Organization of the Petroleum Exporting Countries

OPEC Monthly Oil Market Report

16 April 2020

Feature article:
Summer oil market outlook

Organization of the Petroleum Exporting Countries

Helferstorferstrasse 17, A-1010 Vienna, Austria

E-mail: prid(at)opec.org

Website: www.opec.org

Disclaimer

The data, analysis and any other information (the "information") contained in the Monthly Oil Market Report the "MOMR") is for informational purposes only and is neither intended as a substitute for advice from business, finance, investment consultant or other professional; nor is it meant to be a benchmark or input data to a benchmark of any kind. Whilst reasonable efforts have been made to ensure the accuracy of the information contained in the MOMR, the OPEC Secretariat makes no warranties or representations as to its accuracy, relevance or comprehensiveness, and assumes no liability or responsibility for any inaccuracy, error or omission, or for any loss or damage arising in connection with or attributable to any action or decision taken as a result of using or relying on the information in the MOMR. The views expressed in the MOMR are those of the OPEC Secretariat and do not necessarily reflect the views of its governing bodies or Member Countries. The designation of geographical entities in the MOMR, and the use and presentation of data and other materials, do not imply the expression of any opinion whatsoever on the part of OPEC and/or its Member Countries concerning the legal status of any country, territory or area, or of its authorities, or concerning the exploration, exploitation, refining, marketing and utilization of its petroleum or other energy resources.

Chairman of the Editorial Board

HE Mohammad Sanusi Barkindo	Secretary General	

Editor-in-Chief

Dr. Ayed S. Al-Qahtani	Director, Research Division	*email: aalqahtani(at)opec.org*

Editor

Behrooz Baikalizadeh	Head, Petroleum Studies Department	*email: bbaikalizadeh(at)opec.org*

Coordinating Editor

Hasan Hafidh	Head, PR & Information Department	*email: hhafidh(at)opec.org*

Analysts

Crude Oil Price Movements

Yacine Sariahmed	Oil Price Analyst, PSD	*email: ysariahmed(at)opec.org*

Commodity Markets

Hector Hurtado	Financial Analyst, PSD	*email: hhurtado(at)opec.org*

World Economy

Imad Al-Khayyat	Economic Analyst, PSD	*email: ial-khayyat(at)opec.org*
Dr. Asmaa Yaseen	Modelling & Forecasting Analyst, PSD	*email: ayaseen(at)opec.org*
Hector Hurtado	Financial Analyst, PSD	*email: hhurtado(at)opec.org*
Dr. Joerg Spitzy	Senior Research Analyst, PSD	*email: jspitzy(at)opec.org*

World Oil Demand

Hassan Balfakeih	Oil Demand Analyst, PSD	*email: hbalfakeih(at)opec.org*

World Oil Supply

Mohammad Ali Danesh	Oil Supply Analyst, PSD	*email: mdanesh(at)opec.org*

Product Markets and Refinery Operations

Tona Ndamba	Refinery & Products Analyst, PSD	*email: tndamba(at)opec.org*

Tanker Markets

Douglas Linton	Senior Research Specialist, PSD	*email: dlinton(at)opec.org*

Oil Trade

Douglas Linton	Senior Research Specialist, PSD	*email: dlinton(at)opec.org*

Stock Movements

Dr. Aziz Yahyai	Senior Research Analyst, PSD	*email: ayahyai(at)opec.org*

Technical Team

Nadir Guerer	Senior Research Analyst, DRDO	*e-mail: guerer(at)opec.org*
Dr. Aziz Yahyai	Senior Research Analyst, PSD	*email: ayahyai(at)opec.org*
Douglas Linton	Senior Research Specialist, PSD	*email: dlinton(at)opec.org*
Viveca Hameder	Research Specialist, PSD	*email: vhameder(at)opec.org*

Statistical services

Boshra Alseiari	Head, Data Services Department	*e-mail: baiseiari(at)opec.org*
Dr. Hossein Hassani	Statistical Systems Coordinator, DSD	*e-mail: hhassani(at)opec.org*
Dr. Pantelis Christodoulides	Senior Statistical Research Analyst, DSD	*e-mail: pchristodoulides(at)opec.org*
Klaus Stoeger	Senior Statistician, DSD	*e-mail: kstoeger(at)opec.org*
Dr. Mohammad Sattar	Senior Statistician, DSD	*e-mail: msattar(at)opec.org*
Mihni Mihnev	Statistician, DSD	*e-mail: mmihnev(at)opec.org*
Dr. Justinas Pelenis	Temporary Statistician, DSD	*e-mail: jpelenis(at)opec.org*

Editing

James Griffin	Editor/Speechwriter, PRID	*e-mail: jgriffin(at)opec.org*
Maureen Patricia MacNeill	Editor/Speechwriter, PRID	*e-mail: mmacneill(at)opec.org*
Scott Laury	Editor/Speechwriter, PRID	*e-mail: slaury(at)opec.org*
Mathew Quinn	Editor/Speechwriter, PRID	*e-mail: mquinn(at)opec.org*
Timothy Spence	Temporary Editor/Speechwriter, PRID	*e-mail: tspence(at)opec.org*

Production, design and circulation

Carola Bayer	Design & Production Coordinator, PRID	*e-mail: cbayer(at)opec.org*
Andrea Birnbach	Production Assistant, PRID	*e-mail: abirnbach(at)opec.org*
Hataichanok Leimlehner	Secretary (Research), PSD	*e-mail: hleimlehner(at)opec.org*
Liane-Sophie Hamamciyan	Secretary, PSD	*e-mail: lhamamciyan(at)opec.org*

Oil Market Highlights

Crude Oil Price Movements

Crude oil prices collapsed in March 2020, recording their deepest monthly drop since the global financial crisis in 2008. The ramifications of the COVID-19 pandemic were the main driving force, resulting in unprecedented worldwide oil demand shock and massive sell-offs in the global oil markets, amid a significant crude surplus. The OPEC Reference Basket (ORB) value was down by $21.61, or 38.9%, m-o-m, to stand at $33.92/b, the lowest monthly value since September 2003. ICE Brent declined by $21.75, or 39.2%, m-o-m, to average $33.73/b, while NYMEX WTI fell $20.09, or 39.8%, to average $30.45/b. The term structure of all three crude benchmarks – ICE Brent, NYMEX WTI and DME Oman – moved to a super contango in March, and money managers cut speculative net long positions.

World Economy

The world economy is forecast to face a severe recession in 2020, declining by 1.5%, following global economic growth of 2.9% in the previous year. Following tender signs of improvement at the beginning of the year, expectations for global economic growth were quickly burdened by the strong impact of the COVID-19 pandemic. Within the OECD, the US is forecast to contract by 4.1% in 2020, following growth of 2.3% in 2019. An even larger decline is expected in the Euro-zone, where economic activity is forecast to fall by 6.0% in 2020, compared to growth of 1.2% in 2019. Japan is forecast to contract by 3.9% in 2020, comparing to growth of 0.7% in 2019. China's 2020 GDP is forecast to grow by 1.5%, recovering from a sharp contraction in 1Q20 and following growth of 6.1% in 2019. India is forecast to grow by only 2.0%, a sharp slowdown from already weakening growth of 5.3% in 2019. Brazil's economy is forecast to contract by 2.4% in 2020, following growth of 1.0% in 2019. Russia's economy is forecast to contract by 0.5% in 2020, after growth of 1.4% in 2019, not only due to COVID-19, but also because of the considerable decline in oil prices. As risk remains to be skewed to the downside, further revisions may be warranted going forward.

World Oil Demand

World oil demand growth forecast for 2019 is kept unchanged at 0.83 mb/d, compared with the previous month's assessment. For 2020, the world oil demand growth forecast is revised lower by 6.9 mb/d, to a historical drop of around 6.8 mb/d. The contraction in the 2Q of this year is expected to be around 12 mb/d, with April witnessing the worst contraction at about 20 mb/d. The impact of the COVID-19 outbreak in China in 1Q20, and its negative impact on transportation and industrial fuels in the country, has since spread globally and is now affecting oil demand growth in most other countries and regions, with an unprecedented impact on global oil demand, transportation fuels in particular. As a result, OECD oil demand is revised lower by 3.7 mb/d to decline by 4.0 mb/d, while non-OECD oil demand growth is adjusted lower by 3.2 mb/d to contract by 2.9 mb/d for the year. Considering latest developments, and the large uncertainties going forward, downward risks remain significant, suggesting possibility of further adjustments, especially in the 2Q, should new data and further developments warrant revisions.

World Oil Supply

Non-OPEC oil supply growth in 2019 is revised down by 0.01 mb/d from the previous month's assessment and is now estimated at 1.98 mb/d. For 2020, non-OPEC oil supply is forecast to decline by 1.50 mb/d, a downward revision of 3.26 mb/d from the previous projection. The impact of COVID-19, ensuing global economic recession and oil demand shock, will also lead to supply disruptions. Benchmark oil prices plunge prompted companies to respond by cutting capital expenditure to the lowest in 13 years. The 2020 oil supply growth forecast for the US was revised down by 1.05 mb/d to show a decline of 0.15 mb/d y-o-y. The supply growth for the 10 non-OPEC countries participating in the Declaration of Cooperation has also been adjusted lower. Oil supply in 2020 is now forecast to show growth only in Norway, Brazil, Guyana and Australia. OPEC NGLs production in 2019 is estimated to have grown by 0.04 mb/d to average 4.79 mb/d and for 2020 will grow by 0.04 mb/d to average 4.83 mb/d. In March, OPEC crude oil production increased by 821 tb/d m-o-m to average 28.61 mb/d, according to secondary sources.

Product Markets and Refining Operations

Global refinery margins globally showed mixed performance during March. In the US, margins weakened as strength in gasoil/diesel was offset by losses in gasoline cracks, as complex margins came close to negative territory. In Europe, product markets strengthened slightly at the middle of the barrel, supported by a fall in feedstock prices. An already relatively tight global gasoil market saw support from output cuts and continued critical industrial activities for essential services and goods amid COVID-19. However, in Asia, margins eased towards the end of the month, pressured by a weaker top of the barrel, despite healthy gasoil and fuel oil crack spreads.

Tanker Market

The tanker market has been one of few segments of the oil industry that enjoyed positive momentum in March. A sudden surge in crude exports boosted demand for VLCCs, which pulled up Suezmax rates as well. Dirty spot freight rates declined mid-month before climbing again as the market was supported by high demand for tankers as charterers rushed to place cargoes amid a collapse in demand due to the COVID-19 pandemic. Increased options for time-chartering, including for floating storage, underscored the build-up of excess supply of crude and products in the market. For the month, dirty spot rates averaged 69% higher m-o-m in March. Clean tanker spot freight rates rose 12% m-o-m, as the need to find homes for excess product supplies supported the market.

Trade

Crude and product trade flows have been notably affected by the COVID-19 pandemic and the uncertain outlook going forward, although there has been some lag in how the various regions have been affected. US crude exports had a strong start to the year, averaging 3.5 mb/d in 1Q20, a gain of 0.8 mb/d over the same quarter last year, as the US remained a net liquids exporter for the seventh-consecutive month. Meanwhile, China's crude imports averaged 10.5 mb/d over the first two months of 2020, declining from December as disruptions caused by COVID-19 led to some imports being diverted or delayed. Product trade was also affected, with imports and exports averaging 0.3 mb/d lower in the first two months of the year compared to December. Official data showed India's crude imports increasing slightly in February, although some estimates show a higher jump as the country took in some discounted cargoes diverted from China. India's crude and product trade is likely to be broadly impacted in March by a government-ordered lockdown.

Stock Movements

OECD commercial oil stocks rose by 5.6 mb, m-o-m, in February to stand at 2,945 mb. This was 64.3 mb higher than the same time one year ago and 24.7 mb above the latest five-year average. Within components, crude stocks fell by 6.1 mb, while product stocks rose by 11.7 mb, m-o-m. In terms of days of forward cover, OECD commercial stocks rose by 5.0 days, m-o-m, in February to stand at 72.7 days. This was 11.5 days above the same period in 2019, and 10.3 days above the latest five-year average. Preliminary data for March showed that US total commercial oil stocks increased by 8.2 mb, m-o-m, to stand at 1,922 mb. This was 31.8 mb, or 1.7%, above the same period a year ago, and 16.2 mb, or 0.8%, lower than the latest five-year average. Within components, crude stocks rose by 25.1 mb, while product stocks fell by 16.8 mb, m-o-m.

Balance of Supply and Demand

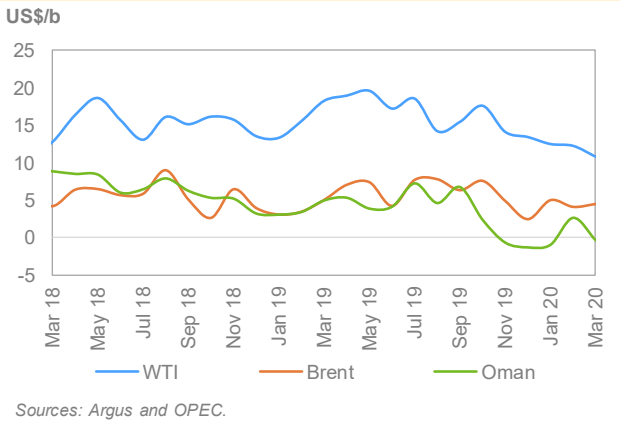
Demand for OPEC crude in 2019 stood at 29.9 mb/d, 1.2 mb/d lower than the 2018 level. Following the recent agreement reached at the extraordinary OPEC and non-OPEC Ministerial Meetings, the demand for OPEC crude in 2020 is expected at 24.5 mb/d, around 5.4 mb/d lower than the 2019 level, though this remains heavily subject to uncertainty surrounding current market conditions.

Feature Article

Summer oil market outlook

The oil market is currently undergoing historic shock that is abrupt, extreme and at global scale. The typical seasonal low for refiners, at the end of the first quarter of each year, is being exacerbated by unprecedented destruction in oil demand due to the global spread of COVID-19. In fact, oil demand in 2Q20 has been revised downward by almost 12 mb/d y-o-y, with 60% of the loss coming from transportation fuels, primarily gasoline and jet fuel. The virus containment measures that were mandated and/or implemented by various governments have included far-reaching lockdowns, travel restrictions and social distancing exigencies, which currently affect over 40% of the world's population. So far, these restrictions have led to tumbling fuel consumption, amid product inventory builds, severely damaging jet fuel markets and driving gasoline margins into negative territory.

Graph 1: Refining margins

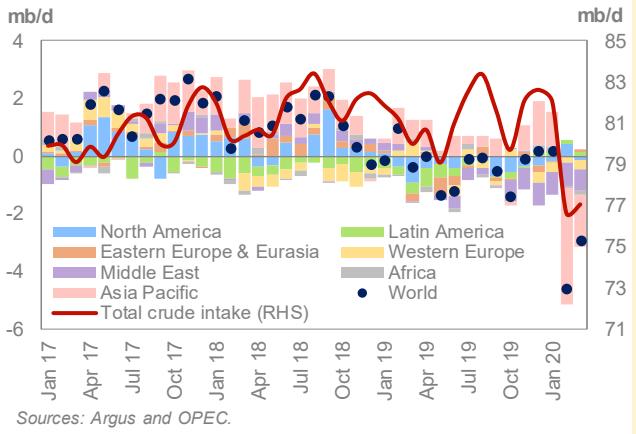


Sources: Argus and OPEC.

The severity of the collapse is likely to result in sharper contraction in oil demand, particularly during 2Q20, extending into 3Q20 and 4Q20. In fact, the contraction is forecast to reach 12 mb/d in 2Q20, about 6 mb/d in 3Q20 and about 3.5 mb/d in 4Q20. Challenges for product markets are expected to continue, as plunging demand could prompt more refiners to reduce, or even halt, operations due to unfavourable economics, lack of product storage space or reduced staff availability. Margins could continue to trend downwards, as evidenced in Asia during February, if demand does not pick up soon (***Graph 1***). Similarly, global refinery intakes dropped by 4.6 mb/d, to reach 76.6 mb/d, a multi-year record low in February, with Chinese operators witnessing most of the downside (***Graph 2***).

Despite run cuts of nearly 20-30% in most plants, gasoline stocks are on the rise in traditional US export markets, such as Latin America, which are backing out of delivery deals. This will further pressure gasoline markets ahead of the driving season. US refiners are already reporting heavy losses in 1Q20 returns. On the other side of the Atlantic, European refiners are challenged by gasoline and diesel oversupply due to declining fuel import requirements from West Africa and Latin America, as well as stronger competition from US refiners. In Asia, product markets are expected to remain weak during the summer months, as the negative impact of COVID-19 will affect oil demand. India's transition to Bharat Stage VI fuels, expected to support low-sulphur motor fuels, will likely have an insignificant impact on consumption.

Graph 2: Global refinery intake by region, y-o-y change



Sources: Argus and OPEC.

The recovery of economic and industrial activities in China in March prompted some refiners to increase run rates as of mid-March, suggesting that refinery runs could begin recovering globally around June or July, when applying the same timeline. Given this global crisis, the summer product outlook is forecast to suffer from run cuts in the short term and from weak demand in the coming quarter assuming slower recovery.

In an effort to alleviate the current stark global oil market imbalance, OPEC and non-OPEC countries participating in DoC convened two extraordinary Ministerial Meetings, on 9 and 12 April 2020, reaffirmed their continued commitment to a stable market, and agreed to adjust downwards their overall crude oil production by a historic 9.7 mb/d, starting on 1 May 2020, for an initial period of two months, followed by an adjustment of 7.7 mb/d until the end of the year and 5.8 mb/d until 30 April 2022. Furthermore, they welcomed the G20 Extraordinary Energy Ministers' Meeting and their voice of solidarity, and called upon all other major oil producers to provide commensurate and timely contributions to the stabilization of the oil market. The DoC continued its joint efforts, spearheaded by OPEC, aiming at restoring global oil market balance, amidst current uncertainties and volatility, in order to safeguard efficient, economic and secure supplies of oil to consumers and a fair return on invested capital.

Table of Contents

Crude Oil Price Movements

Crude oil prices in March experienced their deepest monthly drop since the global financial crisis in 2008, due to an unprecedented global oil demand shock and a massive sell-off in global oil markets.

The **OPEC Reference Basket (ORB)** dropped by $21.61, or 38.9%, m-o-m, to stand at $33.92/b, its lowest monthly value since September 2003.

ICE Brent declined by $21.75, or 39.2%, to average $33.73/b, and **NYMEX WTI** fell $20.09, or 39.8%, to average $30.45/b. Y-t-d, ICE Brent was $13.01, or 20.4%, lower while NYMEX WTI was lower by $9.12, or 16.6%. **DME Oman** crude oil futures prices fell m-o-m in March by $20.08, or 37.0%, to settle at $34.22/b. Y-t-d, DME Oman was lower by $9.04, or 15.2%.

Hedge funds and other money managers cut their combined futures and options net long positions in March, as prices continued to fall sharply over the month, and oil market fundamentals were expected to deteriorate further amid a global economic contraction and oil demand shock.

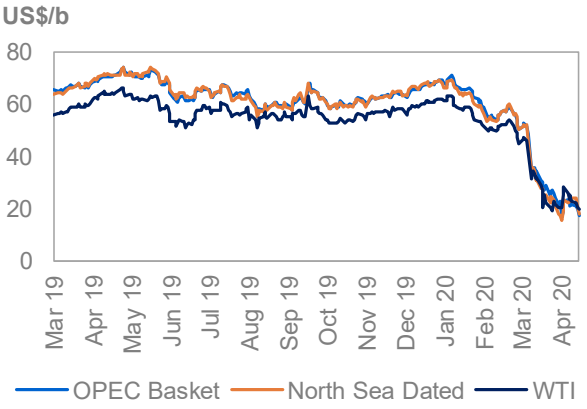
The **term structure** of all crude benchmarks moved to a **super contango** in March, as massive oil demand destruction, significant refinery cuts and rising global oil supply were expected to create a large surplus in the oil market. The market surplus was expected to reach around 15 mb/d in 2Q20, pushing prompt prices to decline much lower compared to longer-dated contracts.

Crude oil prices and crude differential values declined sharply in March for all crude qualities. However, the **sweet/sour crude differentials** narrowed significantly in Asia and in the USGC, while they widened in Europe.

Crude spot prices

Crude oil prices collapsed in March and experienced their deepest monthly drop since the global financial crisis in 2008. The global oil market has been facing an unprecedented oil demand shock caused by the COVID-19 pandemic that pushed almost all countries to take drastic measures to contain an unprecedented heath crisis.

Graph 1 - 1: Crude oil price movement



Sources: Argus, OPEC and Platts.

Crude oil spot prices fell more than futures, as the physical market has been hit hard by a large oil supply glut and accumulation of unsold cargoes. Holders of prompt cargoes struggled to sell their crude amid a steep decline in oil demand, particularly for transportation fuels like jet fuel and gasoline, and there were significant cuts in refinery runs in almost all hubs. Sellers of crude oil were heavily discounting their crudes to find buyers, which resulted in sharp declines in crude differentials of all crude qualities and in all regions, including the USGC, North Sea, West Africa, Middle East and Asia Pacific. Moreover, while oil demand declined drastically and is expected to fall further in coming months, global crude oil production continued to increase, adding more pressure to spot prices.

Key crude oil physical benchmarks tumbled m-o-m in March, with North Sea Dated and Dubai first-month prices falling by $23.74 and $20.47, respectively, registering their largest monthly declines since October 2008, to average at $31.71/b and $33.78/b, their lowest level since January 2016. Similarly, WTI first month fell by $20.71, m-o-m, to settle at 29.89/b, its lowest level since April 2003.

North Sea Dated declined the most compared to other benchmarks, due to a significant surplus in the Atlantic Basin that put downward pressure on Brent-related crude. Lower demand from European refiners and from Asia Pacific, as well as higher availability of crude, also from the USGC, had led to an overhang in the Atlantic Basin. Crude differentials of all five grades that underpin North Sea Dated were priced at deep discounts, with Forties – the largest volume among the Brent basket – falling to its lowest ever on record. In the USGC, crude differentials also experienced sharp declines with crude differentials of LLS, WTI Houston and Mars sour falling

to deep discounts against WTI futures amid increasing crude oil stocks, lower refinery utilization rates in the US (which reached 82.3% in the week ending 27 March) and lack of demand for export. US crude oil stocks rose the most in the Gulf Coast (PADD 3), adding 11.7 mb in one month to the week ending 27 March. The WTI Houston differential to NYMEX WTI first month fell to a discount of more than $10/b.

Table 1 - 1: Crude spot prices, US$/b

			Change		Year-to-date	
	Feb 20	Mar 20	Mar 20/Feb 20	%	2019	2020
Spot crudes						
North Sea Dated	55.45	31.71	-23.74	-42.8%	63.08	50.02
Dubai	54.25	33.78	-20.47	-37.7%	63.38	50.60
LLS	53.97	29.13	-24.84	-46.0%	62.36	48.00
Mars	51.52	27.98	-23.54	-45.7%	61.14	45.68
Tapis	62.65	35.98	-26.67	-42.6%	66.96	56.55
Urals	55.11	29.51	-25.60	-46.5%	63.46	48.97
WTI	50.60	29.89	-20.71	-40.9%	54.87	45.87
OPEC Reference Basket						
Basket	55.53	33.92	-21.61	-38.9%	62.90	51.39
Differentials						
Brent/WTI	4.85	1.82	-3.03		8.21	4.15
Brent/LLS	1.48	2.58	1.10		0.71	2.02
Brent/Dubai	1.20	-2.07	-3.27		-0.31	-0.58

Sources: Argus, Direct Communication, OPEC and Platts.

