THE OXFORD INSTITUTE FOR ENERGY STUDIES

# An Overview of the Crude Oil Market in 2019

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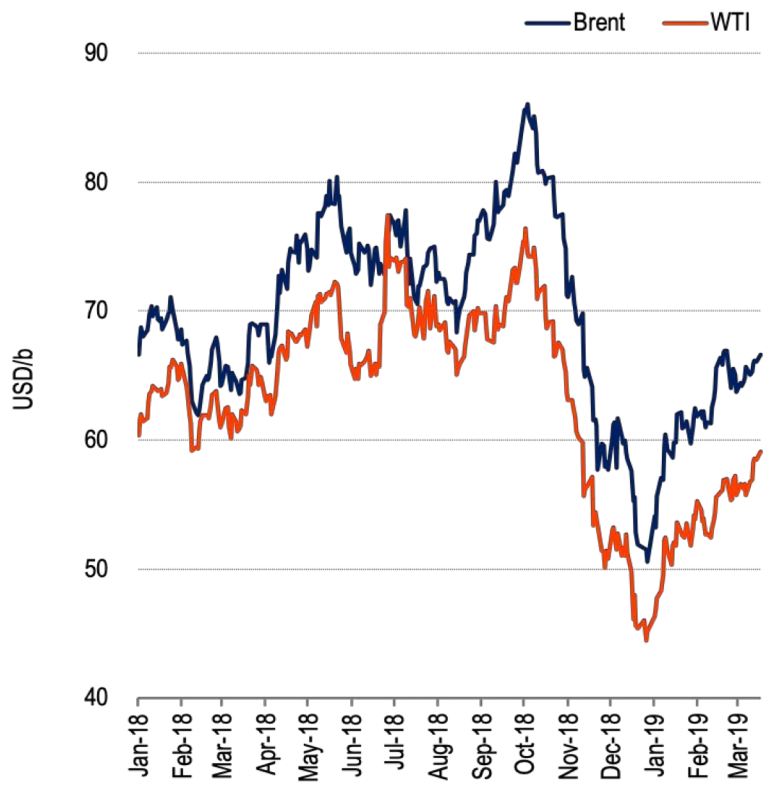
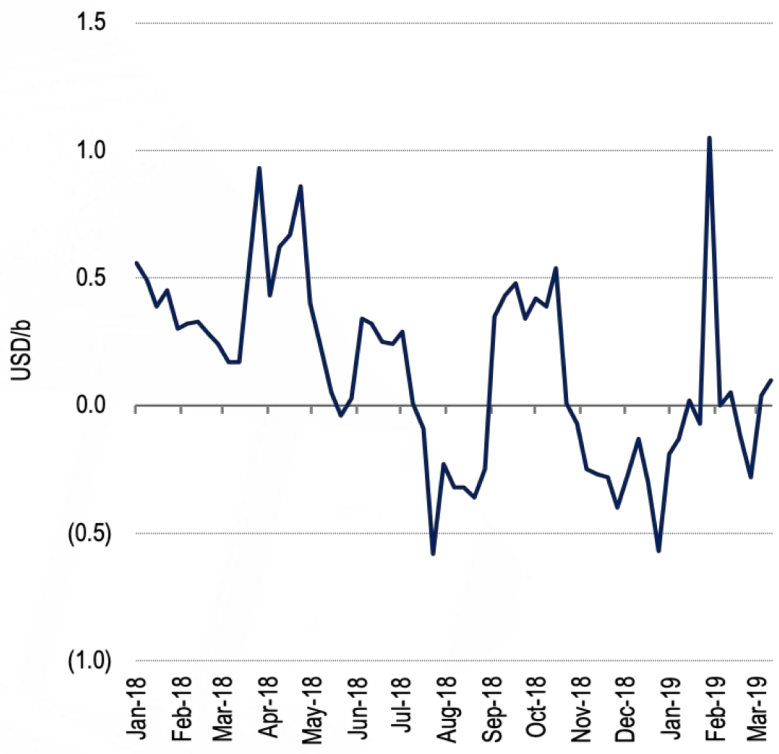
# Volatile price path and time spreads

## Daily Brent and WTI price, Jan 18 – Mar 19




After a steady recovery in 1H18, oil prices exhibited high volatility in 2H18 and after falling sharply in December, prices started recovering in early 2019 with Brent surpassing $67/b in March.

## Brent time spreads (M1-M2), Jan 18 – Mar 19

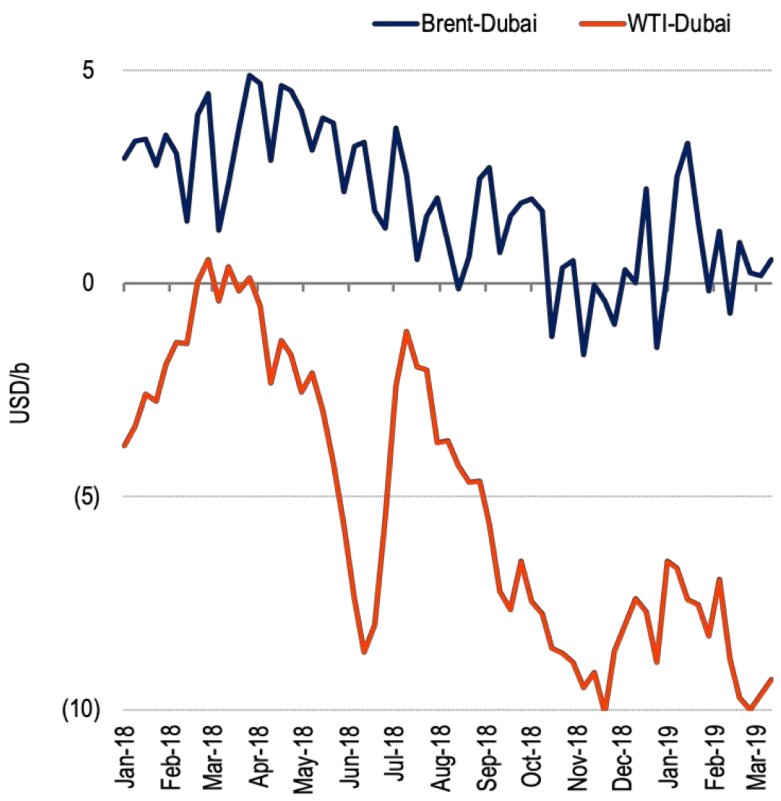



Time spreads switched from backwardation to contango in mid-2018 as inventories rose and the prospects for global demand worsened, although they have recently returned to backwardation.

Source: EIA, Argus, OIES

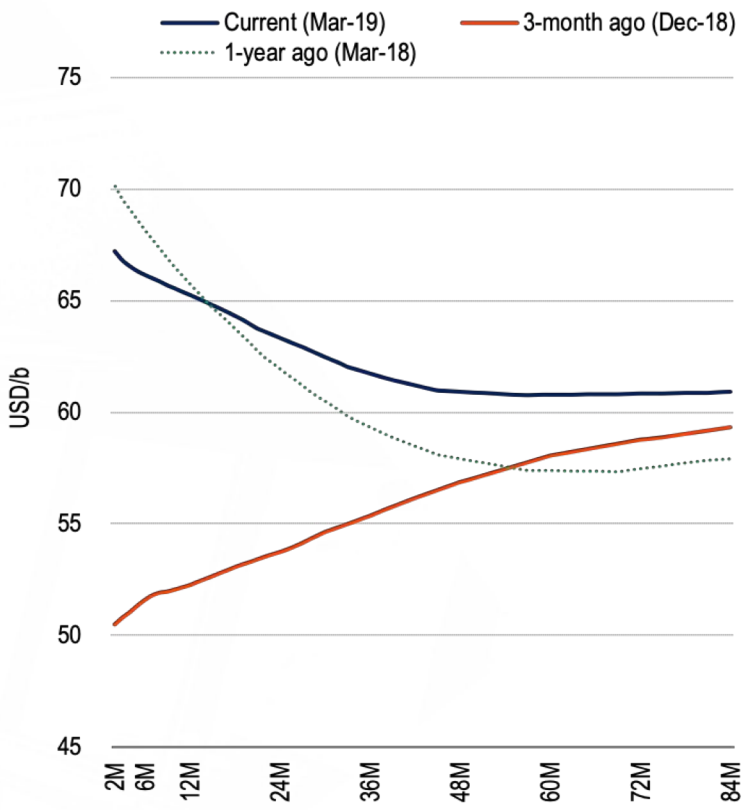
# Back end of the forward curve sticky

## Brent-Dubai and WTI-Dubai spreads, Jan 18 – Mar 19




The spreads between light sweet – medium sour are also exhibiting wide volatility, reflecting the volatility in OPEC output and the geopolitical outages.

## ICE Brent forward curve, as of 25 Mar 19



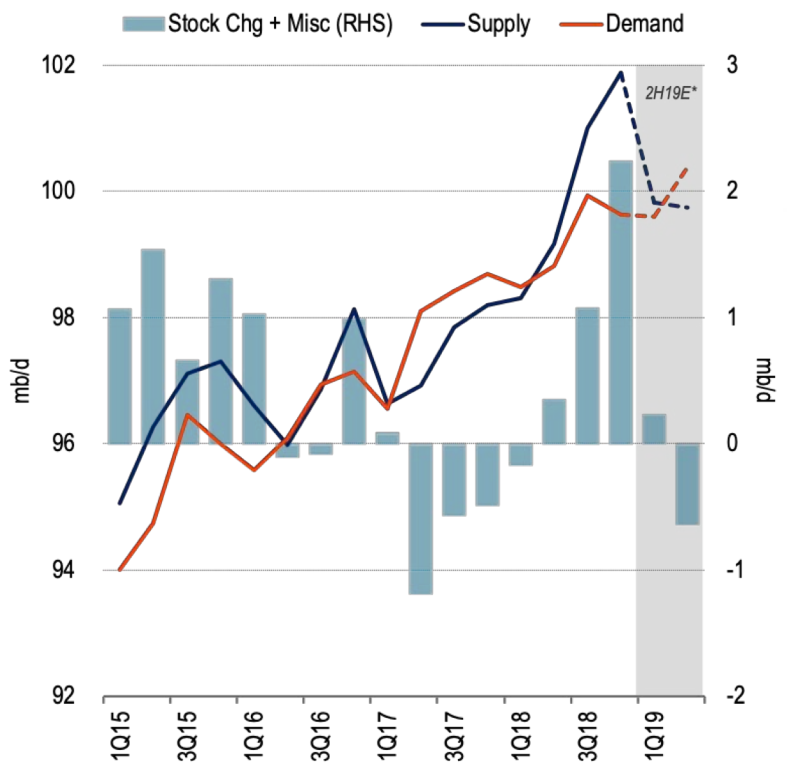

While the price in the front end of the curve has increased sharply in 1Q19, the back end of the forward curve remains stuck at around $60/b.

Source: Argus, ICE, OIES

# What caused the oil market imbalance? Have these factors faded?

# Back to square one

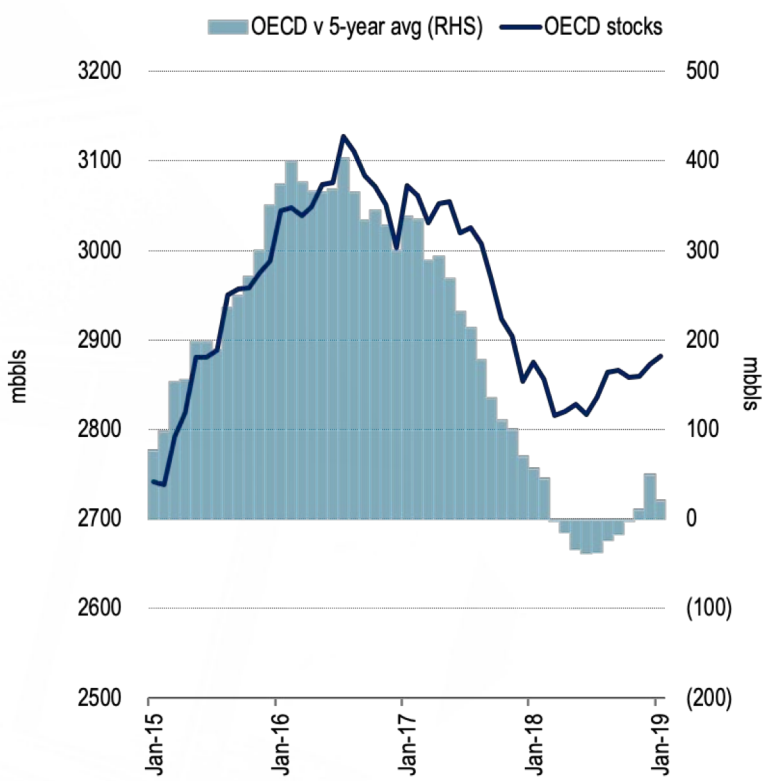
## Supply/Demand balance, 1Q15 – 2Q19




* Assumes 100% OPEC compliance and further declines from Venezuela and Iran.

Sharp increases in OPEC and non-OPEC production along with weaker-than-expected demand conditions in 4Q18 led to a large build up in stocks and drove the market out of balance.

## OECD oil liquids stocks, Jan 15 – Jan 19

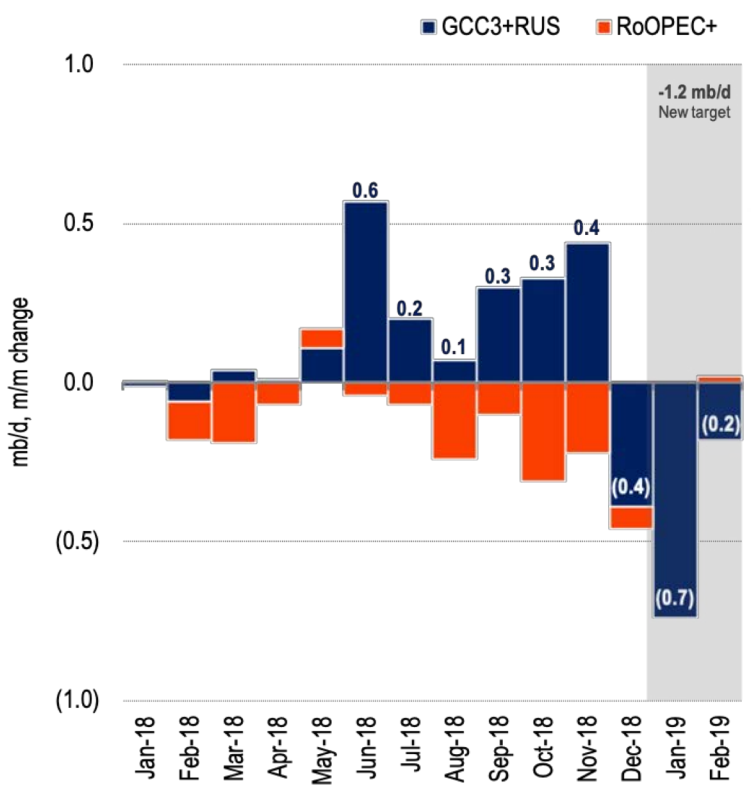



OECD inventories declined below their 5-year average in 1H18 but started building again in 2H18, prompting OPEC and its allies to reach another agreement in December 2018 to bring the market into balance.

Source: IEA, OIES

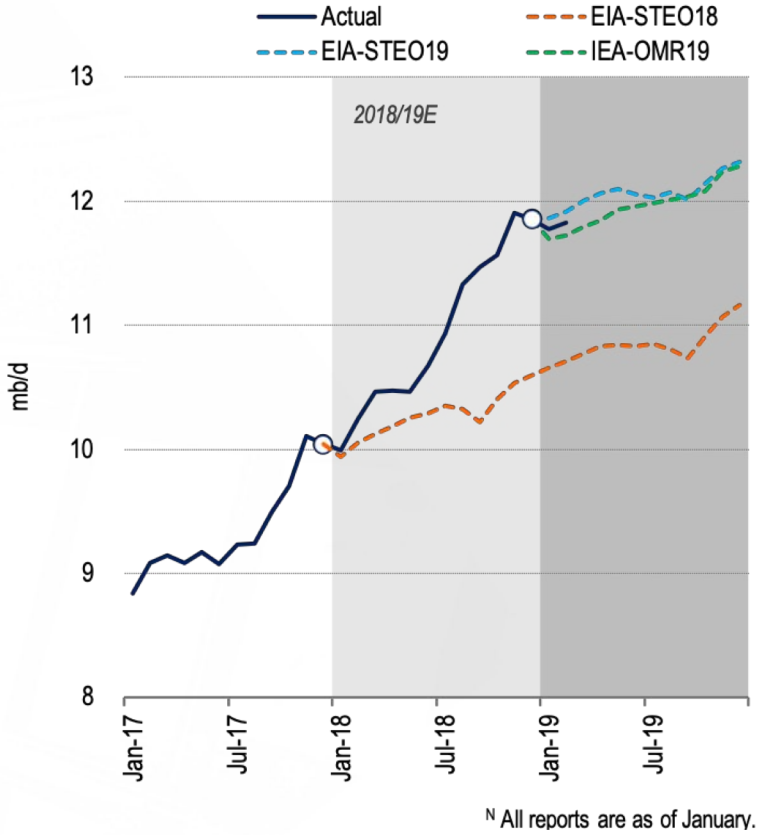
# Two key factors that drove the market out of balance

## GCC core and Russian production, Jan 18 – Feb 19




Overall the increase in the GCC(3) plus Russian output between May and November 2018 reached 1.91 mb/d, which exceeded, by 160,000 b/d, the entire OPEC+ cut target.

## US crude production, Jan 17 – Dec 19E




US shale surprised on the upside. Relative to the start of 2018 the EIA underestimated US oil production by a remarkable 0.6 mb/d in 2018.

Source: IEA, EIA , OIES

# Shift 1.0 in Saudi Arabia output policy

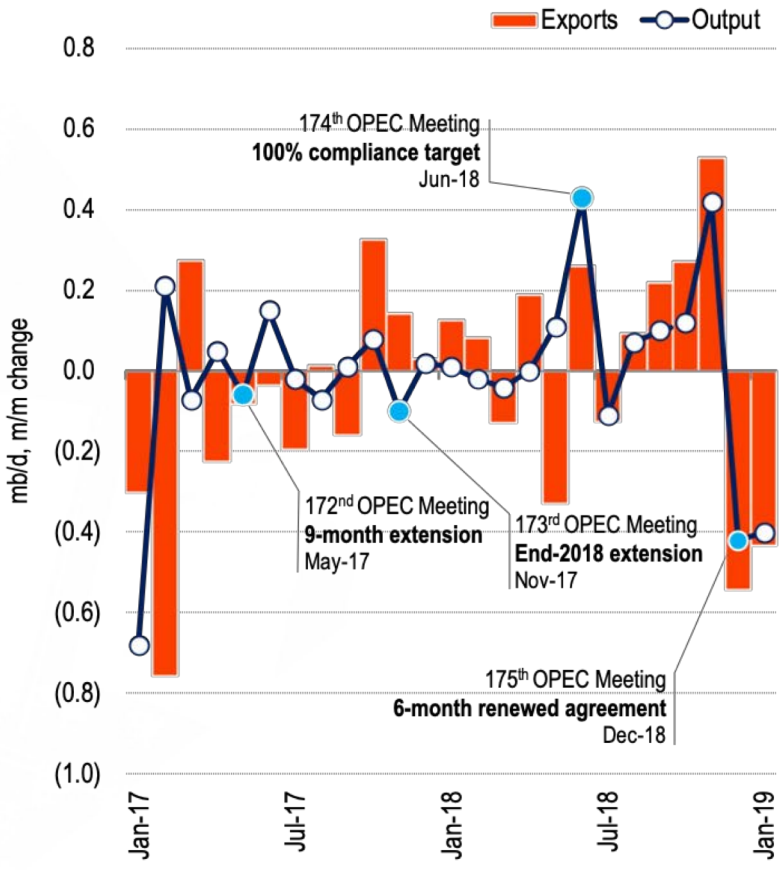
## The dynamics of Saudi oil output policy in 2018

- Until February 2018 the message from Saudi Arabia was: "while crude stocks have fallen, it is premature to exit from the production deal and if producers 'err on the side of overbalancing, **then so be it**".

The key question at the time was whether the 5-year average of OECD stocks is an effective guide for OPEC oil output policy.

- All changed in May when President Trump announced the US withdrawal from the Joint Comprehensive Plan of Action (JCPOA) and Saudi Arabia welcomed the decision.
- Sharp shift in Saudi Arabia's oil output policy in May: Saudi Arabia showed signs of willingness to ease the supply curbs and declared that it is willing to do **what is necessary** to reassure consumers.
- Saudi Arabia ramped up its production and exports in June pre-empting any losses from Iran and before engaging in renewed negotiations about output allocations ahead of the December OPEC meeting.

