



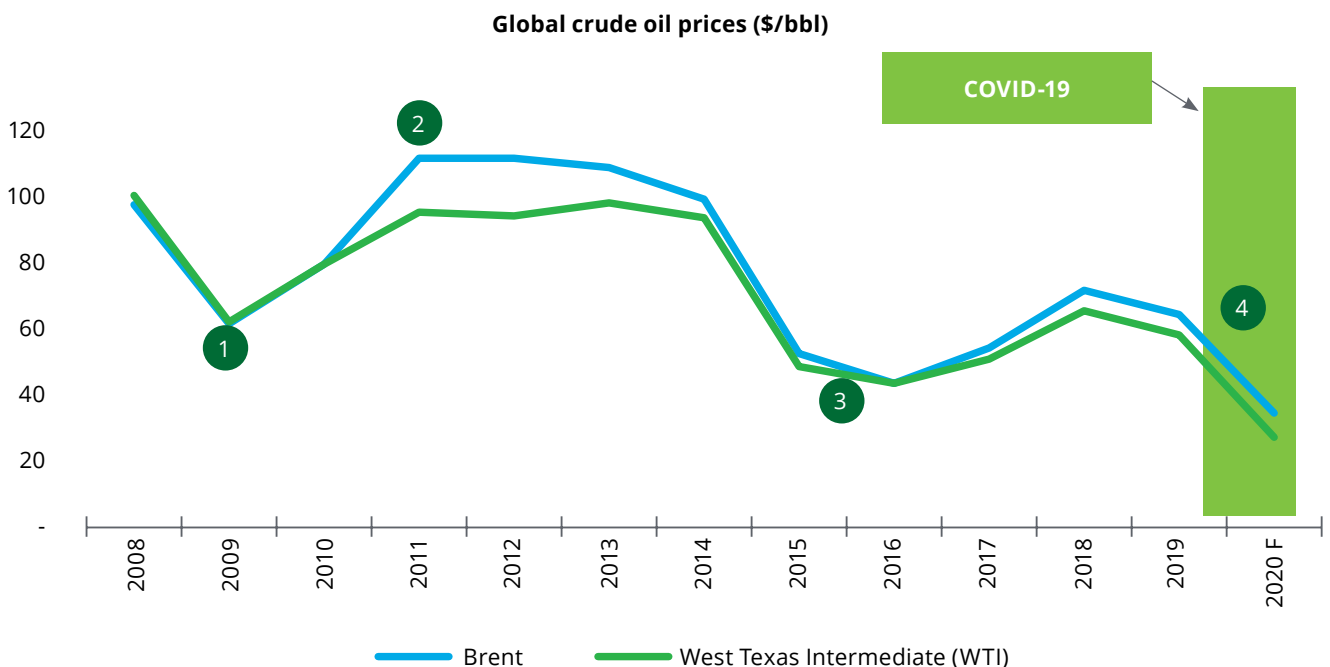
Impact of COVID-19 on O&G industry

Private and confidential

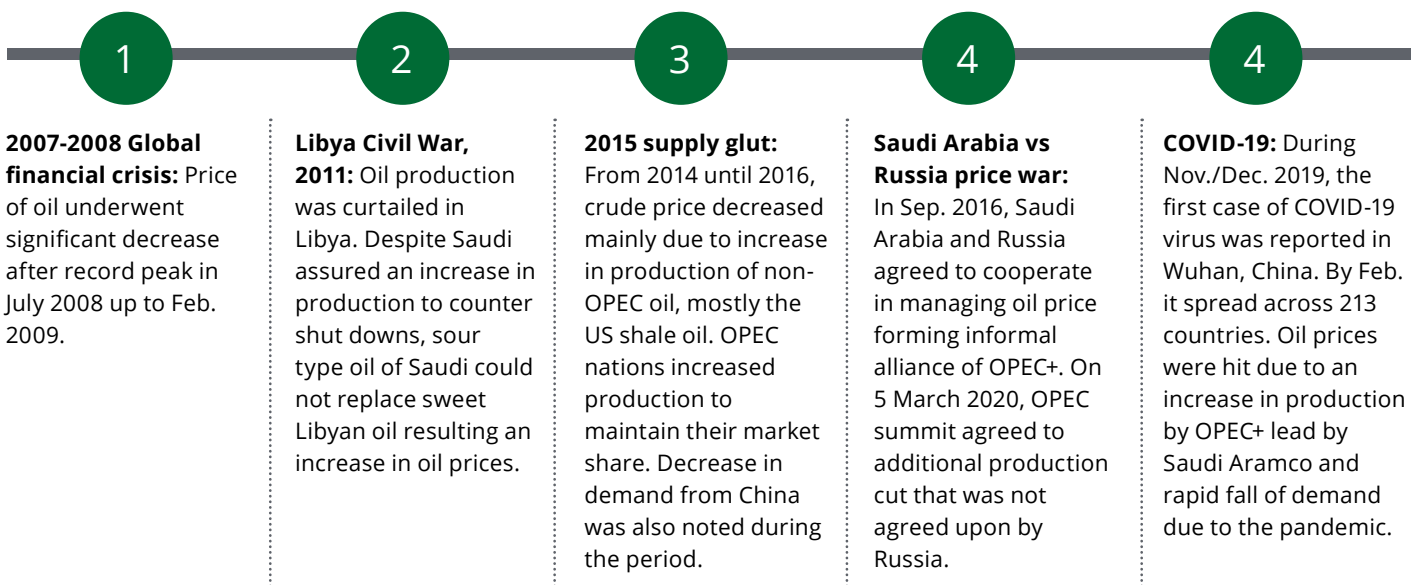
July 2020

Impact of COVID-19 on O&G industry

The O&G industry is facing collapsed oil demand and supply, due to the COVID-19 pandemic and geopolitical issues