OPEC Reference Basket (ORB)

The **ORB** value averaged sharply lower in March along with other spot benchmarks, falling for the third consecutive month amid deteriorating oil market fundamentals. The ORB dropped by $21.61, or 38.9%, m-o-m, to stand at $33.92/b, which is the largest monthly drop since October 2008 and the lowest monthly value since September 2003.

ORB component values were undermined by a large fall in crude benchmarks as well as steep declines in crude differentials and official selling prices. Crude differentials of ORB light sweet components, rich in naphtha, gasoline and jet, fell to deep discounts due to the absence of demand. Medium and heavy sour component prices also fell. In the Middle East, spot differentials weakened further on narrowing front-month Brent-Dubai differentials with the exchange of futures for swaps (EFS) falling into historic negative territory and settling at a discount of $6.43/b in late March. This made Dubai-linked grades relatively expensive compared to other similar Brent-linked grades, adding further pressure on crude differential values in the Mideast market.

The oil futures market

An unprecedented global oil demand shock and a massive sell-off in global oil markets pushed **crude oil futures** prices to more than 18-year lows in late March, while economic stimulus plans from governments and central banks, as well as some recovery in equity markets, failed to calm investor worries and to limit the oil price decline. Both international futures benchmarks ICE Brent and NYMEX WTI fell for three consecutive months and tumbled in March by a hefty 39% and 40%, or $21.75 and $20.09, respectively, m-o-m, the steepest declines since October 2008. The fast spread of COVID-19 and the sharp increase in the number of new infections have led countries across the world to implement drastic measures to contain this health crisis. Most countries, including the major economies, have imposed lockdowns, travel restrictions and social distancing, which caused an abrupt slowdown in global economic activity and a historic oil demand contraction, particularly in transportation fuels like jet fuel, gasoline and diesel. The decline in global oil demand is expected to continue over 1H20, while the extent of the demand destruction remains widely uncertain, particularly in 2Q20, with projections by different sources ranging between a 8.0 mb/d and 15.0 mb/d decline as compared to the same period in 2019. However, the Secretariat's 2020 global oil demand projection currently shows a historic drop of 6.8 mb/d from the previous year.

Oil prices continued to fall sharply over the month, with ICE Brent and NYMEX WTI tumbling to their lowest levels since 2002, settling at $22.74/b and $20.09/b, respectively, in late March. Traders were expecting a significant surplus in the oil market and a sharp rise in global oil stocks that could reach maximum capacity

within months. Investors were also concerned about the extent of the surplus that could exceed supply chain and logistics and force a halt to crude oil production in several regions.

US crude oil stocks rose for ten consecutive weeks, according to EIA data, also weighing on oil prices.

Furthermore, oil prices remained extremely volatile and the CBOE Crude Oil Volatility Index rose to its highest value on record in March.

Crude oil futures prices recovered slightly in the first week of April, supported by optimism that international cooperation to adjust crude oil supply would reduce the glut in the oil market.

Table 1 - 2: Crude oil futures, US$/b

			Change		*Year-to-date*	
	Feb 20	Mar 20	Mar/Feb	%	2019	2020
Future crude						
NYMEX WTI	50.54	30.45	-20.09	-39.8	54.90	45.78
ICE Brent	55.48	33.73	-21.75	-39.2	63.83	50.82
DME Oman	54.30	34.22	-20.08	-37.0	59.64	50.60
Spread						
ICE Brent-NYMEX WTI	4.94	3.28	-1.66	-33.6	8.94	5.04

Note: Totals may not add up due to independent rounding.
Sources: CME, DME, ICE and OPEC.

In March, **ICE Brent** declined by $21.75, or 39.2%, to average $33.73/b, and **NYMEX WTI** fell $20.09, or 39.8%, to average $30.45/b. Year-to-date (y-t-d), ICE Brent was $13.01 lower, or 20.4%, while NYMEX WTI was lower by $9.12, or 16.6%, compared ot the same period a year earlier. **DME Oman** crude oil futures prices fell m-o-m in March by $20.08, or 37.0%, to settle at $34.22/b. Y-t-d, DME Oman was lower by $9.04, or 15.2%, at $50.60/b.

On 15 March, ICE Brent stood at $27.69/b and NYMEX WTI at $19.87/b.

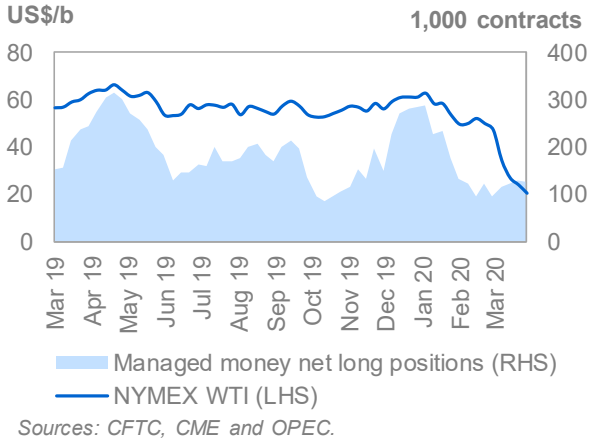
The **ICE Brent/NYMEX WTI spread** continued to narrow in March, averaging $3.28/b, its lowest monthly average since June 2017, as Brent declined more than the other benchmarks. The current overhang in the Atlantic Basin due to the sharp decline in oil demand and refinery cuts worldwide, as well as expectations of higher crude flows from the Middle East to Europe and to the USGC, weighed heavily on Brent's value. Furthermore, expectations of lower US oil supply growth this year due to cuts in investments and expanding pipeline capacities gave some support to WTI compared with Brent. However, the narrowing Brent-WTI spread and rising freight rates make WTI-linked grades less competitive compared to similar grades in the Atlantic Basin and Asia, and could narrow the arbitrage opportunities and limit US crude oil exports. The ICE Brent/NYMEX WTI spread narrowed by $1.66 in March, to average at $3.28/b.

Hedge funds and other money managers continued to cut their combined futures and options net long positions in March as prices continued to fall sharply over the month, and oil market fundamentals were expected to deteriorate further amid the global economic contraction and oil demand shock.

Speculators have been reducing their bullish positions in ICE Brent since early January and started a new selling wave in March in anticipation of a large surplus in the oil market and a sharp decline in oil prices, as the spread of COVID-19 accelerated worldwide. The cut in net long positions slowed in late March amid expectations that oil prices could rebound after falling to an 18-year low. The net-long positions in ICE Brent futures and options dropped by about 75%, or 171,416 contracts, over March to 56,369 lots in the week of 31 March, ICE data showed. Short bets rose 46% to 163,354 contracts, while long bets shrank 35% to 219,723 lots.

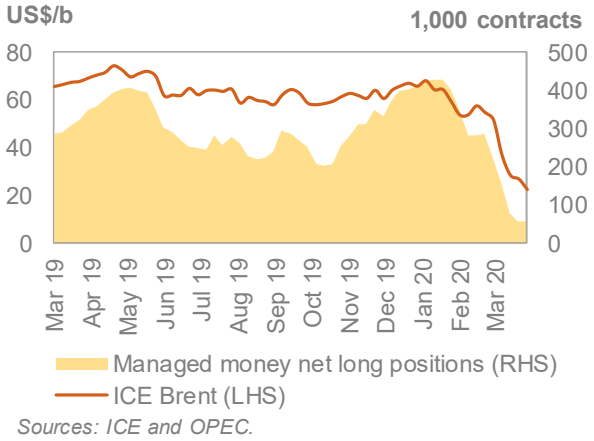
However, despite the collapse in the WTI price, bearish US oil market fundamentals and rising US crude oil stocks, hedge funds and other money managers raised their NYMEX WTI net long positons. In March, speculators increased their bullish positions in NYMEX WTI by 31%, or 29,883 contracts, to stand at 126,450 lots in the week of 31 March. This is due to a rise of 25,115 lots in long positions and a decrease of 4,768 contracts in short positions, according to the US Commodity Futures Trading Commission (CFTC).

Graph 1 - 2: NYMEX WTI vs. Managed Money net long positions



Sources: CFTC, CME and OPEC.

Graph 1 - 3: ICE Brent vs. Managed Money net long positions



Sources: ICE and OPEC.

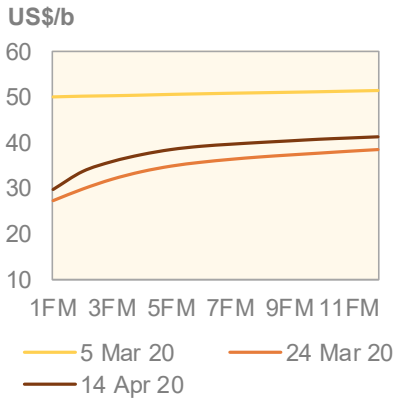
Consequently, the long-to-short ratio of speculative positions in the ICE Brent contract fell in late March to 1:1, compared to around 4:1 in February, reflecting a bearish outlook for oil prices. The NYMEX WTI long-to-short ratio remained steady at about 2:1 contracts in March, the same as in February.

Total futures and options open interest volume on the two exchanges rose by 16% or 975,080 contracts in March to stand at 7.0 million contracts in the week ending 31 March.

The futures market structure

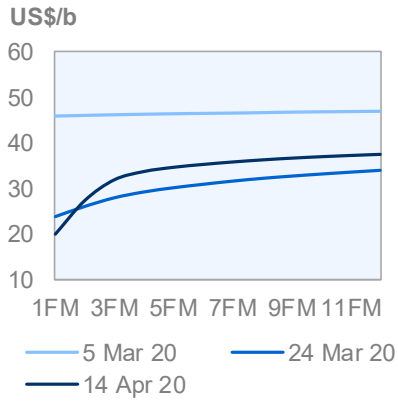
Term **structure of all crude benchmarks moved to super contango** in March, as massive oil demand destruction, significant refinery cuts and rising global oil supply were expected to create a large surplus in the oil market. The market surplus is expected to reach around 15 mb/d in 2Q20, pushing prompt prices to decline much lower compared to longer-dated contracts.

Graph 1 - 4: ICE Brent forward curves



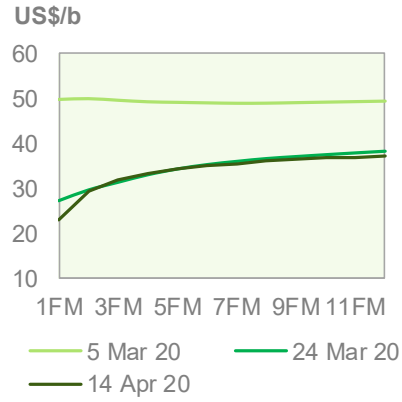
Sources: ICE and OPEC.

Graph 1 - 5: NYMEX WTI forward curves



Sources: CME and OPEC.

Graph 1 - 6: DME Oman forward curves



Sources: DME and OPEC.

The **ICE Brent** contango widened significantly in March, due to the substantial imbalance in the Atlantic Basin caused by the COVID-19-related slump in oil demand. A growing number of unsold cargoes for March and April loadings, specifically in the Atlantic Basin, weighed heavily on Brent prompt prices and on crude differentials of Brent-linked grades. The steep contango recorded in March and in early April could lead to a rapid increase in floating storage, while several dozen of Very Large Crude Carriers (VLCCs) have been placed on long-term charter, according to industry sources. ICE Brent M1/M3 intermonth spread widened to a contango of $7.02/b in late March, while ICE Brent M1/M6 spread widened to a super contango of $13.01/b, the widest on record.

The **NYMEX WTI** forward curve remained in steep contango during March. The NYMEX WTI prompt month price continued to decline much more than forward contracts, undermined by lower prompt demand, US refinery cuts and increasing US crude oil stocks that continued to increase for ten consecutive weeks. By the week of 27 March, US crude oil stocks had risen by more than 25 mb from late February levels. Lower demand for crude in the USGC due to lower refinery runs in the region and lower crude demand for export also weighed on WTI

prompt prices. The NYMEX WTI M1/M3 intermonth spread widened to a contango of $7.31/b in late March, while the NYMEX WTI M1/M6 spread widened to a contango of $11.94/b, the widest since 2011.

The contango structure of **DME Oman** also steepened significantly in March, particularly in the front of the curve, on expectations of rising oil supply and exports from the Middle East amid a contraction of global oil demand. Furthermore, the sharp decline in official selling prices (OSPs) of Middle East crudes for April loadings also pushed prompt prices lower.

Regarding the **M1/M3 structure**, North Sea Dated M1/M3 flipped to a contango in March and continued to widen deeply over the month. On a monthly average, North Sea Dated M1/M3 flipped from a backwardation of 50¢/b in February to a contango of $3.15/b. In the US, the WTI M1/M3 contango widened in March by $2.28 to $2.69/b. The Dubai M1/M3 fell deeper into contango, widening by $2.28 to $2.69/b on a monthly average.

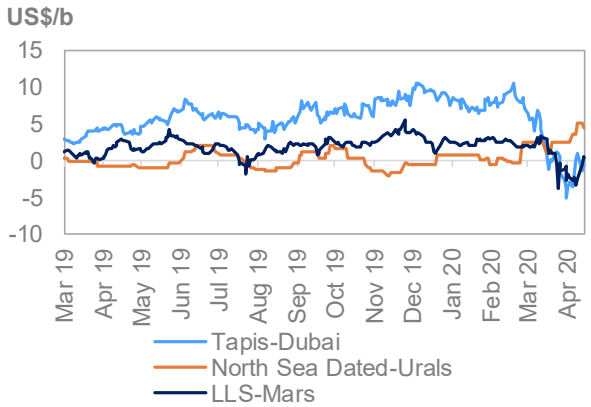
Crude spreads

Crude oil prices and crude differential values declined sharply in March for all crude qualities. However, the **sweet/sour crude differentials** narrowed significantly in Asia and in the USGC, while widening in Europe.

In **Europe**, despite the sharp decline in North Sea Dated value, the North Sea Dated-Urals spread widened on a weakening sour crude market in Northwest Europe and in the Mediterranean. Sharp declines in European oil demand and refinery cuts heavily weighed on Urals crude differential values that fell to their lowest since 2008. Refinery maintenance in Russia is expected to reduce runs by about 580,000 b/d in 2Q20.

Furthermore, expectations of higher flows from the Middle East to Europe also added pressure to the sour crude market. In March, the premium of North Sea Dated to Urals rose m-o-m by $1.86 to $2.20/b. However, the rise of Urals flows to China, for March loadings, has limited support for the grade.

Graph 1 - 7: Differential in Europe, Asia and USGC



Sources: Argus, OPEC and Platts.

In **Asia**, the premium of light sweet Tapis over sour Dubai fell by a hefty $6.20/b to average $2.20/b in March, compared with $8.47/b in February. The Tapis value fell significantly on lower Asian demand and a glut in the light sweet market. Higher availability of light sweet crude in Europe, West Africa and in the USGC pushed the value of similar crude quality in Asia Pacific lower. Furthermore, the plunge of Brent-Dubai exchange of futures for swaps (EFS) to a deep discount made Dubai-linked grades relatively expensive compared to similar grades priced on Brent.

In the **USGC**, sweet/sour differentials also narrowed amid high availability of light sweet crude, refinery cuts and limited arbitrage opportunities for exports due lower global oil demand. The accumulated unsold cargoes of light sweet crude in the Atlantic Basin pushed crude differentials sharply lower. The premium of Light Louisiana Sweet (LLS) over medium sour Mars narrowed by $1.30 in March, averaging $1.15/b.

Commodity Markets

Prices of energy commodities dropped sharply in March, with a significant decline in crude oil as demand plunged due to the COVID-19 containment measures. Natural gas hub based prices also fell to new lows in the US, Europe and Asia, as the current economic downturn is expected to further aggravate the current inventory glut after a warm winter. In addition, there is an expectation of lower prices for LNG-term contracts as a result of the crude oil price drop. Coal prices also fell as after thermal power demand being affected by the COVID-19 related lockdowns.

Base metals declined by around 7%, the second consecutive monthly drop, due to a sharp reduction in industrial activates across the world, as a result of the containment measures to control the COVID-19 pandemic. In the group of **precious metals**, prices were volatile amid large swing in interest rates in US dollars during the month.

Trends in selected commodity markets

The **energy price index** decreased by around 35.3% m-o-m in March. It was down by 21.5% in the January–March period compared to the same month in 2019. Oil, natural gas and coal prices declined.

The **non-energy index** fell 3.7% m-o-m, with both metals and agricultural commodities retreating. Compared to the January–March 2019 period, the non-energy index was down by 0.8%.

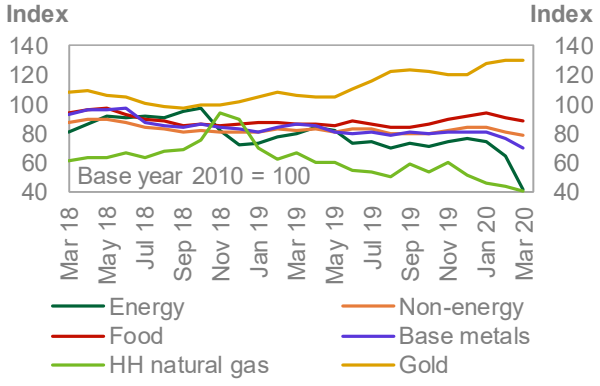
Table 2 - 1: Commodity prices

Commodity	Unit	Monthly averages			% Change	Year-to-date	
		Jan 20	Feb 20	Mar 20	Mar 20/Feb 20	2019	2020
Energy*	Index	**74.5**	**65.0**	**42.0**	**-35.3**	**77.0**	**60.5**
Coal, Australia	US$/mt	69.7	67.6	66.1	-2.3	95.7	67.8
Crude oil, average	US$/b	61.6	53.3	32.2	-39.6	60.5	49.1
Natural gas, US	US$/mbtu	2.0	1.9	1.8	-6.4	2.9	1.9
Natural gas, Europe	US$/mbtu	3.6	2.9	2.7	-6.5	6.1	3.1
Non-energy*	Index	**84.5**	**81.4**	**78.4**	**-3.7**	**82.1**	**81.4**
Base metal*	Index	**80.5**	**76.0**	**70.5**	**-7.3**	**84.0**	**75.7**
Precious metals*	Index	**118.0**	**120.2**	**116.6**	**-3.0**	**99.2**	**118.3**

*Note: * World Bank commodity price indices (2010 = 100).*
Sources: World Bank and OPEC.

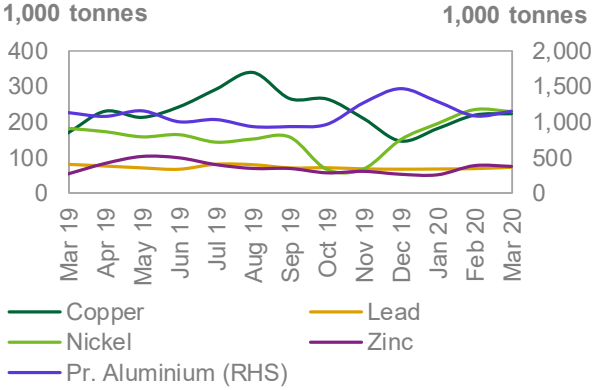
In March, the **Henry Hub natural gas index** fell on average by 6.4% to $1.79/mmbtu. Prices weakened as a slowdown in industrial activities due to the COVID-19 containment measures kept demand subdued. This added to the already comfortable inventory levels as a result of the warm winter. According to the US Energy Information Administration's (EIA) storage report, utilities added 38 bcf to working gas underground storage during the week ending 3 April. This injection left total working gas in underground storage at 2,024 bcf, which was 19.1% above the five year average. As mentioned in previous reports, plummeting LNG prices in Europe and Asia (below $3 mmbtu) complicate the economics of US LNG exports in the rest of 2020

Graph 2 - 1: Major commodity price indices



Sources: World Bank; S&P Goldman Sachs; Haver Analytics and OPEC.

Graph 2 - 2: Inventories at the LME



Sources: LME, Thomson Reuters and OPEC.

Natural gas prices in Europe dropped in March with the average **Title Transfer Facility price** down by 6.5% to $2.7/mmbtu. Prices have been around 50% lower y-o-y in the Jan-Mar period. As mentioned in the previous MOMR, one of the warmest winter on record, according to the European Earth Observation Programme, resulted in lower heating demand. Moreover, demand has been further impacted by reduced economic activity as a result of the lockdown measures in Europe to contain COVID-19. Inventories for EU member states were at 55% at the end of March, according to Gas Infrastructure Europe, compared to around 40% at the end of March 2019.

Australian thermal coal prices declined m-o-m in March by 2.4% to average $66.1/mt. The main drop was witnessed at the beginning of the month, on reduced demand due to lower industrial activities in China and other Asian countries. According to the China National Bureau of Statistics, thermal power output dropped by 8.9% y-o-y in the January–February period, however, raw coal output also dropped, down by 6.8% y-o-y during the same period. Meanwhile the most recent customs data for the March period shows Chinese imports remaining strong, rising by 18.5% y-o-y. Y-t-d, imports are up by 28.4%

The **base metal price index** fell on average m-o-m by 7.3% in March. Metals declined on the back of the impact of isolation measures to contain the spread of COVID-19. Prices were also impacted by the turmoil in financial markets - which included a sharp rise in the USD in the first half of March - that reduced investor's appetite for risky assets, including metals.

Average monthly copper prices declined by 8.9% to 5,182.6/mt in March. End of the month inventories at London Metal Exchange (LME)-designated warehouses rose slightly over the month to 222,225, from 218,175 tonnes at the end of February, signalling that the physical market has not weakened significantly. According to International Copper Study Group estimates, the refined copper balance (adjusted for unreported Chinese inventories) in 2019 showed a deficit of around 520,000 tonnes. Prices recovered in the second half of the month as financial market sentiment improved after Central Bank's intervened to support currency and credit markets, and as manufacturing activities re-started in China.

Iron ore prices increased on average by 1.5% in March to around $89.0/mt, amid dropping stockpiles in China and the expectation that Chinese government stimulus measures will support steel demand. Chinese imports declined by 0.6% y-o-y in March, but are up 1.5% in the January–March period.

In the group of **precious metals**, gold, was down by 0.3%, weakened by a surge in US treasury yields in the middle of the month, amid a dollar shortage. However, prices regained strength towards the end of the month, as treasury yields retreated.

Investment flows into commodities

Open interest (OI) increased on average in March for selected US commodity futures, such as crude oil, but declined for natural gas, copper and precious metals. On average, speculative net long positions decreased for gold, but increased for natural gas, copper and precious metals.

Table 2 - 2: CFTC data on non-commercial positions, 1,000 contracts

	Open interest		*Net length*			
	Feb 20	Mar 20	Feb 20	% OI	Mar 20	% OI
Selected commodity						
Crude oil	2,201	2,211	120	5	149	7
Natural gas	1,465	1,329	-313	-21	-163	-12
Precious metals	921	757	271	29	200	26
Copper	267	210	-55	-21	-37	-17
Total	**4,855**	**4,507**	**197**	**1**	**162**	**6**

Note: Data on this table is based on monthly average.