Saudi oil output and exports, Jan 17 – Jan 19




Source: JODI, IEA, OIES

# Ambiguous signals and multiple U-turns

## Oil market sentiment turns sour

- Fears of oversupplying the market, and fall in the oil price in June and July 2018 especially in light of the risk of trade war escalating.
- But as prices started rising again in August and September 2018, Saudi Arabia increased output to record levels with production reaching 11.1 mb/d in the November, an increase of 1.0 mb/d from May level.
- U-turn in US policy regarding waivers, growing concerns about the global economy, and sharp price reaction required a change in stance.
- By November, the Kingdom was not only facing a surprising move by the US to grant Iran oil waivers but also the widespread fears about the health of the global economy and hence, the prospects of global demand.

Another U-turn: Saudi Arabia reached an agreement with other producers to cut output in 2019 in attempt to balance the market.

Daily Brent price and information signals, Jan – Dec 18


Data: OIES

# Another U-turn in 2019? Not likely

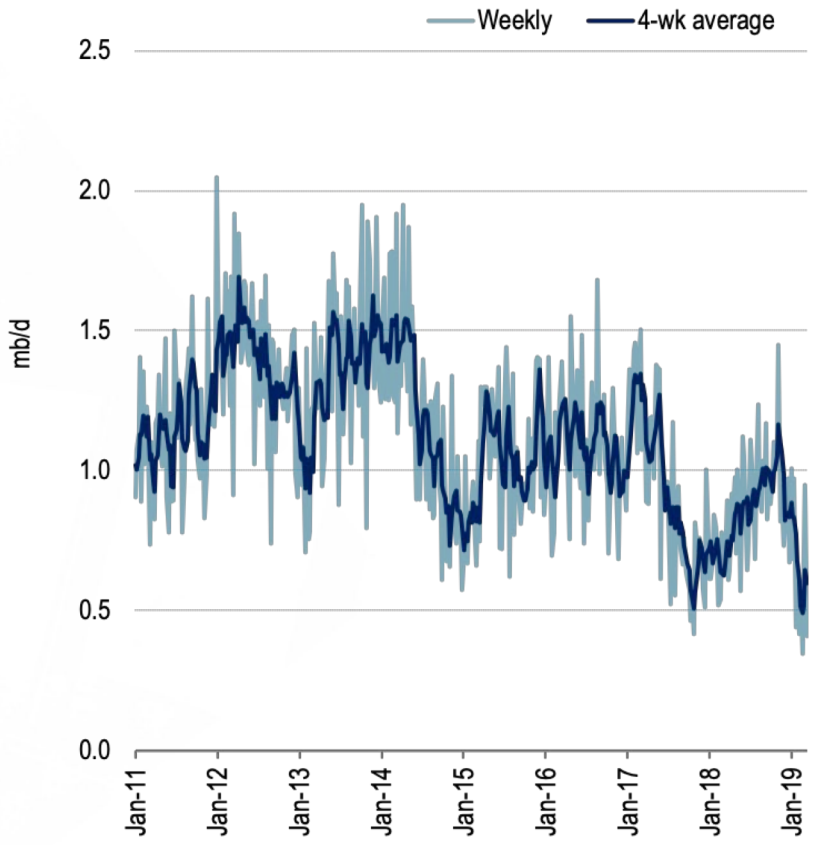
## Saudi behaviour evolves in a dynamic context

- Saudi Arabia has been sending strong signals about balancing the market. Production in January 2019 was 10.2 mb/d and expected to reach 9.7 mb/d in April, a 1.3 mb/d decline from November 2018 level. Focus also on exports particularly to the US.
- But some in the market are sceptical about Saudi Arabia's ability to maintain its current production.

**Why would the Kingdom not reverse its output policy yet again and increase production under Trump's pressure?**

- In 2018, Saudi Arabia faced hard choices and unique circumstances which may not necessarily be repeated in 2019 (i.e. US mid-term elections, doubts about its ability to increase output, Iran waiver policy).
- Domestic factors also count and shape its oil policy.
- Ambiguous signals from the US regarding Iran waiver policy will make Saudi Arabia more cautious in reversing its output policy, unless prices rise sharply.

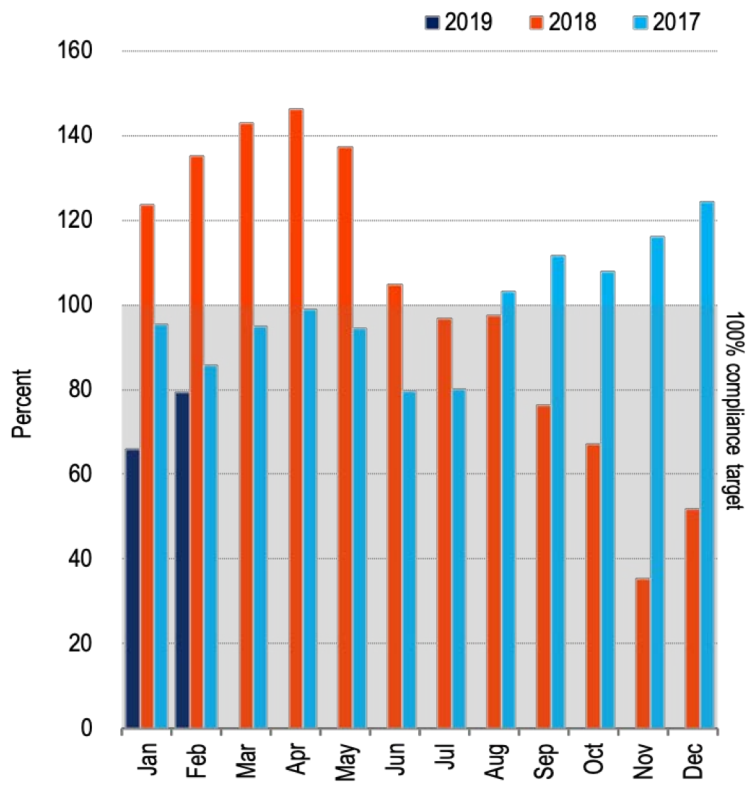
US crude imports from Saudi Arabia, Jan 11 – Mar 19




Source: EIA, OIES

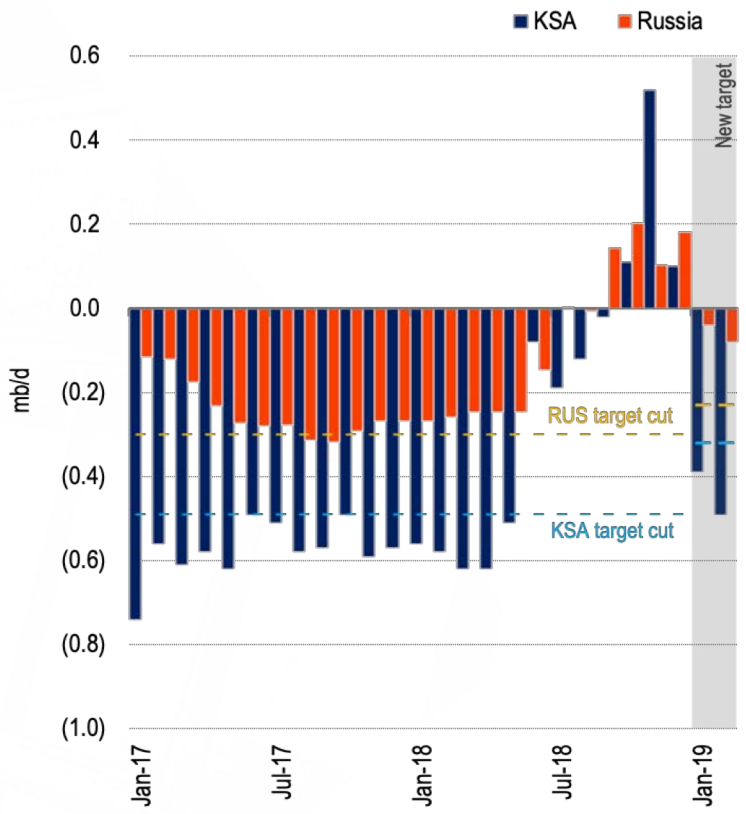
# OPEC+ cutback deal in full force

## OPEC+ compliance, Jan 17 – Feb 19




OPEC+ compliance in February 2019 reached 80%, with OPEC delivering at 95% due to the deep cuts from Saudi Arabia, while Iraq and Nigeria continue to miss their target, and NOPEC producers gradually adjusting output (47%).

## Saudi Arabia and Russia actual cuts, Jan 17 – Feb 19

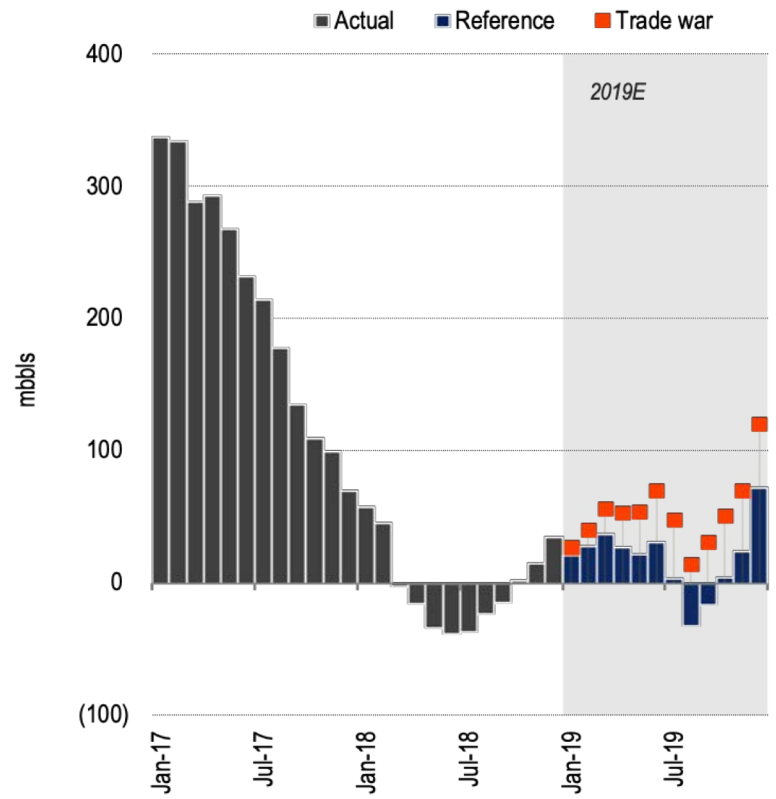



Overcompliance from Saudi Arabia neared 0.2 mb/d beyond pledged, while Russia continues to struggle with meeting its target (35%). This time around compliance rates cannot get much boost from involuntary cuts, with the only exceptions - Angola and Nigeria; albeit limited.

Source: OIES

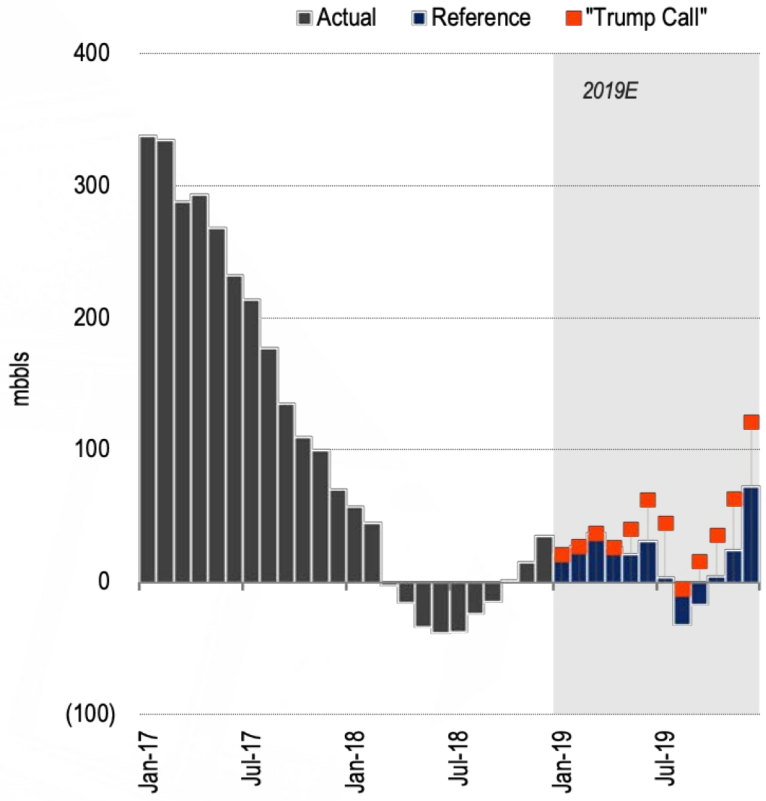
# US foreign policy complicates OPEC policy

OECD stocks v 5-year avg in trade war scenario, Jan 17 – Dec 19E




It is the US and not OPEC that holds most of the *wildcards* that could shape market outcomes in 2019. For example, a further escalation in the US-China trade tensions may cause a significant build-up in stocks.

OECD stocks v 5-year avg in OPEC policy reversal scenario, Jan 17 – Dec 19E

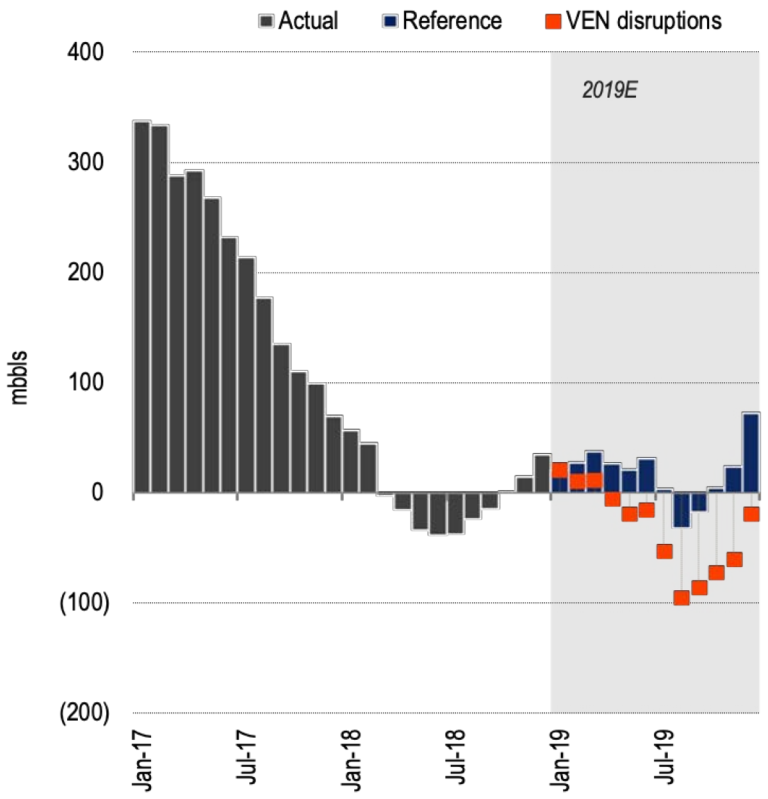



Similarly, if OPEC where to reverse its output cuts in response to the pressures from Trump, and the US decides to extend the Iran waivers, this may again hamper OPEC's efforts to rebalance the market in a similar fashion to 2018.

Source: OIES

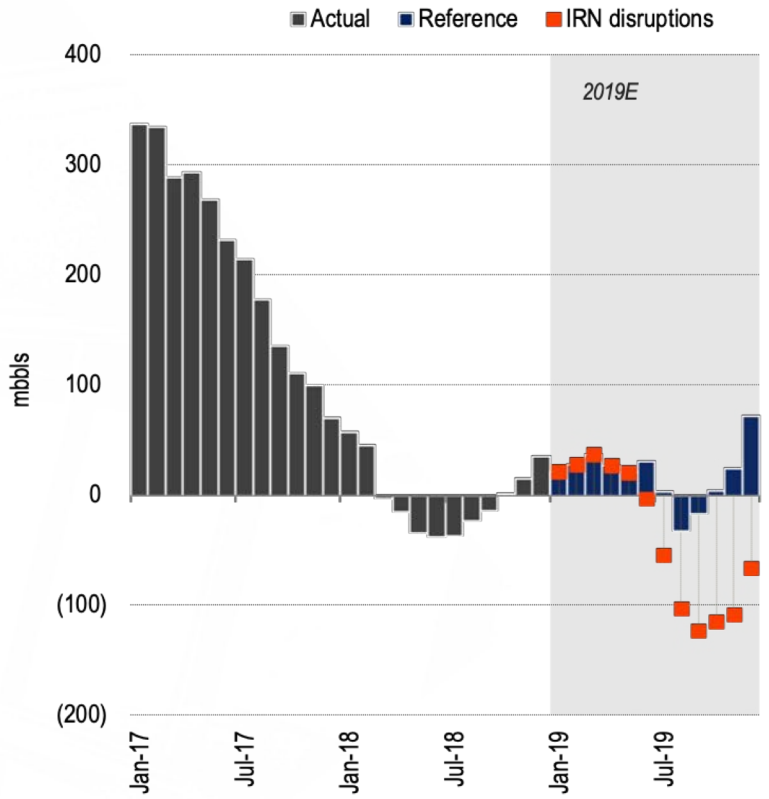
# Geopolitics weigh on OPEC policy too

OECD stocks v 5-year avg in Venezuela scenario, Jan 17 – Dec 19E




Further output losses from Venezuela and Iran may clear the stocks overhang, but at the same time may confuse the signals.

OECD stocks v 5-year avg in Iran scenario, Jan 17 – Dec 19E

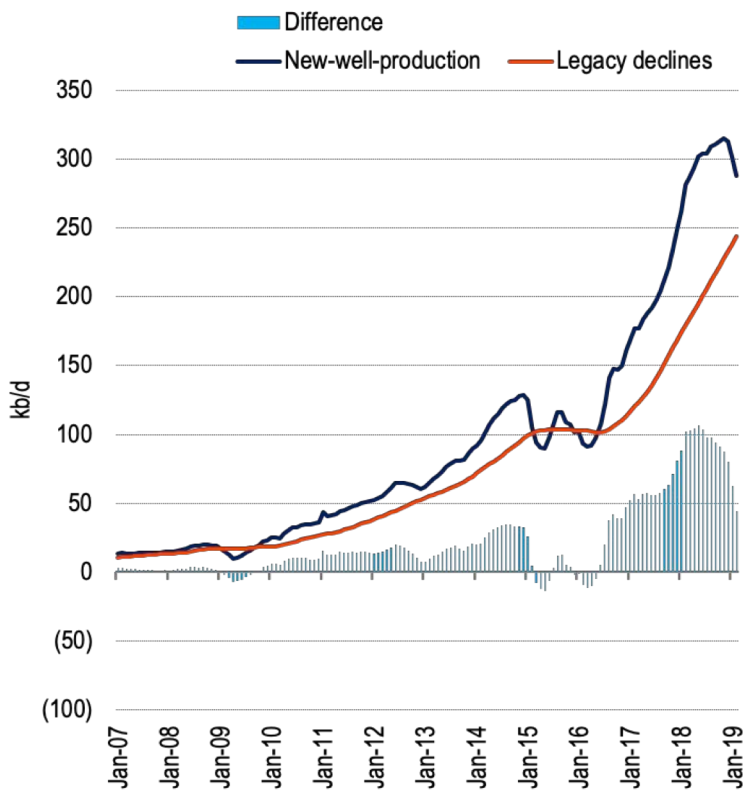



These developments are beyond OPEC's control and are highly unpredictable, which complicates its output policy.