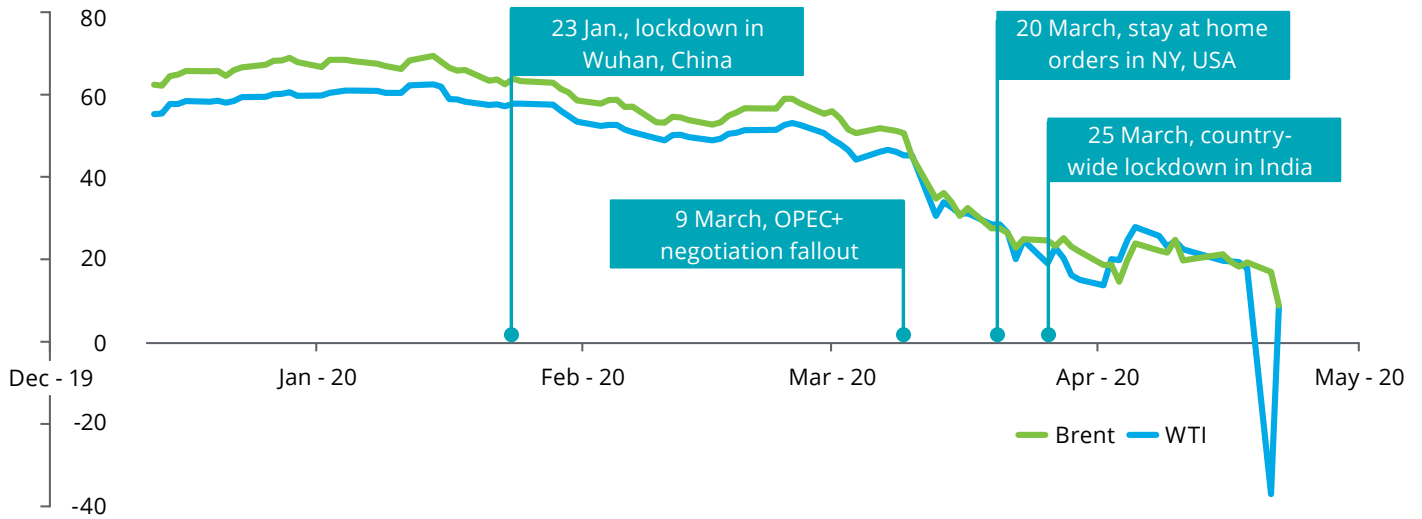


Source: BP Statistical Review of World Energy 2019, US EIA

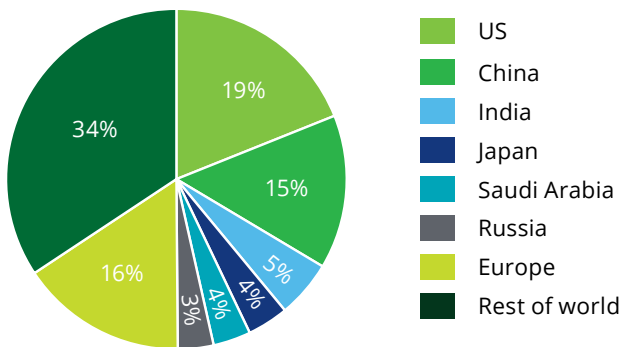


Crude oil prices fell during February to May 2020

Crude oil prices \$/bbl



Share of major oil consuming countries in 2019¹



Total oil consumption in 2019 is ~98.2 Mn BOPD

Lockdowns and social distancing measures across the globe²

- Several countries have responded by implementing a lockdown and closure of workplaces to combat COVID-19 pandemic.
- Top 12 countries that are/were under lockdown (ranging from 6 to 12 weeks) are responsible for ~61 percent of crude oil demand.

Country	Lockdown start date ³
China	23 Jan.
Italy	9 March
Spain	14 March
France	17 March
United States of America ⁴	20 March
Germany ⁴	22 March
UK	23 March
India	24 March
Russia	31 March
Saudi Arabia	6 April

Note: [1] Source: BP global statistical review [2] Source: Rystad Energy research and analysis [3] United States of America and Germany was not under complete lockdown, businesses were closed

Global oil demand is expected to pick up slowly

Factors driving oil price

Fall in demand

Lockdowns and closure of businesses resulted in oil demand falling from **100 to 73 Mn BOPD in April¹**

Lack of storage space

Supply glut has filled up **76 percent of crude** storage facilities in Cushing, Oklahoma USA, where crude oil is delivered per contracts.

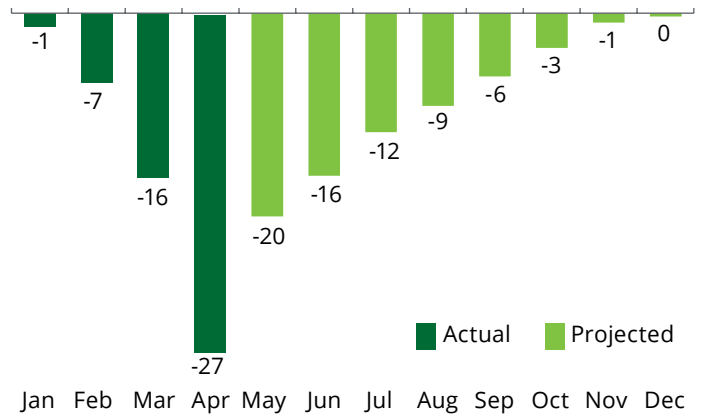
Lack of storage space and pipeline transmission capacity has pushed up storage costs forcing contract holders to sell WTI contracts at **negative prices.**

Technical complexities in plugging of wells

Reducing supply by temporarily plugging off wells is a complex job with high degree of impact on reservoir health and is also expensive and a tedious process. So operators continue to operate wells at losses.

