

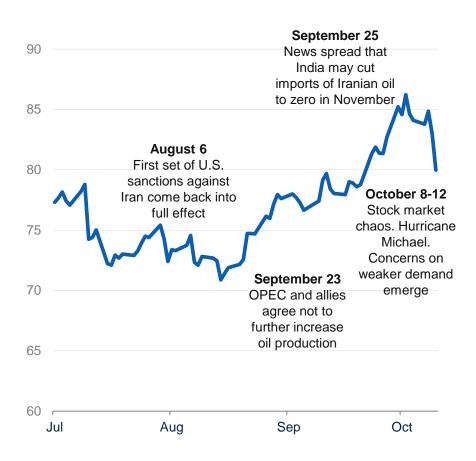
Energy Prices

- U.S. sanctions to Iran, concerns on OPEC spare capacity and the potential impact of trade wars will weigh on oil prices through the rest of the year
- U.S. production remains strong, but transportation challenges have widened the gap between WTI and Brent
- Solid demand supported by China, India and the U.S.
- Markets and analysts expect the end of the "lower-for-longer" paradigm supported by solid demand and negative supply shocks
- Elevated uncertainty around long-term equilibrium: lagged effect of subpar global CAPEX, protectionism, alternative energy sources, EM convergence, EVs, climate change, efficiency and technology

Is this the end of lower-for-longer?

Crude oil prices July to October 2018

(\$ per barrel, 2018)



CBOE/NYMEX Crude Volatility Index

(2018)

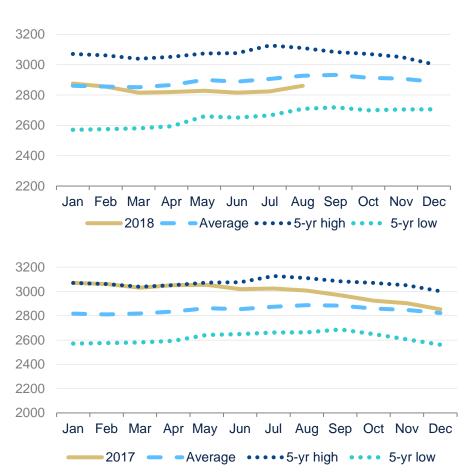


Source: BBVA Research and Haver Analytics`

Although markets remain fairly balanced, the reinstatement of sanctions to Iran triggered a bullish sentiment

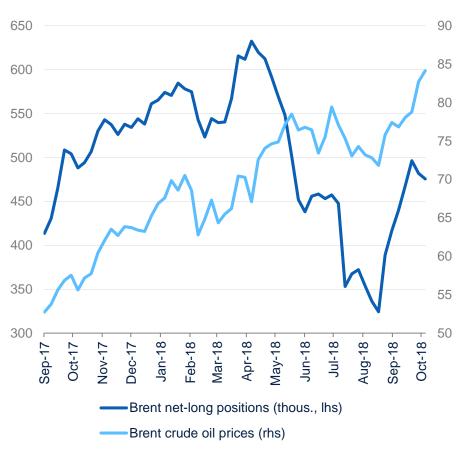
OECD Crude oil inventories

(Million barrels)



Brent and net long positions

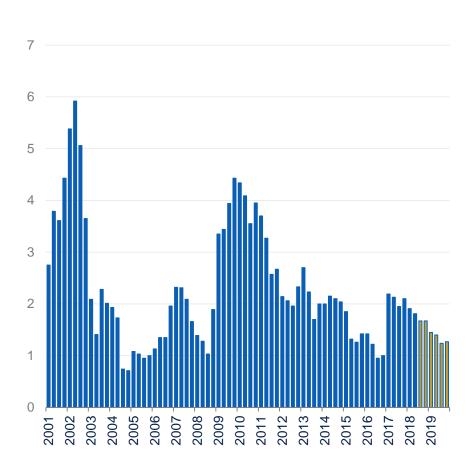
(\$ per barrel and thousands)



Disruptions in Iran and Venezuela leave the market more vulnerable to future supply shocks

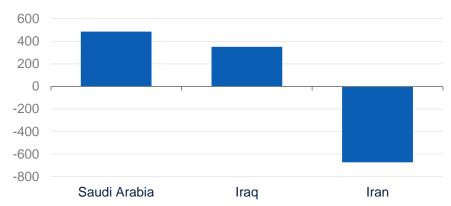
OPEC spare production capacity

(Million barrels/day)



Exports of crude oil

(Thousand barrels per day, change since April 2018)



Exports of crude oil

(Thousand barrels per day, change since April 2018)

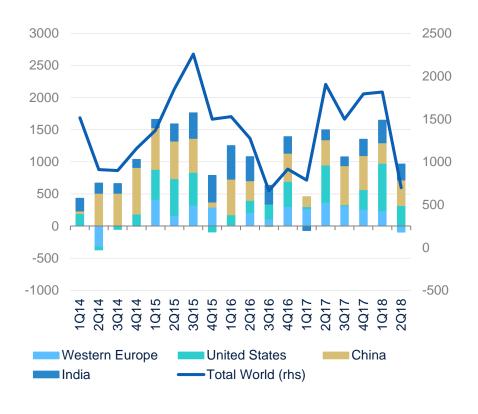


Source: BBVA Research, Haver Analytics, EIA and Bloomberg

Demand supported by China, India and the U.S.