Source: OIES

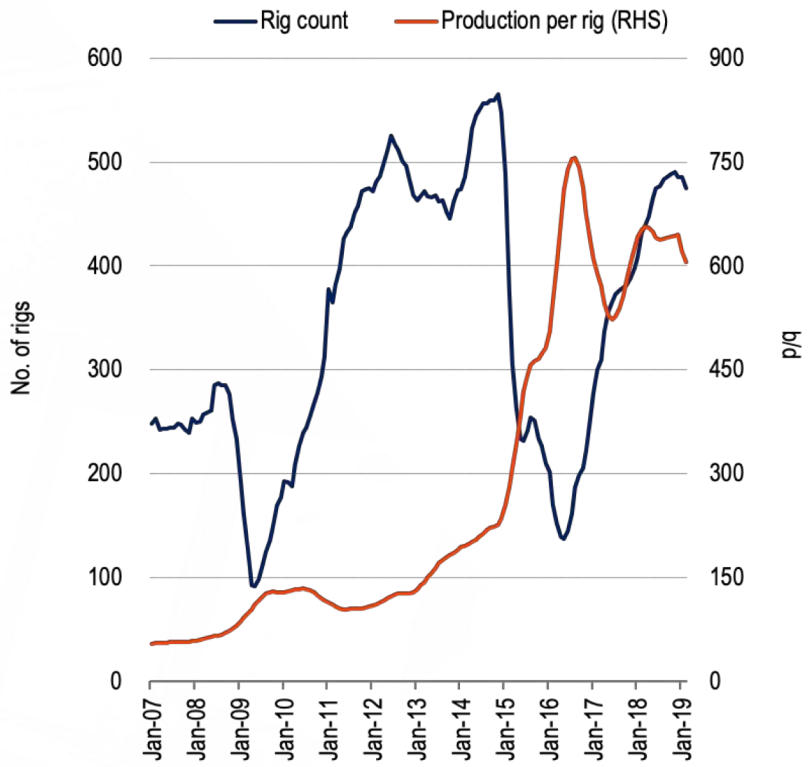
# US shale factor: Also fading?

## Permian production profile, Jan 07 – Feb 19




To offset the declines in productivity and higher declines from legacy wells, US shale companies need to drill and complete more wells, which requires higher expenditure.

## Permian drilling activity and productivity, Jan 07 – Feb 19

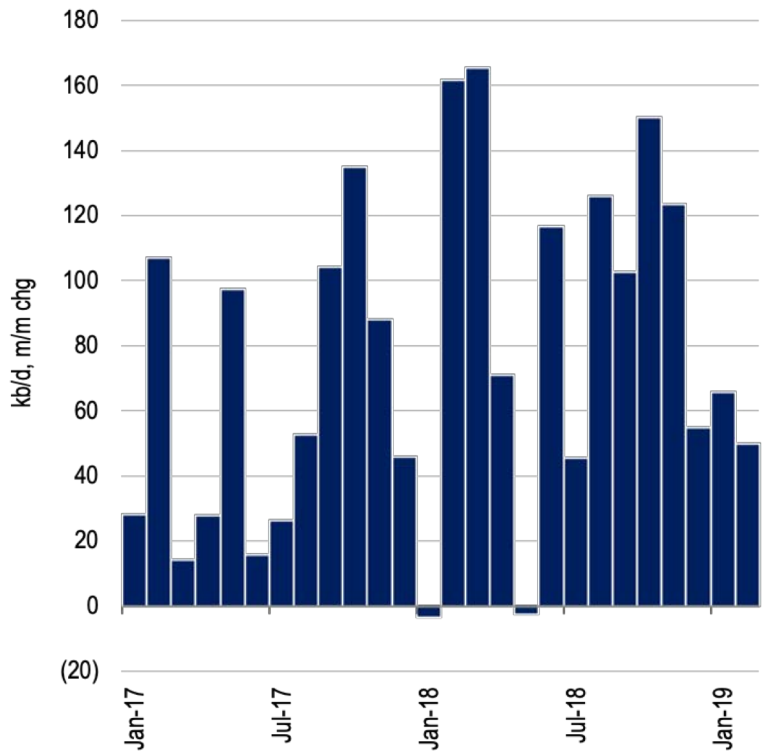



But the lower oil price environment and companies operating within cash-flow implies that rig activity will stabilize at current levels without sharp price increases in the near future.

Source: EIA, Baker Hughes, OIES

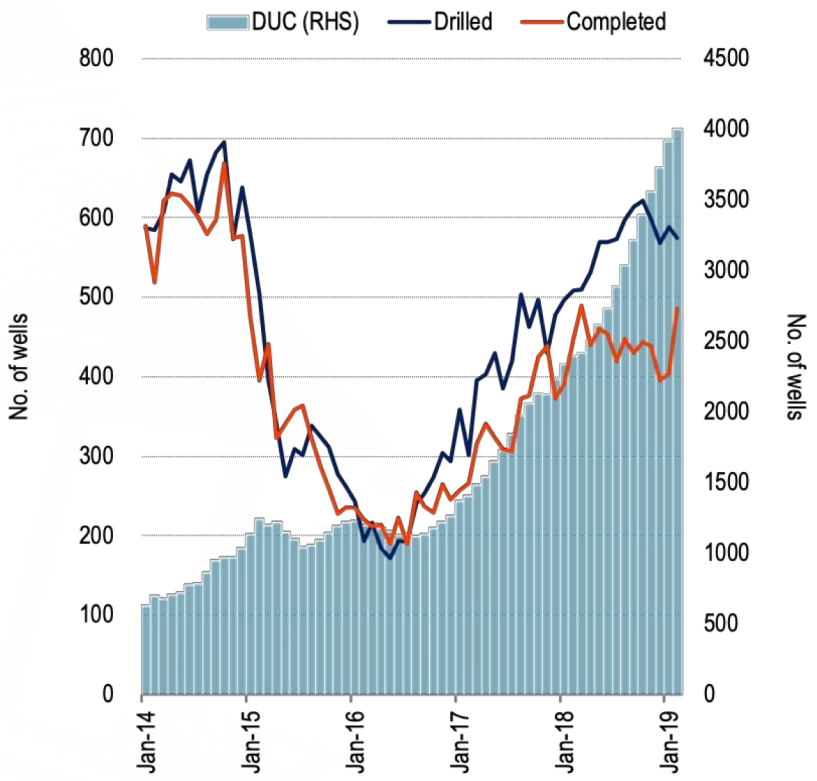
# US shale factor: Slower but still strong

## Permian oil production, Jan 17 – Feb 19




Month-on-month production growth of Permian shale is expected to slowdown in 2019 relative to a year ago, but the yearly average growth will still be high.

## Drilled v completed wells in the Permian, Jan 14 – Feb 19

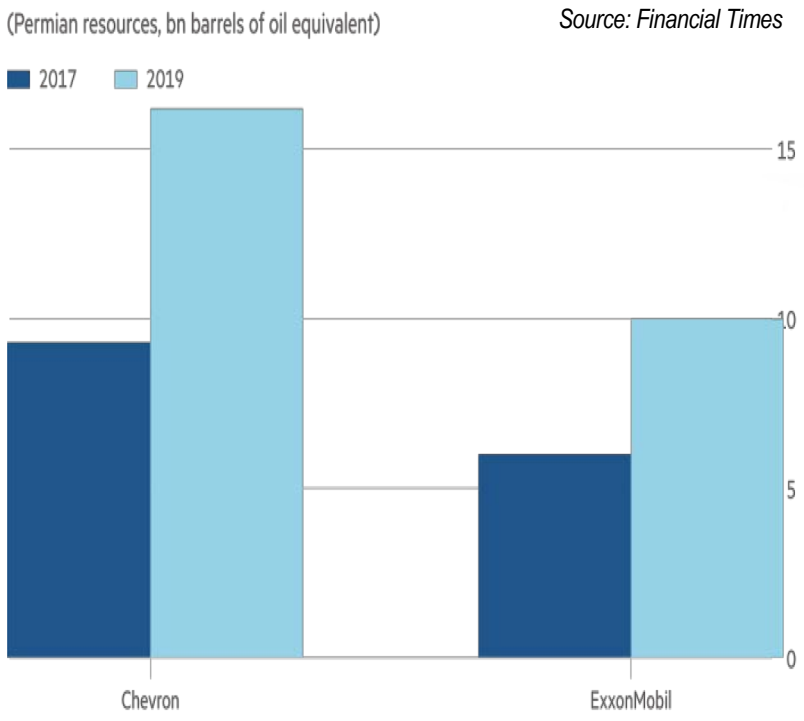



The gap between drilled and completed wells has widened, reflecting infrastructure constraints and possibly explaining the perceived decline in productivity (barrels per rig).

Source: EIA, OIES

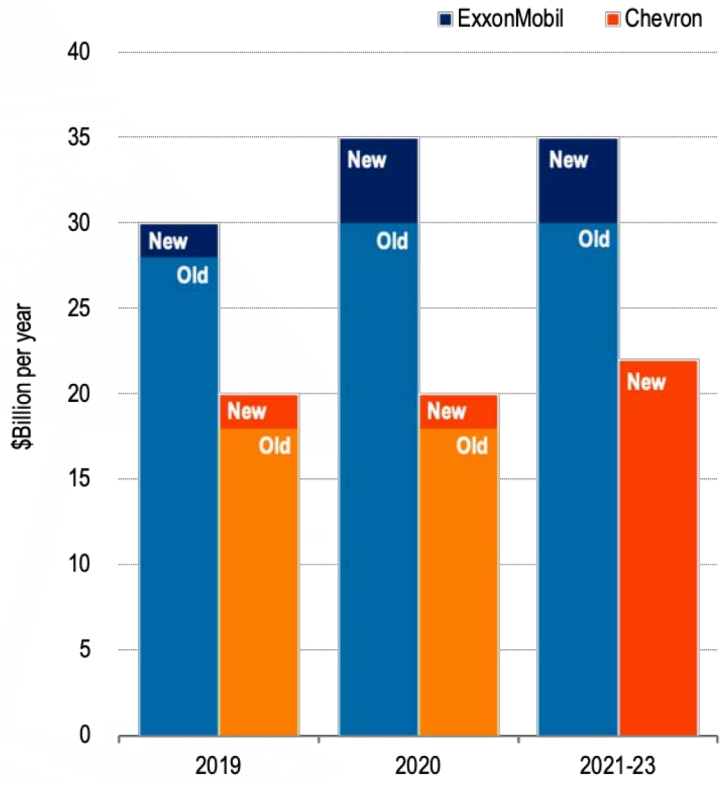
# Permian growth outlook reinforced by majors

## Permian resources by company, 2017 v 2019




The increased presence of US majors in the region and dramatic production growth plans are expected to boost Permian growth in the medium-term.

## Chevron and ExxonMobil capex plans in the Permian

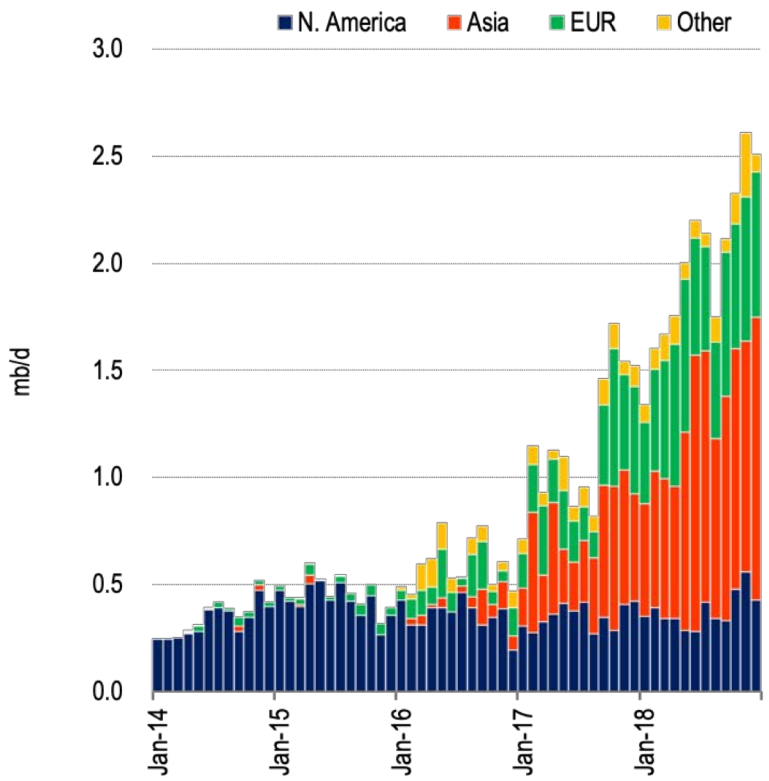



The increased focus in short-cycle investment projects, has led both Chevron and ExxonMobil to ramp up their capex plans in the region and to seek to bring on stream a total of 4.0 mboe/d of new production between 2019-2025.

Source: FT, Argus, OIES

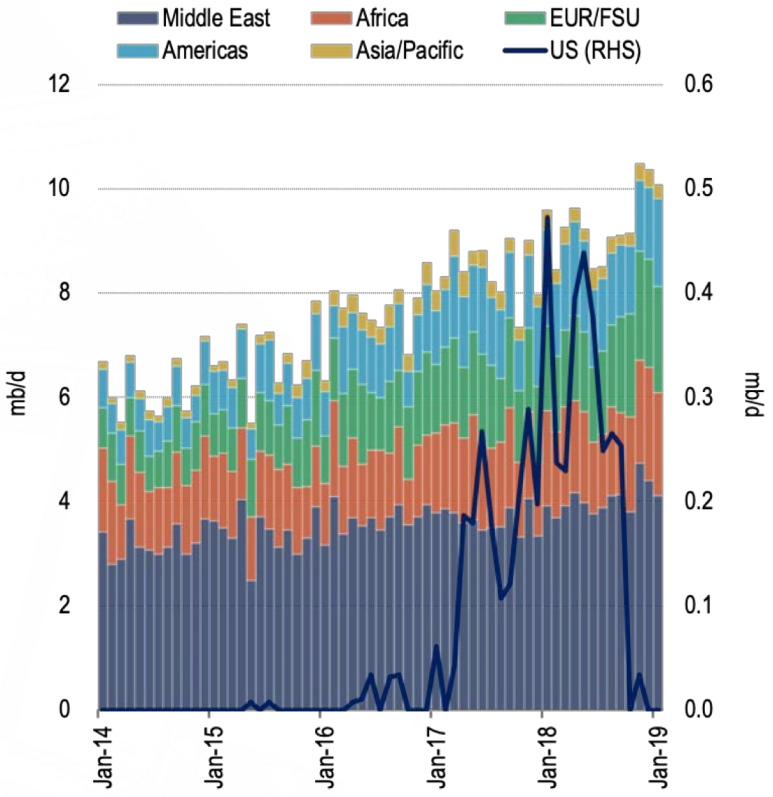
# Massive shift in trade flows

## US crude exports by destination, Jan 14 – Dec 18




US crude exports continue to rise, having reached record levels in 2018. Asia and Europe have become the main destinations for US exports competing with many traditional exporters to these regions.

## Chinese crude imports by origin, Jan 14 – Jan 19



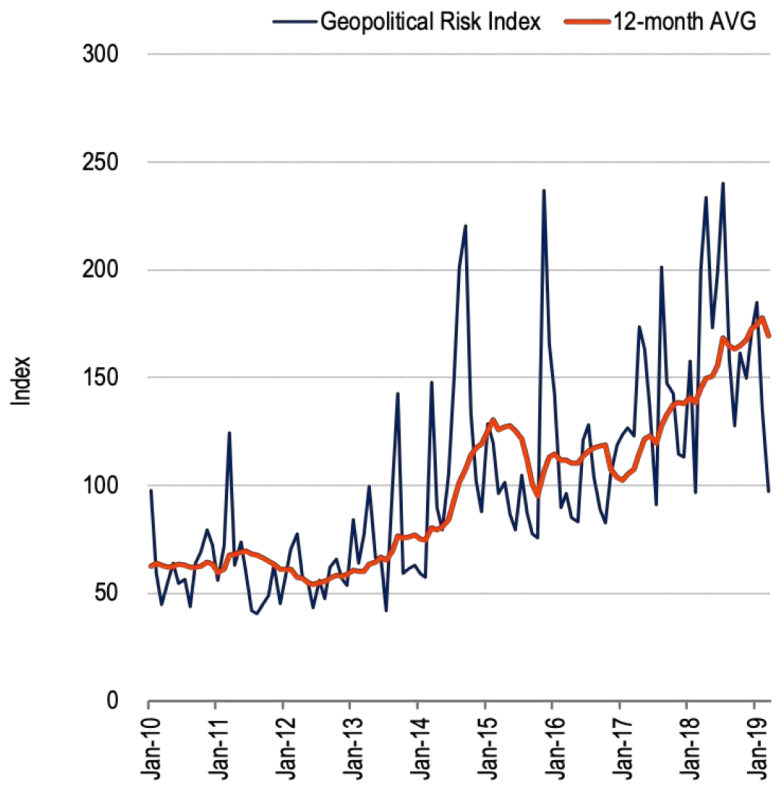

Massive shifts in trade flows as exports from Saudi Arabia to the US fall and Chinese imports of US crude are also in decline as a result of the US-China trade dispute.

Source: EIA, Argus, OIES

# Against a background where geopolitical risks continue to trend upward

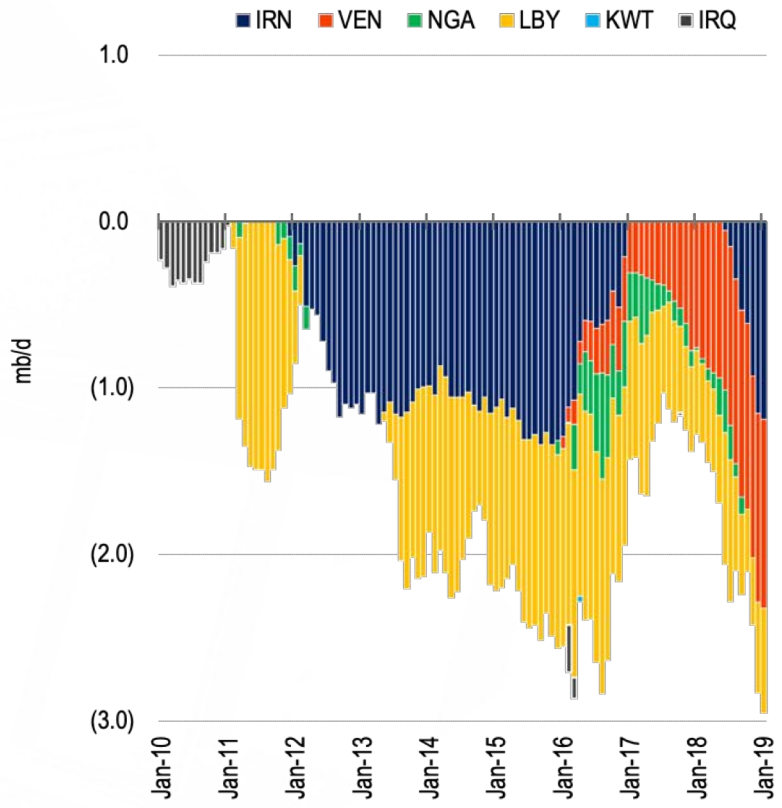
# Geopolitical risks continue to trend upward

## Geopolitical risk index, Jan 10 – Mar 19




Geopolitical risks will continue to weigh on the oil market outlook in 2019 due to the deepening crisis in Venezuela, the Iranian oil sanctions, the eight-year transitional limbo in Libya and the volatile situation in the Niger Delta.

## OPEC supply disruptions, Jan 10 – Jan 19




Ending 2018, geopolitical supply disruptions from OPEC neared 3.0 mb/d, with Venezuela and Iran accounting for almost 80% of the total (at 2.3 mb/d). The largest loss of OPEC supplies since the Gulf War in 1990/91.

Source: Caldara & Iacoviello (2018), OIES

# Venezuela prospects more uncertain

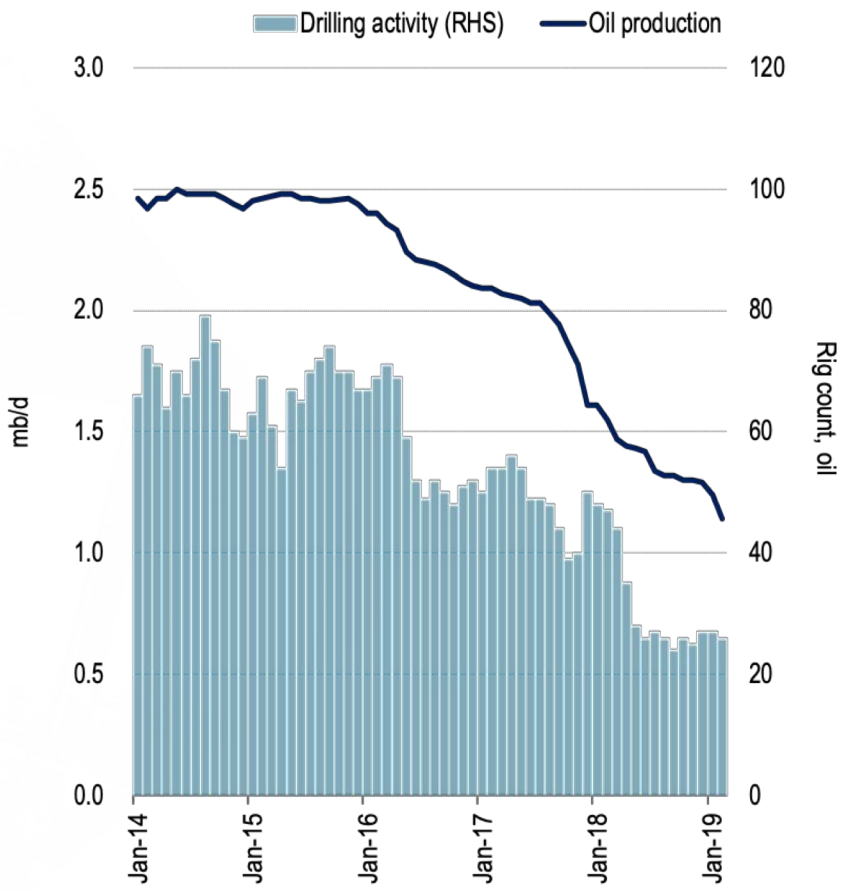
## Political and economic crisis deepens

- The political and economic crisis in Venezuela cloud the country's production prospects both in the short- and medium-term.
- The latest round of US sanctions targeting Venezuela's oil sector plunged PdVSA into crisis, accelerating production declines and posing significant challenges for the recovery of the industry in the long run.
- Due to the volatile political situation, forecasting output is very difficult but many expect sharp declines in 2019 similar to 2018 (-0.57 mb/d).
- Production capacity is expected to fall to 0.75 mb/d from 1.35 mb/d in 2018 as drilling activity and investment are at very low levels.

