U-6
(%)



Unemployment Rate
(%)



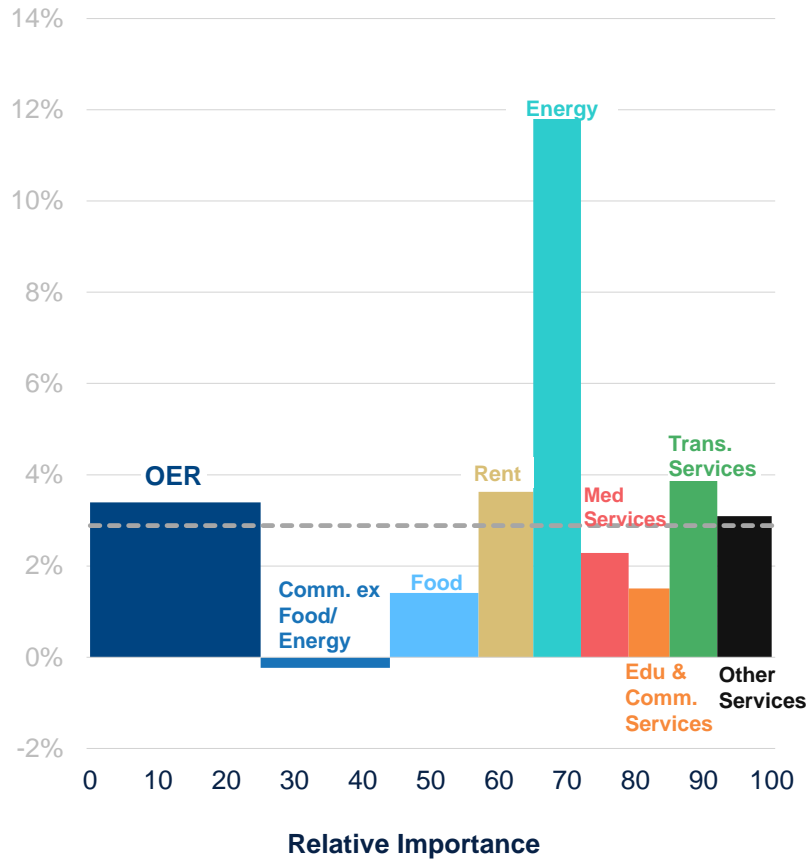
Inflation



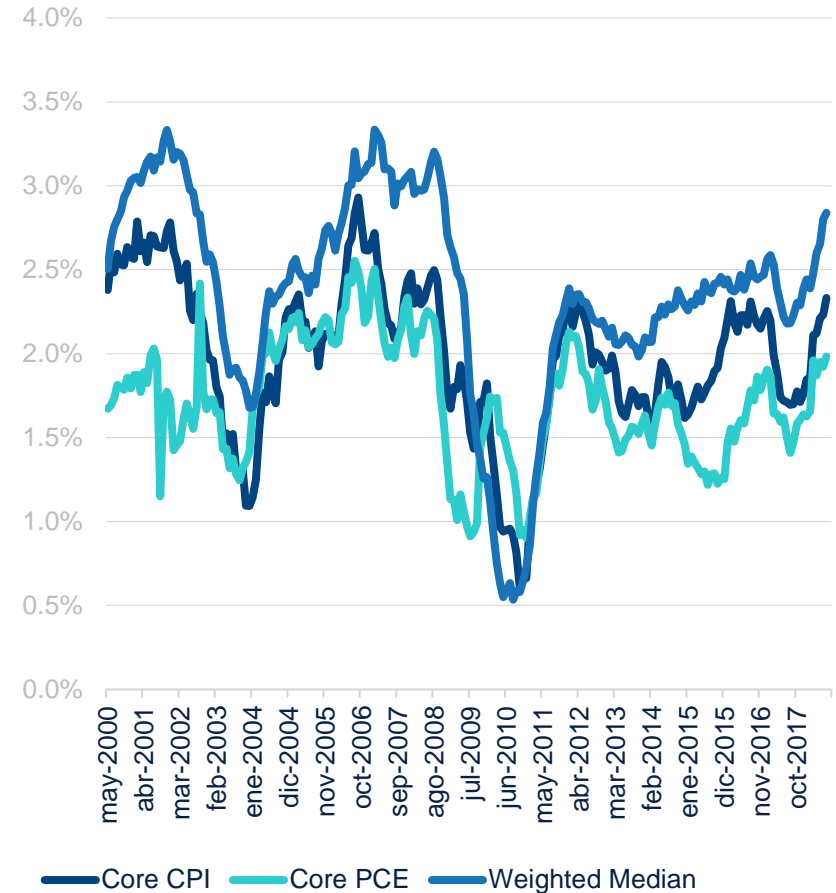
- Headline CPI accelerated to 2.9% year-over-year, the highest in six years while core CPI surged to 2.3%
- Core PCE growth at its highest since 2012
- In July, probability of entering high-inflation regime was 0.8%
- Diffusion index suggests bulk of personal consumption sub-components remain in a stable price regime
- Despite building price pressures in important categories such as OER and healthcare, probabilities of a regime change in these categories remain low
- With additional tailwinds from an expansionary fiscal policy and tit-for-tat tariffs, core PCE will rise to 2.2% by 2019

Inflation: Headline CPI on track to exceed 3.0%

Consumer Price Inflation (12m change)



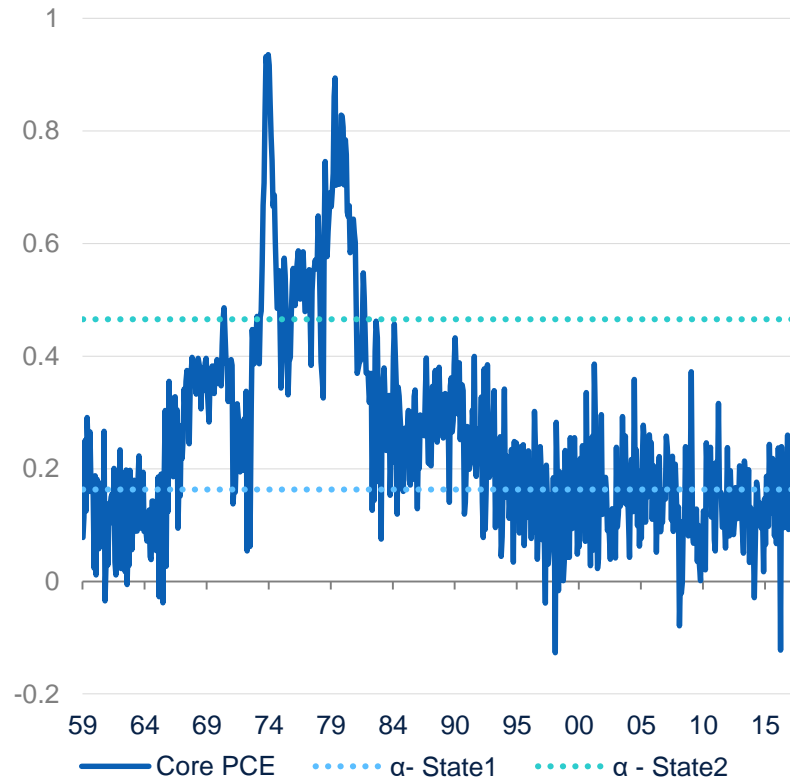
Core Inflation Measures (12m change)