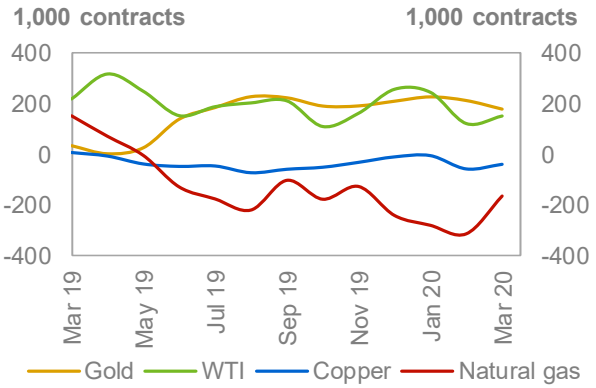
Sources: CFTC and OPEC.

Henry Hub's natural gas OI declined by 9.3% m-o-m in March as money managers decreased their net short position by around half to reach 163,392 from 312,992 contracts in February. Despite the improvement, the bearish position mainly reflects the impact of negative investor sentiment amid comfortable inventory levels and a challenging environment for exports.

Copper's OI decreased by 21.3% in March, while money managers decreased their net short positon by 33% to 36,588 contracts, from 54,838 contracts in February. While money managers reduced their bearish positions, given the expectation of a restart of industrial activities in China, they remain bearish on the overall demand impact as a result of the COVID-19 containment measures across developed economies.

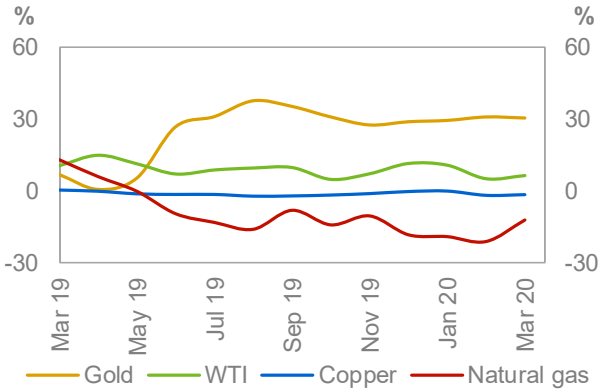
Precious metals' OI fell by 17.9% in March. Money managers' net long position decreased by 26% to 199,854 from 271,060 contracts the previous month. Money managers remained bullish for gold, given interest rates are expected to remain low in the US.

Graph 2 - 3: Money managers' activity in key commodities, net length



Note: Data on this graph is based on monthly average.
Sources: CFTC and OPEC.

Graph 2 - 4: Money managers' activity in key commodities, as % of open interest



Note: Data on this graph is based on monthly average.
Sources: CFTC and OPEC.

World Economy

Following global economic growth of 2.9% in 2019, the world economy is forecast to face a severe recession in 2020, declining by 1.5%. Despite tender signs of improvement at the beginning of the year, expectations for global economic growth have been burdened by the strong impact of the COVID-19 pandemic. Economic developments in times of COVID-19 are proving to be unique. Contrary to comparable economic shocks, the global economy is witnessing a combination of a supply and a demand shock, together with severe disruption in the financial markets. Moreover, the impact of COVID-19 is exacerbated by high global debt levels, and ongoing challenges in world trade as well as in manufacturing, caused by slowing capital expenditure in some key economies and the global deceleration of the automotive industry. The underlying key assumption for the 2020 GDP growth forecast is that the impact of COVID-19-related developments outside China will continue well into 2Q20. Therefore, most regions are forecast to see a slowdown through 2Q20, recovering only towards the second half of 3Q20. China's trajectory is forecast to see a sharp deceleration in 1Q20, and to a lesser extent in 2Q20, before recovering in 2H20. By 4Q20, global activity is assumed to have almost normalized. Positively, the sharp downturn is counter-balanced by unprecedented government-led stimulus measures designed to offset negative economic consequences. Importantly, the tremendous imbalance in oil markets has also taken a significant toll on global economic growth. Therefore, a recovery of the oil sector after a landmark decision by OPEC and non-OPEC oil producing nations to rebalance the oil market may provide further support to global economic developments.

Within the OECD group of countries, the US is forecast to experience a strong contraction in 2Q20, following a lesser decline in 1Q20. While considerable fiscal and monetary stimulus measures will provide a good base for recovery in 2H20, growth is forecast to decline by 4.1% in 2020, following growth of 2.3% in 2019. An even larger decline is seen in the Euro-zone, where economic activity is forecast to fall by 6.0% in 2020, compared with growth of 1.2% in 2019. Following a largely declining Euro-zone economy in 1H20, fiscal and monetary measures are expected to support a recovery in 2H20. Japan is forecast to decline by 3.9% in 2020, compared with growth of 0.7% in 2019. After the government's sales tax increase in 4Q19, the economy experienced negative growth and now faces additional growing challenges amid the COVID-19 crisis. A stimulus package of up to 20% of Japan's GDP may counterbalance some of the downside in 1H20 and support growth in 2H20.

COVID-19 is also expected to take its toll on emerging markets. While China has been particularly affected since the beginning of the year, the situation now seems to be under control. Following growth of 6.1% in 2019, China's 2020 GDP is forecast to grow by 1.5%, mainly due to a sharp contraction in 1Q20. A tender recovery should materialise in 2Q20, before the rebound accelerates in 2H20. While India was less impacted during the first two months of the year, the negative economic impact of COVID-19 will increase going into 2Q20. With a recovery forecast in 2H20, growth in 2020 is forecast at only 2.0%. Similarly in Brazil, economic growth is forecast to show a significant contraction in 1H20, with some recovery in 2H20 leading to a y-o-y decline of 2.4% in 2020. Russia's economy is forecast to decline by 0.5% in 2020, not only due to COVID-19, but also because of the considerable decline in oil prices. Depending on near-term developments in the oil market, the Russian economy is forecast to recover in 2H20, after an expected considerable contraction in the first two quarters of the year.

Table 3 - 1: Economic growth rate and revision, 2019-2020*, %

	World	OECD	US	Euro-zone	UK	Japan	China	India	Brazil	Russia
2019	**2.9**	**1.7**	**2.3**	**1.2**	**1.4**	**0.7**	**6.1**	**5.3**	**1.0**	**1.4**
Change from previous month	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
2020	**-1.5**	**-4.2**	**-4.1**	**-6.0**	**-5.0**	**-3.9**	**1.5**	**2.0**	**-2.4**	**-0.5**
Change from previous month	-3.9	-5.4	-5.7	-6.6	-6.0	-3.7	-3.5	-3.2	-4.0	-1.3

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

Global

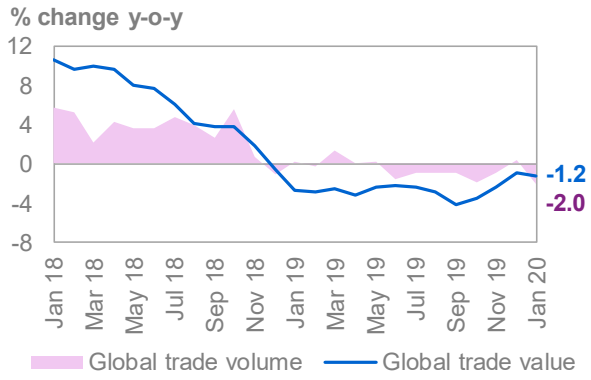
Update on latest developments

The past weeks have seen a sharp reversal of the global economic growth trend. Despite some signs of improvement at the beginning of the year, expectations for global economic growth were burdened by the strong impact of the COVID-19 pandemic. Economic developments in times of COVID-19 are proving to be unique. Contrary to comparable economic shocks, the global economy is witnessing a combination supply and a demand shock, together with severe disruption in the financial markets. Moreover, the impact of COVID-19 is exacerbated by high global debt levels, ongoing challenges in world trade, as well as challenges in manufacturing caused by slowing capital expenditure in some key economies and by the global deceleration of the automotive industry.

While in January it was estimated that COVID-19 would remain a local health issue in China, the very rapid global spread since then, in particular in advanced economies, has caused a sharp downward revision in the global economic forecast. This is the outcome of a combination of health-related impacts, such as in Italy and Spain, as well as the consequences of severe lockdowns even in economies that so far – due to the effectiveness of their measures – have avoided a health crisis, such as Germany. In the meantime, growth in new US cases is declining, though the necessary lockdown measures to achieve this positive trend are considerably hurting the economy. Hence, global economic activity has come to a rapid standstill and most major economies appear to have moved into a recession. Around 80% of the global economy is currently facing a lockdown, thus showing very limited economic activity. China is leading the way in near-term developments in other economies. As the pandemic started in China, the situation has improved significantly, and lockdown measures implemented at the end of January have been lifted again. Importantly, with the improving trend in COVID-19-related cases, asset markets have recovered very recently, reversing the declining trend of the past weeks. Markets are currently reflecting a more positive tone and providing some hope that the recovery will be swift and strong. However, the situation remains very fluid and uncertainties are still high.

The latest available economic indicators do not capture the current trend in all its severity due to a time-lag, but they are starting to capture some of the decline. Global trade volumes declined by 2.1% y-o-y in January. This was the worst monthly development since 2009, despite it being at the beginning of the COVID-19 crisis, back then mainly located in China. Trade in value terms was negative as well, falling by 1.2% y-o-y in January.

Graph 3 - 1: Global trade



Sources: Netherlands Bureau for Economic Policy Analysis, Haver Analytics and OPEC.

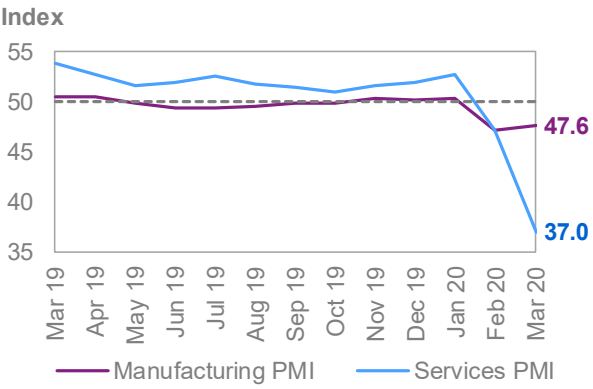
Near term expectations

The underlying key assumption for the 2020 GDP growth forecast is that the impact of COVID-19-related developments outside of China will continue well into 2Q20. Therefore, most regions are forecast to see a slowdown through 2Q20, recovering only towards the second half of 3Q20. Importantly, this assumes that the pandemic is widely contained by 3Q20 and that lock-down measures will be reduced to a large extent on a global base, including especially the major economies. China's trajectory is forecast to see a sharp deceleration in 1Q20, and to a lesser extent in 2Q20, before recovering in 2H20. By 4Q20, global activity is assumed to have almost normalized. The recovery is anticipated to be quick and considerable. After an average yearly decline of 6% in 1H20, growth is forecast to grow by 3% in 2H20. The sharp downturn is being counter-balanced by unprecedented government-led stimulus measures designed to offset negative economic consequences. Based on OPEC Secretariat estimates, global stimulus measures in the form of fiscal and monetary stimulus, including guarantees, now amount to more US$15 trillion, or about 17% of global GDP, and constitute the largest stimulus efforts ever undertaken. These vast measures are expected to provide the basis for quickly rebounding global consumption. Most of the stimulus is coming from the US, the Euro-zone, Japan and China. While also the large emerging economies of India, Brazil and Russia are being impacted by COVID-19, the stimulus efforts in these economies are forecast to be limited, given fiscal constraints in these economies and, with the exception of Russia, also limited reserves.

Consequently global trade will be largely impacted in 2020. In volume terms global trade is forecast to decline by almost 10% in 2020. While the latest US-China agreement was expected to be followed by a further release of US-China trade restrictions in 2020, this now remains to be seen as China is not expected to be able to fulfil all its import obligations of this agreement in 2020. Global trade will be impacted by supply disruptions and hence a trend towards local sourcing, given that the global interdependencies in supply chains proved to be vulnerable. Moreover, final demand will certainly decline on average in 2020, albeit a recovery is forecast for 2H20. Lastly, in value terms, a sharp decline is forecast to materialise in global trade as well in 2020 and particularly in 1H20, given the severe decline in commodity prices, especially oil. Due to the ongoing OPEC+ actions a recovery in 2H20 is anticipated in the forecast.

Global purchasing managers' indices (PMIs) in March already considerably reflect the impact of the crisis. The global manufacturing PMI continued its decline to stand at 47.4, compared with 48.5 in February. The services sector PMI retracted very significantly to a level of 37, after showing an already low level of 47.1 in February.

Graph 3 - 2: Global PMI



Sources: JP Morgan, IHS Markit, Haver Analytics and OPEC.

While global economic growth will face a severe contraction in 1H20, an accelerating recovery in 2H20 is forecast to take hold. However, **overall 2020 GDP growth will decline sharply by 1.5%**. This comes after already decelerating growth in 2019, when it stood at 2.9%. Uncertainties are high and while the risk to the forecast is skewed to the downside, upside potential may come from quicker-than-expected positive developments regarding the COVID-19 situation, either in the form of a treatment, a vaccine, or more-effective-than-expected containment measures, particularly in the major economies. Importantly, the tremendous imbalance in oil markets has also taken a significant toll on global economic growth. Therefore, a recovery of the oil sector after the landmark OPEC and non-OPEC oil producing nations' decision to rebalance the oil market may provide further support to global economic developments.

Table 3 - 2: World economic growth rate and revision, 2019-2020*, %

	World
2019	2.9
Change from previous month	0.0
2020	-1.5
Change from previous month	-3.9

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

OECD

OECD Americas

US

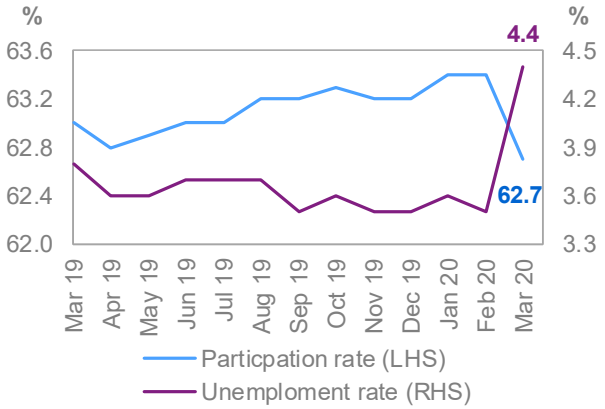
Update on the latest developments

The US economy remained strong at the very beginning of the year, with industrial production rebounding slightly and sentiment improving, after a trade agreement between the US and China showed solid growth in the near term. However, as COVID-19-related developments started to burden the economy, growth expectations were reduced. However, the base case until March was still that of good economic development. In the last four weeks, COVID-19 has caused large parts of the economy to lock down, including the closure of large areas of production. Given the lockdowns and social distancing rules, private household consumption has declined considerably, already reflected to some extent in consumer sentiment measures. Consumer confidence, as measured by the Conference board, retracted to 120 in March, after reaching an index of 132.6 in February. This will certainly continue to fall, given the extremely high jobless claims over the last weeks. Since the onset of the COVID-19 crisis in the US three weeks ago, more than 16 million people have already claimed to be jobless. As in March, the first tranche of these jobless claims

were reflected in the monthly unemployment rate. Despite the figure, unemployment remained at only 4.4% in the latest available number.

Asset markets in the US have mirrored the downward slope in economic growth. From mid-February to mid-March stock markets declined by around a third in value, one of the largest declines within such a brief period in US markets. After that, unprecedented monetary and fiscal stimulus measures - in combination with policy measures to facilitate lending - have been announced and the stock market has rebounded by around 25%. The government's fiscal measures include the CARES act, which accounts for more than $2 trillion, and monetary policy measures that account for up to more than $8 trillion, after the US Federal Treasury (Fed) recently added $2.3 trillion in lending facilities especially to small businesses and municipalities.

Graph 3 - 3: US monthly labour market



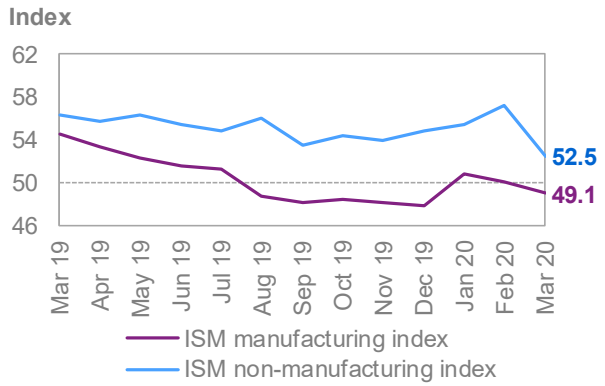
Sources: Bureau of Labor Statistics and Haver Analytics.

Near-term expectations

The US economy is forecast to face a severe contraction in the first half of the year. After an expected decline in 1Q20 of 6% q-o-q seasonally adjusted rate of return (SAAR), 2Q20 – with peak COVID-19 cases and the most drastic impact of enforced lockdown measures – it is forecast to contract by 26% q-o-q SAAR. As new cases are now slowing and as it is expected that the COVID-19 situation will largely improve by the end of 2Q20, a recovery is forecast to take hold in the second half of 3Q20 with some acceleration into 4Q20. This will be driven by an improving labour market with around 13 million people re-entering, bringing the unemployment rate down to a level of 8% after an expected quarterly peak of 16% in 2Q20, leading to significantly recovering consumer spending. As this accounts for more than two-thirds of the US economy on average, consumer spending, in combination with investments, will lead the recovery. Inflation levels, due in no small part to the sharp decline in energy prices, will be well below the Fed's envisaged target level of around 2%. Hence, monetary stimulus is forecast to be largely maintained and further fiscal stimulus of up to $1 trillion to be added in 1H20.

The expected near-term slowdown is only partially reflected in March PMI levels, as provided by the Institute for Supply Management (ISM). However, it consistently points at the ongoing contraction materialising. The manufacturing PMI fell to 49.1 in March, below the growth-indicating level of 50. The services sector index retracted more sharply, but remained comfortably above 50 at 52.5, after reaching 57.3 in February. These index numbers are forecast to decline considerably in the April release and will provide an interesting benchmark in the magnitude of the slow-down.

Graph 3 - 4: US-ISM manufacturing and non-manufacturing indices



Sources: Institute for Supply Management and Haver Analytics.

Given the assumption that the COVID-19 impact will peak in 2Q20 and has impacted 1Q20, causing a decline, albeit at a lower magnitude, the **GDP growth estimate for 2020 now stands at -4.1%.** This compares significantly with the forecast of last month, which stood at 1.6%. While the risk is skewed to the downside, much will depend on how the

Table 3 - 3: US economic growth rate and revision, 2019-2020*, %

	US
2019	2.3
Change from previous month	0.0
2020	-4.1
Change from previous month	-5.7

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

COVID-19 situation develops. Hence, potential upside may also materialise, if the virus can be contained faster and better than currently expected and if the current stimulus measures provide a fiscal base and

liquidity injections at a magnitude that pushes growth up more considerably than is currently accounted for in the forecast.

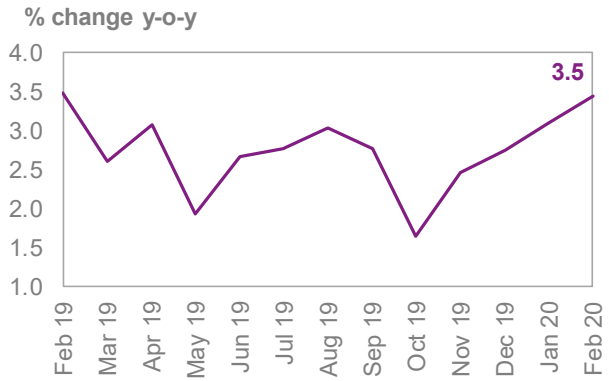
OECD Europe

Euro-zone

Update on the latest developments

Similar to other advanced economic regions, the Euro-zone experienced a slight pick-up in some economic measures at the very beginning of the year, including industrial production and retail sales. Positive momentum from the beginning of the year was reflected in retail sales, which increased by 3.5% in February and by 3.1% in January, both numbers reflecting an uptick from preceding months. Similarly, industrial production increased by 2.3% q-o-q in January, the latest available month, after seeing a considerable downward slope in 2019. The same pattern applies to manufacturing orders, which also would have pointed to a recovery in the sector, rising by 2.5% q-o-q in January. However, this recovery was very quickly considerably burdened by the spreading of COVID-19, especially in Italy and a bit later also in Spain, France and Germany. Consequently it affected most Euro-zone economies.

Graph 3 - 5: Euro-zone retail sales



Sources: Statistical Office of the European Communities and Haver Analytics.

Italy was especially hard hit first by a considerable health crisis and then by major lockdown measures and a severe shut-down of major parts of its economy, which was necessary to curb the spreading of the virus, Spain saw similar, but slightly less accentuated, developments. Positively, infection rates in the Euro-zone have subsided very recently, but it remains to be seen if this will lead to a quickly recovering economy. In the meantime, sentiment and business indicators have started to reflect the COVID-19 crisis, albeit only at a partial level. The European Commission's overall business sentiment index fell by 8.9 points to stand at 94.5, the lowest level since 2013.

Unprecedented stimulus measures were announced in the Euro-zone, including various fiscal measures in member economies, monetary stimulus measures by the European Central Bank (ECB) and most recently a European Commission approved fiscal and cross-country oriented package. This includes guarantees and accounts for more than 3 trillion euros, or around a quarter of the annual Euro-zone GDP. This is forecast to build the base for a recovery in 2H20.

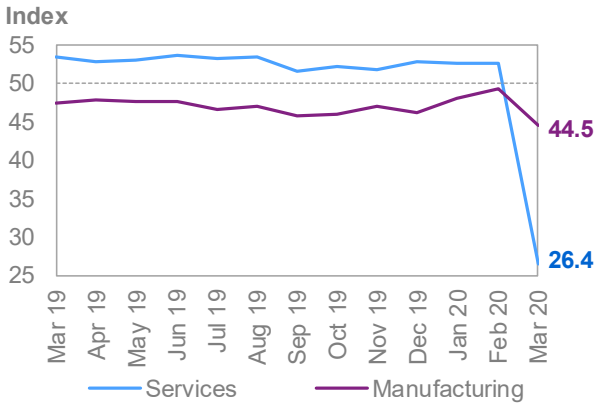
Near-term expectations

The severe lockdowns that were implemented in Euro-zone economies are forecast to continue into 2Q20. The stand-still in major parts of the Euro-zone will cause an exceptionally severe recession, with the economy declining by almost 30% q-o-q SAAR in 2Q20. As the COVID-19 situation improves and some lockdown measures are removed, a recovery is forecast for the Euro-zone economy, to materialise in 3Q20, with some acceleration into 4Q20. This recovery will be mainly driven by domestic consumption and to a lesser extent by exports and investments.

It remains to be seen, however, to what extent the region will manage a rebound – especially in Germany and France, which account for almost half of the Euro-zone's economy. Germany is significantly exposed to the automotive sector, which is forecast to remain challenged in 2H20, given ongoing underlying issues, the potential of continued travel restrictions and social distancing rules. It is also a major exporting economy, and while trade is forecast to recover in 2H20, it will remain subdued in 2H20. In France, the ongoing challenging COVID-19 situation will probably cause a sharper impact on domestic developments and may continue to negatively impact domestic consumption well into 3Q20.