**Ending-2018, foreign investment pledged to raise output by 1.0 mb/d, alas such investment plans are met with much scepticism.**

### Key dates of Venezuelan oil sanctions

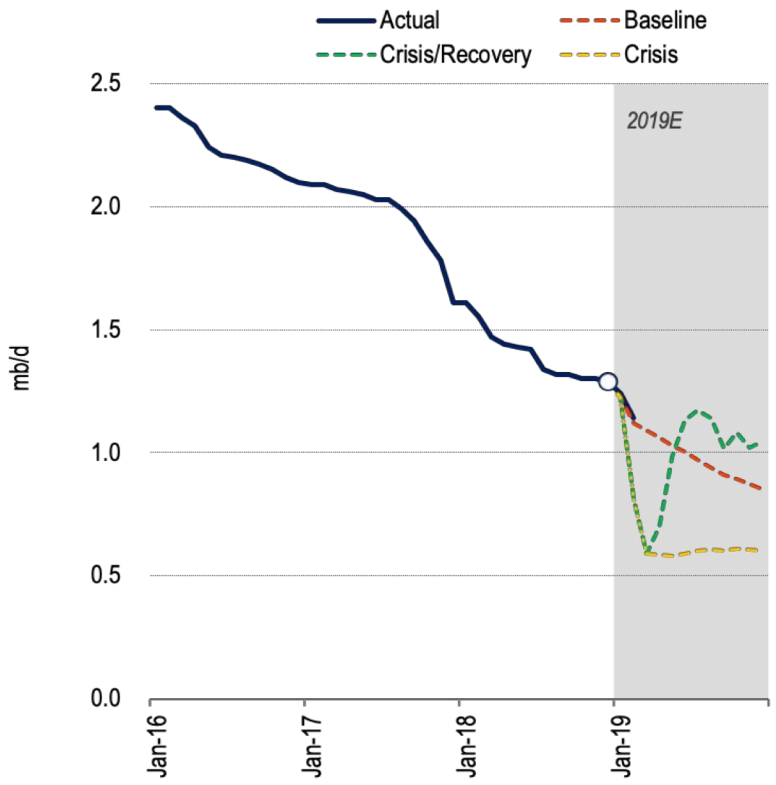

### Venezuela supply profile, Jan 14 – Feb 19




Source: IEA, Baker Hughes, OIES

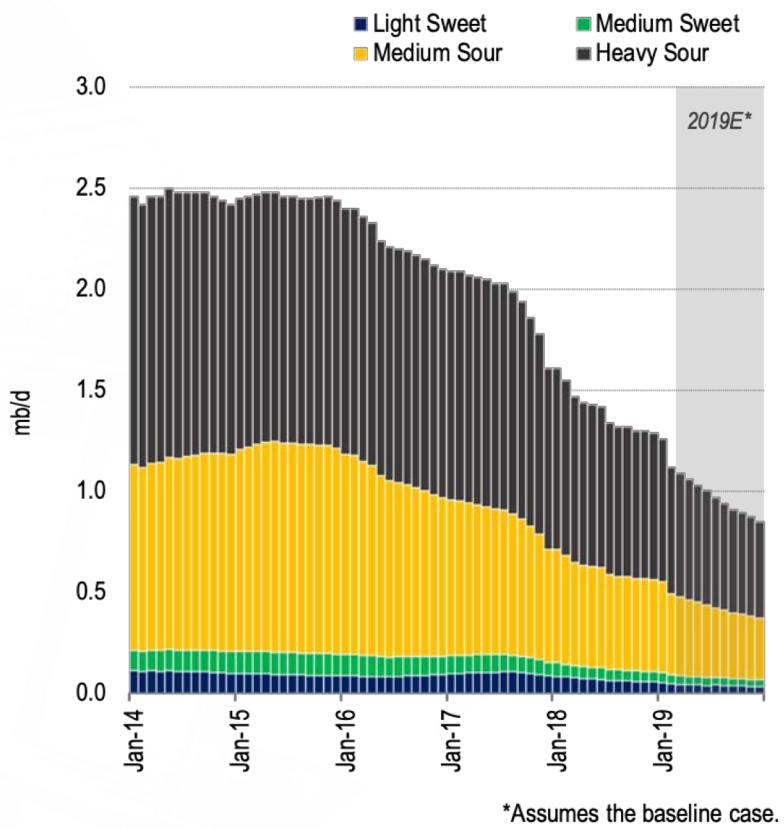
# Venezuela's production outlook remains bleak

## Production scenarios for Venezuela, Jan 16 – Dec 19E




Annual declines in 2018 reached an all-time record of 0.56 mb/d y-o-y and the declines this year are expected to be as aggressive. Ending-2019, production is expected to fall in the range of 0.6 – 0.8 mb/d; recovery potential is limited.

## Venezuela production by quality, Jan 14 – Dec 19E

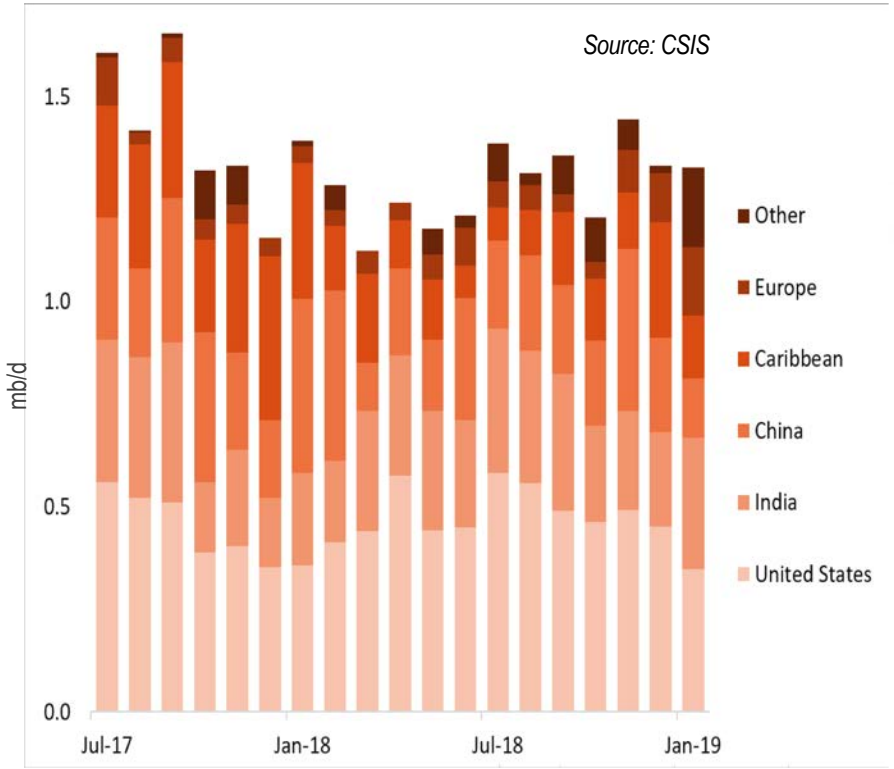



Apart from filling the supply gap, a significant challenge for the oil market is to find new barrels in the heavy sour category to offset the losses from Venezuela and resolve the intensifying crude quality imbalance.

Source: OIES

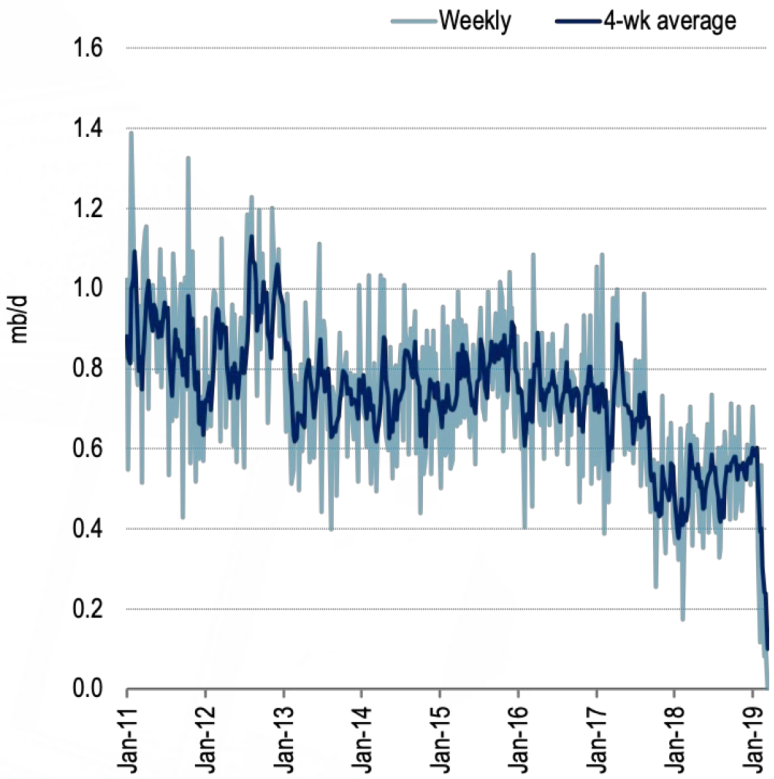
# Limited capacity to prevent the production declines

## Venezuela crude exports by destination, Jul 17 – Jan 19




Prior to the US sanctions, approximately one-third of Venezuela's crude exports were destined for the US. With the loss of the US outlet due to the sanctions the key question remaining is whether the country can find other buyers and divert its crude elsewhere?

## US imports of crude oil from Venezuela, Jan 11 – Mar 19




The failure to move these barrels as well as inadequate storage and further sanctions (e.g. secondary sanctions targeting foreign companies doing business in Venezuela) may accelerate the country's production declines further.

Source: CSIS, EIA, OIES

# Turning point for Iran

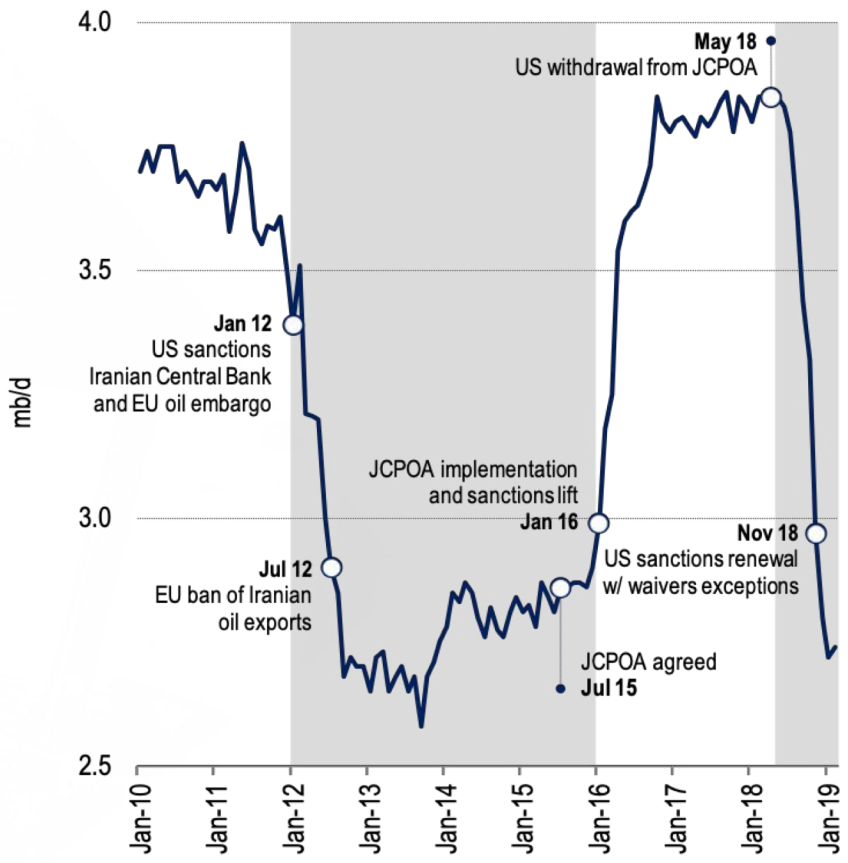
## Re-imposition of US sanctions blocked Iran's recovery

- The re-imposition of US sanctions on Iran has profound consequences on the country's oil sector, which prior to the sanctions was expected to see the fifth biggest capacity expansion in the world.
- Even before the US sanction regime was in full force in November 2018, all IOCs operating in Iran abandoned the country and both production (-1.1 mb/d) and exports (-1.4 mb/d) fell sharply.
- The surprise move by the US in November 2018 to grant exception waivers to eight Iranian buyers has stabilised the output and exports decline, which witnessed some increases in January and February 2019 (20,000 bpd and 370, 000 bpd since December respectively).

**Looking ahead the US policy of uncertainty with regards to the extension of the oil waivers past their 180-day expiration in May looms large.**

- Despite the US officials position that they are *not looking to grant waivers*, the extension of waivers is not excluded amid price concerns.
- That said, the US sanctions are already inflicting severe economic, political and social damage on Iran, while at the same time they are considerably weakening Iran's short- and long-term oil market positioning.

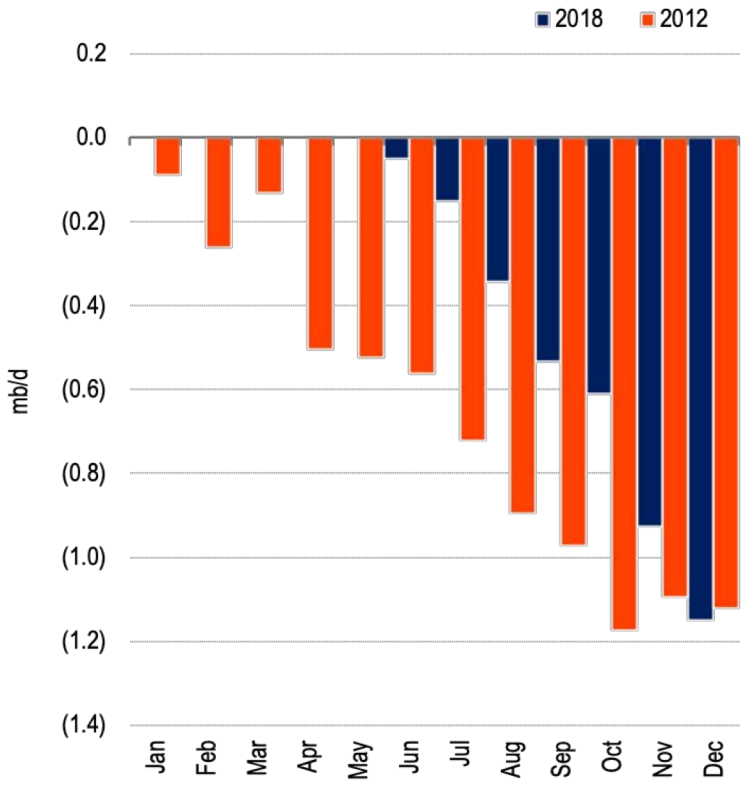
Iranian oil production, Jan 10 – Feb 19




Source: IEA, OIES

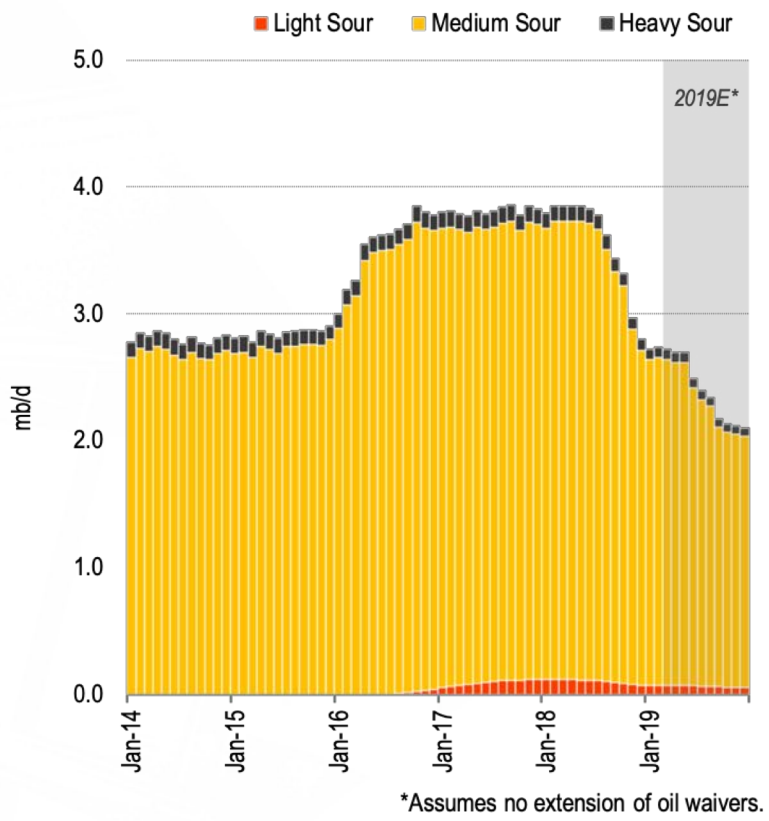
# Highest degree of sensitivity to US sanctions

## Iranian output disruptions, 2018 v 2012




Between May and December 2018, Iranian production was lower by more than 1.1 mb/d despite sanctions with exceptions being enforced only in November, matching the cumulative losses in 2012 under the pre-JCPOA sanctions.

## Iran production by quality, Jan 14 – Dec 19E

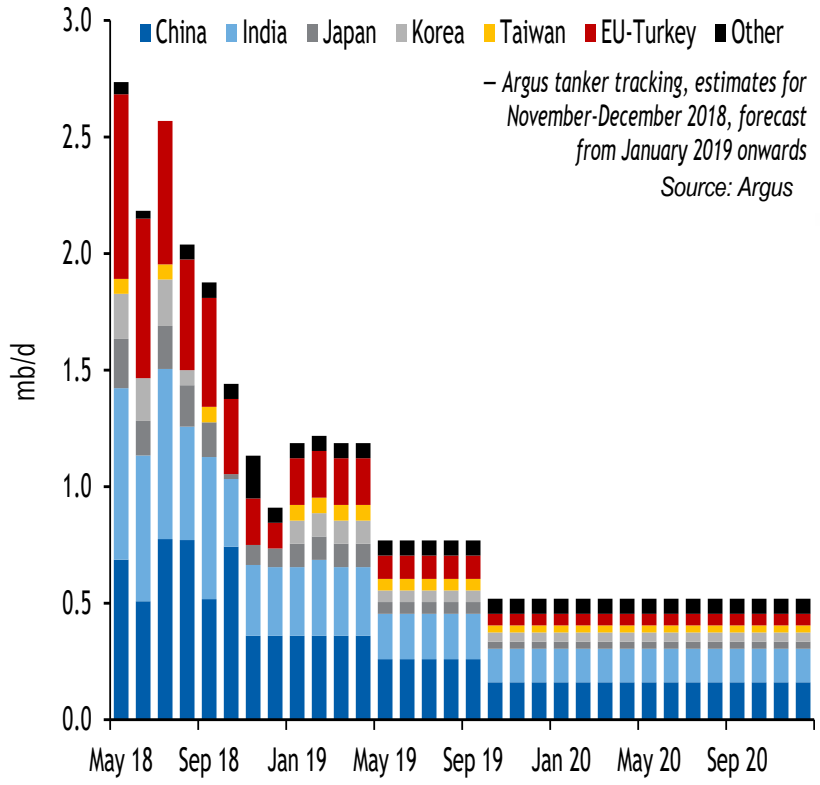



This development led to the loss of about 1.1 mb/d medium sour Iranian barrels from an already tight market of heavier crudes, that upon the expiration and no renewal of waivers may potentially reach 1.6 mb/d ending-2019.