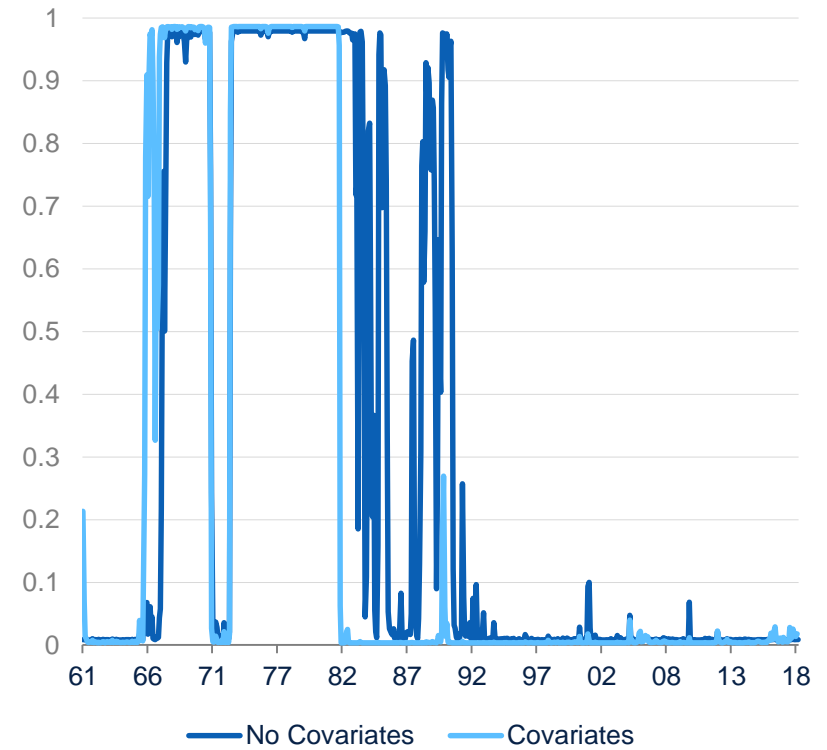
Source: BBVA Research, BLS & BEA

Inflation: Probability of shifting to high inflation regime remains low

Core PCE Price Index & Inflation Regimes
 Month-over-month %



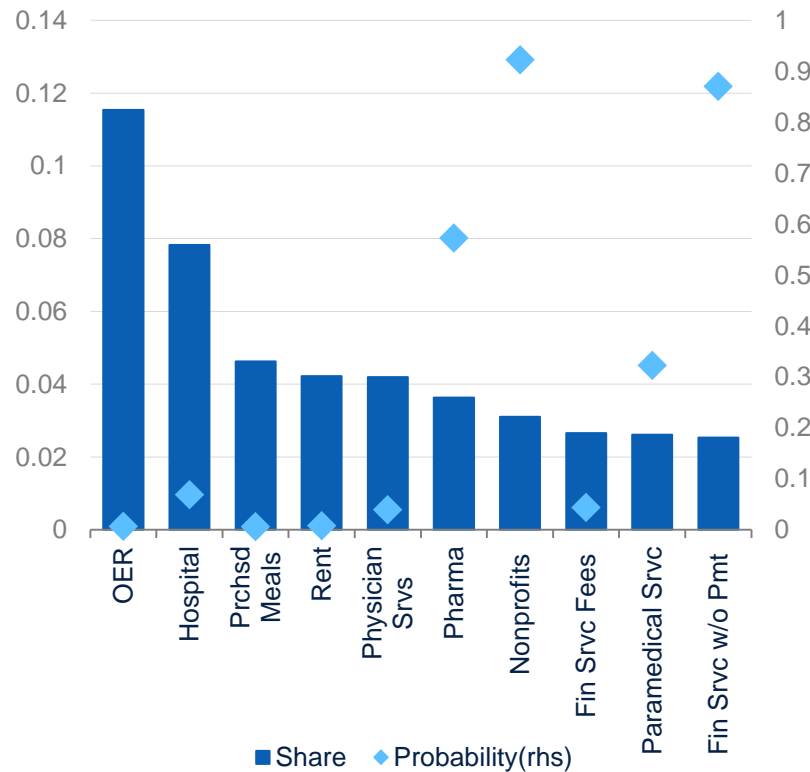
Inflation Regime Change Probability
 %



Inflation: Bulk of inflation subcomponents in low inflation regime

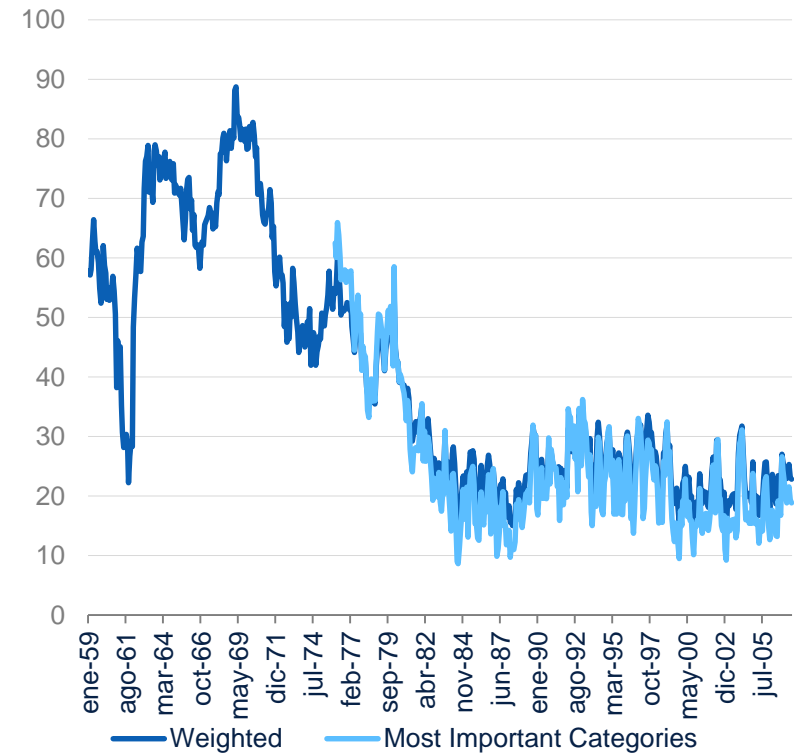
High Inflation Regime Probability and Relative Importance

%



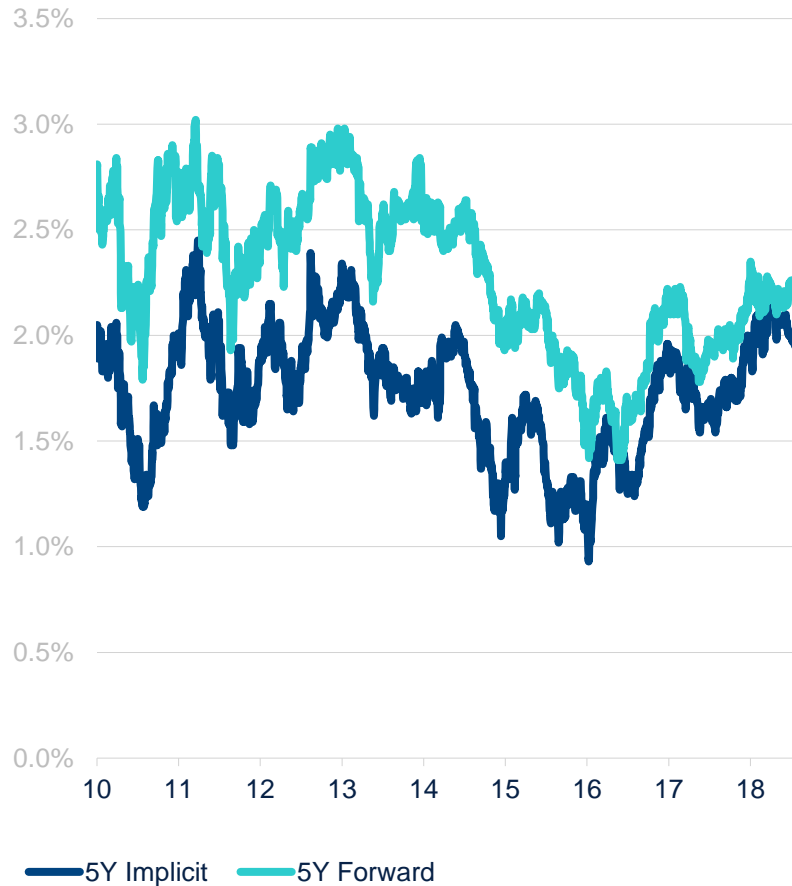
Inflation Regime Change Diffusion Index*