The implication that the situation will get worse before it gets better is also reflected in the latest March PMI indicators. The manufacturing PMI stood at 44.5, compared with 49.2 in February and 47.9 in January. The important PMI for services, the largest sector in the Euro-zone, declined sharply to stand at 26.4, compared with 52.6 in February. These important indicators are likely to fall further in the coming weeks, depending on ongoing developments, but pointing already at a sharp decline in activity in 2Q20.

Graph 3 - 6: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

The Euro-zone economy's recession is forecast to peak in 2Q20, assuming a strong decline of almost 30% q-o-q SAAR, before recovering in 3Q20 and further accelerating in 4Q20. With these assumptions, the 2020 **GDP growth forecast was revised down severely to -6.0%**, compared with 0.6% the previous month. Very much will depend on developments in those economies which face a health crisis with a large number of infections and constraints in the health-care system, in combination with serious lock-down measures, ie. Italy, Spain and France, as well as those economies which prevented such a situation, but are impacted by lockdown measures to prevent the spread of COVID-19 and are now starting to relax their measures, hence leading the way into the recovery, such as Germany and Austria.

Table 3 - 4: Euro-zone economic growth rate and revision, 2019-2020*, %

	Euro-zone
2019	**1.2**
Change from previous month	0.1
2020	**-6.0**
Change from previous month	-6.6

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

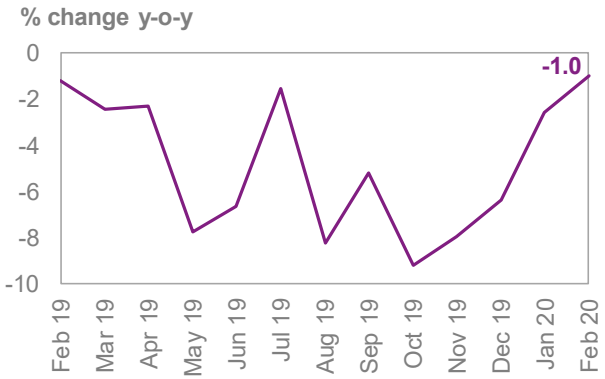
OECD Asia Pacific

Japan

Update on latest developments

After the sales tax increase in 4Q19, Japan already started the year with a weakening situation, as 4Q19 GDP declined by 7.1% q-o-q SAAR, according to the latest numbers released by the Cabinet Office, carrying over some of this slowing trend into 1Q20. In this already fragile situation, the economy in Japan has been hit by COVID-19-related developments since the beginning of the year. Not only has the domestic situation in Japan slowed down further in 1Q20, but the economy is also very much impacted by the dire global trade situation. Exports declined by 1.0% y-o-y in February on a non-seasonally adjusted base. Consequently, industrial production also declined by 2.3% y-o-y in February, after experiencing a decline of 2.5% in January.

Graph 3 - 7: Japan's exports



Sources: Ministry of Finance, Japan Tariff Association and Haver Analytics.

Retail sales picked up in February by 1.7% y-o-y. However, this came after a streak of monthly declines and the pick-up is weaker than expected. Consumer sentiment, as reported by the Cabinet Office, declined sharply, falling from 38.8 to 32.1.

Another sentiment-dampening effect was the postponement of the Summer Olympics in Tokyo to next year. This will also have a real impact on domestic spending in 3Q20. Some of the downward trend may be counterbalanced by ongoing monetary and fiscal stimulus. After the government already announced a 13.2-trillion-yen fiscal stimulus package before the COVID-19 outbreak, it announced a further fiscal stimulus package that will account for more than 100 billion yen, including public-private partnerships and guarantees.

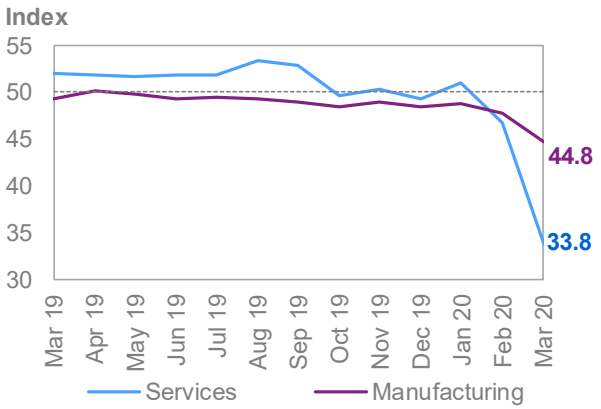
This accounts for around 20% of Japan's GDP, while the government spending share will be only 3% of the GDP.

Near-term expectations

Japan's economy is forecast to be continuously impacted in 2Q20 by the COVID-19 pandemic. However, it is forecast to suffer slightly less than the economies of the Euro-zone or the US, given it only implemented a voluntary lockdown and may be slightly better equipped to counter the pandemic. After an expected 1Q20 decline of 6% q-o-q SAAR, the decline is estimated at 12% q-o-q SAAR in 2Q20. While this is a serious decline, it is less than the currently anticipated declines of around 30% q-o-q SAAR in the US and the Euro-zone. However, the recovery in 2H20 will also be milder, mainly driven by an expected recovery in exports and a pick-up in domestic consumption. The recovery in 2H20 will also depend very much on the magnitude of the rebound in global trade, which will be a very important element for Japan's recovery.

Moreover, it remains to be seen how effective the stimulus measures will be to support local consumption, but given that the Japanese economy is having very low unemployment levels and also running its industrial production at high capacities, the upside of further stimulus is anticipated to be limited. PMIs in March already partially reflected the ongoing downturn. Although, the indicators are likely to fall further in the April release, depending on ongoing developments, but pointing already at a considerable decline in activity in 2Q20, especially in the important services sector. The manufacturing PMI stood at 44.8, compared with 47.8, in February. The PMI for the services sector – which constitutes around two-thirds of the Japanese economy – fell sharply again, standing at 33.8, compared with 46.8 in February.

Graph 3 - 8: Japan's PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

After facing an already fragile situation at the turn of the year, Japan's economy will likely be further impacted by COVID-19-related developments. Exports and domestic consumption are both forecast to slow-down significantly in 2Q20, albeit at a lower level than other major OECD economies, given the country only implemented a voluntary lockdown, the pick-up in China, its largest Asian trading partner, and a less accentuated COVID-19 spread compared with some other major OECD economies. However, the 2H20 recovery will also be less buoyant. Hence, Japan's economy is forecast to decline by 3.9% in 2020, compared to an already low figure in 2019 of 0.7%.

Table 3 - 5: Japan's economic growth rate and revision, 2019-2020*, %

	Japan
2019	0.7
Change from previous month	0.0
2020	-3.9
Change from previous month	-3.7

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

Non-OECD

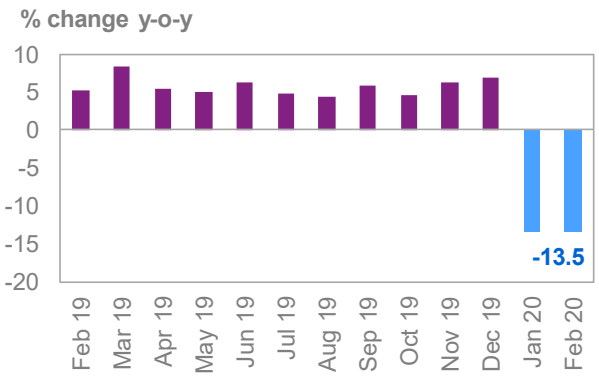
China

Update on the latest developments

China's real GDP contraction is expected to be -9% y-o-y in 1Q20 due to the massive economic disruption caused by COVID-19. However, according to the official PMI index, a recovery which began in 2Q20, reflected signs of an economic rebound following the devastation caused by the large scale shutdown and quarantine in February. Moreover, the Chinese government has been compelling businesses to begin to operate again. The travel restrictions on Wuhan are to be lifted on 8 April. Given China's largely export-oriented economy, the expected further rebound for the remainder of the year will depend on a recovery in the rest of the world. China might face more hurdles if COVID-19 returns.

Meanwhile, the Politburo's meeting in late March suggested that policy makers will further expand the fiscal stimulus and monetary loosening. The "package of macro policies" is planned to support business and households to boost labour-market stability, rather than ensure economic growth. As part of the package, China plans to increase its fiscal deficit as a share of GDP, issue special sovereign debt, and allow local governments to sell more infrastructure bonds. Meanwhile, the People's Bank of China cut the 7-day reverse repo from 2.4% to 2.2% when it injected CNY50 billion into the interbank market as a move aimed at preventing a financial crisis because liquidity. This rate cut may will have a little impact on the USD/CNY exchange rate as the CNY is expected to get weaker.

Graph 3 - 9: China's industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

With regard to external demand, for the first time since March 2018, China is facing a trade deficit of $7.09 billion mainly due COVID-19. Exports declined by 17.2% to $292.49 billion, while imports shrank 4% to $299.54 billion. China's trade surplus with the US for the first two months of the year stood at $25.37 billion, much lower than a surplus of $42.16 billion in the corresponding period a year earlier.

China's CPI inflation went up by 5.2% y-o-y, with an increase of food prices by 21.9%, as pork prices rose by 135.2%. The producer prices index (PPI) dropped 0.3 % y-o-y in February, a decline on the 0.1% rise in January 2020.

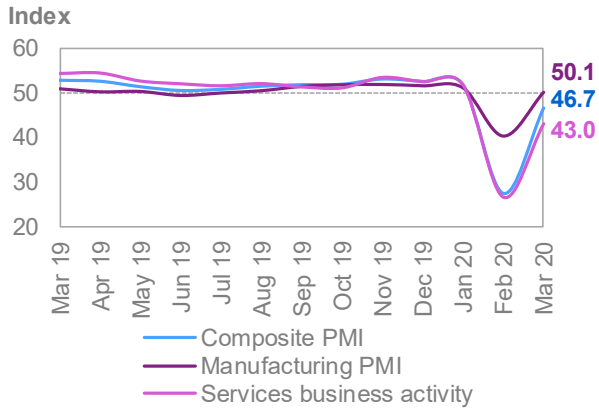
Near term expectations

China's industrial production plunged 13.5% y-o-y in January–February 2020. This was the first drop in industrial output since at least 1990. However, the official NBS Manufacturing PMI rose from a record low of 40.3 on February to 50.1 in March, While The Caixin China Services PMI climbed to 43.0 in March from 26.5 in February.

The increase in the PMIs signals that the country's manufacturing output as well as services may be on a recovery path.

In the short-term China's Industrial production is expected to further rebound driven by the fiscal policy support and the decline in the fear factor However, this rebound may still be constrained by the risk of fast growing infections in major trade partner economies.

Graph 3 - 10: China's PMI



Sources: Caixin, IHS Markit and Haver Analytics.

Considering the deepening impact of COVID-19 and the sharp decline in most economic indicators for January-February, the 2020 GDP growth forecast has been downgraded to 1.5% from 5.0% for the previous month. In our base-case scenario, China's GDP is forecast to plunge to -9% y-o-y in 1Q20, and then start to recover in the 2Q20 to -2% y-o-y. China's GDP is expected to rebound in 2H20, helping full-year growth to stand in expansion territory at around 1.5% y-o-y, outperforming global GDP growth, which is expected to be in contraction territory in 2020.

Table 3 - 6: China's economic growth rate and revision, 2019-2020*, %

	China
2019	6.1
Change from previous month	0.0
2020	1.5
Change from previous month	-3.5

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

Other Asia

India

Update on latest developments

India's GDP is expected to contract to -1.2% in 1Q20 as a global recession and the domestic virus outbreak has stalled all economic activities. Typically, under low oil price environment, India's economic growth could have boosted, but the government's COVID-19 containment efforts are expected to have a debilitating impact on all economic activities. This is particularly the case for measures synchronized with slow GDP growth due to depressed private consumption and investment, as well as the liquidity constraints in the banking and non-banking sectors.

The Indian government has announced a three-month $22.5 billion stimulus package, which includes free grain and cash for the poor, as well as extra funds and tax deadline extensions for healthcare and related sectors. Moreover, the World Bank approved $1 billion emergency financing for India to contain the economic costs of the virus. Yet, the total government stimulus announced in response to the virus outbreak amounts to only around 1% of GDP. The government deficit spending is already constrained due to fiscal targets, as well as the slow GDP growth following the contiguous double economic shocks of demonetization and the goods and services tax (GST). However, with the extension of the lockdown, the fiscal stimulus is expected to be expanded further and more directed towards business. This may lead to downgrade India's sovereign rating as the fiscal deficit may widen to 6% of GDP in FY21 from 4% in FY20.

The Reserve Bank of India (RBI) also announced several measures aiming to mitigate the effects of COVID-19 on the financial system and boost liquidity, to shore up business and investor sentiment and ensure that businesses have access to funds during the lockdown. The RBI measures included cutting the policy repo rate by 75 basis points, to 4.4%, from 5.15% and the fixed rate reverse repo rate by 90 basis points to 4%. This series of cuts was the biggest since 2016. The RBI has also cut the cash reserve ratio by 1% to 3% and set up a INR 1 trillion (around US$13.3bn) targeted Long-Term Refinancing Operations (TLTRO). More significantly, the RBI granted a moratorium of three months on all term loan repayments, to ease the burden on businesses during the shutdown. Taking in consideration the extension of the nationwide lockdown till 3 May. In such a case, the RBI may consider a further reduction in the policy interest rates and an extension to the moratorium in terms of loan repayments.

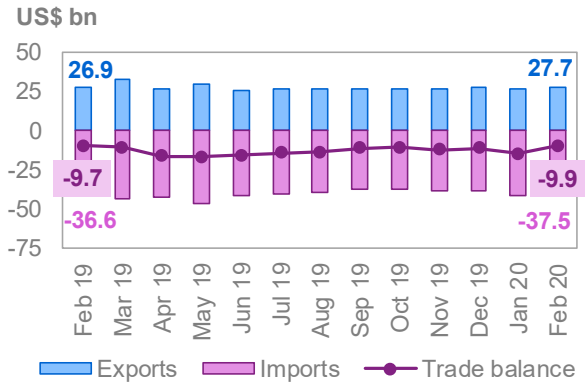
Near term expectations

The recently released official data showed that India's CPI inflation increased to 6.6% y-o-y in February 2020 a drop of a 1 pp compared to 7.6% in January 2020. This CPI level is 0.6 pp above the RBI's upper bound target of 6%. Meanwhile, India's wholesale price index (WPI) rose 2.3% y-o-y in February 2020, following 3.0% in the previous month.

Meanwhile, the concern about food and supplies shortages during the extended lockdown is likely to increase price pressures in the short-term. On the external demand outlook, India's trade deficit widened to $9.85 billion in February 2020 from $9.72 billion in the previous month.

Exports rose 2.9% y-o-y boosted by sales of electronic goods. Imports increased 2.48% y-o-y despite declines in purchases for major commodities. However, India exports sector in the short term is may see a downturn driven by weak external demand, export order cancelations as well as limited labour force available at the loading ports due to the restriction measures.

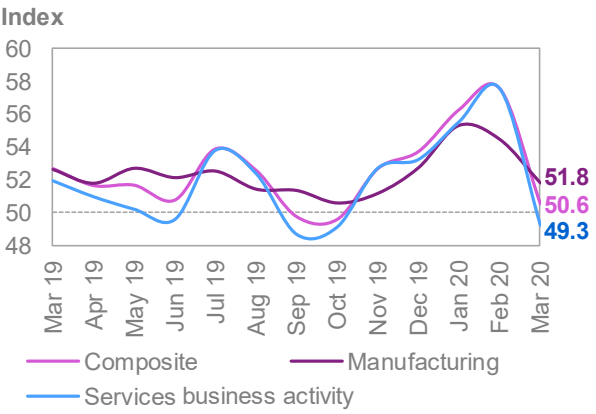
Graph 3 - 11: India's trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

India's IHS Markit Manufacturing PMI registered a four-month low in March 2020, as it declined from 54.5 in February to 51.8. Despite India's industrial production jumping 2% y-o-y in January 2020, which was the biggest annual gain in industrial output in six months. Meanwhile, following last month's strongest pace of expansion in the sector since January 2013, the IHS Markit Services PMI dropped sharply to 49.3 in March 2020 from 57.5 in February 2020. These downturn trends may continue in the short term due to extended containment measures and a weak economy, which may limit the government policy support.

Graph 3 - 12: India's PMIs



Sources: Nikkei, IHS Markit and Haver Analytics.

Overall, COVID-19 is expected to wipe out about 35% of India's private consumption. More than 50% of small businesses are expected to be disrupted and be highly affected. Many workers in both the formal and informal economy could face unemployment during the lockdown. Moreover, India's banks and shadow lenders have already started to face a surge in bad debts due to the nationwide economic lockdown, risking a wave of corporate defaults and threatening the health of the banking sector.

Incorporating the recent developments, including the extension of the nationwide lockdown, the 2020 GDP forecast was lowered to 2.0% from 5.2% in the previous month. It is expected that India will have further monetary easing and fiscal measures, despite that it may downgrade its sovereign rating. The domestic demand is expected to rebound strongly once the pandemic passes and growth starts to recover within the 3Q20.

Table 3 - 7: India's economic growth rate and revision, 2019-2020*, %

	India
2019	5.3
Change from previous month	0.0
2020	2.0
Change from previous month	-3.2

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

Latin America

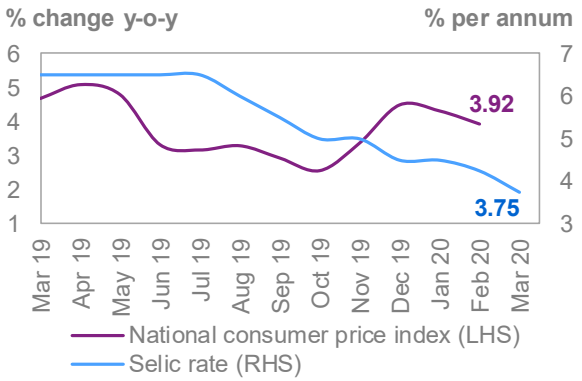
Brazil

Update on latest developments

Brazil's economy was just coming out of a low-growth pattern in the 2H19 and economic reforms including privatisation efforts were supposed to lift the economy to higher growth in 2020. A slightly improving trend, to be carried over into 1Q20 became already visible in 4Q19 GPD growth of 1.7% y-o-y, the highest yearly growth rate since 2017. The COVID-19 pandemic has halted this momentum, while most indicators have only tentatively mirrored the ongoing slow-down, when in large parts of the country containment measures were implemented, halting output and demand. Retail trade in February remained at a strong 4.7% y-o-y, comparing to a weaker 1.4% y-o-y growth in January. Industrial production was already weak at the beginning of the year, before COVID-19 had impacted the economy, falling by 0.5% y-o-y in February and 0.9% y-o-y in January. Importantly, the real has weakened considerably, making import goods more expensive again, while the benefit of a lower currency is currently limited, given the expected decline in global trade, amid the current situation of the global economy and hence Brazil's major trading partners', the US, Argentina and China, among others. The real weakened beyond the level of 5 per US-dollar and making it one of the worst performing emerging market currencies in 2020.

While some economic support facilities have been made available so far, the recent considerable differences in policies of the government, Congress and local authorities seems to hinder an effective economic response to the COVID-19 crisis so far as also the fiscal situations of the central government and also in most provinces are stretched and limit the fiscal response ability. In the meantime the central bank has increases its efforts for monetary stimulus and lowered the key interest rate, the Selic rate, again by 50 basis points, providing some support to the economy.

Graph 3 - 13: Brazil's inflation vs. interest rate



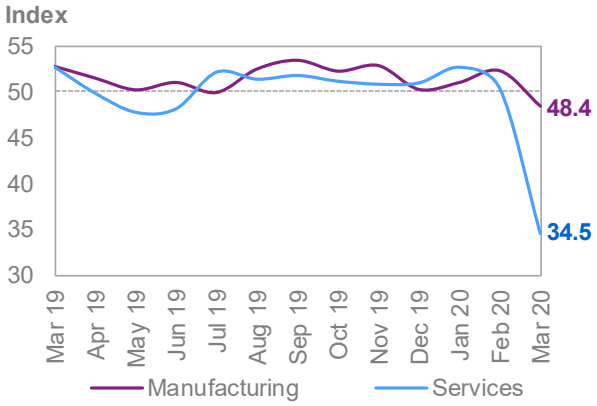
Sources: Banco Central do Brasil, Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

Near term expectations

The situation in Brazil is forecast to worsen, moving into the 2Q20. After an already declining 1Q, the economy is forecast to be considerably impacted in 2Q20 by the COVID-19 measures.

This assumes that the peak of the COVID-19 pandemic will be either this month or in May. It seems that the economic reforms are stalling in the current environment and that the economy will be very much impacted by the ongoing pandemic in 2Q20. A tender recovery at low levels is then forecast into 3Q20 with some accelerating momentum to the end of the year. Fiscal support to stem the current slow-down is forecast to be limited, given that the fiscal deficit stands already at almost 6% of GDP and given that central government debt has reached a level of around 75% of GDP. Some of the slowing momentum was also reflected in the latest release of the March PMIs. The manufacturing PMI fell to 48.4, comparing to 52.3 in February. The services PMI fell to 34.5, a significant decline, comparing to 50.4 in February.

Graph 3 - 14: Brazil's PMIs



Sources: IHS Markit and Haver Analytics.

After some signals that the tentative recovery in 4Q19 will continue into 2020 the COVID-19 related development has burdened the economy. Further reforms in Brazil that were expected lifting local demand are forecast to be delayed and domestic political challenges in the response to COVID-19 are keeping the economy from finding an effective response to the COVID-19 impacts as it seems. While a recovery is forecast to materialise in 2H20, the economy is forecast to contract by 2.4% in 2020, following growth of 1.0% in 2019. Risks to growth are, however, increasingly being skewed to the downside. A larger-than-expected hit to exports, and a more severe impact from slowing domestic demand, amid also the current domestic political challenges, would cause an even more notable negative impact of economic growth in 2020.

Table 3 - 8: Brazil's economic growth rate and revision, 2019-2020*, %

	Brazil
2019	1.0
Change from previous month	0.0
2020	-2.4
Change from previous month	-4.0

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

Africa

South Africa

Update on latest developments

South Africa's economy may record its worst annual economic performance in decades following stringent lockdown restrictions to curb the spread of COVID-19, along with negative spillovers from global economies, in particular emerging economies, throughout trade flows, currencies and commodity prices. South Africa's economic performance was already depressing prior to the COVID-19 pandemic. In 4Q19, private consumption expanded by only 0.9% y-o-y, down from 1.3% in the previous quarter, while public consumption grew by 1.6% y-o-y in 4Q19, down from 1.7% in 3Q19.

Given the 62% debt-to-GDP ratio, South Africa's room for fiscal manoeuvring is limited. The government is likely to engage in monetary easing and seek funds from international institutions or other countries like China. However, due to a deterioration in fiscal strength and structurally very weak growth, South Africa's sovereign credit has been downgraded. This will exclude the country's government bonds from the FTSE World Government Bond Index and further deter foreign investors, who have already fled for safe-havens amid the COVID-19 crisis. The Reserve Bank aggressively slashed its benchmark interest rate by 100 basis points (bps) to 5.25%, which is the lowest rate since 2013

Near-term expectations

Given the extension of the lockdown, the devastating impact of the decline in economic activity will lead to a large drop in tax revenue and increase in the unemployment rate, as well as a drop in both domestic and external demand. This coincides with limited fiscal options, which will probably increase the instability of the national debt. Indeed the downgrading of the sovereign credit rating may deeply restrain South Africa's ability

Considering the above economic challenges, 2020 GDP is expected to contract and has been revised down to -5.5% from 0.3% the previous month.