Source: OIES

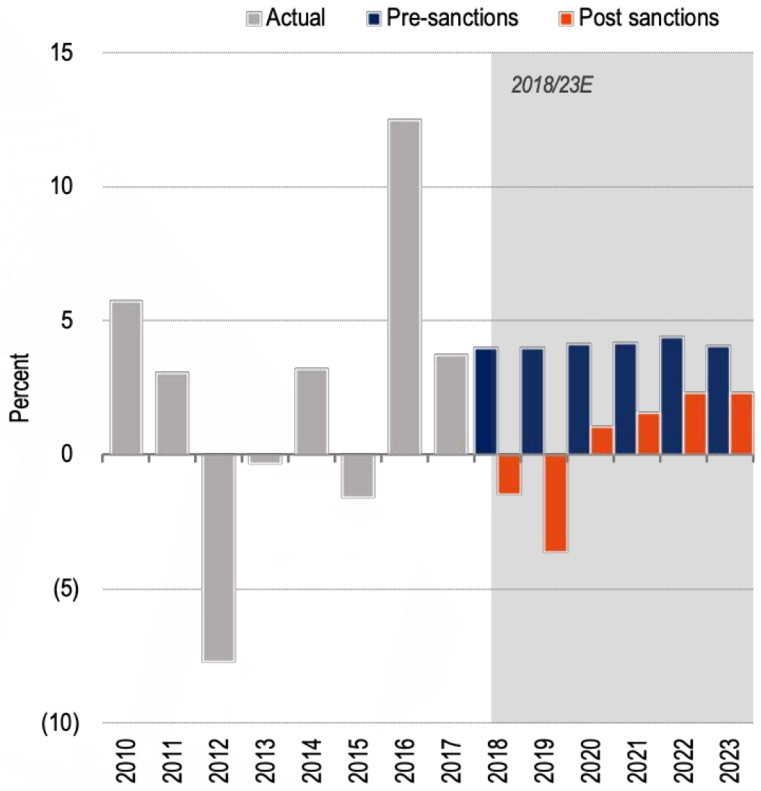
# Wide-ranging repercussions for Iran

## Iranian crude exports by destination, May 18 – Dec 20E




Ending-2018, Iranian exports fell more than 1.4 mb/d from May before slightly increasing in 1Q19 due to the exception waivers. If however the US waivers are not renewed, exports could fall sharply again.

## Iranian GDP growth, 2010 – 2023E




Sanctions are inflicting severe damage on Iranian economy which is projected to witness a negative growth in 2018/19 of -1.5% and -3.6%, compared to the pre-sanction growth projections of 4% each year, creating considerable challenges for Iran's economy and political stability.

Source: Argus, IMF, OIES

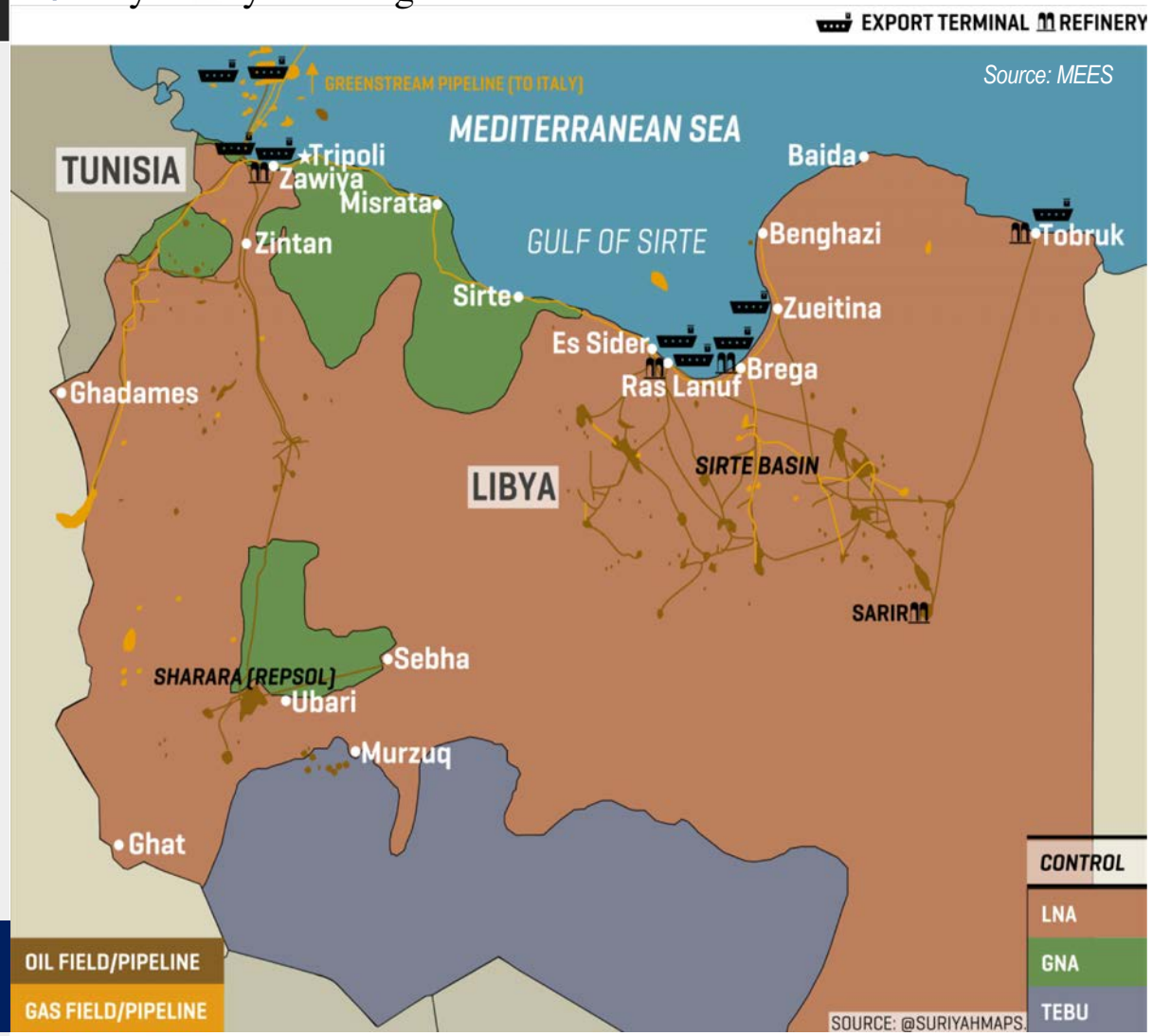
# Divisions threaten Libya's recovery

## Libya's production rebound remains fragile

- Libya's oil production more than doubled since 2016 and in 2018 reached its highest level in five years at 1.15 mb/d.
- The ongoing unrest and divisions on the ground hamper the ability of the country to put an end to an eight-year long conflict and attract foreign investment which is central to the recovery of its oil production.
- The long awaited so-called *Libya Peace Conference* in April could set the path towards a unified Libya, but such hopes are met with scepticism due to a fragile balance of powers.
- The recovery of oil production in 2017/18 however encouraged IOCs to return to the country and invest in repairing infrastructure, recovering current production, as well as expanding production capacity.
- That said, the political and security outlook is still expected to constrain investment in the next five years, albeit not as severe as in the recent past.

Stability in Libya remains crucial to the recovery of its oil sector to pre-crisis levels and to capacity expansions.

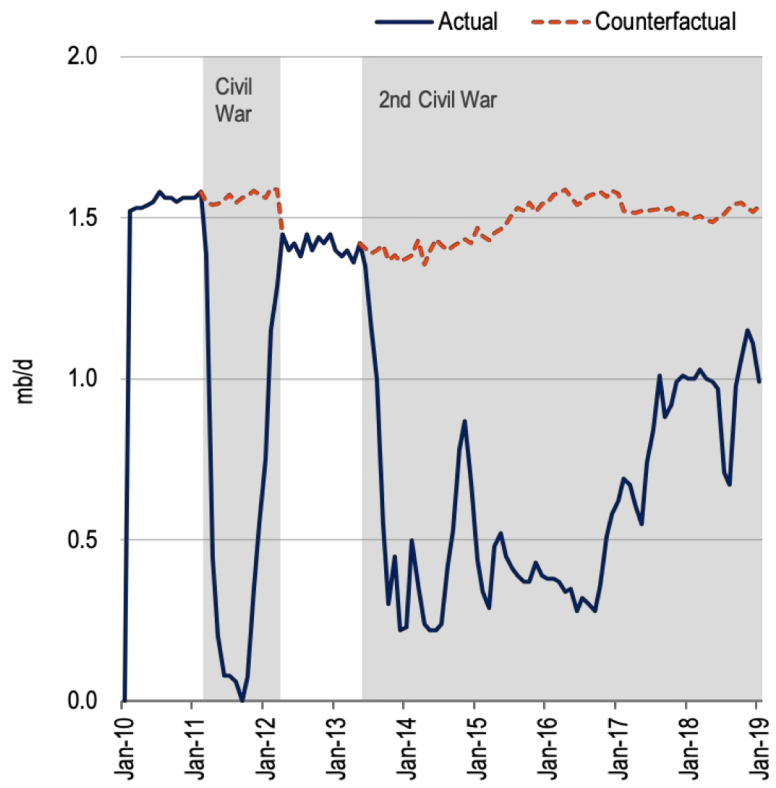
## Libya's key oil and gas infrastructure




Source: MEES

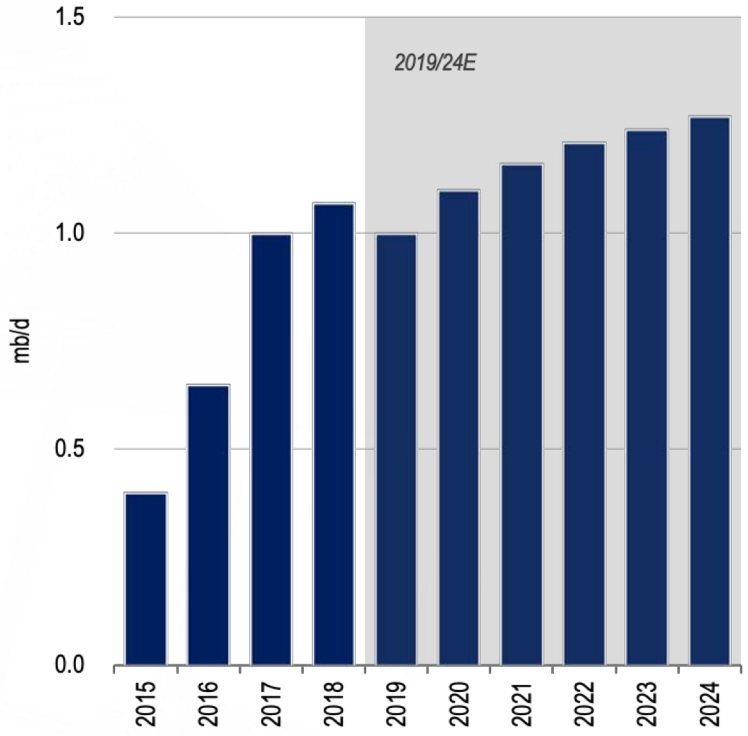
# Political and security situation limits growth

## Libya oil production, Jan 10 – Jan 19




Libya's oil production in 2018 recovered to above 1.0 mb/d for the first time since early-2013, but it still remains a long way from a sustainable recovery above this level and reaching the pre-crisis level of 1.5 mb/d. In 2019, upside potential is highly vulnerable and expected to halt.

## Libya sustainable production capacity, 2015 – 2024E




Despite the relative success of Libya's NOC to revive oil output in the face of security difficulties and recent return of IOCs, growth returns in the next five years are relatively limited to 1.27 mb/d. That is as long as the political and security conditions do not improve.

Source: IEA, OIES

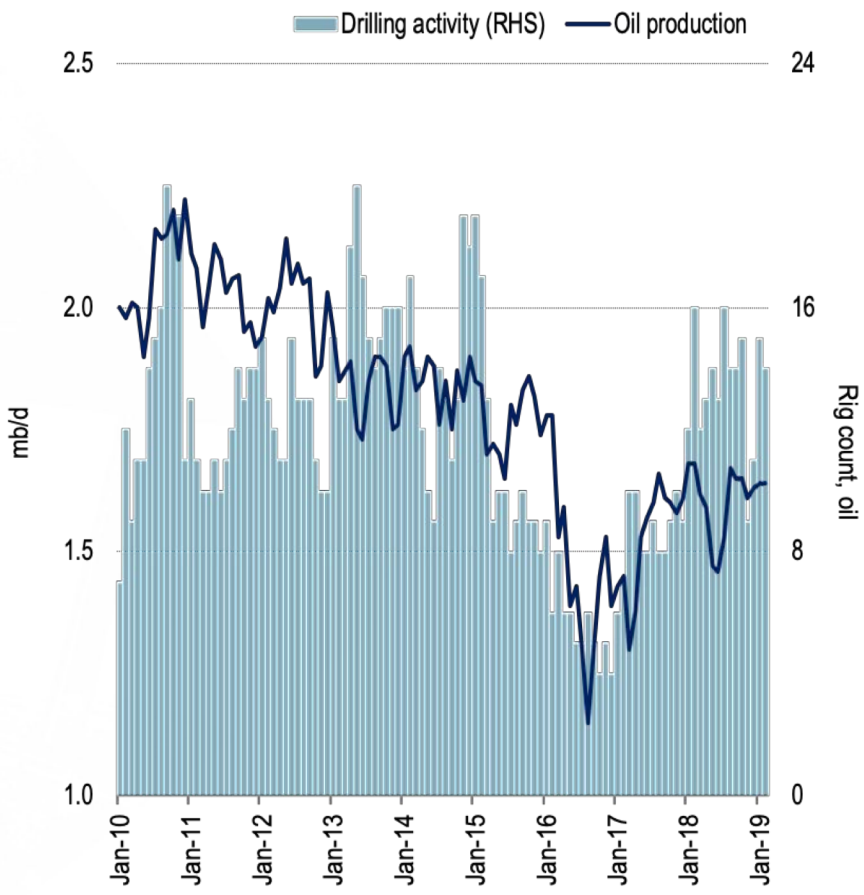
# Nigeria's long-standing transformation

## The trend in Nigeria is one of oil output stagnation

- Nigerian production in 2018 recovered to 1.6 mb/d, although the recovery has been vulnerable to militant attacks in the oil rich Niger Delta.
- In 2019, production capacity is expected to increase to 1.8 mb/d due to the start-up of Total's offshore deepwater Egina project which is estimated to add between 200-220,000 bpd.
- At the same time, the newly elected government faces significant challenges in sustaining Nigeria's upstream production, having to prevent fresh outbreaks of militancy and violence in the Niger Delta and most importantly secure new upstream investment.
- So far the attempt by the government to renegotiate PSCs and increase royalty payments has led to fresh investor uncertainty.
- IOCs maintain divested interests with projects remaining long-stalled, such as deepwater projects that are expected to add up to 325,000 bpd of new production (e.g. Bonga Southwest/Aparo, Zabazaba/Etan).

**Unless Nigeria's oil sector finds a boost from within, oil production is set to continue its declining trend and upstream spending will eventually dry up.**

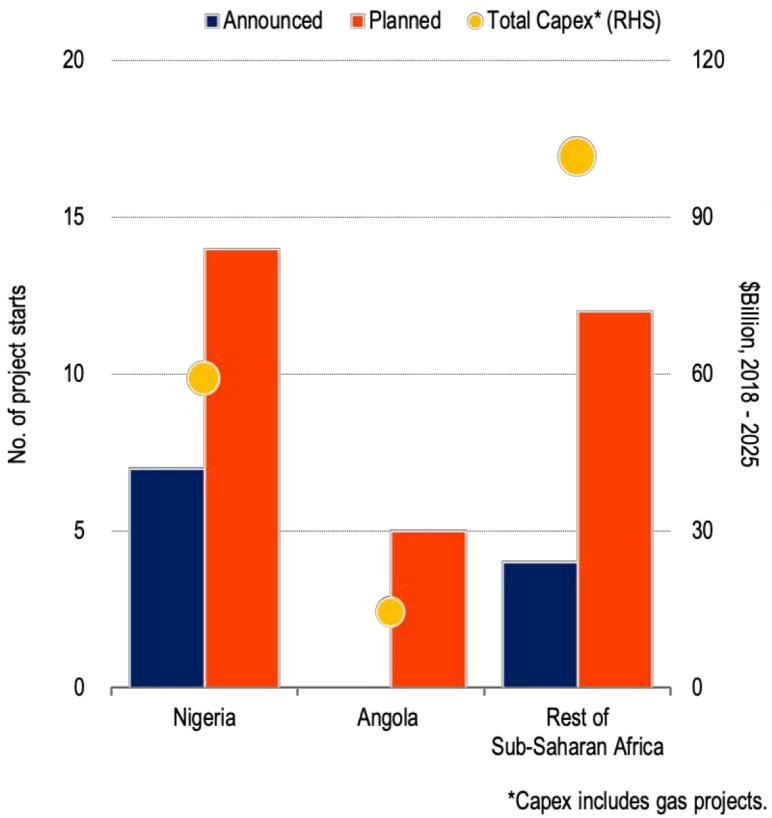
Nigeria supply profile, Jan 10 – Feb 19




Source: IEA, Baker Hughes, OIES

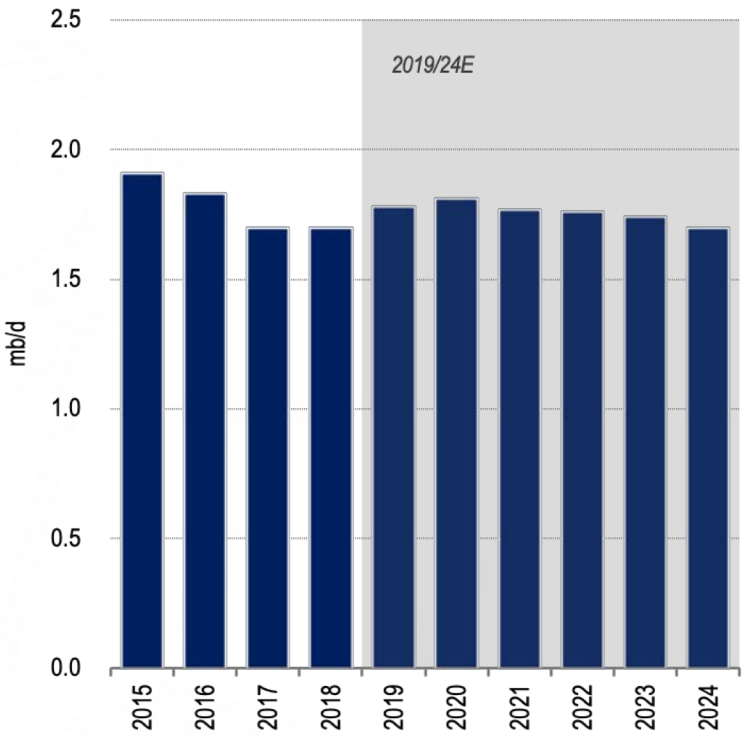
# One step forward, two steps back

## Oil projects counts and proposed capex for 2018/25




Although Nigeria accounts for half the proposed capex on new oil/gas projects in Africa over the period 2018/25, the slow pace of FIDs on these projects is indicative of the lack of a decisive progress in its oil sector's transformation.