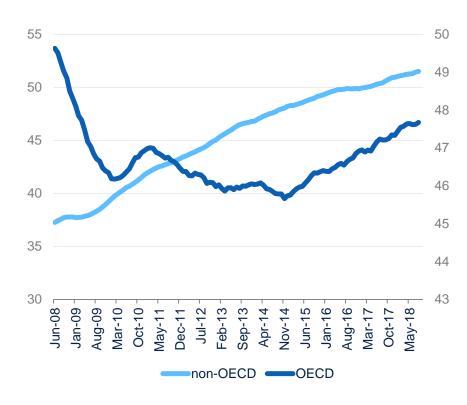
Oil product demand: total world

(Thousand barrels per day, yoy change)



Oil product demand

(Million barrels per day)



Source: BBVA Research and Haver Analytics

Going forward, higher prices, stronger dollar and higher financial volatility may signal slower demand growth

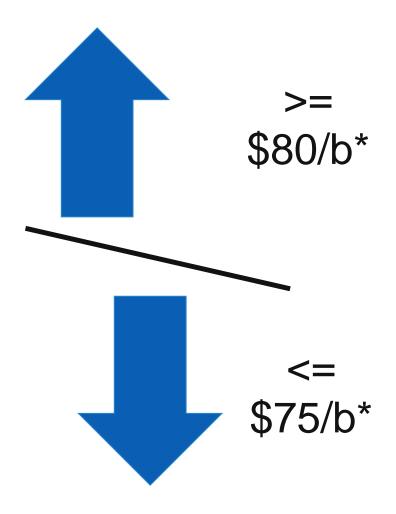
Brent crude oil prices in different currencies (Jan-2018 = 100)



Stock market indicators



Short-term risks are tilted to the upside...

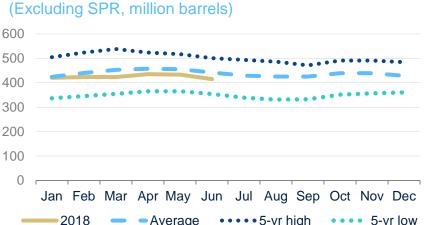


- OPEC+ is perceived incapable of offsetting the gap left by Iran and Venezuela
- Additional negative supply shocks (e.g. Libya, Nigeria)
- Stronger-than-expected global demand
- Steeper "backwardation" that encourages speculative behavior
- Takeaway issues prevent U.S. crude to reach global markets
- Weaker global outlook after turbulence in emerging markets (e.g. Turkey, Argentina)
- Escalation of protectionism
- Dollar appreciation
- President Trump's pressure on OPEC

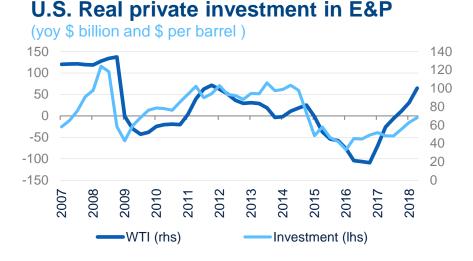
*Brent crude prices Source: BBVA Research

U.S.: higher prices have boosted activity, but takeaway issues persist

U.S. Crude oil inventories



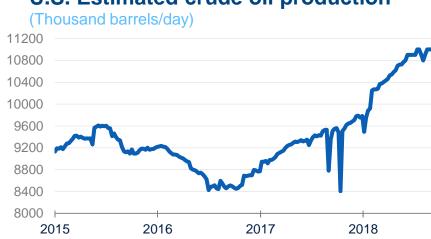
2018 — Average ••••5-yr high



WTI Midland-Cushing differential



U.S. Estimated crude oil production

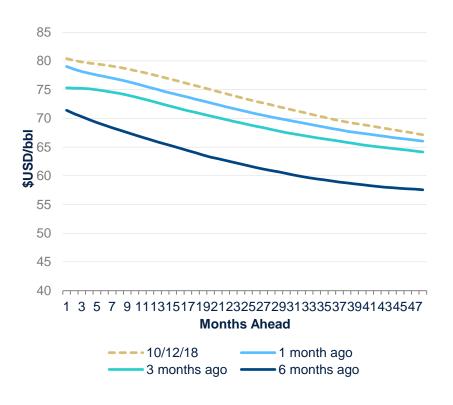


Source: BBVA Research and Haver Analytics

Analysts and futures market's expectations continue moving up due to rising uncertainty

Brent Futures

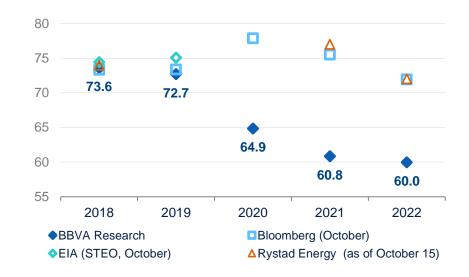
(\$ per barrel)



Brent prices forecast

(\$ per barrel)

	BBVA Research	BBVA Research (June)	Bloomberg (October)	EIA (STEO, October)	Rystad Energy (as of October 15)
2017	54.2	54.2	54.2	54.2	54.2
2018	73.6	72.0	73.3	74.4	74.0
2019	72.7	70.2	73.4	75.1	80.8
2020	64.9	64.9	77.9		84.5
2021	60.8	60.8	75.5		77.0
2022	60.0	60.0	71.9		72.0



WTI expectations have also changed, but they will still reflect above-average differentials with Brent in the short-run



WTI prices forecast

(\$ per barrel)

	BBVA Research	BBVA Research (June)	Bloomberg Survey (October)		Rystad Energy (as of October 15)
2017	50.9	50.9	50.9	50.9	50.9
2018	67.9	65.9	67.7	68.5	68.0
2019	67.5	65.1	68.3	69.6	74.8
2020	61.2	61.2	66.3		78.5
2021	58.0	58.1	64.4		71.0
2022	57.7	57.7	62.4		67.0

Brent - WTI differential

(2018, \$ per barrel) 12 10





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