Table 3 - 9: South Africa's economic growth rate and revision, 2019-2020*, %

	South Africa
2019	0.2
Change from previous month	0.0
2020	-5.5
Change from previous month	-5.8

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

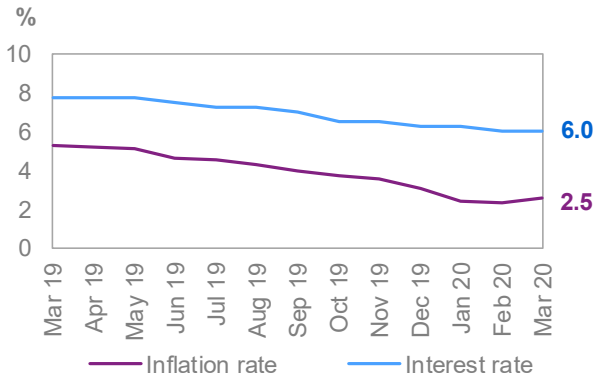
FSU

Russia

Update on the latest developments

The **Russian economy** started the year on a positive note with an improving dynamic, which was partially carried over from some upward momentum in 4Q19 when GDP grew by 2.1% y-o-y, the highest growth rate in 2019. This was very much supported by investments, which expanded by 12.1%. Industrial production improved slightly in February, showing a rise of 2.1% m-o-m, after a decline of 0.5% in January. Retail sales improved considerably in January and February, when they rose by 5.2% y-o-y and 7.0% y-o-y, respectively. At that time, inflation was also being lifted, mirroring the improvements in the economy, rising by 2.5% in March, the highest level in 2020.

Graph 3 - 15: Russia's inflation vs. interest rate



Sources: Federal State Statistics Service, Central Bank of Russia and Haver Analytics.

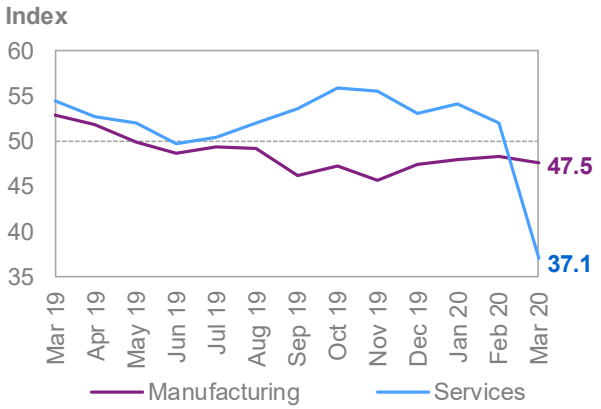
This was the time, however, when COVID-19 started to burden the global economy and when oil prices started to fall considerably, with a very likely negative impact on the Russian economy. The Russian rouble

also declined severely, although the decline seems to have been counterbalanced by support mechanisms of the central bank, utilizing some of the foreign exchange reserves. Foreign reserves declined by $7 billion in March compared to February. Russia's originally envisaged oil price to keep the budget in balance was $42, albeit some of the shortfall may now be compensated by the decline in the rouble. As in other economies, severe lockdown measures were implemented by the government and, in order to cope with the worsening COVID-19 situation, they are expected to remain in place for some additional weeks. Contrary to measures in other economies, it was announced that some of the shortfall in tax-income (but also in order to finance measures put in place to counterbalance the impacts of COVID-19) would be compensated for by a newly introduced tax on bank deposits larger than 1 million rouble. These measures will help to some extent balance the budget, albeit the budget is forecast to dip into a deficit after having enjoyed surpluses since 2018.

Near-term expectations

The Russian economy has very likely faced soft negative growth in 1Q20, but will face a severe downturn in 2Q20 due to the double-impact of the indirect effects from COVID-19 via less external trade and the direct impact from the imposed lockdowns that will now last at least until 30 April, while, secondly, the oil market challenges are impacting the economy. The oil market impact on the Russian economy will be twofold. It will be impacted by the current low oil price environment and by lower output levels based on the OPEC+ agreement. With improving balance in the oil market going forward, the economy is forecast to regain strength towards 2H20. Also this is the period in which the COVID-19 pandemic should be widely contained in major economies, and a global recovery is forecast to kick in. This will build the base for a recovery of the Russian economy in 2H20. Russian PMIs have already reflected some of the downward pressure.

Graph 3 - 16: Russia's PMIs



Sources: IHS Markit and Haver Analytics.

The PMI for the manufacturing sector fell only slightly to a level of 47.5, while the services sector PMI was much more affected, declining to 37.1. However, both indicators are forecast to decline further given that the situation has worsened not only in Russia, but at a global level.

While the Russian economy had started improving at the beginning of the year, the global implications from COVID-19 and the subsequent lockdowns as well as the ongoing challenges in the oil market are all pushing growth into the negative this year. In line with other emerging economies, Russia is forecast to experience a declining economy in 1H20, with a recovering dynamic in 2H20 as the COVID-19 pandemic is forecast to taper off and the oil market will re-establish a more balanced structure.

Table 3 - 10: Russia's economic growth rate and revision, 2019-2020*, %

	Russia
2019	**1.4**
Change from previous month	0.3
2020	**-0.5**
Change from previous month	-1.3

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

With these underlying assumptions, the Russian economy is forecast to contract by 0.5% in 2020, after growth of 1.4% in 2019. However, large uncertainties remain, not only due to the COVID-19 situation, but also due to the near-term developments in the oil market.

OPEC Member Countries

Saudi Arabia

Saudi Arabia's economy contracted by 0.3 %y-o-y in 4Q19, following negative growth of 0.5% in the previous quarter. The consumer price index (CPI) rose by 1.23% y-o-y in February following a 0.72% y-o-y increase the previous month. The IHS Markit Saudi Arabia Purchasing Managers' Index (PMI) dropped sharply for the first time since the survey began in August 2009, from 52.5 in February to 42.4 in March following the COVID-19 outbreak and restrictive measures aimed at containing the virus, which disrupted non-oil private economic activities. The Kingdom unveiled a two-part economic stimulus plan valued at over $32 billion, necessitated by the COVID-19 coronavirus global health crisis. The stimulus package includes

$18.6 billion to aid sectors hit by the virus-caused economic slowdown, and a $13.3 billion package to support small- and medium-sized businesses.

Nigeria

Nigeria's economy grew by 2.55% y-o-y in 4Q19, the strongest expansion seen since 3Q15. However the COVID-19 outbreak and lockdown measures in major cities may push it into recession in 2020. The Stanbic IBTC Bank Nigeria PMI dropped in March to 53.8, from 55.0 in February, reflecting slow growth in output and new orders and upward pressure on the unemployment rate. The Central Bank of Nigeria (CBN) has arranged a fiscal stimulus package, including a 50 billion naira credit facility to households, as well as small- and medium-sized businesses affected by the pandemic, a 100 billion naira loan to the health sector, and 1 trillion naira to the manufacturing sector. In addition, interest rates on all CBN interventions were revised downward from 9% to 5%. Moreover a one-year moratorium on CBN intervention facilities was introduced, effective March. On the fiscal side, the government increased the public budget to 11% of the GDP, from 8.83 trillion naira in 2019 to 10.59 trillion naira in 2020. Additionally, the government has exempted small businesses from company income tax, and the tax rate for medium-sized businesses was revised downward from 30% to 20%.

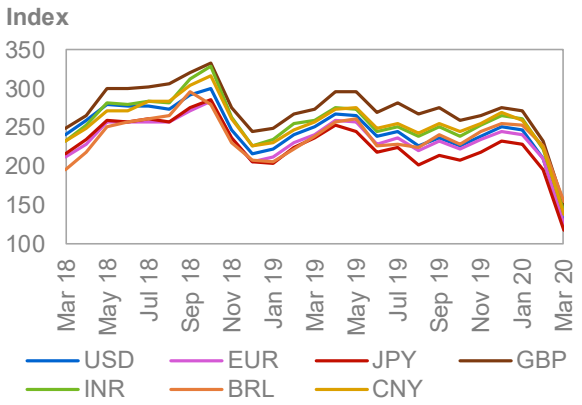
The United Arab Emirates (UAE)

In the **UAE**, according to IHS Markit, the PMI for the non-oil private sector economy declined sharply to 45.2 in March, down from 49.1 in February, due to restrictions of movement and subdued business. The Central Bank of the UAE announced a Dh256 billion stimulus package and allowed banks and finance companies to extend deferrals of principal and interest payments to their customers until 31 December 2020 in order to reduce pressure on financial institutions. Moreover, the central bank lowered the reserve requirements for demand deposits of all banks from 14% to 7% to increase liquidity in the banking sector and mitigate the impact of the coronavirus.

The impact of the US dollar (USD) and inflation on oil prices

The **US dollar (USD)** was highly volatile during the month. It initially dropped as market participants reacted to the US Federal Reserve (Fed) cutting rates to zero. It then rose significantly up to the middle of the month amid a sudden drop in liquidity, which was subsequently eased by Fed intervention through various swap lines with other central banks. Afterwards, it weakened again, as concerns regarding liquidity scarcity were addressed. The dollar decreased by 1.4% against the euro on average m-o-m, with a sharp swing during the month. Against the pound sterling, the dollar increased on average by 4.9% m-o-m, on concerns about response measures taken to counter the COVID-19 outbreak. The dollar declined by 1.9% and 2.4%, respectively, against the Swiss franc and the Japanese yen, while rising by 4.8% against the Canadian dollar.

Graph 3 - 17: ORB crude oil price index compared with different currencies (base January 2016 = 100)



Sources: IMF and OPEC.

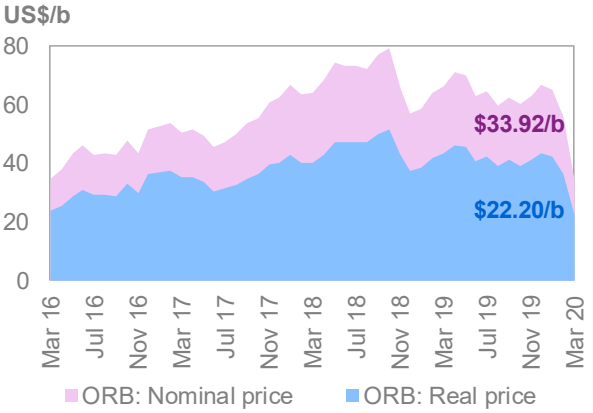
Meanwhile, the dollar generally advanced against the largest **emerging market economies** currencies, as investors retreated from riskier assets to safe havens. On average, it advanced by 0.3% against the yuan m-o-m, though significant volatility was experienced during the month. The dollar increased by 4.0% against the Indian rupee, with the rupee weakened by the selling pressure which affected emerging market assets during the month. The dollar increased sharply against the currencies of large commodity exporters, rising against the Russian ruble, by 14.5%, mainly on the impact of lower oil prices. Meanwhile, it increased by 12.5% against the Brazilian real due to the impact of lower commodity prices and the uncertainties regarding response measures taken to manage the COVID-19 outbreak. Against the Mexican peso, the dollar increased sharply by almost 19% following safe haven demand, and lower oil prices. However, it retreated from highs after the introduction of swap lines between the Fed and the Central Bank of Mexico.

In **nominal terms**, the price of the ORB decreased by $21.61, or 38.9%, from $55.53/b in February to reach $33.92/b in March.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB decreased to $22.20/b in March from a revised $36.4/b (base June 2001=100) the previous month.

Over the same period, the **USD** declined by 0.3% against the import-weighted modified Geneva I + USD basket, while inflation was relatively stable m-o-m.

Graph 3 - 18: Impact of inflation and currency fluctuations on the spot ORB price (base June 2001 = 100)



Source: OPEC.

World Oil Demand

World oil demand in **2019** is estimated to have grown by 0.83 mb/d y-o-y to average 99.67 mb/d, broadly unchanged compared with the previous month's assessment.

For **2020**, world oil demand growth is revised lower by a considerable 6.9 mb/d, to show a historic decline of around 6.8 mb/d. The COVID-19 outbreak and its downward impact on transportation and industrial fuels in China was reflected in the country's 1Q20 oil demand performance. The COVID-19 pandemic is now affecting oil demand growth in many other countries and regions across the globe, with an unprecedented impact on oil requirements, in particular transportation fuels. Lockdowns in many areas, as governments seek to contain the spread of COVID-19 in the US, Europe, Other Asia, Middle East and other regions, are expected to substantially reduce distances travelled and thereby negatively affect gasoline demand growth in 2Q20. Aviation fuel will also face serious demand challenges this year as airlines ground fleets in response to airport closures and significant reductions in flight operations. Industrial fuels will be impacted by a forecast global recession. Without exception, oil demand in all regions was revised lower as compared to the March MOMR to reflect these developments with most of the downward revisions appearing in 1H20. 2H20 was also revised lower from last month's forecast, amid a projected sluggish recovery in product consumption, particularly transportation fuels, despite expected improving global economic momentum during the same period. Total global oil demand is now assumed at 92.82 mb/d, in 2020 with higher consumption expected in 2H20 than in 1H20.

In the **OECD**, oil demand was revised lower by 3.7 mb/d mainly due to the impact of COVID-19 in OECD Europe, OECD Asia Pacific and the extraordinary impact on gasoline requirements in the US. Most of the downward revisions are concentrated in 1H20. Additionally, some downward revisions are also assumed in 2H20 and reflect the slower expected pace of oil demand recovery as compared to the previous months' assessment. The latter relate to challenges in various large economies of the world.

In the **non-OECD**, the oil demand projection for 2020 was adjusted sharply lower by 3.2 mb/d to reflect significant oil demand declines in all sub-regions with China and Other Asia affected the most. The onset of COVID-19 and its subsequent impact on transportation and industrial fuels is forecast to slow oil consumption by an unforeseen magnitude. Other countries in Other Asia, Middle East and Latin America have also been revised lower to reflect the reduced demand for industrial and transportation fuels.

World oil demand in 2019 and 2020

Table 4 - 1: World oil demand in 2019*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18 Growth	Change 2019/18 %
World oil demand								
Americas	25.60	25.14	25.29	26.03	25.99	25.62	0.01	0.05
of which US	*20.82*	*20.65*	*20.66*	*21.05*	*21.02*	*20.85*	*0.03*	*0.12*
Europe	14.33	14.09	14.25	14.75	14.25	14.34	0.01	0.06
Asia Pacific	8.08	8.50	7.61	7.68	8.05	7.96	-0.12	-1.49
Total OECD	**48.01**	**47.72**	**47.15**	**48.46**	**48.29**	**47.91**	**-0.10**	**-0.21**
Other Asia	13.64	13.91	13.96	13.51	14.08	13.86	0.23	1.66
of which India	*4.73*	*5.03*	*4.75*	*4.49*	*5.10*	*4.84*	*0.11*	*2.36*
Latin America	6.53	6.35	6.58	6.87	6.53	6.58	0.06	0.87
Middle East	8.12	8.25	7.87	8.67	8.00	8.20	0.08	0.93
Africa	4.33	4.45	4.42	4.36	4.50	4.43	0.10	2.31
Total DCs	**32.62**	**32.96**	**32.84**	**33.41**	**33.10**	**33.08**	**0.46**	**1.41**
FSU	4.76	4.70	4.68	4.96	5.04	4.84	0.09	1.84
Other Europe	0.74	0.75	0.71	0.75	0.84	0.76	0.02	2.69
China	12.71	12.63	13.19	12.95	13.52	13.07	0.36	2.85
Total "Other regions"	**18.21**	**18.08**	**18.58**	**18.66**	**19.40**	**18.68**	**0.47**	**2.58**
Total world	**98.84**	**98.75**	**98.56**	**100.53**	**100.79**	**99.67**	**0.83**	**0.84**
Previous estimate	98.84	98.75	98.56	100.53	100.79	99.67	0.83	0.84
Revision	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Note: * 2019 = Estimate. Totals may not add up due to independent rounding.*

Source: OPEC.

Table 4 - 2: World oil demand in 2020*, mb/d

	2019	1Q20	2Q20	3Q20	4Q20	2020	Change 2020/19 Growth	Change 2020/19 %
World oil demand								
Americas	25.62	24.55	20.35	24.78	25.26	23.74	-1.87	-7.30
of which US	*20.85*	*20.34*	*16.52*	*20.34*	*20.74*	*19.49*	*-1.36*	*-6.50*
Europe	14.34	13.10	11.37	13.55	13.78	12.96	-1.38	-9.63
Asia Pacific	7.96	7.88	6.65	6.84	7.50	7.22	-0.74	-9.31
Total OECD	**47.91**	**45.53**	**38.37**	**45.17**	**46.55**	**43.92**	**-3.99**	**-8.33**
Other Asia	13.86	13.45	12.70	12.70	13.76	13.15	-0.71	-5.13
of which India	*4.84*	*4.74*	*4.00*	*4.04*	*4.93*	*4.43*	*-0.41*	*-8.52*
Latin America	6.58	6.25	6.30	6.44	6.22	6.30	-0.28	-4.26
Middle East	8.20	7.81	7.21	8.14	7.72	7.72	-0.48	-5.83
Africa	4.43	4.41	4.35	4.15	4.30	4.30	-0.13	-2.97
Total DCs	**33.08**	**31.92**	**30.56**	**31.42**	**32.00**	**31.48**	**-1.60**	**-4.84**
FSU	4.84	4.50	4.38	4.55	4.71	4.53	-0.31	-6.37
Other Europe	0.76	0.71	0.64	0.57	0.66	0.65	-0.12	-15.37
China	13.07	10.27	12.75	12.57	13.38	12.25	-0.83	-6.33
Total "Other regions"	**18.68**	**15.47**	**17.77**	**17.69**	**18.75**	**17.43**	**-1.25**	**-6.71**
Total world	**99.67**	**92.92**	**86.70**	**94.28**	**97.30**	**92.82**	**-6.85**	**-6.87**
Previous estimate	99.67	97.58	98.20	101.25	101.85	99.73	0.06	0.06
Revision	0.00	-4.66	-11.50	-6.97	-4.54	-6.91	-6.91	-6.93

*Note: * 2019 = Estimate and 2020 = Forecast. Totals may not add up due to independent rounding.*

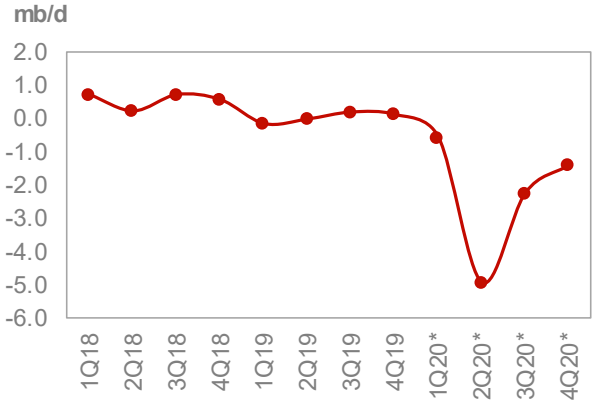
Source: OPEC.

OECD

OECD Americas

The most recent available monthly data for January 2020 shows a decline in **US** oil demand by around 0.6 mb/d y-o-y. The January decline was the largest monthly drop seen in the last 12 months. US oil demand was stagnant in December 2019 and had dropped in November 2019, y-o-y. Unlike previous months, demand for lighter hydrocarbons declined, in particular for LPG/NGLs, which are petroleum products utilized as feedstock for the petrochemical sector. Warmer-than-usual weather in January 2020 had a negative influence on diesel demand, while gasoline and jet kerosene demand marked small gains, y-o-y.

Graph 4 - 1: OECD Americas oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

The significant spread of COVID-19 will determine the **outlook for 2020** US oil demand, in particular oil use in the transportation and industrial sectors. The recent increase of cases in the US and the consequent full or partial lockdowns pose substantial further downside risks for 2020 US oil demand growth. The latest data on leading indicators implies sluggish oil demand for road transportation and industrial fuels, at least during the first quarter, while further developments are related to the duration and extent of the COVID-19 containment measures. However, the impact on oil demand is assumed to sharply affect transportation fuel demand even in 2H20, taking into consideration the implied time lag in the COVID-19 spread among regions as well the possible effect on consumer behaviour going forward.

Table 4 - 3: US oil demand, tb/d

			Change 2020/19	
	Jan 20	Jan 19	tb/d	%
By product				
LPG	3,310	3,468	-158	-4.6
Naphtha	219	203	16	7.9
Gasoline	8,761	8,743	18	0.2
Jet/kerosene	1,697	1,655	42	2.5
Diesel oil	3,998	4,355	-357	-8.2
Fuel oil	258	304	-46	-15.1
Other products	1,953	2,035	-82	-4.0
Total	**20,196**	**20,763**	**-567**	**-2.7**

Sources: EIA and OPEC.

The latest available monthly data for **February 2020** shows **Mexican** oil demand declining y-o-y. Jet kerosene usage showed slight gains, but was more than offset by shrinking demand for all other petroleum product categories, notably gasoline, diesel and residual fuel oil.

The **2020 forecast** for Mexican oil demand has also been lowered from last month's projections and shows demand declining this year. The risks are further skewed to the downside as compared to last month's projections because of lower anticipated economic growth and the low oil price environment.

The latest **January 2020 Canadian** data indicates growing oil demand y-o-y, which was mainly attributed to solid gasoline, jet kerosene and diesel requirements.

The COVID-19 pandemic is also reflected in the **2020** Canadian oil demand growth **forecast**, which has been adjusted lower from the previous month's report, with the risks very similar to those for US demand.

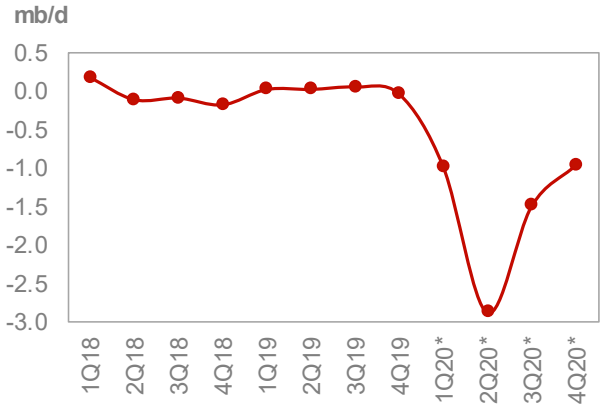
Consequently, **OECD America's** oil demand is now expected to decline sharply in every quarter in 2020, with 2Q20 accounting for most of the decline with a drop of nearly 5.0 mb/d, much of it attributed to transportation fuel requirements. Gasoline is projected to shed 2.7 mb/d y-o-y and jet/kerosene to drop by 0.9 mb/d y-o-y in 2Q20. 2H20 demand is anticipated to decline as well, albeit at a lower magnitude than in 1H20, in line with a moderate pick-up in transportation fuel consumption.

In **2019**, OECD Americas oil demand grew by a marginal 0.01 mb/d compared to 2018. **2020** OECD Americas' oil demand is projected to decline by 1.87 mb/d compared to 2019, marking the strongest yearly decline in history.