## Nigeria sustainable production capacity, 2015 – 2024E



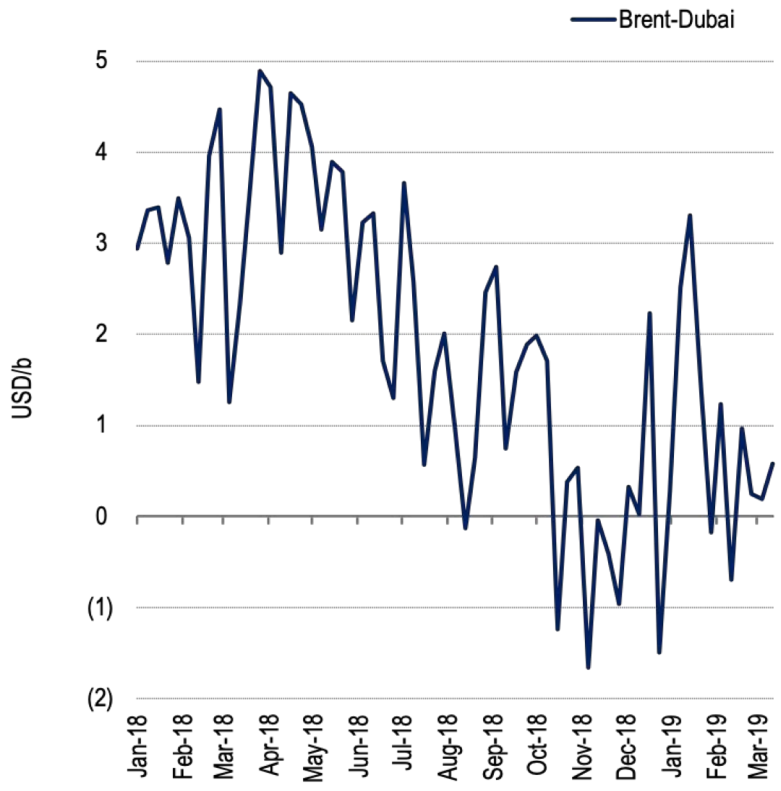

The launch of the Egina project in 2019 is expected to boost the country's crude capacity in the near-term to 1.8 mb/d, but growth is expected to reverse to 1.7 mb/d in the medium-term due to underinvestment.

Source: Global Data, IEA, OIES

# The sweet-sour imbalance

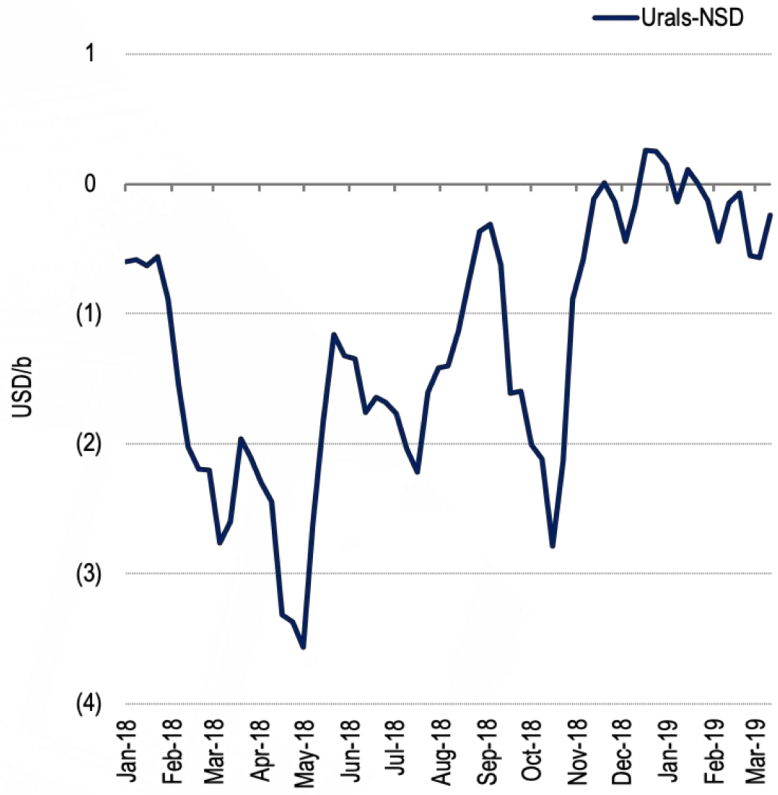
# Quality spreads have been highly volatile

## Brent-Dubai spread, Jan 18 – Mar 19




OPEC output cuts and supply disruptions in Iran and Venezuela are tightening the medium/heavy sour market narrowing the discount of Dubai against Brent.

## Urals-NSD spread, Jan 18 – Mar 19

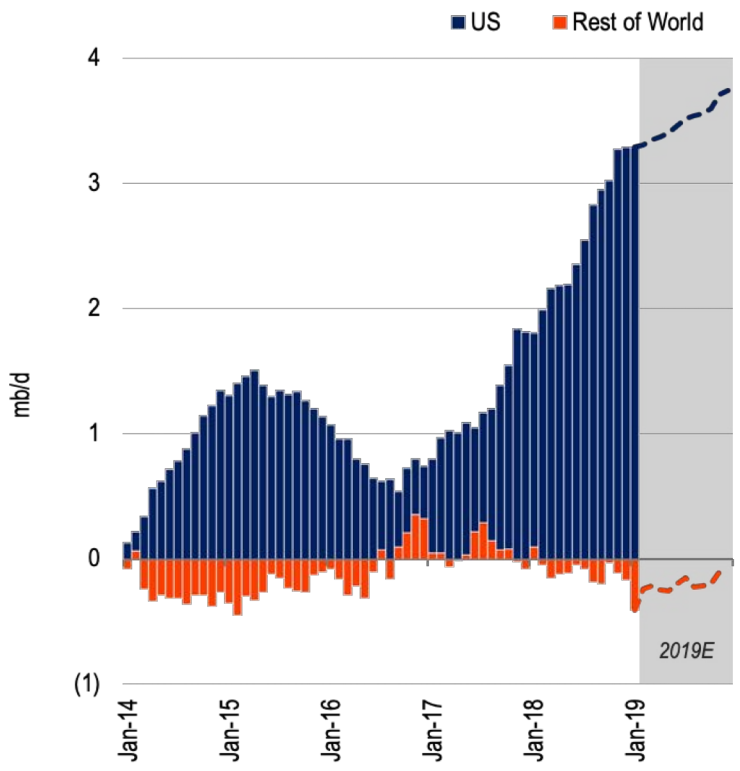



With some crude such as Mars and Urals occasionally trading at a premium relative to their benchmarks, indicative of the stronger pricing of heavier grades.

Source: Argus, OIES

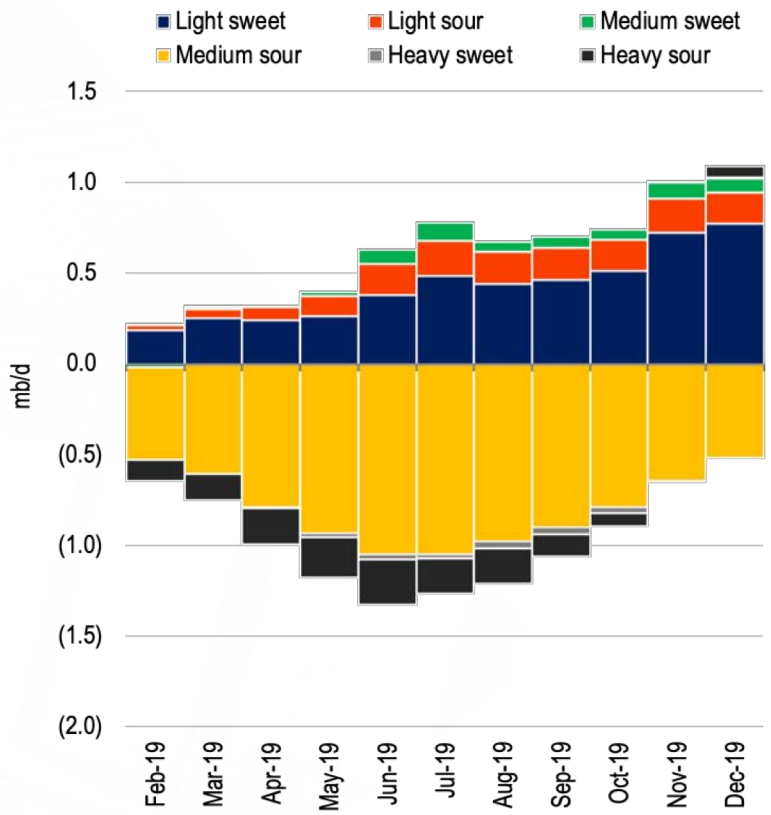
# US light sweet crude to widen the quality gap

## Global growth of light sweet production, Jan 14 – Dec 19E




The rapid growth of light sweet supplies out of the US is expected to continue into the foreseeable future, aggravating the crude quality imbalance.

## Global production growth by quality, Feb 19E – Dec 19E

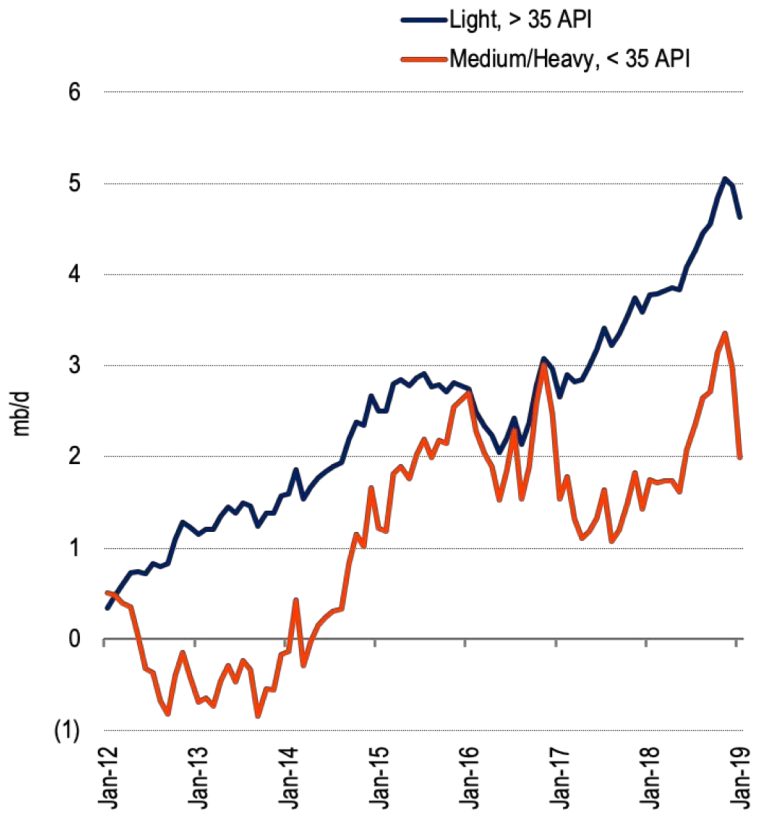



The heavy sour crude shortage is unlikely to be resolved in 2019, as OPEC embarked on a fresh round of output cuts amid growing US shale supply and further losses of heavier barrels expected from Venezuela and Iran.

Source: OIES

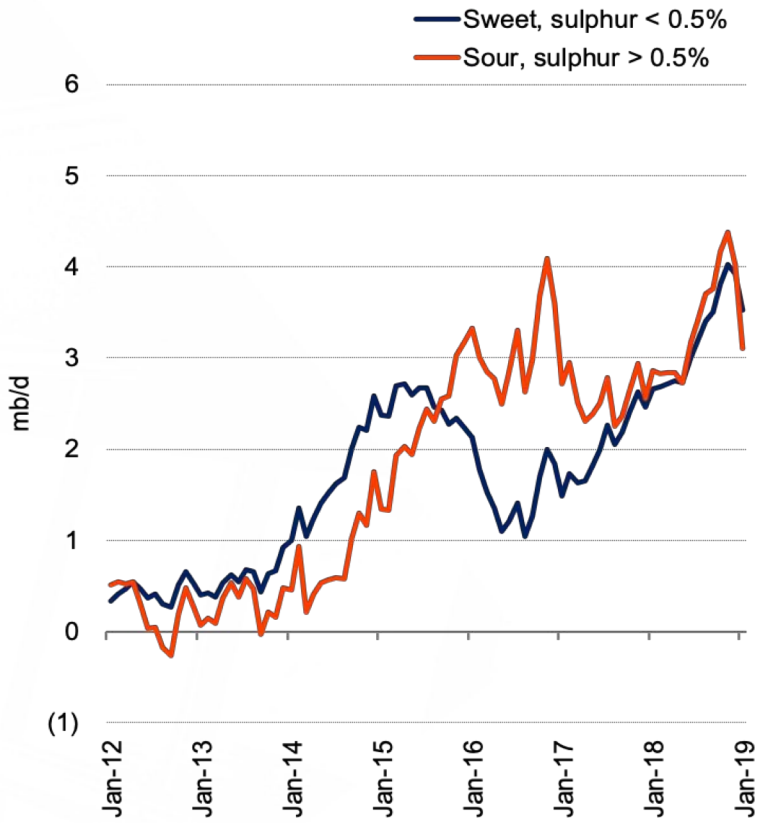
# Crude quality concerns

## Growth of global production by API gravity, Jan 12 – Jan 19




Since 2012, most of the global production growth has been concentrated in light sweet crude from the US, surpassing that of heavier grades (i.e. medium/heavy crude) by as much as 2.6 mb/d in January 2019.

## Growth of global production by sulphur content, Jan 12 – Jan 19

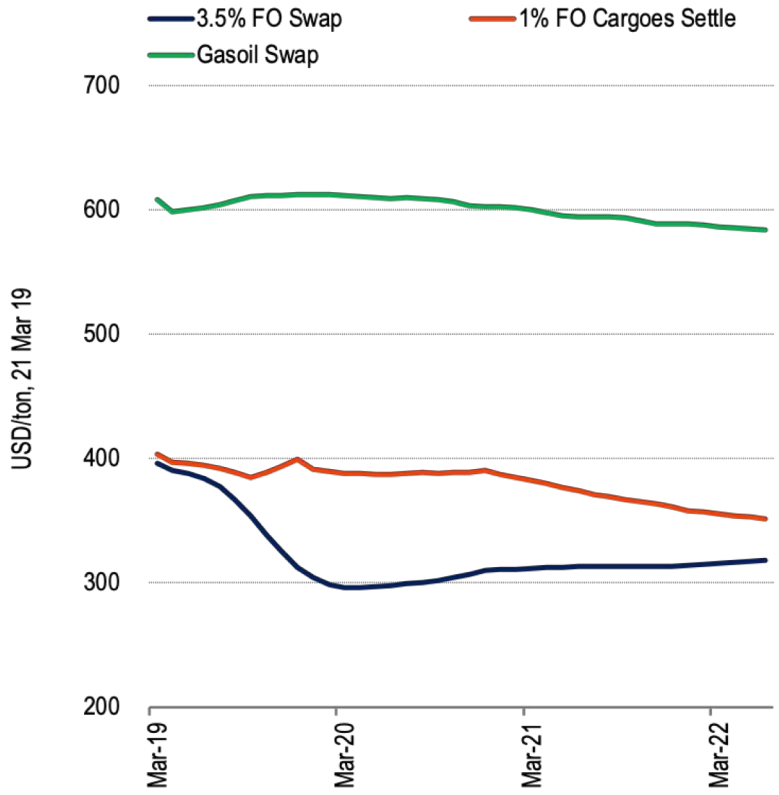



Likewise, the production growth of sweet crude has been higher than that of sour crude and after a decline in 2016 when US shale production momentarily halted, is once again hovering higher than the sour grades in 2019.

Source: OIES

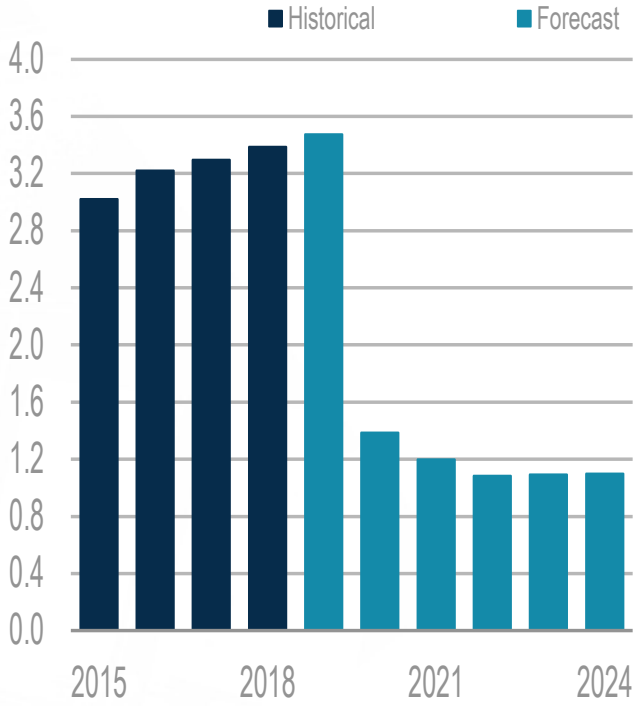
# IMO2020 will only complicate matters

## HSFO, LSFO and Gasoil swaps, Mar 19 – Jun 22




HSFO has been performing quite well recently with the spread to LSFO reaching low levels. But these differences are expected to widen ending-2019, as IMO rules are implemented and bunker fuel oil demand falls after 2020.

## Bunker fuel oil demand, 2015 -2024E



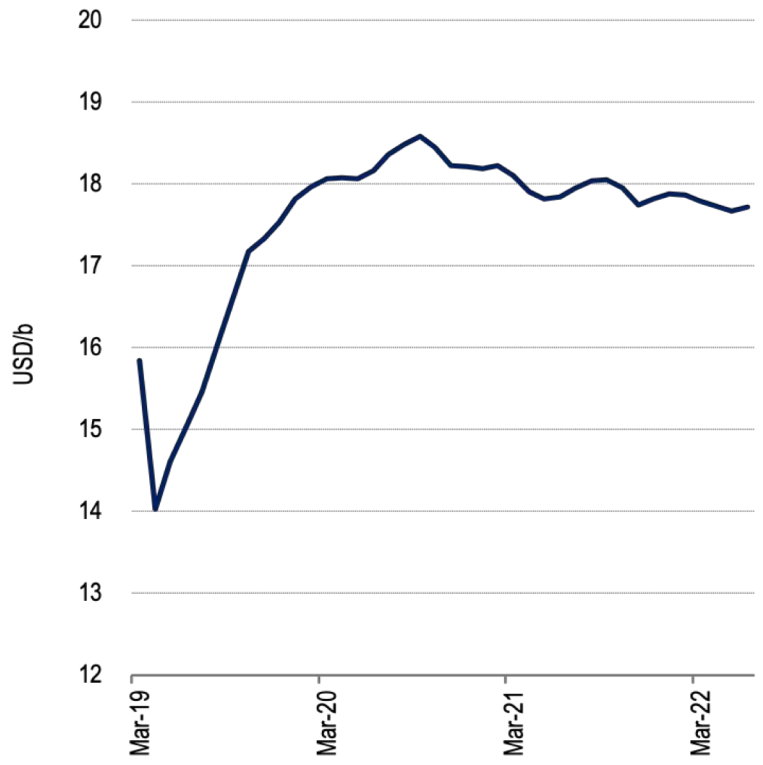

*Source: IEA*

IEA estimates a fall of HSFO demand from 3.5 mb/d to 1.4 mb/d between 2019 and 2020, with the 2.1 mb/d difference projected to be met by a 1.1 mb/d increase in MGO and a 1.0 mb/d increase in VLSFO.

Source: CME, IEA, OIES

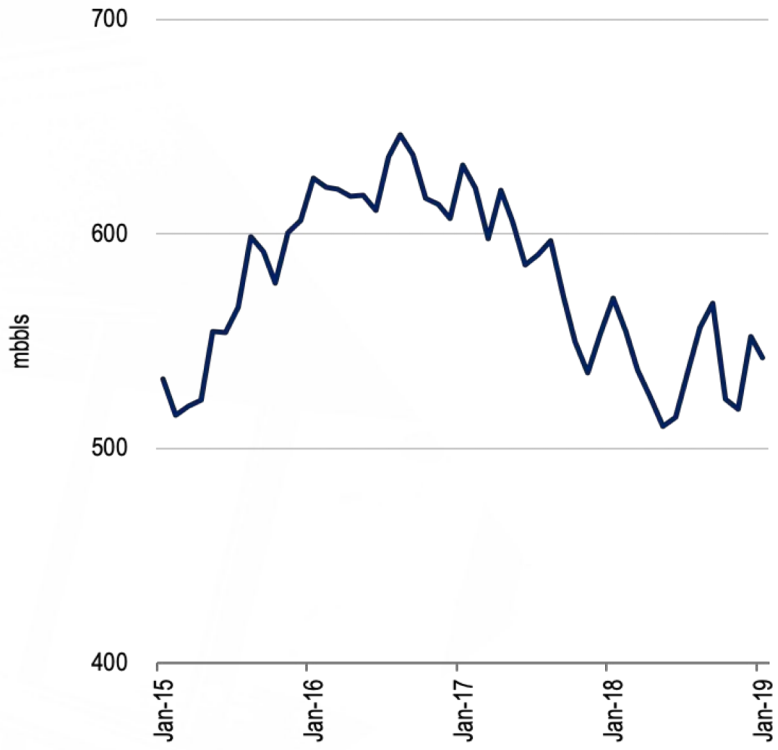
# Diesel margins have to rise to incentivize runs

## Gasoil-Brent swaps, Mar 19 – Jun 22




Refineries may have to increase runs to supply more diesel but this means diesel margins may need to rise and do most of the heavy lifting.