Way forward for O&G

Fall in global crude oil demand (Mn BOPD)¹

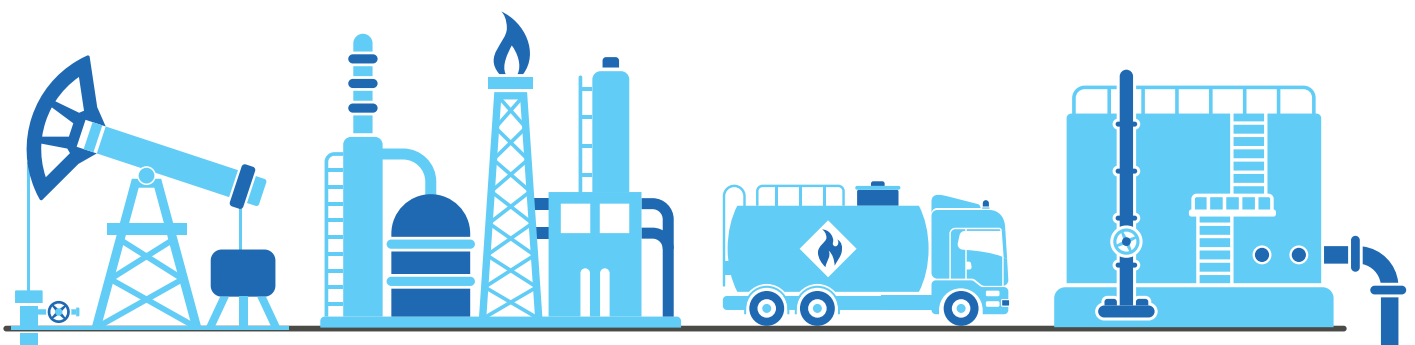


Oil demand likely to reach 2019 level post December 2020 only

- OPEC+ Russia agreed on 12 April to cut production by **9.7 Mn BOPD.**
- Wells with low technical risk (For example, oil sands in Canada, may shutdown ~2 Mn BOPD production in April/ May1) are expected to shutdown.
- Smaller players are expected to **stop production activities** due to scarcity of liquid funds in the near term.
- Number of active drilling rigs have come down to 465 from 991 in USA² on a Year-to-Year (YoY) basis, **reducing exploration and well development.**
- Easing of lockdown measures and plans of revival of economy are expected to push the O&G demand.

Source: [1] Rystad Energy research and analysis; [2]: Baker Hughes

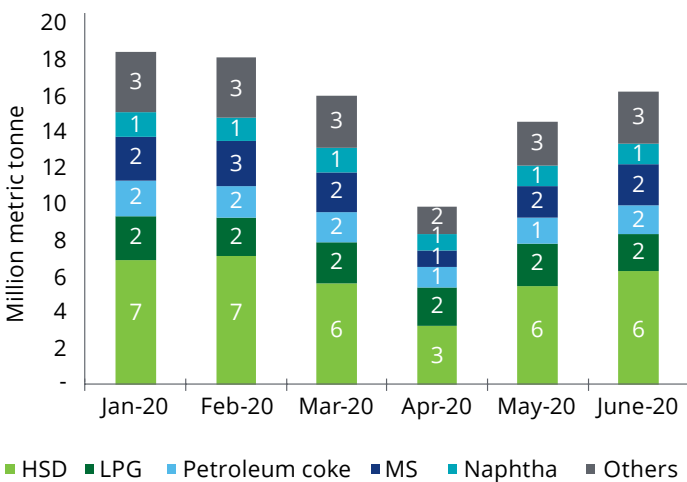
On go forward prices, crude oil prices would depend on demand recovery and OPEC+ commitments on agreed productions cuts. Per experts, prices are likely to remain range bound, i.e., between USD 35 and 45 per bbl.



O&G industry: India statistics

Lower crude prices has dried up revenues for oil exporters; and oil importers cannot gain due to lower demand due to the pandemic