* 50+ = Bulk of Components in High Inflation State

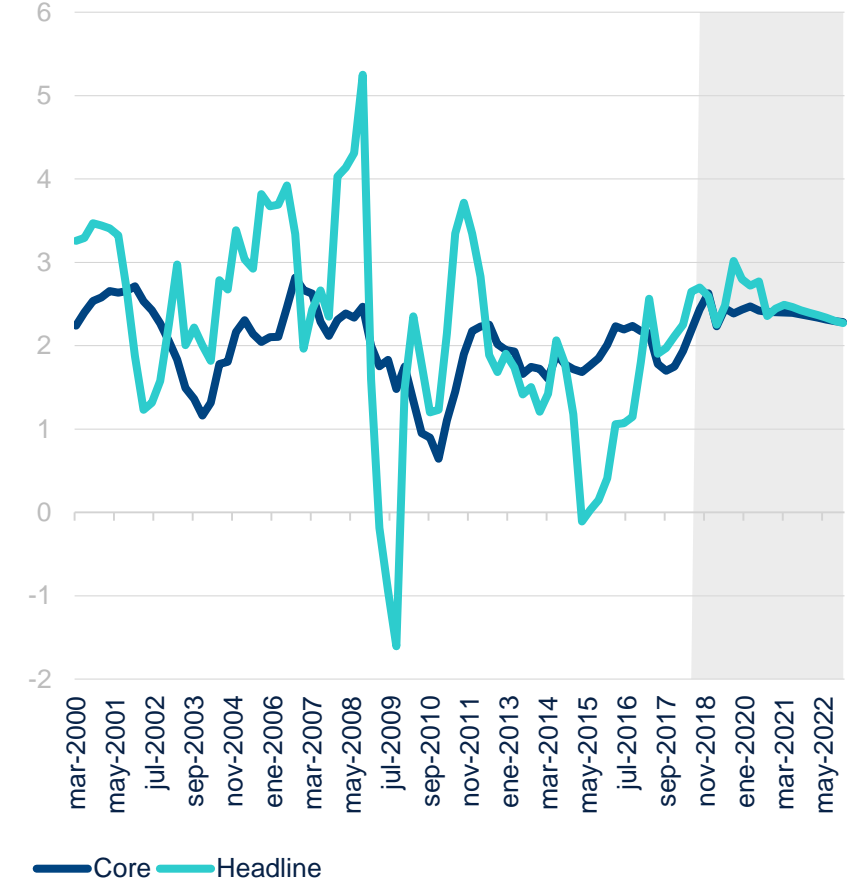


Inflation: Inflation expectations rooted, outlook remains for inflation to trend towards Fed 2% target

Inflation Expectations (%)



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

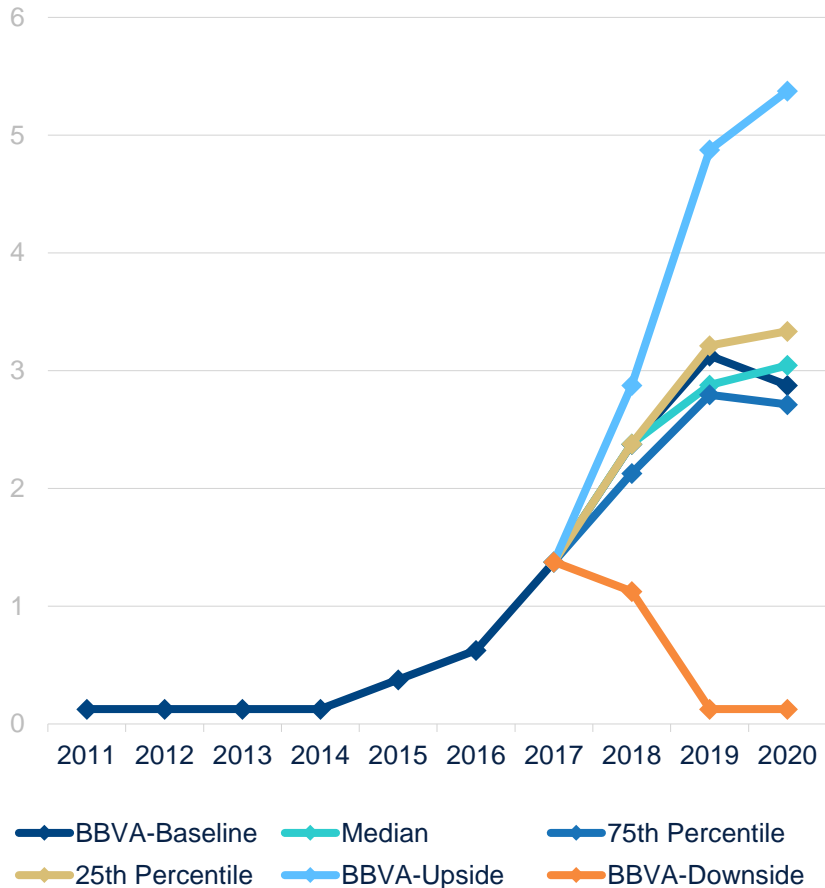


Monetary Policy: Federal Reserve

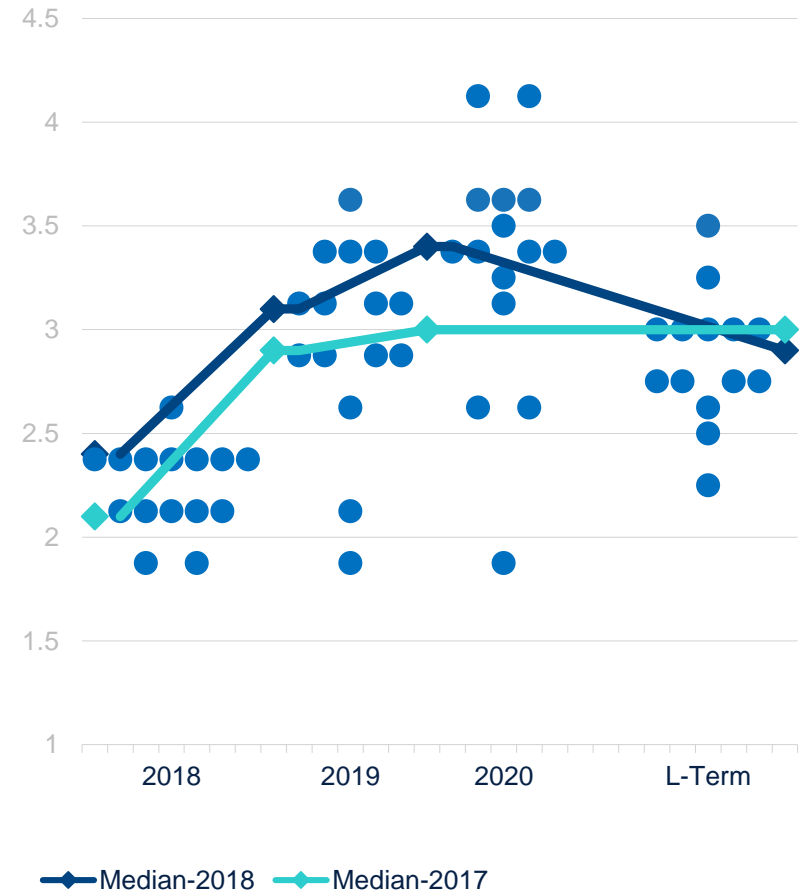
- The FOMC to raise target range of the federal funds from 2.0% to 2.25% at their September meeting
- Increasing concerns on protectionism, “...a major escalation in trade disputes, the complex nature of trade issues, including the entire range of their effects on output and inflation, presented a challenge in determining the appropriate monetary policy response.”
- The discussion on the effective lower bound (ELB) in the minutes implies committee aware of high chances of reaching ELB again and structural risks associated with frequent or extended episodes at the ELB
- Yield curve inversion remains a source of concern for some members, but there is a divide on how to interpret or respond to such signal
- We continue to expect that the committee will raise rates again in December and three more times in 2019

Fed: No change to outlook, two rate increases this year and 3 rate increases next

BBVA & Dealers Projections of Fed Funds (%, Effective)