## OECD middle distillate stocks, Jan 15 – Jan 19




OECD middle distillate stocks are at relatively low levels and therefore the buffers may be thin if gasoil demand rises above expectations.

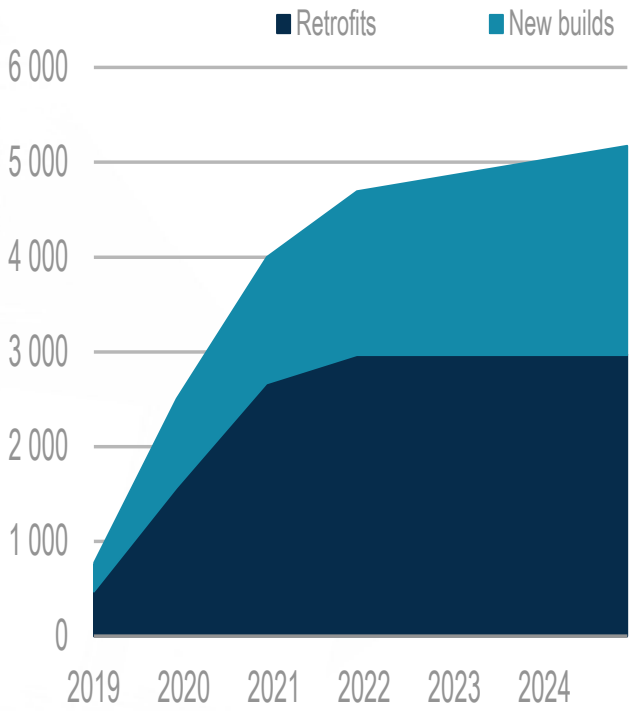
Source: CME, IEA, OIES

# Gasoline margins may also strengthen

USGC gasoline margins, Jan 18 – Mar 19


If low-sulphur Vacuum Gasoil (VGO) is diverted from the gasoline pool to create compliant fuel oil, gasoline margins are expected to rise.

Forecast scrubber installations, 2019 -2024E



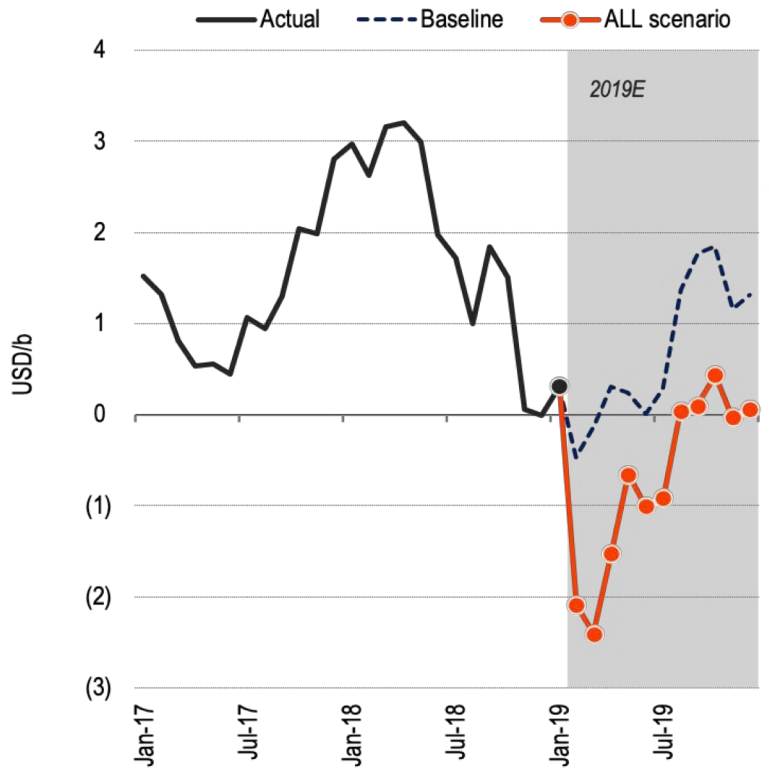

Source: IEA

HSFO may also receive support if scrubber installations increase and/or if HSFO finds its way into the power sector, but for that to happen, it has to be priced competitively.

Source: Argus, IEA

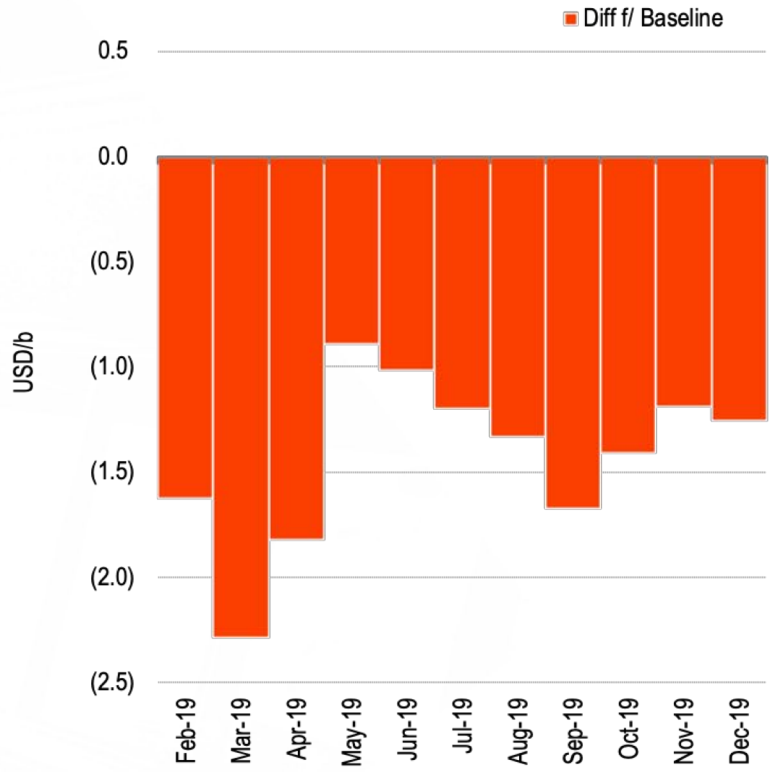
# Sweet/Sour differentials should widen but supply also matters

## Brent-Dubai spread in extreme shortages scenario, Jan 17 – Dec 19E




While crude differentials are expected to widen as refineries increase their demand for lighter sour crudes, the implementation of the IMO2020 ruling is not the only factor affecting sweet-sour crude differentials.

## Net impact on the BD spread in extreme shortages scenario, Feb 19E – Dec 19E



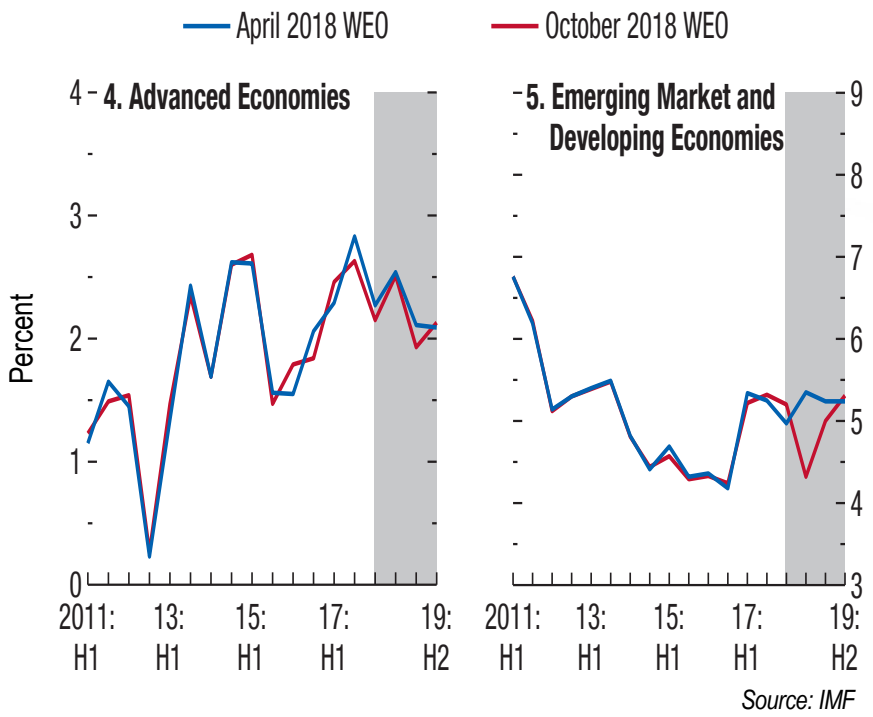

The exacerbation of heavy sour crude shortage due to OPEC output cuts and disruptions of heavier grades may keep differentials narrow and even widen the BD spread into negative territory, affecting refinery margins.

Source: OIES

# Global economy and oil demand: A key uncertainty

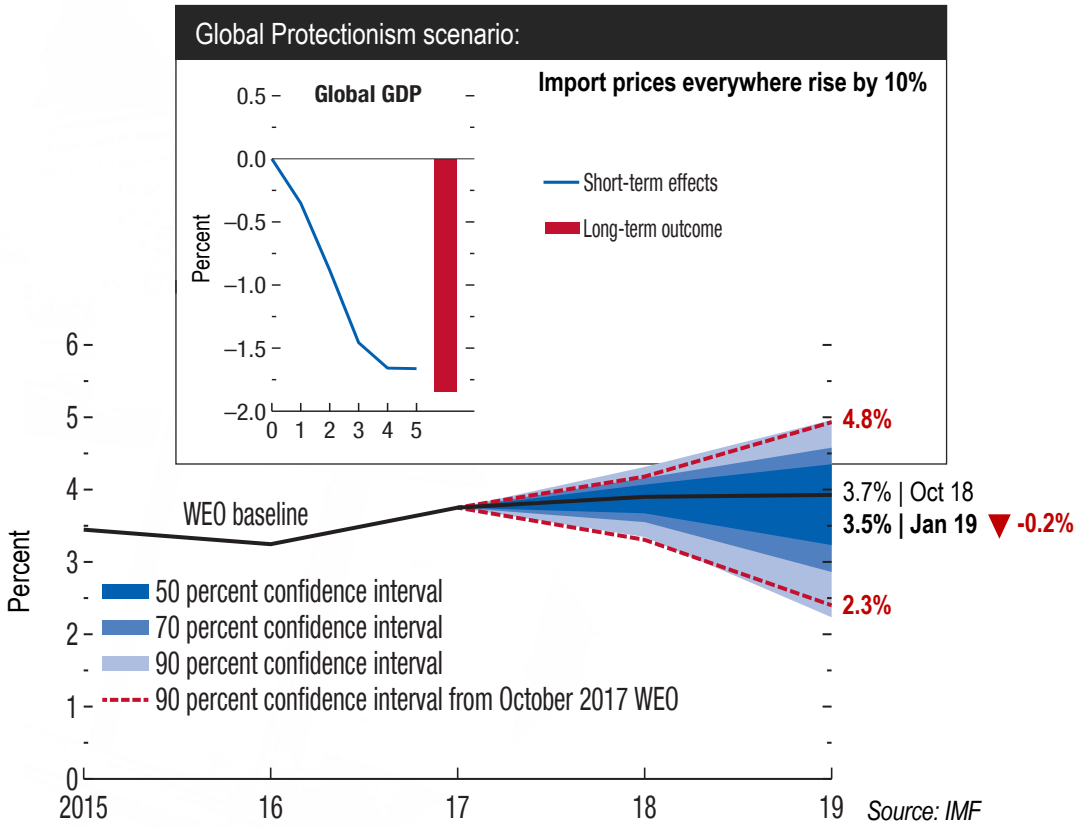
# The global expansion has weakened

## Global GDP growth, 1H11 – 2H19E




Global growth forecast for 2019 was revised downwards twice from April 2018, from 3.9%, to 3.7% and then to 3.5%. This potentially will trigger further downward revisions in projected global demand growth for 2019 that currently stands at 1.4 mb/d.

## Risks to the global outlook, 2015 – 2019E




Rising trade tensions and policy uncertainty, tightening financial conditions and heightened political risks are key sources of risk to the global outlook, with widespread concerns over the advanced and emerging economies alike.

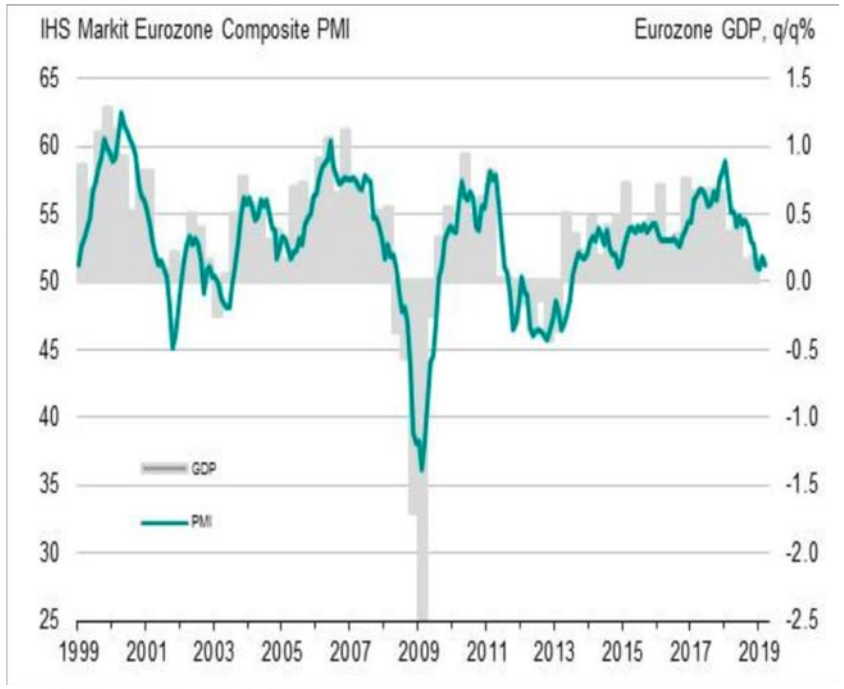
Source: IMF

# OECD economies losing momentum?

US Treasury yield curve, Jan 14 – Feb 19


The 10-year yield fell sharply and reached below the 3-month yield, which many consider as a very bearish factor and a predictor of recession.

Eurozone PMI and GDP, Jan 99 – Mar 19



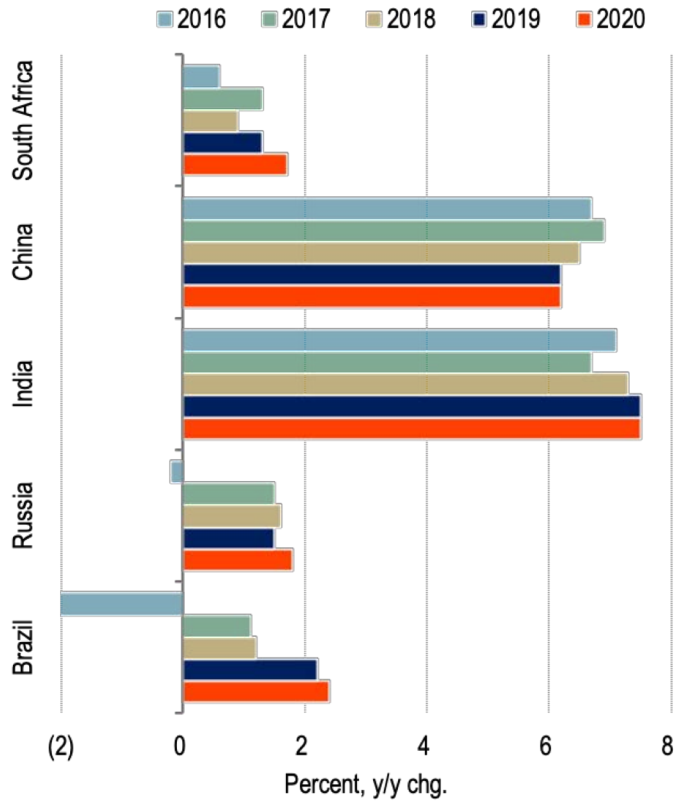

*Source: IHS Markit*

The Eurozone PMI has also been fading with the recent declines primarily driven by weak activity in German manufacturing, particularly in the automotive industry.

Source: Federal Reserve Bank of New York, IHS Markit

# Concerns about China's economic outlook

## BRICS projected economic growth, 2016 – 2020E




China's economic growth in 2018 declined to 6.6% its lowest rate in three decades. The Chinese economy is expected to slow further in 2019 to 6.2%, casting a dark cloud on the oil market outlook.

## Chinese economic indicators, Jan 14 – Dec 18

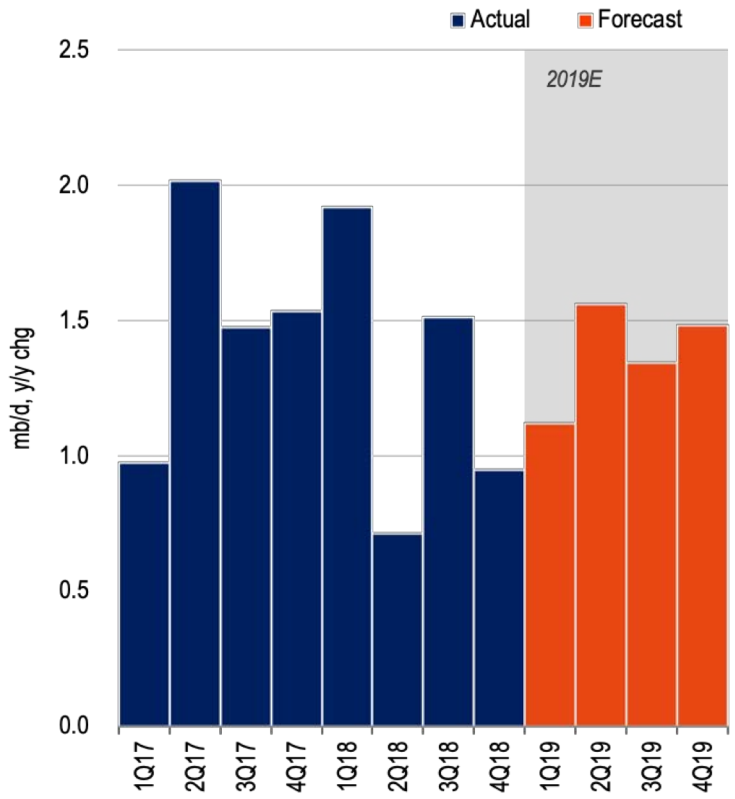

*Source: Bloomberg*

The ongoing trade tensions with the US, and recent decline in exports growth amid deleveraging are all sources for concern. Yet to be seen whether the government's efforts to stimulate the economy through monetary and fiscal policy will have the desired effects, albeit this could run against much needed deleveraging.

Data/Source: World Bank, Bloomberg

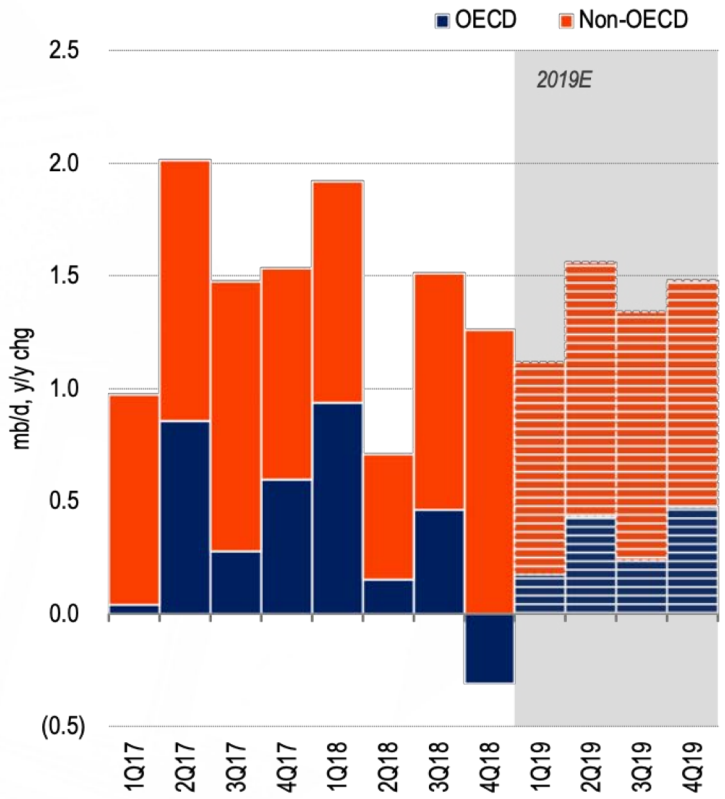
# Oil demand not showing strong signs of deceleration

## Global oil demand, 1Q17 – 4Q19E




Global demand growth in 2019 is expected to remain robust at 1.4 mb/d on a year ago, despite the downward revisions to global growth prospects. Emerging economies are set to lead the growth.