Consumption of petroleum products

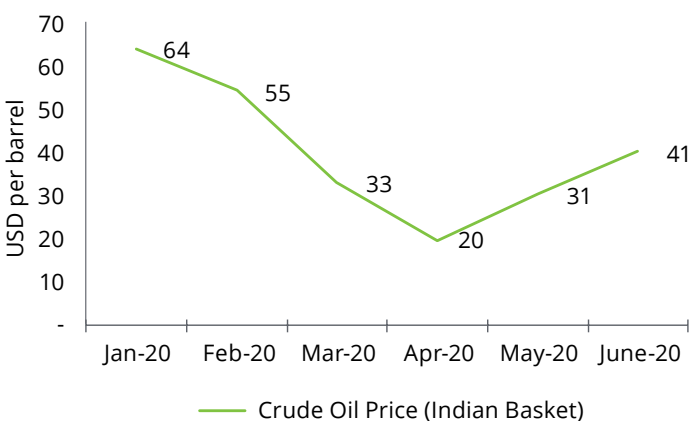


Source: Petroleum Planning & Analysis Cell

Lower consumption and prices have provided an opportunity to build strategic reserves

- Consumption for the month of March and April 2020 was down 12 percent and 38 percent from previous months due to nation-wide lock down implemented to contain the spread of coronavirus.
- Consumption has increased in May 2020 and June 2020 due to relaxation in lock down effective 8 June 2020 (Unlock 1.0) by the Indian government. Consumption increase was primarily due to increased demand of diesel and petrol.
- India has used lower crude prices as an opportunity to build strategic reserves. Per union minister, India stored oil (including oil carried by private players) account for ~20 percent (39 MMT) of India's annual consumption.
- India plans to increase strategic storage capacity by 6.5 MMT over the next few years. India parked around 8.5-9 MMT of oil on ships in different parts of the world, primarily in the Gulf region during the lockdown to take advantage of lower crude prices.