OECD Europe

European oil demand fell in **January 2020** by 0.71 mb/d y-o-y, the largest monthly decrease in eight years. The decline is attributed to weaker demand for naphtha, gasoline, residual fuel oil and diesel, and is in line with warmer weather across the continent. January 2020 oil demand fell y-o-y for the majority of countries in the region, particularly in the European Big 4 oil consumers – Germany, France, Italy and the UK.

Graph 4 - 2: OECD Europe's oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

The latest data for the region's automobile fleet shows a decrease in new car registrations for February 2020, with strong declines in all of the region's largest auto markets – Germany, France, and Italy.

The outlook for the region's **oil demand in 2020** has been significantly adjusted to the downside compared to last month's projections, mainly because of the COVID-19 impact on Italy, Spain, France, Germany, the UK and other European countries. Furthermore, significant risks to the downside remain and relate to the extensive lockdowns in all countries of the region, the duration of the measures in place, and the lack of coordinated action on a regional level. As such, the region is now projected to decline by a historic 1.38 mb/d as compared to last year's flat performance, with most of the decline appearing in 2Q20. A drop of 2.9 mb/d y-o-y is now assumed in 2Q20 in line with stagnating diesel demand, which is projected to drop by nearly 1.1 mb/d y-o-y in 2Q20 and by around 0.53 mb/d y-o-y in 2020. Oil demand in 2H20 is also projected to be in the negative territory, albeit to a lesser degree than in 1H20.

2019 OECD Europe oil demand is broadly unchanged from a year earlier, while oil demand is forecast to decline in **2020** by 1.38 mb/d, the largest yearly decrease ever registered.

Table 4 - 4: Europe's Big 4* oil demand, tb/d

			Change 2020/19	
	Jan 20	Jan 19	tb/d	%
By product				
LPG	514	502	12	2.4
Naphtha	598	648	-50	-7.7
Gasoline	1,000	1,056	-56	-5.3
Jet/kerosene	814	803	11	1.3
Diesel oil	2,992	3,192	-200	-6.3
Fuel oil	154	222	-68	-30.7
Other products	478	584	-106	-18.2
Total	**6,549**	**7,007**	**-458**	**-6.5**

*Note: * Germany, France, Italy and the UK.*

Sources: JODI, UK Department for Business, Energy & Industrial Strategy, Unione Petrolifera and OPEC.

OECD Asia Pacific

The most recent available **February 2020** data from the **Japanese** Ministry of Economy Trade and Industry (METI) shows the country's oil demand falling by 0.16 mb/d, marking the eighth consecutive monthly decline. The decline stems from bearish requirements for all main petroleum product categories and is in line with downward adjustments to the country's economy and COVID-19, which influenced transportation and industrial fuels.

Table 4 - 5: Japan's domestic sales, tb/d

	Feb 20	Feb 19	Change 2020/19 tb/d	Change 2020/19 %
LPG	355	493	-138	-27.9
Naphtha	801	845	-44	-5.2
Gasoline	847	850	-3	-0.4
Jet/kerosene	730	785	-55	-7.0
Diesel oil	872	857	15	1.7
Fuel oil	254	278	-24	-8.5
Other products	457	365	92	25.3
Total	**4,316**	**4,473**	**-157**	**-3.5**

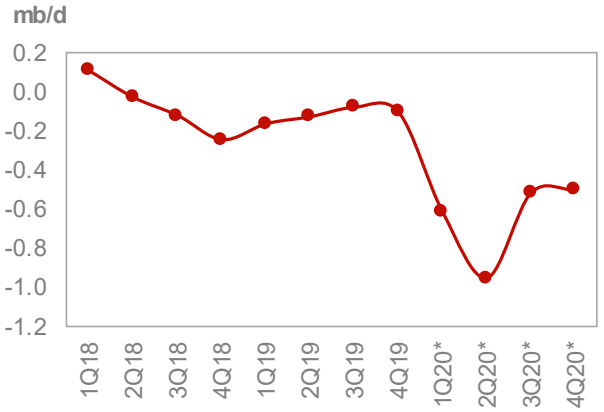
Sources: JODI, METI and OPEC.

In **South Korea**, the latest available **January 2020** data shows bearish oil demand y-o-y. Most of the petroleum product category requirements decreased, notably diesel, jet kerosene and naphtha.

In **Australia**, oil demand was flat during **January 2020** y-o-y; stronger diesel requirements have been largely offset by lower gasoline demand.

Regional spillover effects from the COVID-19 outbreak in China have already lowered 2020 forecast oil demand growth, particularly for the large oil consuming countries in the region. However, Japan and South Korea seem to so far have been successful in containing COVID-19. Consequently, reductions in 2020 oil demand in the region are substantially smaller than declines seen in other regions. Nevertheless, Japanese oil demand is projected to decline further in the current year, while risk expectations remain further skewed to the downside. The outlook for South Korean oil demand during 2020 has also been lowered to show a contraction. Downside risks are driven by COVID-19 developments, while slight upside potential relates to the Korea's petrochemical sector.

Graph 4 - 3: OECD Asia Pacific oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

As a result, the **OECD Asia Pacific oil demand** for 2Q20 is expected to drop by nearly 1.0 mb/d y-o-y with jet/kerosene affected the most in every country within the region. 2H20 will also face sluggish oil demand performance and remain deep in the negative zone.

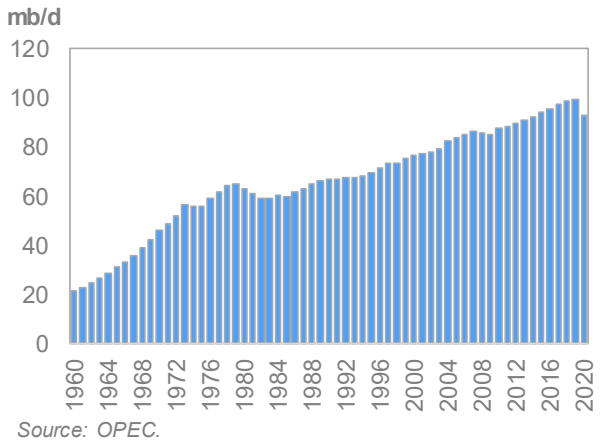
OECD Asia Pacific oil demand contracted by 0.12 mb/d in **2019** and is forecast to decline further in **2020** by 0.74 mb/d.

Oil demand in the past, present and near future

Global economic development and demographic expansion have fuelled a precipitous increase in oil demand for decades, adding a cumulative 75 mb/d since the 1960s. That said, oil demand has declined on an annual basis on different occasions, most recently in 2008-09.

Previously, oil demand recorded y-o-y annual declines in the early 1980s for nearly four consecutive years with a cumulative drop of around 6 mb/d. Those declines were a response to slowing economic activity in industrial countries owing to the oil crisis of the 1970s, and the energy conservation encouraged by relatively high retail fuel prices.

Graph 4 - 4: Total oil demand since 1960

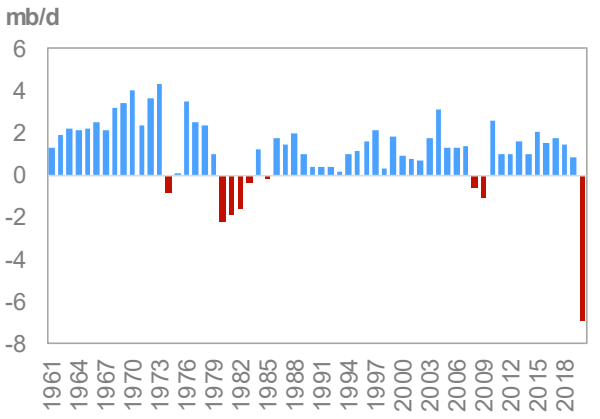


Source: OPEC.

The current global situation, driven by the onset of COVID-19 at the beginning of the year in China and elsewhere in the world by March 2020, appears to represent a perfect storm of oil demand destruction. Restrictions on mobility almost everywhere have constrained transportation fuel demand in the current year.

Indeed, gasoline, jet fuel and automotive diesel are forecast to drop sharply in 1H20, and possibly into 2H20, depending on the duration of government-imposed lockdowns and travel restrictions. 2020 is expected to post negative oil demand, with further room to the downside, should current conditions continue to worsen during the remainder of the year. However, oil demand in 2021 is expected to show a rebound.

Graph 4 - 5: Total oil demand growth/decline since 1960



Source: OPEC.

What remains unclear is how the sudden increase in teleworking, distance learning and online shopping that has arisen out of COVID-19 containment measures, will affect oil demand in future.

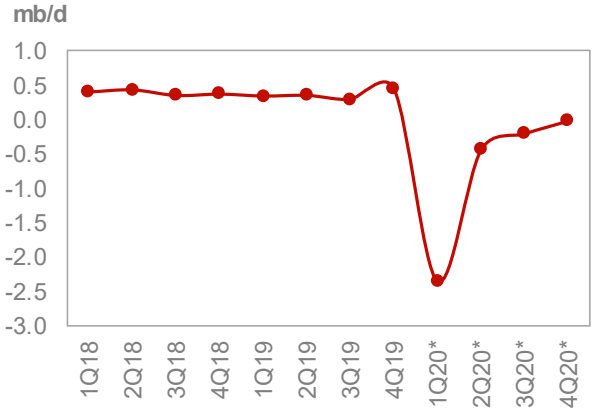
The upcoming 2021 forecast for oil demand as published in the July edition of this report will assess economic developments, vehicle sales expectations, registered expansions in the petrochemical sector, fuel efficiency gains, substitution programmes, subsidy reduction policies, as well as other factors impacting oil demand in the year to come. It is important to highlight that the expected decline in oil demand in 2020 will provide a low base line from which expected oil demand growth in 2021 will be measured. For now, oil demand is projected to return to growth in 2021, with the magnitude of this growth yet to be determined.

Non-OECD

China

The largest ever monthly decline in petroleum products demand in China occurred in **February 2020**.

Graph 4 - 6: Changes in China's apparent oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

Oil demand shrank by a massive 3.2 mb/d y-o-y. Government measures to reduce air travel and close down cities in mainland China in an attempt to contain the spread of COVID-19 took their toll on petroleum demand. Indeed, all of the products were in negative territory, with the exception of residual fuel oil which received some support from electricity generation in the residential sector. Transportation fuels were hit the most, as expected, with gasoline dropping by as much as 1.2 mb/d and total consumption reaching 2.1 mb/d in February 2020, the lowest level since August 2013. Additionally, vehicle sales plummeted by a staggering 81% in February 2020 according to the China Passenger Car Association and Haver Analytics. Jet fuel was hit the hardest, in percentage terms, shedding some 52% y-o-y, or around 0.44 b/d. Passenger traffic declined by 83.5% in February after dropping by 11.6% in January, according to China's National Bureau of Statistics. Diesel was down by 1.1 mb/d y-o-y while light distillates, which have been a supportive factor for oil demand growth in previous years, dropped significantly. Oil demand data from January was also revised lower to show a decline of 0.4 mb/d compared to an increase of around 0.16 mb/d in the previous month's assessment.

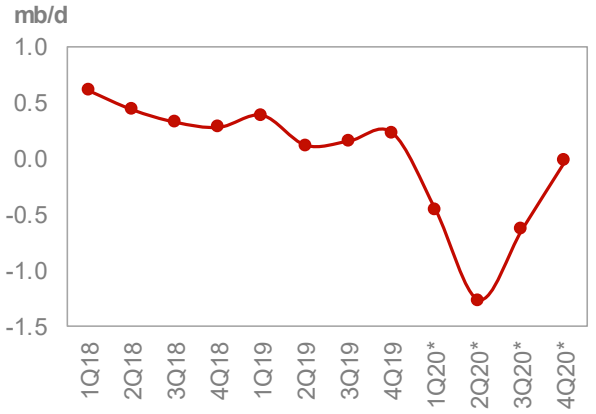
For the rest of **1Q20**, oil demand is projected to post severe declines during March as well, resulting in a massive decline of around 2.0 mb/d compared to the same quarter in 2019. For the rest of **2020**, even accounting for downward revisions in oil demand, the outlook remains skewed to the downside in light of uncertainty over a potential COVID-19 re-emergence, or a further slowdown in global economic activity affecting supply chains. Jet fuel demand is projected to be weak during 2020, amid the stark reduction in air traffic, while gasoline will be impacted by the decrease in distances driven, due to lockdown policies and the slump in vehicle sales. As highlighted in the previous monthly assessment, petrochemical feedstock as well as industrial fuel also face serious challenges going forward.

In **2019**, China's oil demand is estimated to have increased by 0.36 mb/d y-o-y, while oil demand for **2020** is forecast to drop significantly by around 0.83 mb/d y-o-y.

Other Asia

In **February 2020**, **India**'s oil demand rebounded into positive territory, increasing by a slight 0.04 mb/d, but remaining far below the average growth levels of more than 0.15 mb/d in the previous three years. The increase was mainly attributed to improved industrial indicators. In terms of products, naphtha, gasoline and diesel posted decent gains only to be offset by declines in LPG, jet/kerosene, residual fuel oil and the "other products" category, which includes bitumen. Total product demand remained slightly above the 5 mb/d mark. Gasoline consumption increased by 0.08 mb/d, despite declining auto sales, which dropped by around 8% y-o-y across all segments. Two-wheelers, which consume gasoline as the primary source of energy, declined by nearly 20% y-o-y during the same period. Additionally, diesel demand grew by around 0.12 mb/d y-o-y, mainly due to improving industrial indicators, support from the construction sector and improvements in demand from the agricultural sector.

Graph 4 - 7: Other Asia's oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

Table 4 - 6: India's oil demand, tb/d

			Change 2020/19	
	Feb 20	Feb 19	tb/d	%
By product				
LPG	799	835	-36	-4.3
Naphtha	386	362	24	6.7
Gasoline	772	694	78	11.3
Jet/kerosene	275	291	-17	-5.7
Diesel oil	2,032	1,915	117	6.1
Fuel oil	302	318	-16	-5.1
Other products	463	572	-109	-19.0
Total	**5,029**	**4,987**	**42**	**0.8**

Sources: JODI, Petroleum Planning and Analysis Cell of India and OPEC.

In **Thailand**, the latest available **January 2020** data indicates a steep decline in oil demand of around 0.05 mb/d y-o-y. All product categories were in the negative territory with the exception of gasoline and jet/kerosene.

In **Indonesia**, oil demand fell by around 0.02 mb/d y-o-y in **January**, declining for the first time since December 2017. Gains in diesel and gasoline were more than offset by a steep decline in LPG, jet/kerosene and residual fuel oil.

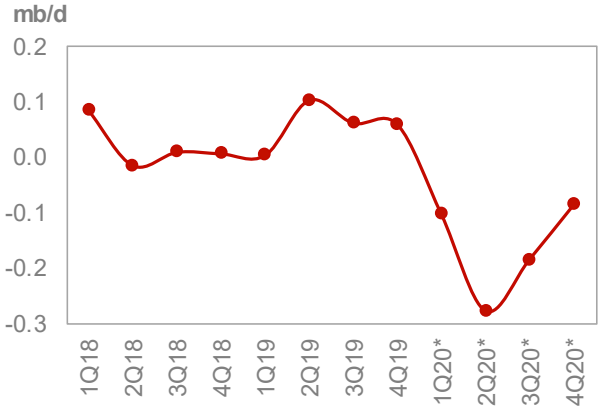
Looking ahead, the oil demand picture for the region appears very grim in light of the COVID-19 pandemic. Lockdown measures will have a negative impact on oil demand, particularly in India. India has restricted mobility by locking down the whole country which, in turn, will have a significant impact on gasoline and other transportation fuels. LPG will remain the only positive petroleum product in terms of growth for 2020 as it is widely used for cooking. Under the current lockdown policy, home cooking is expected to increase over the course of the year, thus compensating for the temporary closure of restaurants and cafes. Finally, the current conditions are unprecedented and this makes the forecast vulnerable to developments which at this stage point to the downside.

In **2019**, **Other Asia oil demand** added 0.23 mb/d over 2018 levels while in **2020** Other Asia oil demand is projected to decrease by 0.71 mb/d compared to 2019.

Latin America

January 2020 oil demand in Latin America shows a minor decline of around 0.01 mb/d y-o-y. With the exception of Brazil, most countries in the region experienced a fall in oil requirements as compared to the same month in 2019. Oil demand dropped in Argentina by 0.02 mb/d, and also marginally in Venezuela and Ecuador. Oil demand in Brazil, on the other hand, increased by 0.02 mb/d y-o-y during the same month.

Graph 4 - 8: Latin America's oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

In terms of products, most of the decline appeared in jet/kerosene consumption and the heavy part of the barrel – residual fuel oil and the other product category. LPG, naphtha, gasoline and diesel rose, mainly in Brazil. The main macroeconomic indicators showed an improvement in Brazil, resulting in all products showing increases, with the exception of jet/kerosene. Gasoline and ethanol demand were higher y-o-y.

Initial data for **Brazil** for **February 2020** indicates a decline in oil demand of around 0.01 mb/d y-o-y.

Table 4 - 7: Brazil's oil demand*, tb/d

	Feb 20	Feb 19	Change 2020/19 tb/d	Change 2020/19 %
By product				
LPG	220	224	-4	-1.8
Naphtha	147	147	0	0.0
Gasoline	670	665	4	0.7
Jet/kerosene	122	127	-5	-4.0
Diesel oil	988	983	5	0.5
Fuel oil	86	95	-9	-9.7
Other products	599	603	-4	-0.7
Total	**2,830**	**2,843**	**-13**	**-0.5**

*Note: * = Inland deliveries.*

Sources: JODI, Agencia Nacional do Petroleo, Gas Natural e Biocombustiveis and OPEC.

Looking ahead, uncertainties for **2020** oil demand growth in Latin America are very much skewed to the downside as the economies of the region are projected to slow, in light of the global impact of COVID-19. The impact of the slowing economic momentum has further exacerbated the decline in oil demand in 2Q20 and succeeding quarters. Transportation fuels will be hugely affected by a reduction in road distances travelled and grounded flight operations. As such, gasoline and jet/kerosene demand is projected to drop by around 0.09 mb/d y-o-y each in 2020.

In **2019**, Latin America's oil demand is estimated to have inched up by 0.06 mb/d y-o-y, while in **2020** demand is projected to drop by 0.28 mb/d y-o-y.

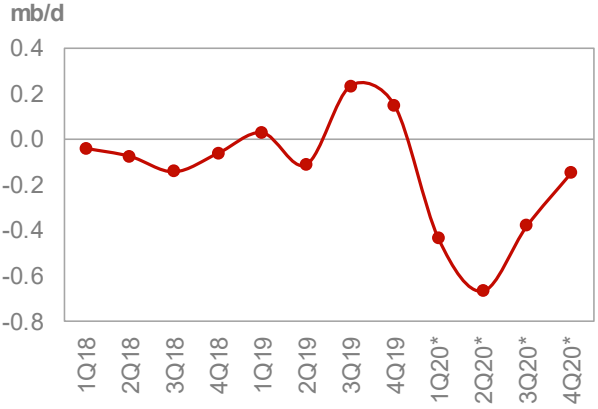
Middle East

Oil demand in **January 2020** is estimated to have grown by around 0.22 mb/d y-o-y. Most of this growth is attributed to increases in Saudi Arabia (0.14 mb/d y-o-y), Kuwait (0.11 mb/d y-o-y) and Iraq (0.03 mb/d y-o-y). Those increases where somewhat offset by declines in oil requirements in IR Iran (-0.06 mb/d y-o-y) and broadly flat oil demand in the UAE and Qatar. In terms of products, gasoline increased the most in the region, adding around 0.08 mb/d, as demand for transportation fuel picked up in Saudi Arabia and Kuwait. Naphtha recorded solid gains as well, with growth of 0.05 mb/d, mostly in Kuwait, owing to expansions in the petrochemical sector, mostly related to refinery projects. Residual fuel oil and LPG also recorded solid gains. Residual fuel oil increased by 0.04 mb/d y-o-y, mostly in Saudi Arabia. This increase occurred despite the lower requirements for air conditioning during 1Q20, but were in line with the substitution programme for crude oil for burning, which declined during the same month. Preliminary data for Saudi Arabia for **February 2020** indicates flat y-o-y oil demand with a mixed performance among products. Increases in diesel and crude oil for power generation were entirely offset by declines in light distillates, gasoline and jet/kerosene.

Oil demand was revised steeply downward, compared to last month's assessment, due to the substantial decrease in economic activity for most countries in the region, also due to the governments' measures to control the spread of COVID-19.

Looking ahead, transportation fuels are projected to fall sharply in comparison to last year, with both gasoline and jet fuel anticipated to decline by 0.2 mb/d. Additionally, demand for all products is now estimated to be negative, with the exception of some light distillate products which are projected to show flat demand. Subsidy reductions and the ongoing substitution programmes with natural gas will amplify the downward trajectory on top of the COVID-19 impact. The outlook for 2020 Middle East oil demand depends very much on the level of overall economic activity and government spending plans, with risks currently skewed sharply to the downside.

Graph 4 - 9: Middle East oil demand, y-o-y change



*Note: * 1Q20-4Q20 = Forecast. Source: OPEC.*

In **2019**, Middle East oil demand edged up by 0.08 mb/d y-o-y. In **2020**, Middle East oil demand is projected to decline by 0.48 mb/d compared to 2019.

World Oil Supply

Non-OPEC liquids production growth in **2019** (including processing gains) has been revised down by 0.01 mb/d from the previous assessment and is now estimated at 1.98 mb/d. This downward revision was mainly made to oil production data from Canada in 4Q19. The US, Brazil, Canada, Russia, China, Australia and the UK are estimated to have been the key drivers of growth in 2019, while Mexico and Norway have seen the largest declines.

Non-OPEC liquids production growth in **2020** (including processing gains) has been revised down by a considerable 3.26 mb/d from the previous assessment and is now forecast to decline by 1.50 mb/d in 2020. The expected global economic recession due to COVID-19 and resulting demand shock are also forecast to cause considerable supply disruptions. Benchmark oil prices have plunged below the cost of production in most fields across the globe, prompting companies to respond by cutting capital expenditure. The expected decline in upstream investment will make this year's capex volumes, estimated at about $450 billion, the lowest in 13 years. Before the COVID-19 pandemic, E&P capex was expected to remain flat y-o-y. The 2020 oil supply growth forecast for the US has been revised down by 1.05 mb/d, to now show a decline of 0.15 mb/d y-o-y. Additionally, the originally expected oil supply growth for the 10 non-OPEC participants in the Declaration of Cooperation, has been adjusted based on the recent agreement. Historically, price changes have impacted US oil output with an approximate six-month time lag, but this time, the impact is expected to be felt much faster. In 2020, growth in oil supply is so far only forecast for Norway, Brazil, Guyana and Australia.

OPEC NGLs and non-conventional liquids production in 2019 is estimated to have grown by 0.04 mb/d to average 4.80 mb/d. For 2020, OPEC NGLs have been revised up by 14 tb/d, following higher output in 1Q20, and are now forecast to grow by 0.04 mb/d y-o-y to average 4.83 mb/d.

In March, **OPEC-13 crude oil production** rose by 821 tb/d m-o-m to average 28.61 mb/d, according to secondary sources. Non-OPEC liquids production in March, including OPEC NGLs and non-conventional liquids, is estimated to have fallen by 0.20 mb/d m-o-m to average 71.25 mb/d, higher by 1.84 mb/d y-o-y. As a result, preliminary data indicates that **global oil supply** increased by 0.62 mb/d m-o-m to average 99.86 mb/d, up by 0.91 mb/d y-o-y.