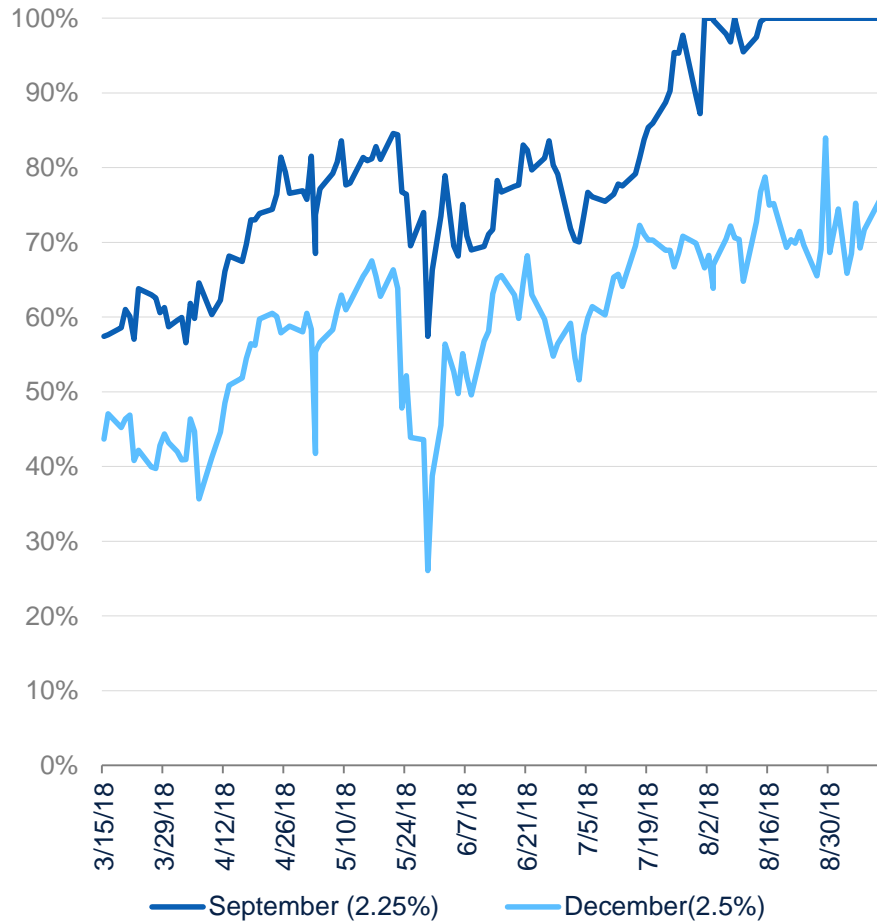


FOMC Projections of Fed Funds (Year-over-year %, Mid-point)

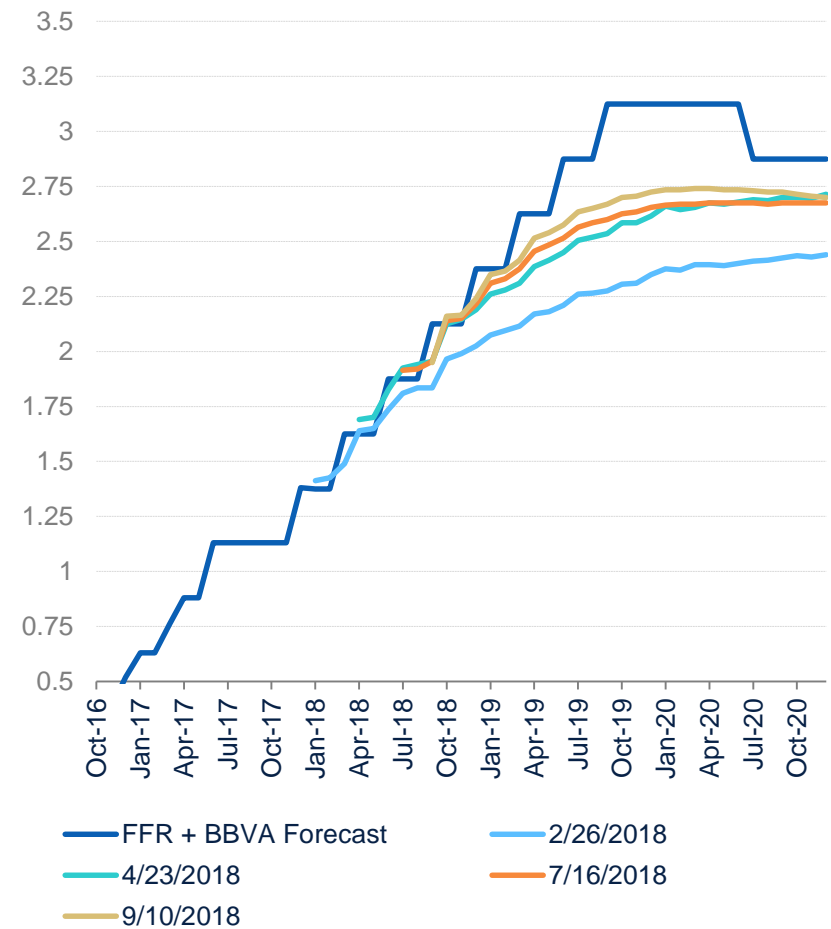


Monetary policy: markets finally starting to price in 2019 overshooting

Fed Funds Implied Probability (%)



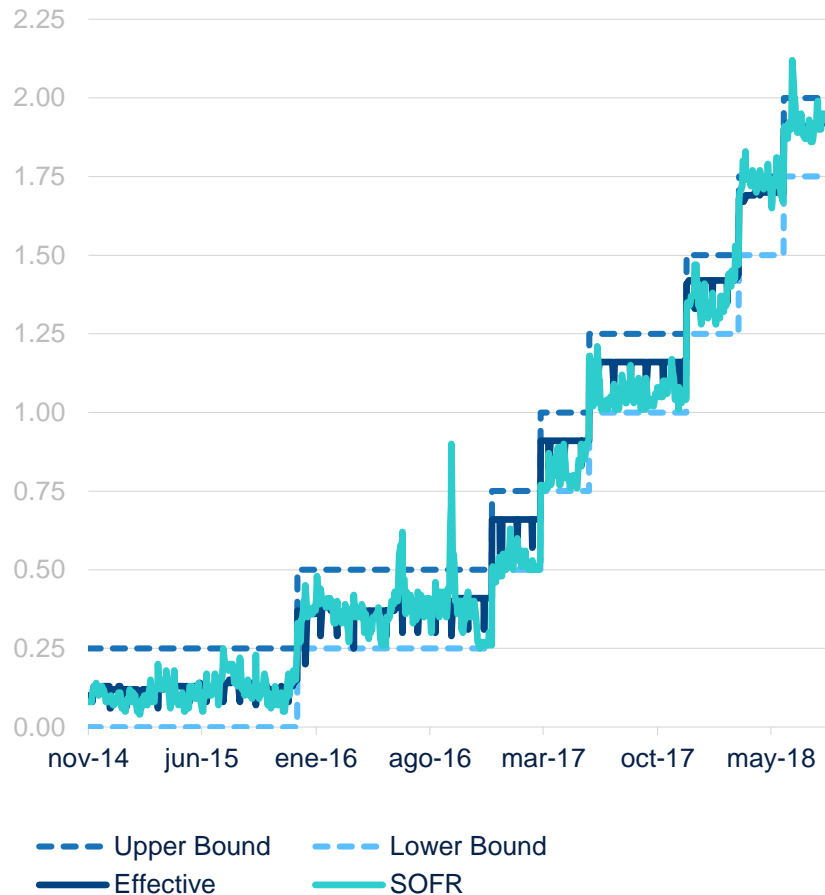
Fed Funds Futures & BBVA Baseline (%)



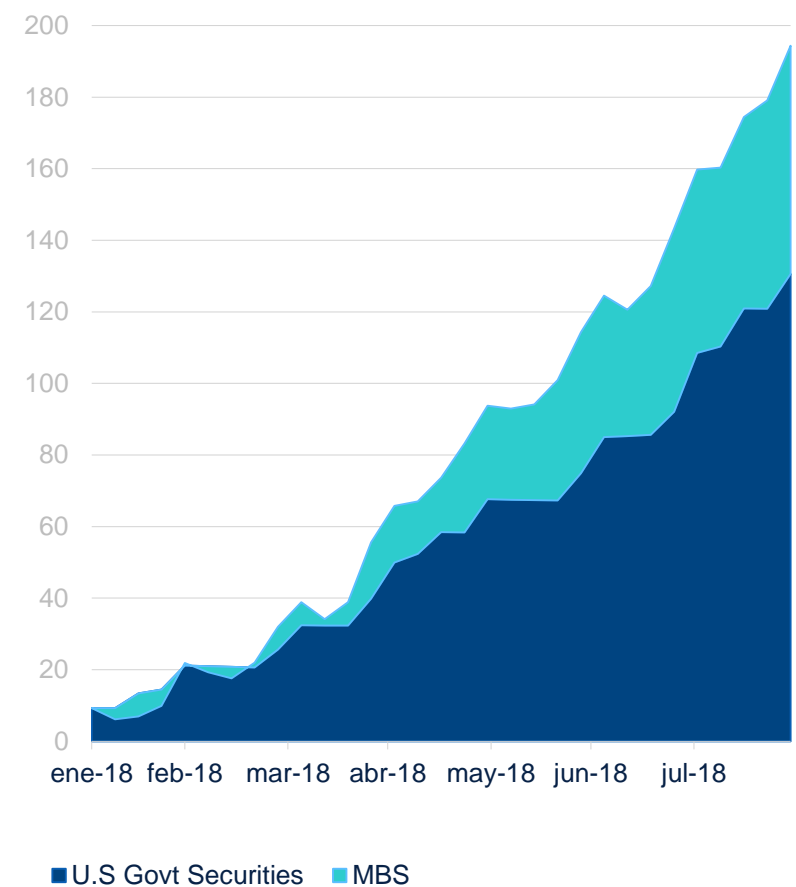
Source: BBVA Research & Bloomberg

Interest rates: Fed Funds and Repo rates trading within target range, balance sheet attrition picking up