Crude Oil Price (Indian Basket)



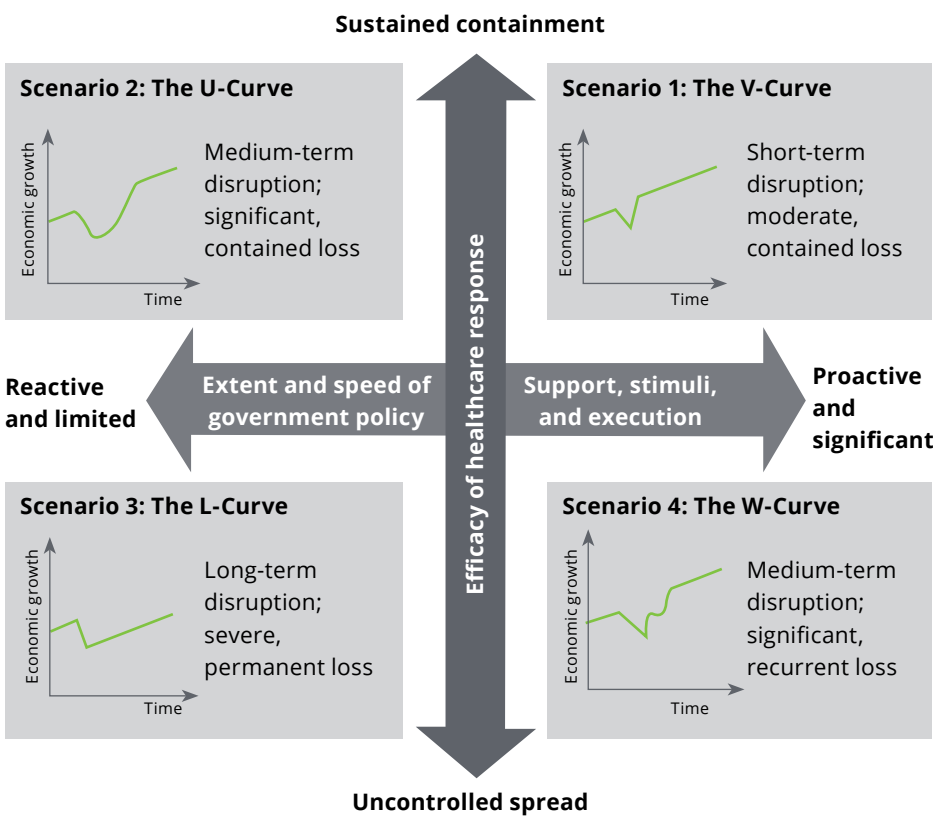
Source: Petroleum Planning & Analysis Cell

Consumers are not likely to benefit from lower crude oil prices

- Reduction in crude prices has not resulted in equivalent reduction in retail prices of HSD and MS in India due to increase in indirect taxes by the Central and State Governments (refer below for details of the excise duty hikes since 1 March 2020).
 - 14 March: Excise duty on petrol, diesel hiked by INR 3 per litre
 - 6 May: Centre raises excise duty on petrol by INR 10 per litre, diesel by INR 13 per litre
 - Respective state governments have also increased VAT on petrol and diesel
- Estimate of the additional government revenue cannot be made as the consumption of petrol and diesel has dropped to 35-40 percent.
- June 2020 onwards increase in prices of crude has been passed on to consumers by revision in retail prices. Since 7 June 2020, OMC's have resumed daily oil price revision.