Table 5 - 1: Non-OPEC liquids production forecast comparison in 2019–2020*, mb/d

	2019	Change 2019/18	2020	Change 2020/19
Non-OPEC liquids production				
OECD Americas	25.74	1.67	25.41	-0.33
OECD Europe	3.71	-0.13	4.01	0.31
OECD Asia Pacific	0.48	0.08	0.55	0.07
Total OECD	**29.94**	**1.61**	**29.98**	**0.04**
Other Asia	3.48	-0.08	3.36	-0.13
Latin America	6.01	0.27	6.34	0.33
Middle East	3.21	0.00	3.09	-0.12
Africa	1.50	0.00	1.45	-0.05
Total DCs	**14.21**	**0.19**	**14.24**	**0.02**
FSU	14.37	0.08	12.79	-1.58
Other Europe	0.12	0.00	0.12	-0.01
China	4.05	0.07	4.01	-0.04
Non-OPEC production	**62.69**	**1.95**	**61.13**	**-1.55**
Processing gains	2.28	0.03	2.33	0.05
Non-OPEC liquids production	**64.97**	**1.98**	**63.47**	**-1.50**

Note: Non-OPEC liquids production includes the Republic of Ecuador.

** 2019 = Estimate and 2020 = Forecast.*

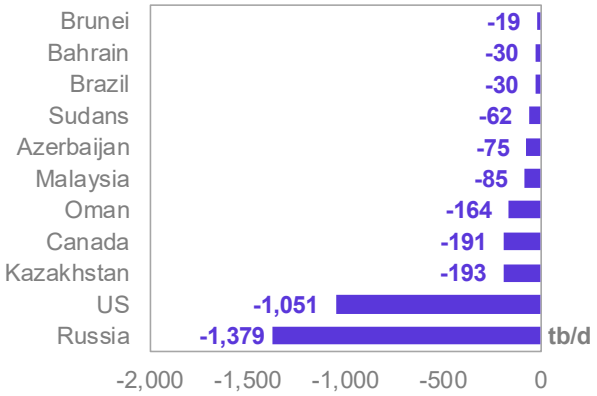
Source: OPEC.

Main monthly revisions

Non-OPEC liquids production growth in **2019** was revised up by a minor 7 tb/d owing to a downward revision in Canada's production in 4Q19. Non-OPEC liquids production is now estimated to have grown by 1.98 mb/d to average 64.97 mb/d for the year.

Non-OPEC liquids production growth in **2020** was revised down by 3.26 mb/d m-o-m and is now forecast to see a contraction of 1.50 mb/d (including processing gains), to average 63.47 mb/d of production. This was mainly due to downward revisions in the production forecasts of the US, Canada, Brazil and all 10 non-OPEC participants in the DoC, following the decisions of the 9th and 10th Extraordinary OPEC-non-OPEC Ministerial Meetings relating to voluntary production adjustments for 2020. All of the main revisions for 2020 are shown in ***Graph 5 – 1.***

Graph 5 - 1: Revision of annual liquids production changes in 2020*, April MOMR/March MOMR

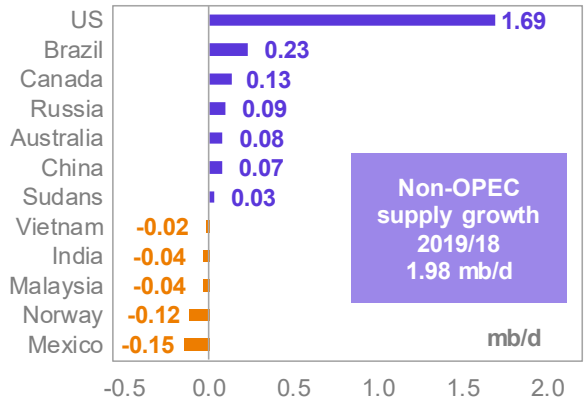


*Note: * 2020 = Forecast. Source: OPEC.*

Key drivers of growth and decline

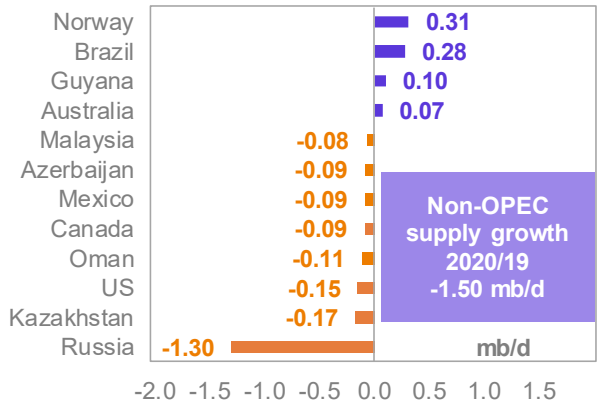
Non-OPEC liquids supply in 2019 is estimated to have grown by 1.98 mb/d with 85% of this growth achieved in the US, followed by Brazil, Canada, Russia, Australia and China. Annual declines were seen mainly in Mexico and Norway.

Graph 5 - 2: Annual liquids production changes for selected countries in 2019*



*Note: * 2019 = Estimate. Source: OPEC.*

Graph 5 - 3: Annual liquids production changes for selected countries in 2020*



*Note: * 2020 = Forecast. Source: OPEC.*

For **2020**, the key drivers for growth are forecast to be Norway, Brazil, Guyana and Australia.

After many years, the US is no longer forecast to be the driver for non-OPEC supply. A preliminary indicator of tight oil production growth slowdown is the decline in the active oil rig count in most shale regions, including the Permian Basin. Moreover, reductions in capital spending have been reported by at least half of the shale producers, including nearly all major producers, who have thus far reported plans to slash more than 30% off their originally announced 2020 capital budgets. The combined revised capex of the top 10 companies, including majors like Chevron and independents such as EOG Resources, Occidental Petroleum and Pioneer Natural Resources, is estimated to be more than $41 billion, which is a decrease of around 40% compared to spending levels in shale during 2019.

OECD Americas is expected to lead the y-o-y growth slowdown in 2020 if oil prices do not recover to meet breakeven costs and service debt loads. As a result, US liquids supply will likely decline by 0.15 mb/d in 2020. In Canada, guided upstream capex is set to drop by 30% y-o-y, leading to expected declines in production of 0.09 mb/d in 2020. Despite remarkable m-o-m growth in Brazil, however, growth for 2020 is forecast to be impacted by maintenance and unplanned outages.

Non-OPEC liquids production in 2019 and 2020

Table 5 - 2: Non-OPEC liquids production in 2019*, mb/d

							Change 2019/18	
	2018	1Q19	2Q19	3Q19	4Q19	2019	Growth	%
Americas	24.08	25.07	25.59	25.69	26.62	25.74	1.67	6.93
of which US	*16.71*	*17.78*	*18.29*	*18.36*	*19.15*	*18.40*	*1.69*	*10.09*
Europe	3.84	3.82	3.57	3.55	3.88	3.71	-0.13	-3.48
Asia Pacific	0.41	0.43	0.48	0.51	0.52	0.48	0.08	18.79
Total OECD	**28.33**	**29.32**	**29.64**	**29.74**	**31.02**	**29.94**	**1.61**	**5.69**
Other Asia	3.57	3.54	3.54	3.40	3.47	3.48	-0.08	-2.28
Latin America	5.74	5.77	5.84	6.13	6.29	6.01	0.27	4.70
Middle East	3.21	3.22	3.21	3.21	3.21	3.21	0.00	0.04
Africa	1.50	1.51	1.51	1.51	1.49	1.50	0.00	0.10
Total DCs	**14.02**	**14.03**	**14.10**	**14.25**	**14.47**	**14.21**	**0.19**	**1.36**
FSU	14.29	14.55	14.16	14.34	14.42	14.37	0.08	0.55
of which Russia	*11.35*	*11.53*	*11.36*	*11.42*	*11.45*	*11.44*	*0.09*	*0.82*
Other Europe	0.12	0.12	0.12	0.12	0.12	0.12	0.00	-2.34
China	3.98	4.05	4.08	4.05	4.03	4.05	0.07	1.87
Total "Other regions"	**18.39**	**18.72**	**18.36**	**18.51**	**18.58**	**18.54**	**0.15**	**0.81**
Total non-OPEC production	60.74	62.07	62.09	62.51	64.07	62.69	1.95	3.21
Processing gains	2.25	2.28	2.28	2.28	2.28	2.28	0.03	1.24
Total non-OPEC liquids production	**62.99**	**64.35**	**64.37**	**64.78**	**66.34**	**64.97**	**1.98**	**3.14**
Previous estimate	62.99	64.36	64.34	64.78	66.39	64.97	1.99	3.15
Revision	0.00	-0.01	0.03	0.00	-0.05	-0.01	-0.01	-0.01

Note: Non-OPEC liquids production includes the Republic of Ecuador.

** 2019 = Estimate. Totals may not add up due to independent rounding.*

Source: OPEC.

Table 5 - 3: Non-OPEC liquids production in 2020*, mb/d

							Change 2020/19	
	2019	1Q20	2Q20	3Q20	4Q20	2020	Growth	%
Americas	25.74	26.55	25.36	25.09	24.66	25.41	-0.33	-1.29
of which US	*18.40*	*19.05*	*18.40*	*18.00*	*17.55*	*18.25*	*-0.15*	*-0.82*
Europe	3.71	4.06	3.91	3.96	4.12	4.01	0.31	8.24
Asia Pacific	0.48	0.52	0.54	0.58	0.58	0.55	0.07	14.09
Total OECD	**29.94**	**31.12**	**29.82**	**29.63**	**29.36**	**29.98**	**0.04**	**0.14**
Other Asia	3.48	3.47	3.30	3.34	3.33	3.36	-0.13	-3.62
Latin America	6.01	6.32	6.30	6.33	6.40	6.34	0.33	5.47
Middle East	3.21	3.21	3.01	3.06	3.07	3.09	-0.12	-3.89
Africa	1.50	1.48	1.45	1.45	1.44	1.45	-0.05	-3.58
Total DCs	**14.21**	**14.48**	**14.06**	**14.17**	**14.23**	**14.24**	**0.02**	**0.17**
FSU	14.37	14.50	11.82	12.43	12.43	12.79	-1.58	-10.96
of which Russia	*11.44*	*11.50*	*9.36*	*9.85*	*9.85*	*10.14*	*-1.30*	*-11.38*
Other Europe	0.12	0.12	0.12	0.12	0.11	0.12	-0.01	-4.32
China	4.05	4.04	4.00	3.99	4.01	4.01	-0.04	-1.00
Total "Other regions"	**18.54**	**18.67**	**15.94**	**16.53**	**16.55**	**16.92**	**-1.62**	**-8.74**
Total non-OPEC production	62.69	64.27	59.81	60.33	60.14	61.13	-1.55	-2.48
Processing gains	2.28	2.33	2.33	2.33	2.33	2.33	0.05	2.37
Total non-OPEC liquids production	**64.97**	**66.60**	**62.15**	**62.67**	**62.47**	**63.47**	**-1.50**	**-2.31**
Previous estimate	64.97	66.44	66.46	66.74	67.30	66.74	1.76	2.71
Revision	-0.01	0.16	-4.32	-4.08	-4.82	-3.27	-3.26	-5.02

Note: Non-OPEC liquids production includes the Republic of Ecuador.

** 2019 = Estimate and 2020 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Impact of COVID-19 on the non-OPEC supply forecast in 2020

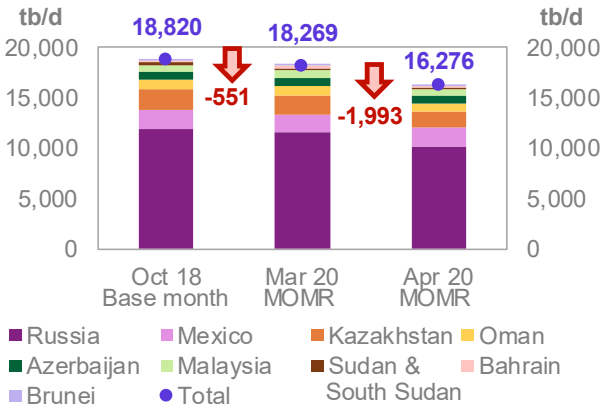
Global investment for exploration and production companies in 2020 is forecast to drop remarkably. Assuming a base case scenario of $34/b in 2020, Rystad Energy projects a drop of 17%, or up to $93 billion for this year, for a total of about $450 billion, the lowest in 13 years. Before the COVID-19 pandemic, E&P was expected to remain flat y-o-y.

In a low oil price scenario, where Brent averages $25/b in 2020, global investments may plunge to around $380 billion and fall further to almost $300 billion in 2021, a 14-year and a 15-year low respectively. Upstream spending is expected to fall 15% to 20% this year, which means investments will shrink by $80 billion to $100 billion from the 2019 level. Many E&P companies have already reviewed their investment budgets and others are expected to follow suit, to help secure their finances through the market turmoil. Looking at oil majors, ExxonMobil is considering at least a 20% investment cut, but these plans have not yet been finalized. Several banks, financial institutes and consulting companies, including Rystad Energy, are expecting even deeper cuts may be required to meet most of its important operational goals. Shell will also cut by 20% this year, but upstream budgets are expected to only see reductions of about 14%. BP has also announced potential plans for a 20% cost reduction. Even though the company holds a geographically diverse and resilient portfolio, its $15-billion asset-sale target might not be achievable.

In an analytical study done by Rystad Energy, 20 out of 43 selected producers have communicated plans to reduce capital spending for 2020, including nearly all major producers. These US shale producers combined have so far reported plans to slash 32% off their previously announced 2020 capital budgets, which implies a 40% cut compared to 2019 spending. With billions in debt payments approaching, E&P companies are likely to put the brakes on activity much faster than what we saw during the previous downturn five years ago. Most shale producers can't stay float with prices below $30/b for WTI. Guided upstream spending in Canada has also plummeted since the second week of March and is poised for a y-o-y drop in excess of 30% this year, as E&P companies recoil from the unprecedented demand destruction and downturn in crude prices that have gripped global oil markets.

On 9 and 12 April 2020, oil producing countries participating in the Declaration of Cooperation held Extraordinary Ministerial Meetings to the address the economic fallout and demand destruction ensuing from the COVID-19 pandemic. The Meetings decided to voluntarily adjust 9.7 mb/d of their oil production in May and June, to be followed by another adjustment of 7.7 mb/d until the end of the year. For 2020, these agreements will lead to a total downward revision of around 2 mb/d for non_OPEC producing countries under the DoC, compared to the previous month's forecast. Further adjustments were agreed on to last until April 2022, in an effort to avoid a major supply glut and restore oil market balance.

Graph 5 - 4: Revisions and new oil supply of 10 non-OPEC participants in the DoC for 2020



Source: OPEC.

OECD

OECD liquids production in **2019** is estimated to have grown by 1.61 mb/d y-o-y, revised down by 0.01 mb/d m-o-m, for an average of 29.94 mb/d. OECD Americas was revised down by 10 tb/d and is now estimated to have grown by 1.67 mb/d, while OECD Europe and OECD Asia Pacific supply are estimated unchanged at a y-o-y contraction of 0.13 mb/d and y-o-y growth of 0.08 mb/d, respectively.

For **2020**, the OECD supply growth forecast was revised down by 1.22 mb/d to grow by only 0.04 mb/d y-o-y for an average of 29.98 mb/d. OECD Americas is projected to decline by 0.33 mb/d to average 25.41 mb/d, a downward revision of 1.23 mb/d. OECD Europe was revised up by 13 tb/d m-o-m and is now forecast to grow by 0.31 mb/d, with average supply at 4.01 mb/d. Oil production in OECD Asia Pacific is forecast to grow by 0.07 mb/d to average 0.55 mb/d.

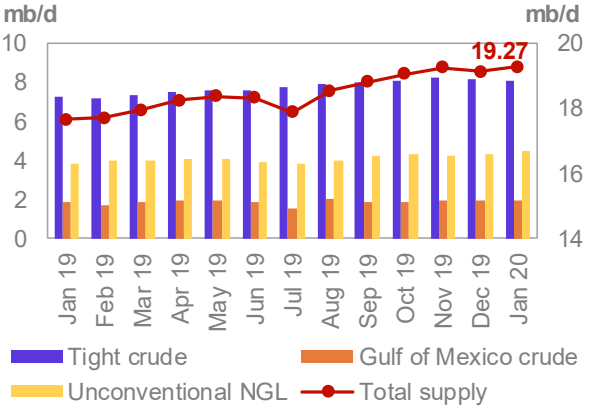
OECD Americas

US

US liquids output in December was revised down by the EIA by 0.03 mb/d to 19.14 mb/d (excluding processing gains). For **January 2020**, total liquids production showed an increase of 0.13 mb/d m-o-m to average 19.27 mb/d, up by 1.62 mb/d y-o-y.

Liquids supply in January 2020 was higher m-o-m, while a year earlier, in January 2019, it was lower by 0.22 mb/d m-o-m. The main reason for this increased production in January 2020 was higher-than-expected NGL output. While crude oil and condensate output declined by 60 tb/d m-o-m to average 12.74 mb/d, production of NGLs rose robustly by 174 tb/d m-o-m to average 5.15 mb/d. Official data regarding other non-conventional liquids output, mainly ethanol, shows a decline in December by 33 tb/d m-o-m to average 1.37 mb/d, while preliminary production data for January shows an increase of 10 tb/d m-o-m to average 1.38 mb/d.

Graph 5 - 5: US monthly liquids supply by key component



Sources: EIA and OPEC.

While crude oil output in the Gulf Coast and East Coast increased in January, production in the other three PADDs declined. In the Gulf Coast, crude oil and condensate output rose in Texas and the GoM by 22 tb/d and 49 tb/d to average 5.39 mb/d and 1.98 mb/d, respectively, while oil output in New Mexico fell by 22 tb/d to average 1.05 mb/d. Production in almost all of the Rocky Mountain states, including Colorado, which is home to the Niobrara shale, declined in January m-o-m. In the Midwest, production declined by 89 tb/d m-o-m, including in North Dakota and Oklahoma.

Table 5 - 4: US crude oil production by state, tb/d

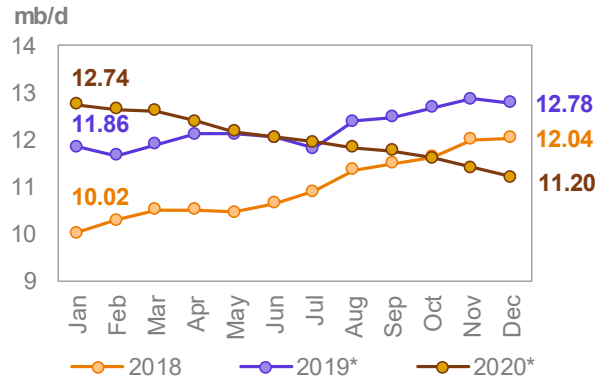
State	Dec 19	Jan 20	Change Jan 20/Dec 19
Alaska	481	482	*1*
Colorado	538	528	*-10*
Oklahoma	564	531	*-33*
New Mexico	1,074	1,052	*-22*
North Dakota	1,437	1,396	*-41*
Gulf of Mexico (GoM)	1,934	1,983	*49*
Texas	5,371	5,393	*22*
Total	**12,804**	**12,744**	***-60***

Sources: EIA and OPEC.

US weekly production data in January averaged 12,968 tb/d, while actual monthly output data indicates a lower level, by less than 224 tb/d. The average monthly production in February based on US weekly production data shows an increase of 56 tb/d compared to January, but no change in March.

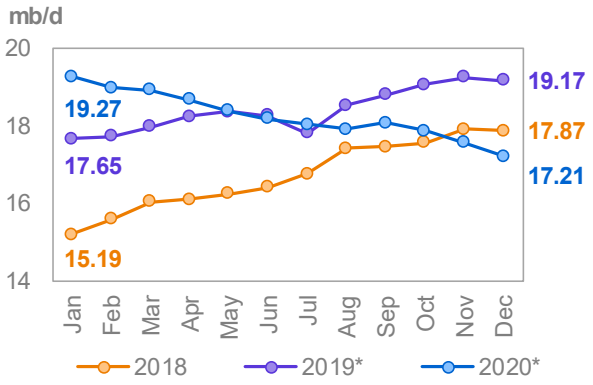
The **US liquids** production growth forecast for **2020** was revised down by 1.05 mb/d and is forecast to contract by 0.15 mb/d y-o-y, for an average of 18.25 mb/d. Tight crude and onshore conventional crude production forecasts were both revised down from the previous month's assessment. The NGL production forecast was also revised down by 0.10 mb/d. **US crude oil** production in 2020 is now forecast to decline by 0.19 mb/d y-o-y to average 12.03 mb/d. Production of NGLs is likely to rise by minor 0.02 mb/d y-o-y to average 4.84 mb/d, and non-conventional liquids are forecast to grow by a minor 0.02 mb/d to average 1.38 mb/d.

Graph 5 - 6: US crude oil production forecast



*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

Graph 5 - 7: US liquids supply forecast

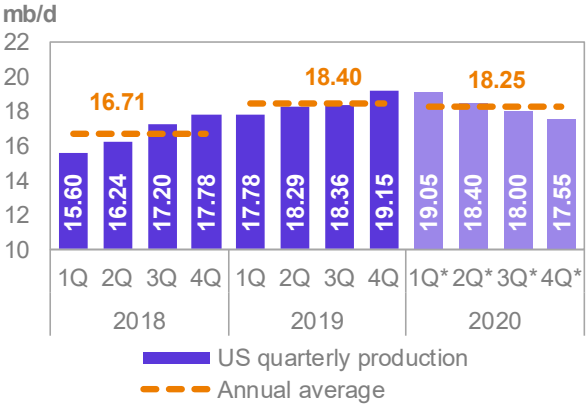


*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

US crude oil production in **2020** was revised down by 0.85 mb/d and is now forecast to average 12.03 mb/d, representing y-o-y decline of 0.19 mb/d. Tight crude oil production is forecast to drop y-o-y by 0.08 mb/d, primarily in the Permian Basin, to average 7.62 mb/d. Oil production from offshore fields in the GoM is expected to grow by 0.04 mb/d to average 1.92 mb/d. Lower 48 onshore non-tight crude oil production, including from Alaska, is forecast to decline by around 0.15 mb/d to average 2.50 mb/d.

Regarding tight crude, production in the Permian Basin is expected to continue growing before flattening out, while in other regions, contractions in production are anticipated.

Graph 5 - 8: US total liquids supply quarterly



*Note: * 1Q20-4Q20 = Forecast. Sources: EIA and OPEC.*

Table 5 - 5: US liquids production breakdown, mb/d

	2017	2018	Change 2018/17	2019*	Change 2019/18	2020*	Change 2020/19
Tight crude	4.96	6.52	1.55	7.70	1.19	7.62	-0.08
Gulf of Mexico crude	1.68	1.76	0.08	1.88	0.13	1.92	0.04
Conventional crude oil	2.71	2.72	0.01	2.65	-0.07	2.50	-0.15
Unconventional NGLs	2.97	3.58	0.61	4.01	0.43	4.08	0.07
Conventional NGLs	0.81	0.79	-0.02	0.80	0.01	0.76	0.04
Biofuels + Other liquids	1.27	1.35	0.08	1.36	0.01	1.38	0.02
US total supply	**14.40**	**16.71**	**2.31**	**18.40**	**1.69**	**18.25**	**-0.15**

*Note: * 2019 = Estimate and 2020 = Forecast.*

Sources: EIA, OPEC and Rystad Energy.