Fed Funds & Repo Rates (%)



Balance Sheet Attrition (US\$bn, Cumulative)

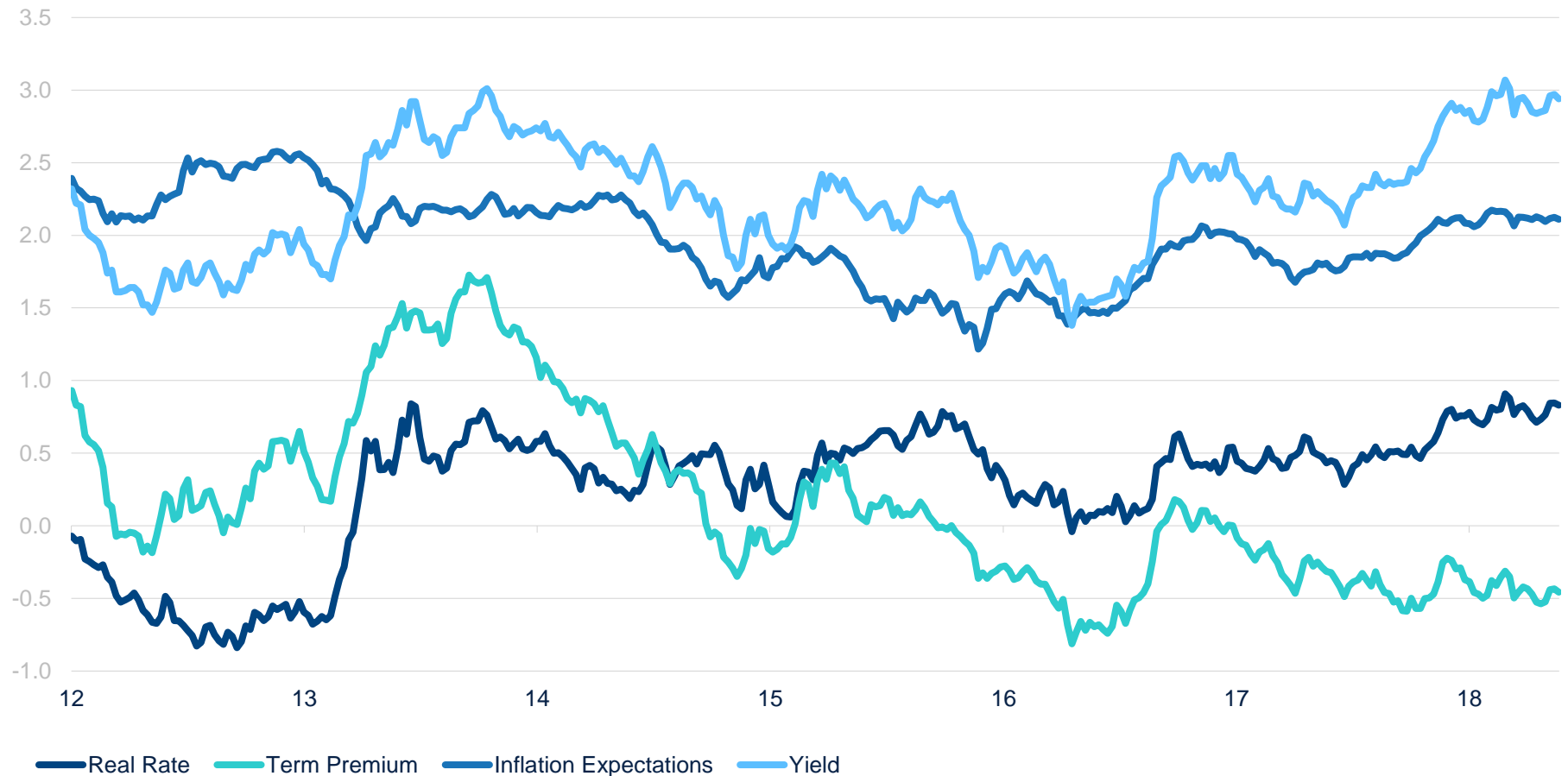


Interest Rates

- Short-term rates to continue upward trend after FOMC raises Federal Funds rates in September
- Recent progress on NAFTA, reduced histrionics and strong domestic growth and inflation help to modestly decompress term-premium
- Lower emerging market volatility helping to lift long-term rates
- Baseline assumes 10-year Treasury yield at 3.1% by year-end 2018 and 3.6% by year-end 2019, amid ongoing risks to the downside
- The Treasury yield curve slope to flatten further but remain positive

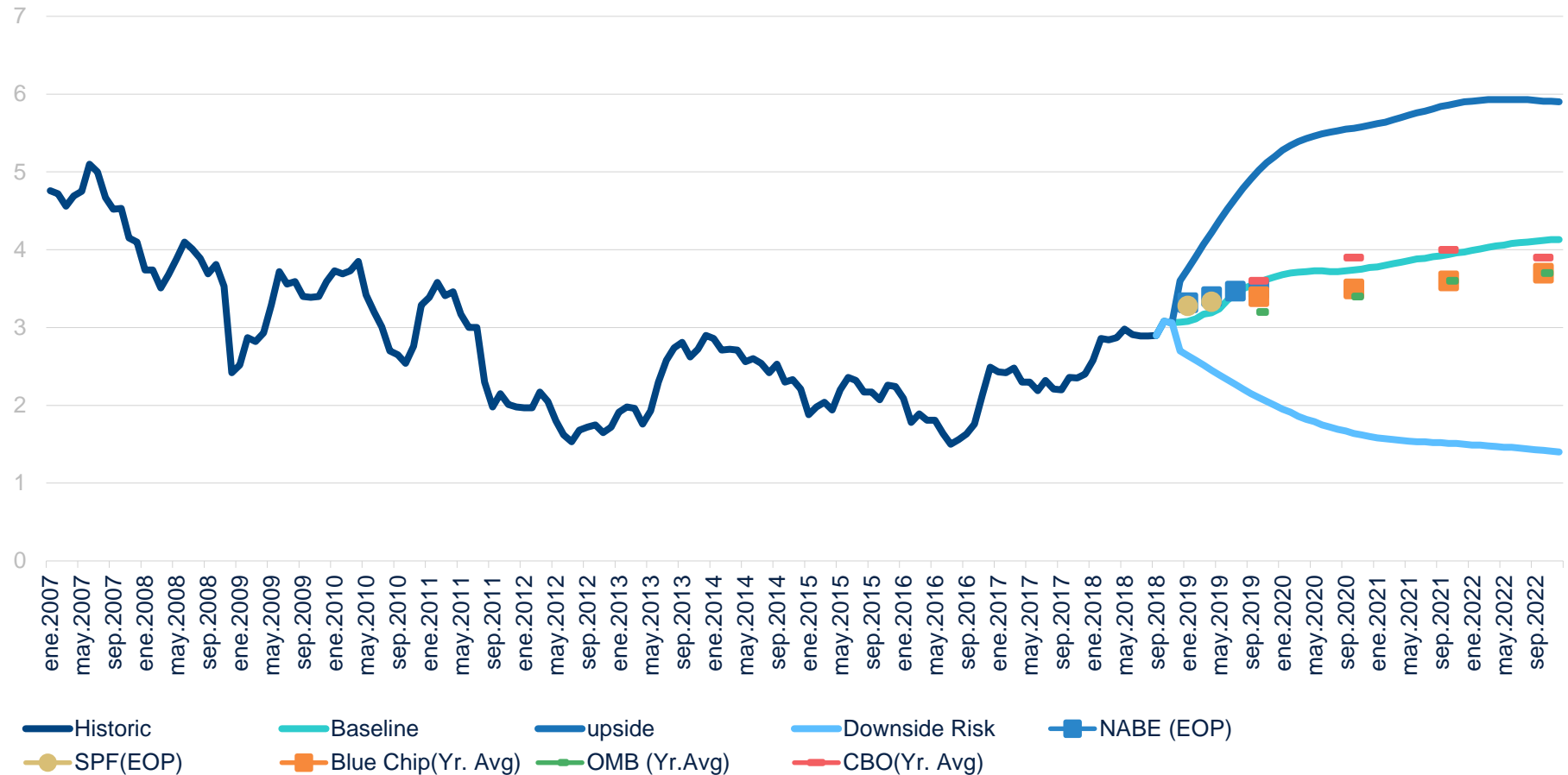
Interest rates: Slight decompression in term premium allows 10-year to resume upward trend