Scenario analysis on COVID-19 affected businesses in India

Multiple scenarios evolve based on efficacy of healthcare response and speed of government policy, support, and stimuli



Scenario analysis

Of the four scenarios, the following are more likely to occur:

- **Scenario 2:** Slow, tenuous recovery in early period of FY2022 with easing of lockdown measures by Q3 FY2021
- **Scenario 4:** Partial removal of lockdown and subsequent outbreaks, movement restrictions continue for up to two quarters with major hotspots under prolonged lockdown, businesses resume in phased manner and recovery kicks in only in Q3 of FY2022



Impact of COVID-19 on O&G industry

Different segments will have varying impact of COVID-19

Disruption scenario		
	Scenario 2	Scenario 4
Scenario description	Slow, tenuous recovery in early period of FY2022 with easing of lockdown measures by Q3 FY2021	Partial removal of lockdown and subsequent outbreaks, movement restrictions continue for up to two quarters with major hotspots under prolonged lockdown, businesses resume in phased manner, and recovery kicks in only in Q3 of FY2022
Sector impact	<ul style="list-style-type: none"> • Upstream: Falling oil prices due to global oversupply and demand contraction. Prices remain ~USD 35-45/ bbl (Brent). Impact on new CAPEX programmes. Company financials to be under some stress. • Midstream: Falling gas prices, resulting in many players in the value chain invoking force majeure clauses to get out of take-or-pay clauses, 25-30 percent reduction in asset utilisations. Company financials to be under some stress. • Downstream: Demand contraction impacting refining throughputs, but lower crude prices. Stressed GRMs, as refiners will need to modify product slates. Channel members will need credit support to survive. Ongoing projects will need some interventions to minimise contractual logjams. 	<ul style="list-style-type: none"> • Upstream: Extended period of low oil price scenario, resulting in prices staying ~USD 20-25/bbl (Brent) resulting in severe stress on the financials of companies. All CAPEX programmes frozen except vital reservoir maintenance. Severe cost reduction programmes underway. New explorations set back by 2-3 years. • Midstream: Continued fall in price. 35-40 percent reduction in asset utilisations. Companies will get severely stressed, need regulatory intervention to resume from the contractual logjam. • Downstream: Extensive portfolio re-alignments, channel un-viability resulting in ROs and other PoS shutdowns. All new CAPEX halted. Financials of companies come under stress.

O&G industry: Post COVID-19

Possible approach for O&G industry players

Contract renegotiations

Reviews of contracts to renegotiate quantity, tenure, and prices

Revisit long-term strategy

Undertake scenario planning and finalise strategic options in line with energy transition

Demand shifts

Align portfolio to meet demand changes, e.g., cheaper oil may reduce shift to gas, ATF demand destruction may lead to refinery reconfigurations

Business, financial, and asset restructuring

Corporate restructuring, financial/debt restructuring, M&A, distressed assets, hive-off of non-core assets, to manage debt and cash flow

Cost optimisation opportunities

Cost reduction across multiple areas such as operating costs, taxation, financing costs, etc. and potential supply chain impact/optimisation

Regulatory and policy interventions

Government may accelerate energy investments, e.g., XI round of CGD bidding and release new regulations policies to revive growth in the sector



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References

- Petroleum Planning & Analysis Cell (Ministry of Petroleum & Natural Gas, Government of India)-www.ppac.gov.in
- Ministry of Finance notification-<http://egazette.nic.in/WriteReadData/2020/219299.pdf>
- BP Statistical Review of World Energy 2019
- Closing oil price data-market.businessinsider.com
- <https://www.argusmedia.com/en/news/2108783-india-plans-to-store-crude-in-the-us>
- <https://energy.economictimes.indiatimes.com/news/oil-and-gas/opinion-covid-19-impact-on-the-oil-gas-industry-a-perspective/75726882>
- <https://energy.economictimes.indiatimes.com/news/oil-and-gas/covid-19-impact-cgd-firms-concerned-over-force-majeure-demand-destruction-and-labour-shortage/75493053>
- <https://www.reuters.com/article/us-gasoline-asia/lackluster-gasoline-naphtha-markets-pummel-asian-refining-margins-idUSKCN1SG0E7>
- <https://economictimes.indiatimes.com/wealth/fuelprices/fuel-petrol,citystate-mumbai.cms>



Glossary

ATF	Aviation Turbine Fuel
Bbl	Barrel of Oil
BOPD	Barrels of Oil Per Day
CGD	City Gas Distribution
GRM	Gross Refining Margin
HSD	High Speed Diesel
M&A	Merger and Acquisitions
MMT	Million Metric Tonnes
Mn	Million
MS	Motor Spirit/Petrol
O&G	Oil & Gas
OMC	Oil Marketing Companies
OPEC	Organization of the Petroleum Exporting Countries
PoS	Point of Sale
ROs	Retail Outlet
USD	US Dollar
WTI	West Texas Intermediate



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