## OECD and non-OECD oil demand, 1Q17 – 4Q19E

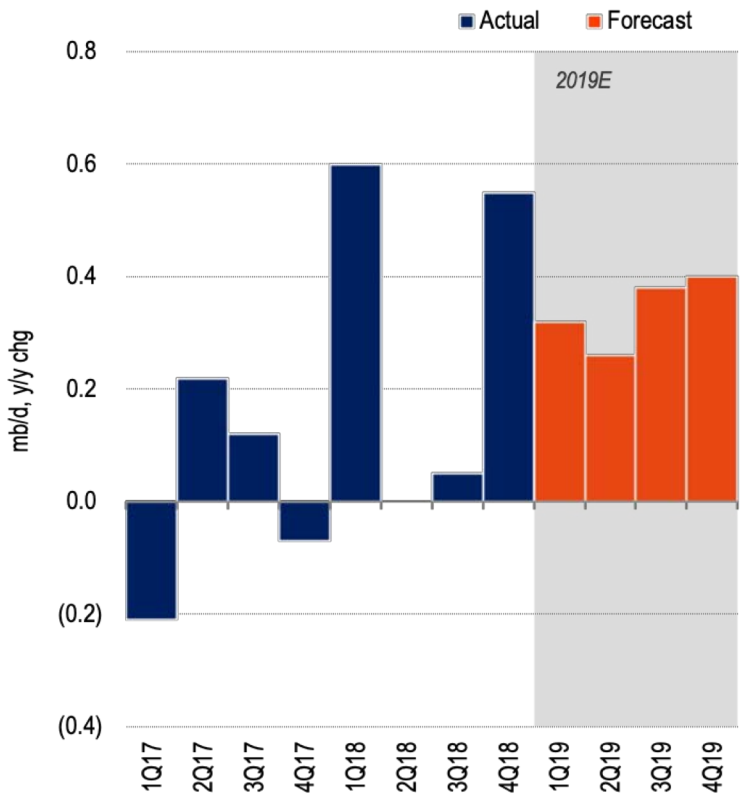



After a sharp decline in 4Q2018, OECD demand in 2019 is expected to grow at a similar rate to last year at 0.3 mb/d. Non-OECD economies will post the largest growth adding 1.1 mb/d, despite a deceleration in China and India.

Source: IEA, OIES

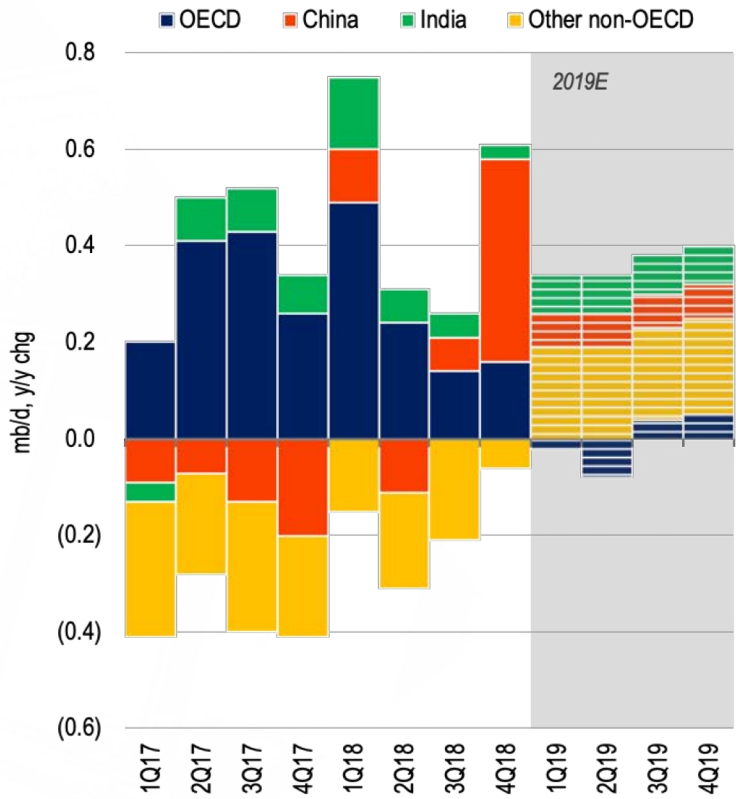
# Diesel demand leading the growth

## Global diesel demand, 1Q17 – 4Q19E




Diesel demand continues to lead the growth especially in the OECD. In 2019, diesel demand is expected to grow 0.5 mb/d higher than 2018.

## OECD and non-OECD diesel demand, 1Q17 – 4Q19E

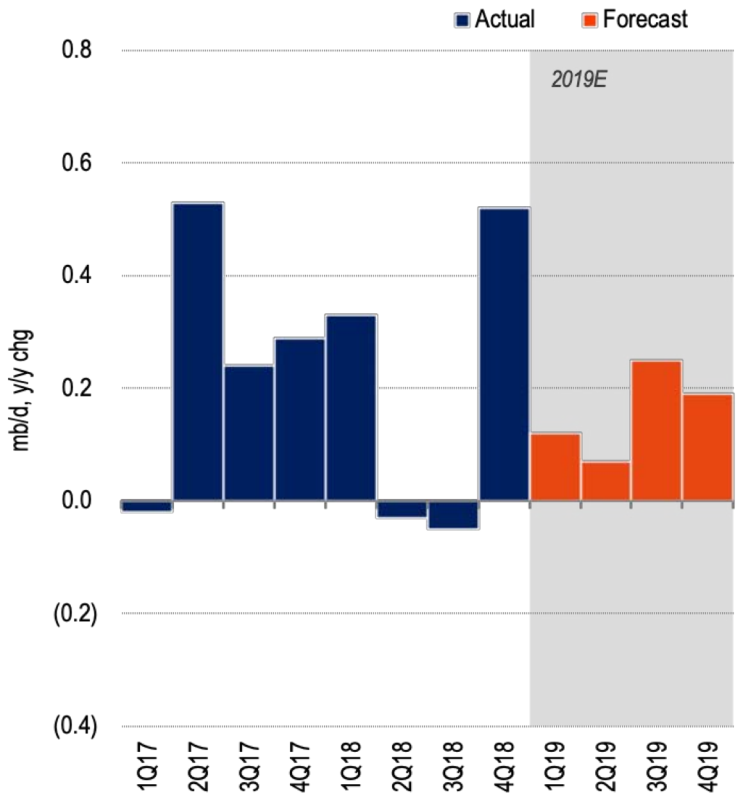



Diesel consumption is expected to post gains in non-OECD regions. In the OECD and particularly Europe, diesel consumption is expected to decelerate.

Source: Argus, OIES

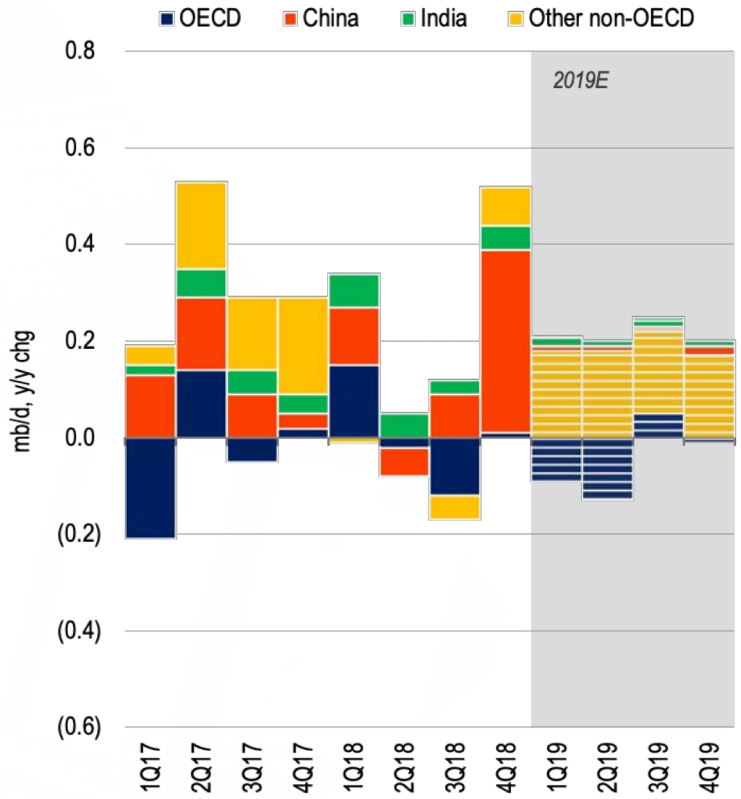
# Gasoline demand the weakest link

## Global gasoline demand, 1Q17 – 4Q19E




Global gasoline demand growth in 2019 is expected to continue its decline, near 0.15 mb/d y-o-y, as gasoline sales are under pressure from slower economic growth, ongoing fuel efficiency improvements and cuts to price subsidies.

## OECD and non-OECD gasoline demand, 1Q17 – 4Q19E




The rate of gasoline demand growth in OECD will continue its steady decline. Most of the growth will come from the non-OECD, but outside China, which implies that Chinese exports will remain large.

Source: Argus, OIES

# Oil price paths in 2019

# Balance of risks in 2019

## Price risks are broadly balanced

### Upside risks can push prices above $70/b ending-2019.

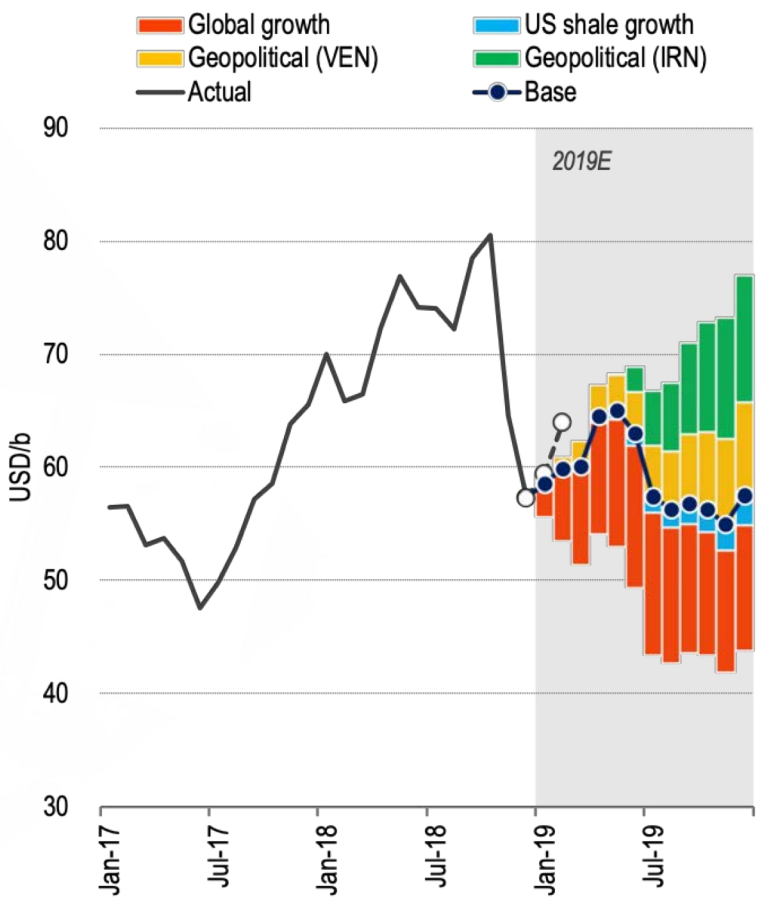
- Further disruptions in Iranian oil output (ASM: -0.5 mb/d).
- Venezuela's output continues to deteriorate (ASM: -0.4 mb/d).
- Libya and Nigeria remain a wildcard (ASM: n/a).

### Downside risks could supress prices towards the low-$40/b.

- US shale growth surprises on the upside (ASM: +0.3 mb/d).
- Larger-than-expected slowdown of global growth (ASM: 3.2%).
- Concerns about health of emerging economies.

| Balance of Risks | 2019 | | |
|---|---|---|---|
| *Price outcomes* (USD/b) | Baseline | Annual AVG | Change from BASE |
| Geopolitical risks (Iran) | **59.2** | **63.6** | 4.4 |
| Geopolitical risks (Venezuela) | **59.2** | **63.5** | 4.2 |
| US shale growth risks | **59.2** | **58.0** | (1.3) |
| Global growth risks | **59.2** | **49.3** | (10.0) |

Balance of risks to the baseline forecast, Jan 17 – Dec 19E




Data: OIES

# Oil price paths in 2019

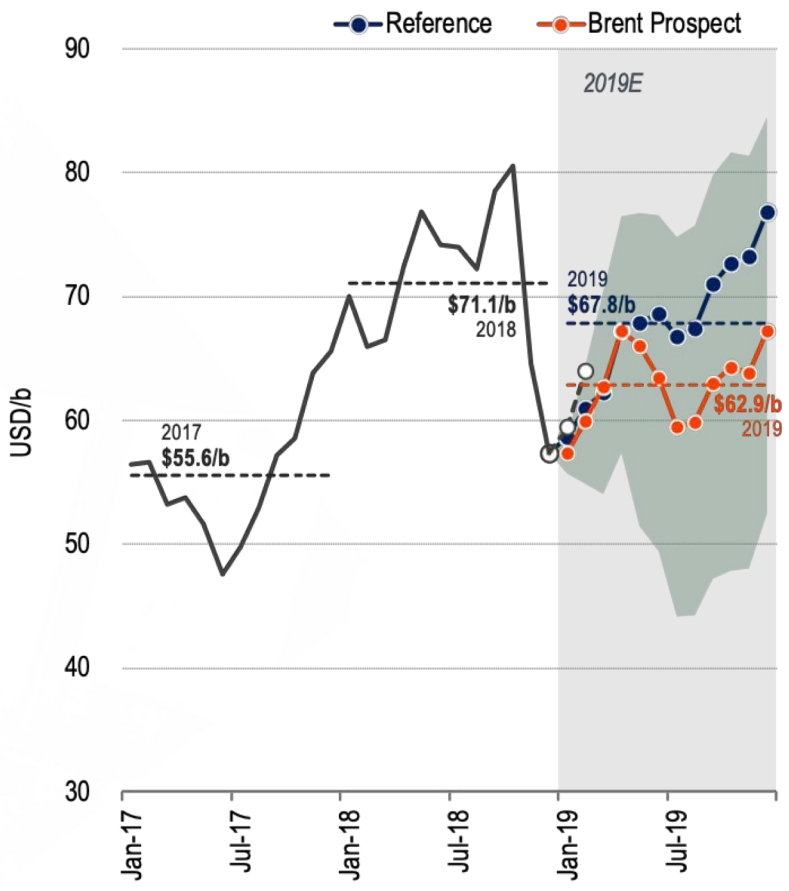
## Prices to recover, but upside potential is limited to $70-80/b range

| Reference assumptions | Reference |
|---|---|
| **OPEC+ output adj.** (as of January 2019) | +1.27 mb/d (100% target compliance) |
| **Global economic growth** | +3.5% |
| **Geopolitical disruptions** | -0.8 mb/d |
| Of which: Iran | - 0.5 mb/d (as of May 2019) |
| Venezuela | - 0.3 mb/d |
| **US shale output growth** | +1.1 mb/d |

*Price outcomes* (USD/b)

| | 2019 Reference | | 2019 Brent Prospect | |
|---|---|---|---|---|
| | AVG | Q/Q chg. | AVG | Chg f/ REF |
| 1st Quarter | **60.6** | (6.9) | **60.0** | (0.6) |
| 2nd Quarter | **67.9** | 7.3 | **65.6** | (2.3) |
| 3rd Quarter | **68.4** | 0.5 | **60.8** | (7.6) |
| 4th Quarter | **74.3** | 5.8 | **65.1** | (9.1) |
| Annual AVG | **67.8** | (3.3) | **62.9** | (4.9) |

## Oil price paths in 2019, Jan 17 – Dec 19E

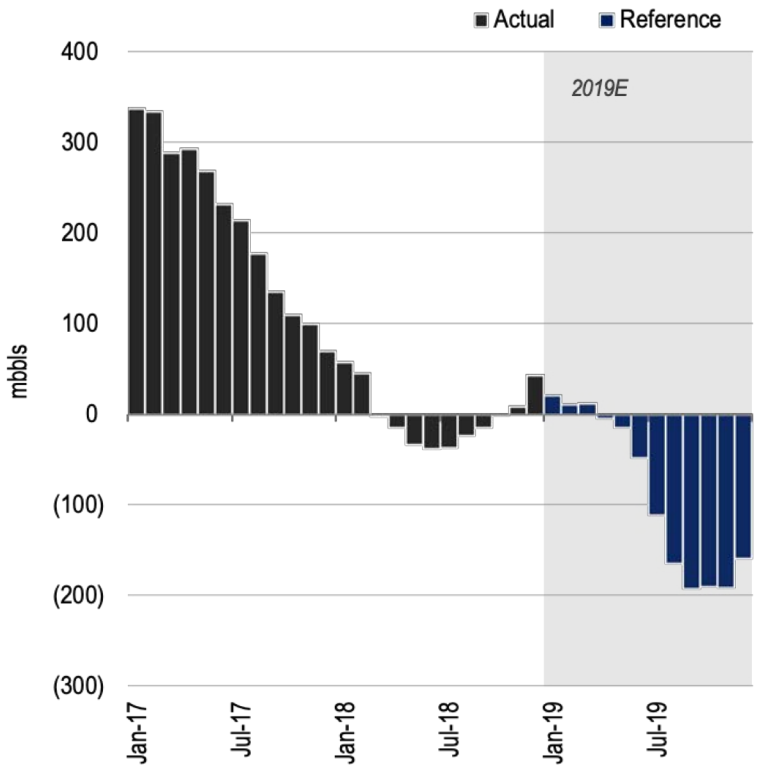



* The *Brent Prospect* forecast considers over 20 combinations of forecast scenarios and derives the conditional price outcome to the reference case.

Data: OIES

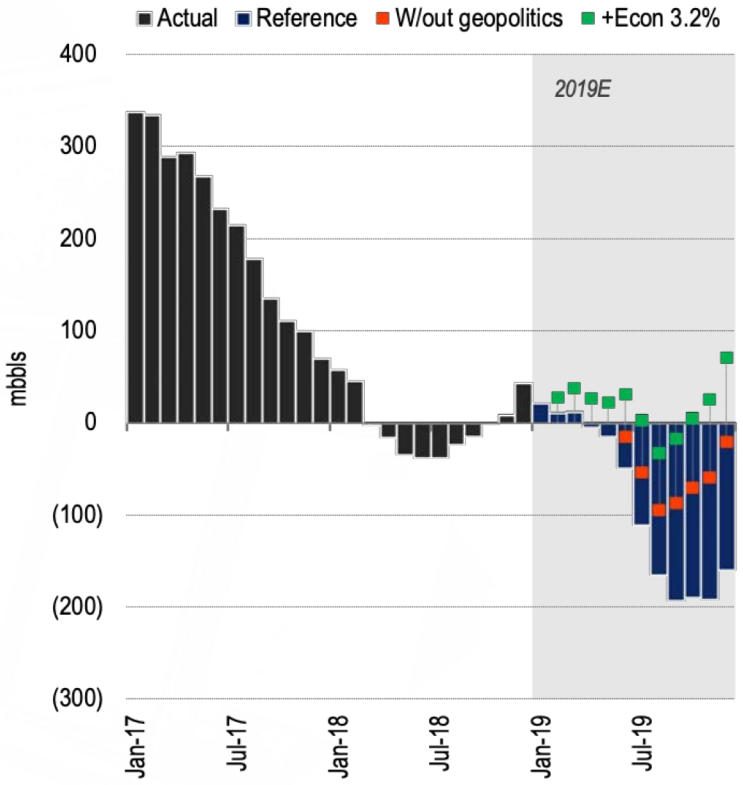
# Oil market set to return to a balanced mode in 2019

OECD stocks v 5-year avg in reference scenario, Jan 17 – Dec 19E




OECD stocks are expected to be drawn significantly in the second half of the year due to the high potential of supply disruptions in Iran and Venezuela, that combined with supportive demand is expected to clear over 200.0 mbbls.

OECD stocks v 5-year avg in pessimistic scenario, Jan 17 – Dec 19E




The market rebalancing however remains highly sensitive to potential risks that could sustain and even aggravate the stocks overhang pertaining to weaker demand, higher non-OPEC supplies and further US foreign policy reversals.

Source: OIES

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