10-Year Treasury Yield Decomposition (%)



Interest rates: Forecast is for 10-year treasury yield to reach 3.1% by year-end 2018 and 3.6% year-end 2019

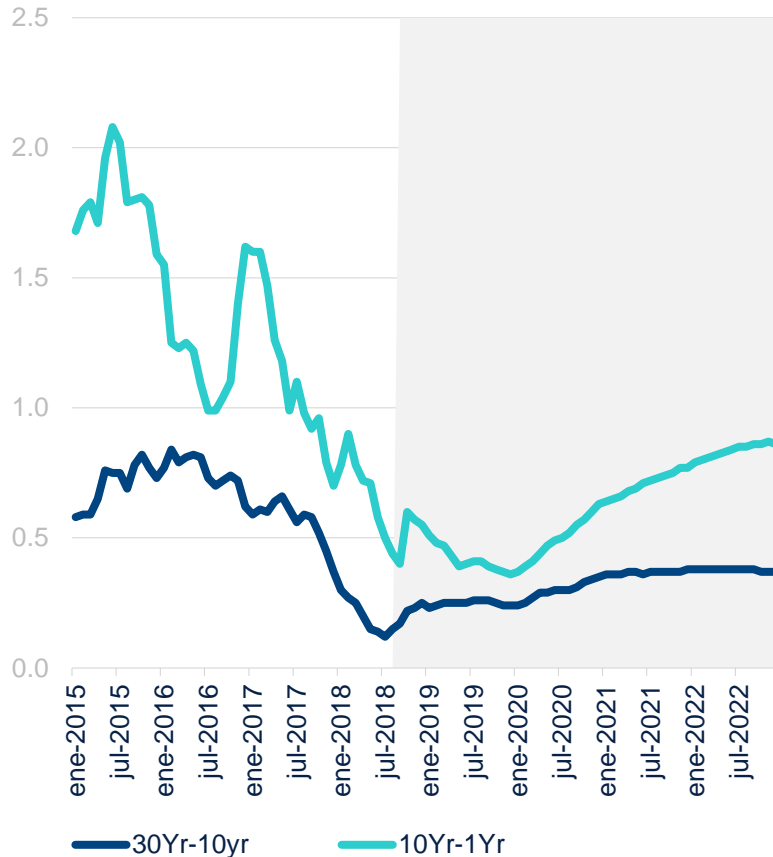
10-Year Treasury Yield (%)



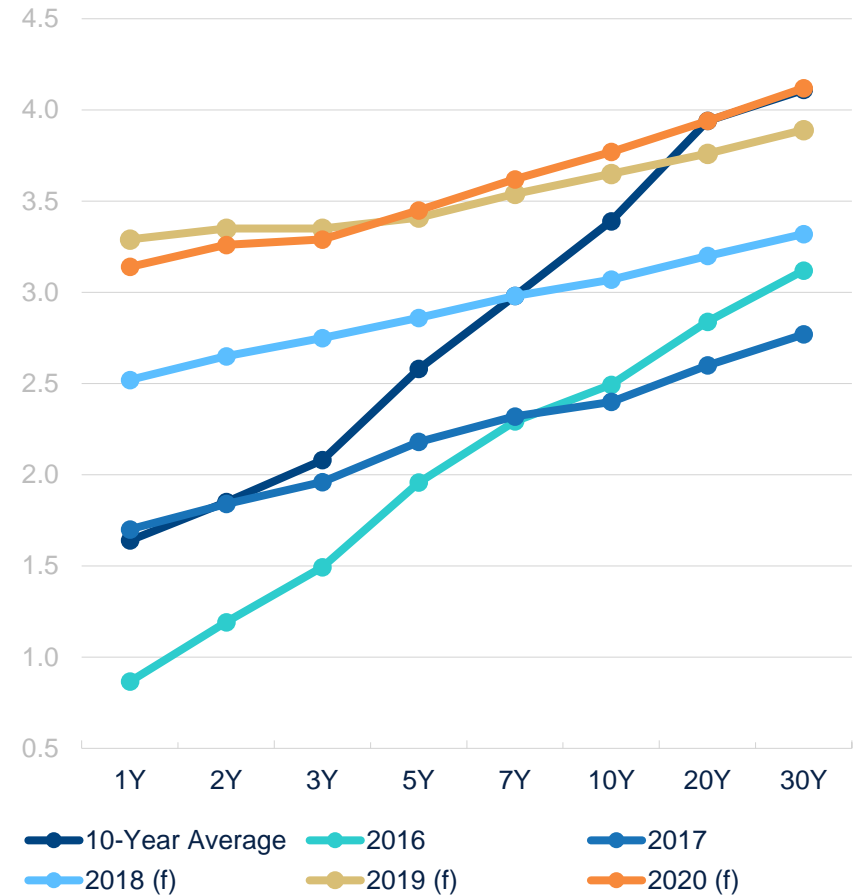
Source: BBVA Research, ACM & Haver Analytics

Interest rates: Baseline scenario continues to assume no yield curve inversion

Yield Curve Slope (Bp)



Yield Curve (% eop)



Macroeconomic Outlook

	2011	2012	2013	2014	2015	2016	2017	2018 (f)	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	2.8	2.8	2.5	2.3	2.1
Real GDP (Contribution, pp)												
PCE	1.3	1.0	1.0	2.0	2.5	1.9	1.8	1.9	1.8	1.5	1.4	1.4
Gross Investment	0.9	1.6	1.1	0.9	0.8	-0.2	0.8	0.8	1.0	1.0	1.0	0.8
Non Residential	1.0	1.2	0.5	0.9	0.3	0.1	0.7	1.1	1.1	0.9	0.8	0.7
Residential	0.0	0.3	0.3	0.1	0.3	0.2	0.1	0.0	0.1	0.2	0.1	0.1
Exports	0.9	0.5	0.5	0.6	0.1	0.0	0.4	0.6	0.6	0.7	0.7	0.7
Imports	-0.9	-0.5	-0.3	-0.9	-1.0	-0.3	-0.8	-0.7	-0.8	-0.9	-0.9	-0.9
Government	-0.7	-0.4	-0.5	-0.2	0.3	0.3	0.0	0.3	0.3	0.2	0.1	0.1
Unemployment Rate (% average)	8.9	8.1	7.4	6.2	5.3	4.9	4.4	3.9	3.7	4.0	4.3	4.3
Avg. Monthly Nonfarm Payroll (K)	174	179	192	250	226	195	182	206	183	158	125	107
CPI (YoY %)	3.1	2.1	1.5	1.6	0.1	1.3	2.1	2.5	2.6	2.6	2.4	2.3
Core CPI (YoY %)	1.7	2.1	1.8	1.7	1.8	2.2	1.8	2.3	2.4	2.4	2.4	2.3
Fiscal Balance (% GDP, FY)	-8.4	-6.8	-4.1	-2.8	-2.4	-3.2	-3.5	-4.4	-4.6	-4.5	-4.8	-5.2
Current Account (bop, % GDP)	-2.9	-2.6	-2.1	-2.1	-2.2	-2.3	-2.3	-2.3	-2.4	-2.4	-2.5	-2.5
Fed Target Rate (% eop)	0.25	0.25	0.25	0.25	0.50	0.75	1.50	2.50	3.25	3.00	3.00	3.00
Core Logic National HPI (YoY %)	-2.9	4.0	9.7	6.8	5.3	5.5	5.9	6.5	5.5	5.4	5.7	5.9
10-Yr Treasury (% Yield, eop)	1.98	1.72	2.90	2.21	2.24	2.49	2.40	3.07	3.65	3.77	3.97	4.13
Brent Oil Prices (dpb, average)	111.3	111.7	108.7	99.0	52.4	43.6	54.3	72.3	70.3	64.9	60.9	60.0

Economic Scenarios

	Probability (%)	Current	Previous
Upside		15	10
Baseline		60	65
Downside		25	25

Macro Scenarios

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
GDP	1.8	2.5	2.9	1.6	2.2	2.8	2.8	2.5	2.3	2.1
Upside	1.8	2.5	2.9	1.6	2.2	3.0	3.7	3.3	3.1	3.0
Downside	1.8	2.5	2.9	1.6	2.2	2.2	-1.5	0.1	1.2	1.4
UR	7.4	6.2	5.3	4.9	4.4	3.9	3.7	4.0	4.3	4.3
Upside	7.4	6.2	5.3	4.9	4.4	3.9	3.2	2.9	3.0	3.0
Downside	7.4	6.2	5.3	4.9	4.4	4.0	4.6	6.6	7.0	5.7
CPI	1.5	1.6	0.1	1.3	2.1	2.5	2.6	2.6	2.4	2.3
Upside	1.5	1.6	0.1	1.3	2.1	2.6	3.4	3.5	3.7	3.7
Downside	1.5	1.6	0.1	1.3	2.1	2.4	1.3	1.0	0.7	0.6
Fed [eop]	0.25	0.25	0.50	0.75	1.50	2.50	3.25	3.00	3.00	3.00
Upside	0.25	0.25	0.5	0.75	1.5	3	5	5.5	5.5	5.5
Downside	0.25	0.25	0.5	0.75	1.5	1.25	0.25	0.25	0.25	0.25
10-Yr [eop]	2.9	2.21	2.24	2.49	2.4	3.07	3.65	3.77	3.97	4.13
Upside	2.9	2.21	2.24	2.49	2.4	3.6	5.2	5.6	5.9	5.9
Downside	2.9	2.21	2.24	2.49	2.4	2.7	2	1.6	1.5	1.4

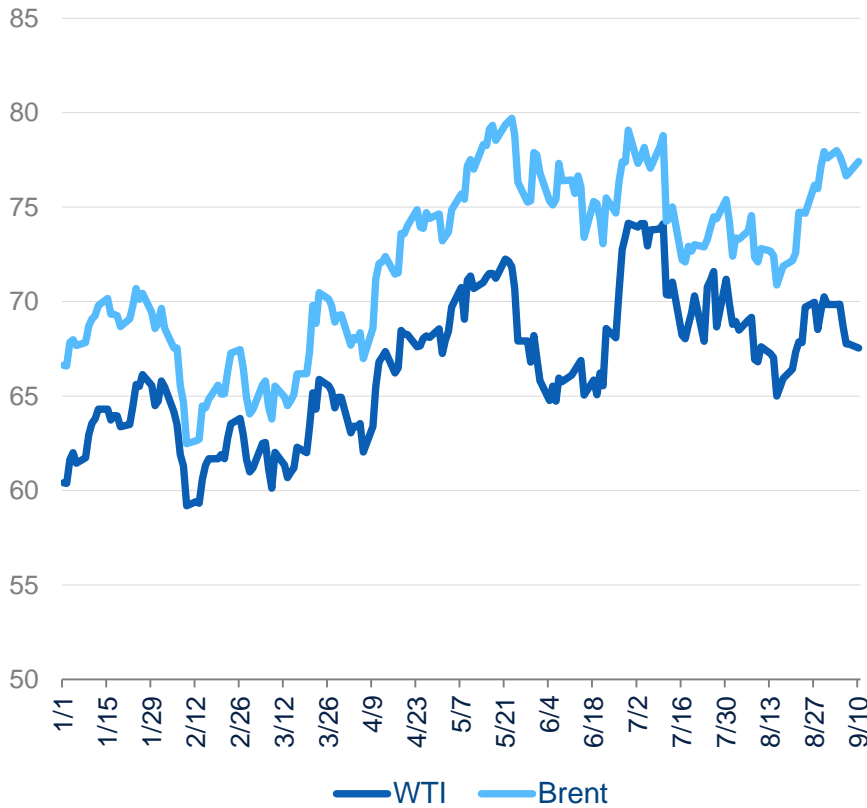
*Forecasts subject to change

Energy Prices

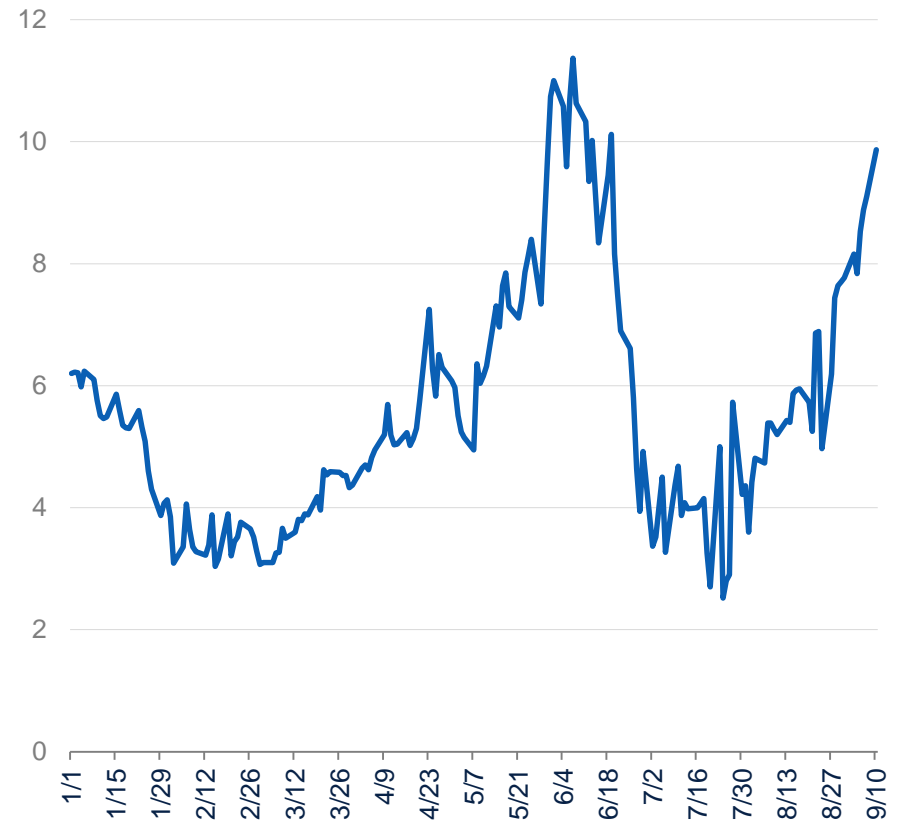
- U.S. sanctions on Iran, concerns on OPEC spare capacity and the potential trade war will influence oil prices through the rest of the year
- Even though U.S. O&G activity remains strong, takeaway challenges in the Permian Basin have widened the gap between WTI and Brent
- Robust global demand supported by China, India and the U.S.
- Prices are expected to converge to long-term equilibrium as demand growth returns to trend and U.S. export capacity increases
- The main uncertainty to oil prices arises from the effect of subpar global CAPEX on supply

Energy Prices: WTI has been less sensitive to global developments

Crude oil prices (2018, \$ per barrel)



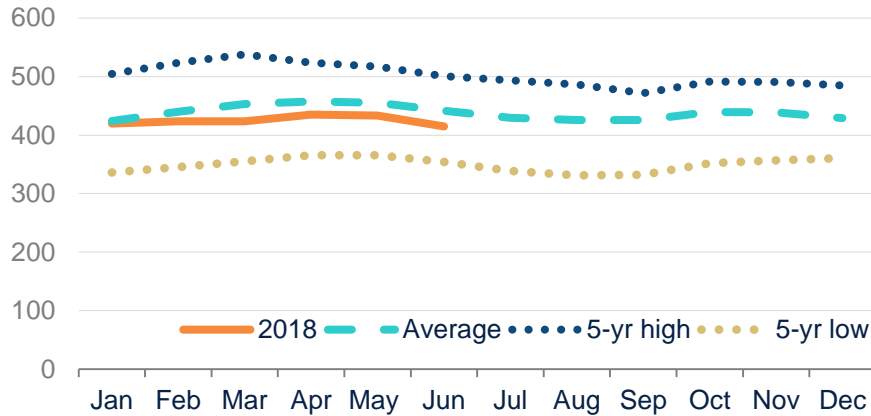
Brent-WTI Differential (2018, \$ per barrel)



Energy Prices: differentials highlight takeaway issues

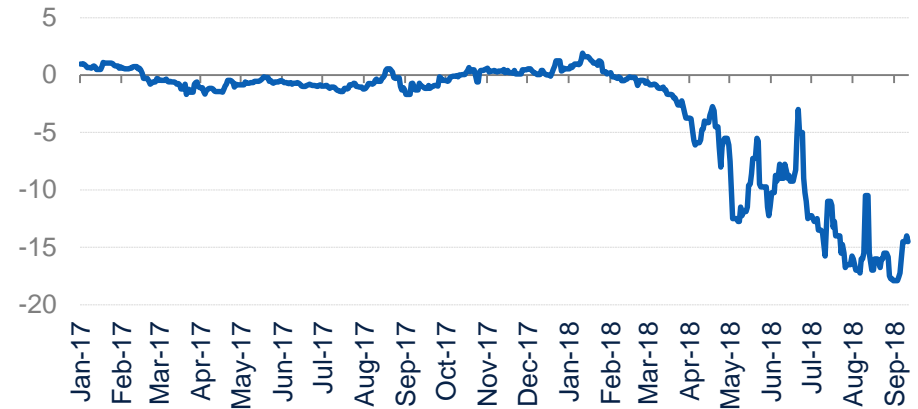
U.S. Crude oil inventories

(Excluding SPR, million barrels)



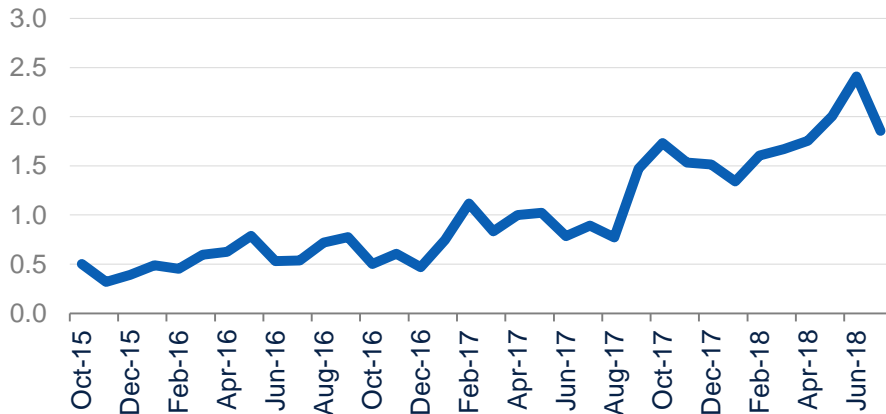
WTI Midland-Cushing differential

(\$/b)



U.S. Crude oil exports

(Million barrels/day)



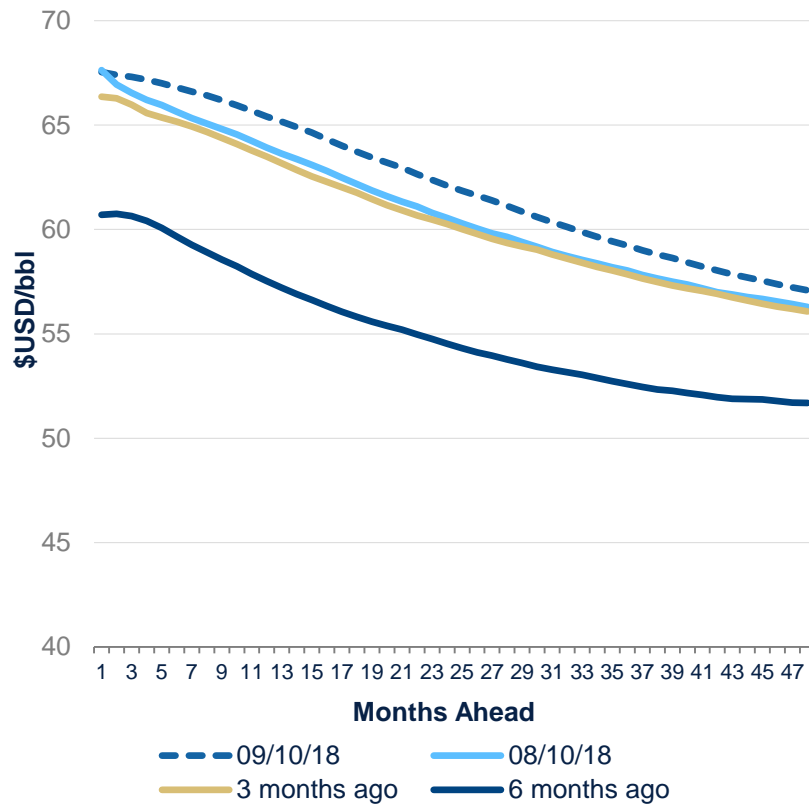
U.S. Estimated crude oil production

(Thousand barrels/day)



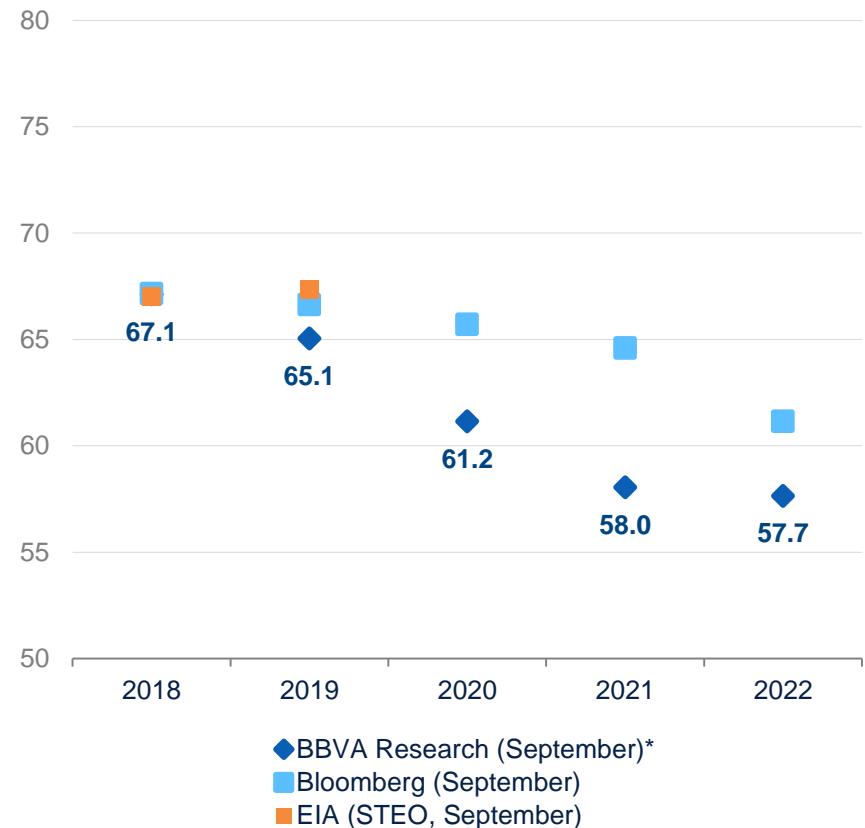
Our forecasts continue signaling convergence to long-term equilibrium

WTI Futures (\$ per barrel)



Source: BBVA Research and Bloomberg

Oil prices forecast (Brent, \$/b)



Source: BBVA Research and Bloomberg

* Preliminary, unofficial

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