Table 5 - 6: US tight oil production growth, mb/d

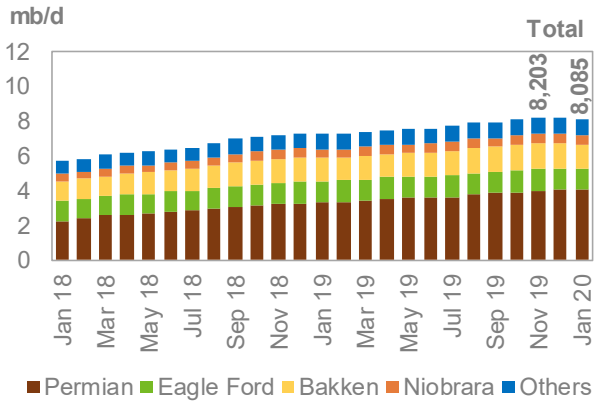
	2018	Change 2018/17	2019*	Change 2019/18	2020*	Change 2020/19
Permian tight	2.84	1.00	3.66	0.85	3.82	0.16
Bakken shale	1.25	0.20	1.41	0.16	1.38	-0.03
Eagle Ford shale	1.18	0.09	1.22	0.04	1.12	-0.10
Niobrara shale	0.45	0.11	0.53	0.07	0.48	-0.05
Other tight plays	0.79	0.15	0.89	0.08	0.82	-0.07
Total	**6.52**	**1.55**	**7.70**	**1.19**	**7.62**	**-0.08**

*Note: * 2019 = Estimate and 2020 = Forecast.*

Source: OPEC.

US tight crude output in January decreased by an estimated 64 tb/d m-o-m to average 8.09 mb/d, an increase of 838 tb/d y-o-y. The main m-o-m growth in US tight crude output from shale and tight formations through horizontal wells came from the Permian, Midland, as well as the Delaware Basin in Texas and New Mexico, adding a total of 30 tb/d to average 4.06 mb/d. Tight crude output in the Eagle Ford declined by 22 tb/d to average 1.19 mb/d; output in the Bakken dropped by 36 tb/d to average 1.41 mb/d; in the Niobrara, output declined by 13 tb/d to average 0.54 mb/d; while in other regions (total), production fell m-o-m by 23 tb/d to average 0.89 mb/d.

Graph 5 - 9: US tight crude output breakdown

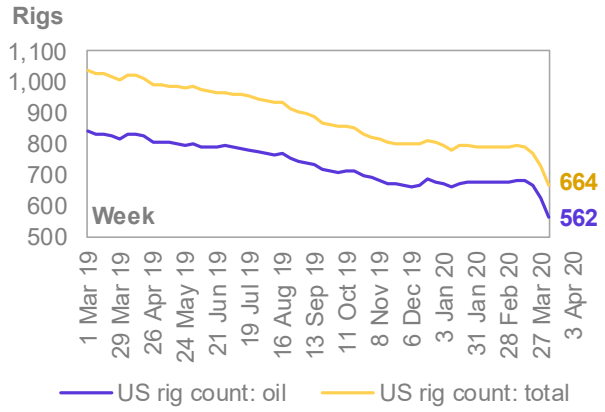


Souces: EIA, Rystad Energy and OPEC.

US rig count, spudded, completed, DUC wells and fracking activity

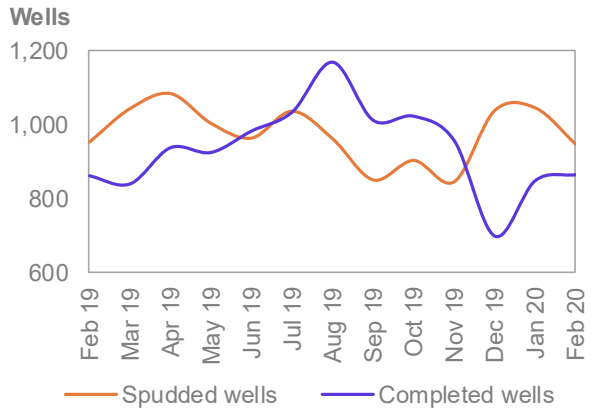
The overall **US rig count** declined by 361 units, or 35%, y-o-y to 664 rigs in the week ending 3 April. Out of 664 active rigs, 646 rigs were onshore and 18 rigs were offshore. US oil rigs dropped by 269 units, or 32%, y-o-y to average 562 rigs (***Graph 5 - 10***). The oil rig count dropped by 62 rigs w-o-w, while gas rigs declined by 2. US gas rigs dropped by 94 units, or 48%, y-o-y to 100 rigs. Total horizontal rigs (oil and gas) decreased by 308 units, or 34%, y-o-y to stand at 593 rigs. The horizontal rig count dropped by 60 rigs w-o-w.

Graph 5 - 10: US weekly rig count



Sources: Baker Hughes and OPEC.

Graph 5 - 11: Spudded and completed wells in the US shale plays



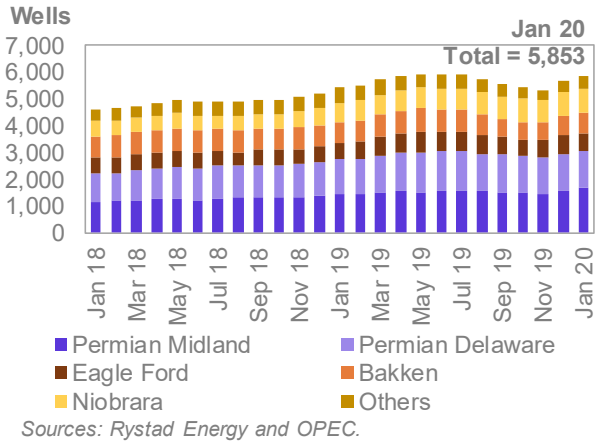
Sources: Rystad Energy and OPEC.

The vast majority of US rigs continue to be in the Permian Basin, at 351 as of 3 April, lower by 111 rigs (-24%) y-o-y. At the same time, the number of active oil rigs dropped by 14 to 55 in the Eagle Ford Basin (-20%) y-o-y), by 18 rigs to 43 units (-30%) y-o-y in the Williston Basin and by 12 to 18 units (-60%) y-o-y in the Niobrara Basin.

With regard to **drilling and completion,** in all US shale plays, 1,043 horizontal wells were spudded in **January**, up by 6 wells m-o-m. In the same month, 848 wells were completed, up by 177 wells m-o-m. However, preliminary spudded and completed horizontal wells in February show a rising trend in completion, but a falling trend in spudded wells according to data by Rystad Energy (***Graph 5 - 11***).

The number of **DUC wells in January** increased by 174 wells m-o-m to 5,853. DUCs increased by 102 in the Permian Midland, 16 in Delaware, 10 in the DJ Basin, 42 in the Bakken shale, while the number fell by 33 in the Eagle Ford. The producers in Eagle Ford may have preferred to complete more wells from their DUC inventories in January to avoid higher costs.

Graph 5 - 12: US horizontal DUC count by shale play



Sources: Rystad Energy and OPEC.

Canada

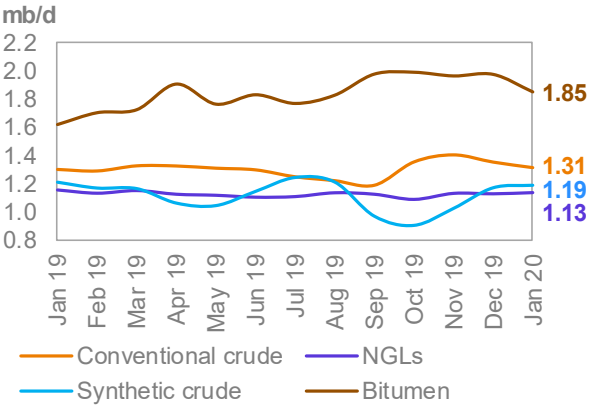
Canada's liquids production in December, following a monthly increase of 0.19 mb/d in November, increased again by 0.10 mb/d m-o-m to average 5.66 mb/d, according to official data, which is 0.07 mb/d higher y-o-y. Total synthetic crude and bitumen production was up by 0.16 mb/d m-o-m to average 3.19 mb/d in December, up by 0.06 mb/d y-o-y. Conventional oil output decreased by 0.05 mb/d m-o-m to average 1.35 mb/d, up by 43 tb/d y-o-y, mainly due to higher output from offshore oil fields. NGL output fell by a minor 3 tb/d m-o-m to average 1.12 mb/d.

The five main Canadian oil sands operators in Alberta, including CNRL, Husky, Suncor, Cenovus and MEG, are cutting their upstream capex plans in 2020 by about 27% from Cdn$14.7 to 10.7 billion due to drastic declines in the crude price during March. In terms of impacts on the production forecast, this spending discipline led to reductions of 4%, or 0.1 mboe/d, of total production of these operators, from 2.87 mb/d to an average of 2.77 mb/d. The price of Western Canadian Select (WCS) at Hardisty, Alberta, fell to all-time low of $8.88/b on 18 March. Wood Mackenzie says, "If Brent averages $35/bbl for 2020 we expect project owners to lose Cdn$23 billion. And the Alberta government stands to lose almost Cdn$2.4 billion in royalties".

In **2019**, out of 4.30 mb/d of crude production in Canada, 2.95 mb/d came from oil sand fields, mostly located in Alberta. Crude production in Alberta increased to average 3.4 mb/d in 2019, of which 2.95 mb/d was synthetic crude and crude bitumen.

In **January 2020**, production of Canadian oil sands decreased by 0.10 mb/d to average 3.08 mb/d. Synthetic crude from the state of Alberta showed an increase of 18 tb/d m-o-m to average 1.19 mb/d as upgraders returned from maintenance since December. On the other hand, crude bitumen in January fell by 0.12 mb/d m-o-m to average 1.85 mb/d. According to the new spending plan of the five operators in Alberta due to the low oil price environment after the COVID-19 outbreak, oil sands production is likely to see another decline in March.

Graph 5 - 13: Canada monthly production development



Sources: National Energy Board and OPEC.

Canada's oil supply for **2019** was revised down by 9 tb/d following lower-than-expected output in 4Q19 and is now estimated to have grown by 0.13 mb/d y-o-y for an average of 5.41 mb/d.

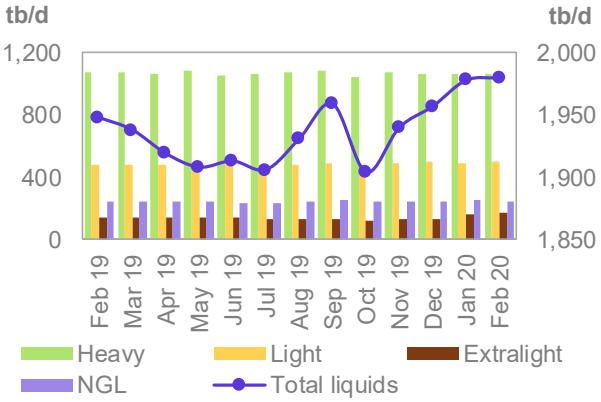
In **2020**, despite Canadian crude-by-rail exports surpassing 400 tb/d for the first time in January, liquids production is forecast to drop by 0.09 mb/d y-o-y to average 5.32 mb/d, impacted by COVID-19 related factors.

Mexico

Mexico's liquids output in **February** was broadly flat m-o-m at an average of 1.98 mb/d, an apparent rise of 0.03 mb/d y-o-y. Crude oil production in February rose by a marginal 6 tb/d m-o-m to average 1.73 mb/d according to Pemex, including 1,065 tb/d of heavy crude and 664 tb/d of light and extra light crude. NGL output fell by 3 tb/d m-o-m to average 247 tb/d.

In addition to production ramp ups led by the Xanab field since July 2019, Pemex has been successful in stabilizing its crude oil production by successful recovery from mature fields. Going forward, Pemex is expected to focus more on mature fields rather than spending on new projects to reduce costs. Furthermore, heavy declines at the KMZ fields and delays on the development of 20 priority fields are projected to cause declines in crude oil production in Mexico from 2Q20 onwards. In comparison with

Graph 5 - 14: Mexico's monthly liquids and crude production by type



Sources: PEMEX and OPEC.

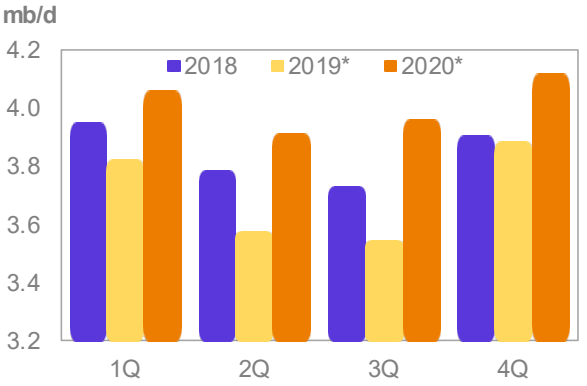
declines in 2018 and 2019, total liquids production in 2020 is forecast to see less of a contraction, by 0.09 mb/d y-o-y, to average 1.83 mb/d, revised up by 0.01 mb/d m-o-m.

OECD Europe

OECD Europe's liquids production in **2019** declined by 0.13 mb/d to average 3.71 mb/d, primarily due to heavy declines in Norway (6.2% y-o-y).

For **2020**, production is expected to surge to 4.01 mb/d through production ramp ups in the giant Johan Sverdrup offshore field in Norway, representing y-o-y growth of 0.31 mb/d for the region, revised up by 0.01 mb/d. While oil production in the UK and Norway is expected to see growth of 0.02 mb/d and 0.31 mb/d in the current year, respectively, oil output in other countries of the region will remain unchanged or decline. Around 30 tb/d of the current crude output in the North Sea is not economically viable at $30/b.

Graph 5 - 15: OECD Europe quarterly liquids supply



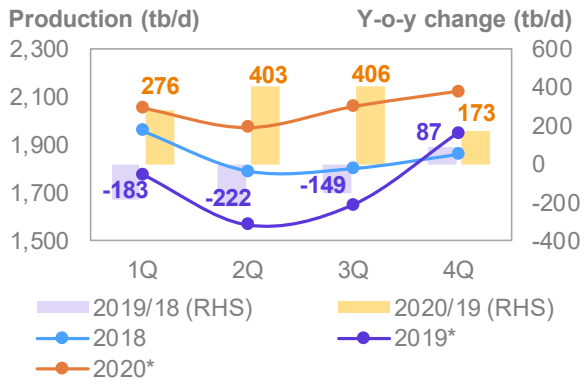
*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

Norway

Norway's preliminary liquids production in **February** rose by 0.13 mb/d m-o-m to average 2.11 mb/d, but this was 0.7% lower than the NPD's forecast. Crude oil output in February was up by 96 tb/d m-o-m to average 1.75 mb/d. NGL and condensate output in February also increased by 33 tb/d to average 357 tb/d.

Norway's liquids supply in **2020** is expected to grow by 0.31 mb/d to average 2.05 mb/d, revised up by 0.01 mb/d from the previous month's assessment due to higher oil output in February that led to an upward revision of the supply forecast in 1Q20. In addition to the incremental production from the Johan Sverdrup field, higher output is expected to come on stream in Norway from the Skogul (Feb), Skarv (May), Snøhvit-Askeladd phase-2 (August), Martin Linge (September), Njord (October), Dvalin (December) and YME-redevelop phase-2 and Tor II oil fields in November and December, respectively. Most of these projects have a breakeven of less than $26/b (Brent) except the Skarv gas-condensate field, which estimates a breakeven at $44/b, but in case of cancelation, the impact would be negligible.

Graph 5 - 16: Norway's quarterly liquids supply



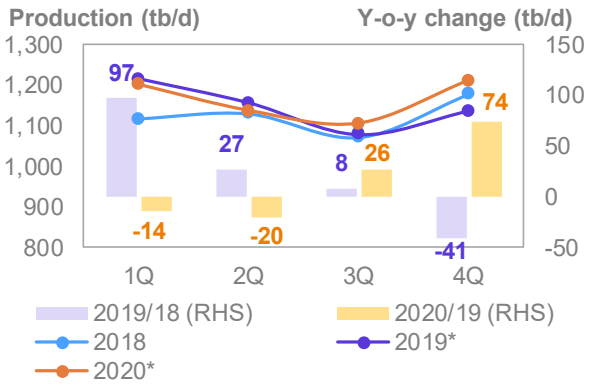
*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

UK

UK liquids production in **February** was down by 0.01 mb/d m-o-m to average 1.18 mb/d, lower by 0.08 mb/d y-o-y. Crude oil output declined by 15 tb/d to average 1.04 mb/d in February, while NGL output was up by 9 tb/d to average 99 tb/d. Non-conventional liquids were flat at 39 tb/d. However, preliminary output data in March shows a rising trend.

For **2020**, despite expected growth from new projects, UK oil production is forecast to decline significantly from April to September due to planned maintenance. Therefore, minor growth of 0.02 mb/d y-o-y is anticipated, with a yearly average of 1.17 mb/d.

Graph 5 - 17: UK quarterly liquids supply



*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

Non-OECD

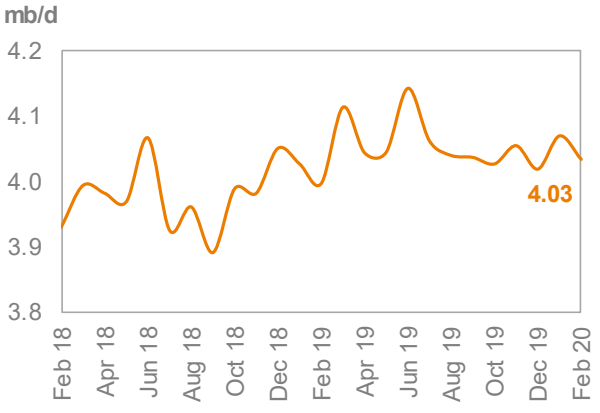
Total developing countries' (DCs) liquids production for **2019** was revised up marginally by 7 tb/d and is now estimated to have grown by 0.19 mb/d y-o-y to average 14.21 mb/d. Latin America is estimated to have recorded y-o-y growth of 0.27 mb/d, driven by new production ramp ups in Brazil. Meanwhile, oil supply is estimated to have remained unchanged y-o-y in Africa and the Middle East, and to have declined by 0.08 mb/d y-o-y in Other Asia.

For **2020**, DCs' liquids production is forecast to grow by a slight 0.02 mb/d to average 14.24 mb/d, revised down by 0.4 mb/d. The key driver remains Latin America with a y-o-y forecast growth of 0.33 mb/d to average 6.34 mb/d. Oil production is forecast to decrease in the Middle East and Africa by 0.12 mb/d and 0.05 mb/d to average 3.09 mb/d and 1.45 mb/d, respectively. Production in Other Asia, despite projected growth in India and Malaysia, is also forecast to decline by 0.13 mb/d to average 3.36 mb/d.

China

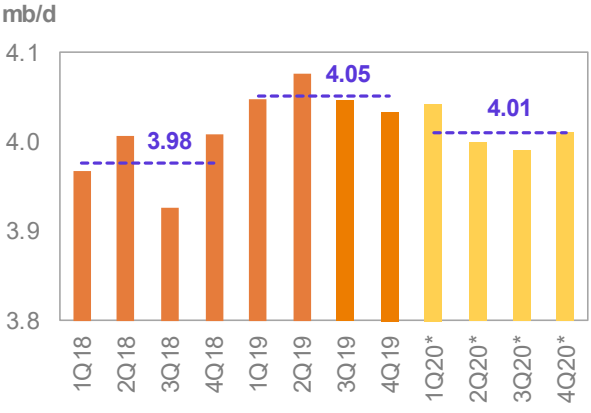
China's liquids production in **February** was down by 36 tb/d m-o-m to average 4.03 mb/d, but higher by 37 tb/d y-o-y, according to official data. Crude oil output in February decreased by 38 tb/d to average 3.78 mb/d, but remained unchanged y-o-y. The low oil price environment is not likely to lead to a big drop in crude output in the short term due to the predetermined production target to ensure the security of energy supply, as the Chinese President reiterated the importance of investment and increasing domestic oil production. During the COVID-19 outbreak so far, despite some disruptions of staff shifts, China's upstream industry has been less affected. It is worth noting that the capex from CNOOC is set to increase by about 18.5% this year. However, the allocation for domestic production is about the same as it was in 2019. Three major companies -- China National Petroleum Corp., Sinopec and China National Offshore Oil Corp. -- have increased investment in domestic oil and gas E&P in 2019 by 22%, or around $48 billion, compared with a year earlier.

Graph 5 - 18: China's monthly liquids output



Sources: CNPC and OPEC.

Graph 5 - 19: China's quarterly liquids output



*Note: * 1Q20-4Q20 = Forecast. Sources: CNPC and OPEC.*

Oil production in **2019** is estimated to have increased by 0.07 mb/d to average 4.05 mb/d. However, if crude prices remain low for a prolonged period of time, the main Chinese E&P companies will take bigger hits to revenue, and they are likely to cut capex plans for 2020. This will place more downside pressure on domestic output in 2020-2021. In **2020**, China's liquids supply is forecast to see a contraction of 0.04 mb/d to average 4.01 mb/d.

Latin America

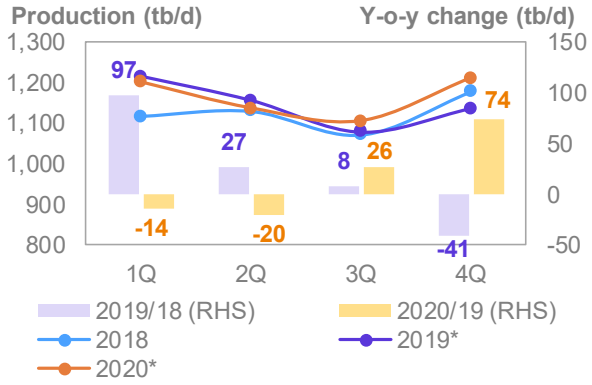
Brazil

Brazil's crude oil output in **February** fell by 0.18 mb/d m-o-m to average 2.99 mb/d as the P-75 FPSO in Buzios operated at just one fifth of its 0.15 mb/d production capacity. However, according to Petrobras, crude oil production from the Buzios pre-salt field, the world's largest deepwater oil field with a low lifting cost, reached a record of 0.64 mb/d in the second week of March, surpassing the 0.60 mb/d of official capacity of four FPSOs. "With the lowest government take in TOR (Transfer-of-Rights) contract model, Buzios crude has emerged as a price-resilient grade for Brazil. With lower breakeven prices, Brazil's pre-salt production appears to be better positioned to weather the current price collapse than its post-salt deposits", according to Argus. In February, total liquids production was pegged at an average of 3.73 mb/d, including biofuels and NGLs.

Brazilian production in the current lower oil price environment is faced with high operating costs, in some areas close to $30/b. It will be a big challenge for Petrobras to come up with production ramp ups in pre-salt unless the company decides to have fewer wells interconnected; if so, the expected production growth for this year will be affected. Another challenge is the heavy declines reported from fields located in post-salt reservoirs in the Campos Basin, particularly the Roncador field, according to the Agência Nacional do Petróleo (ANP).

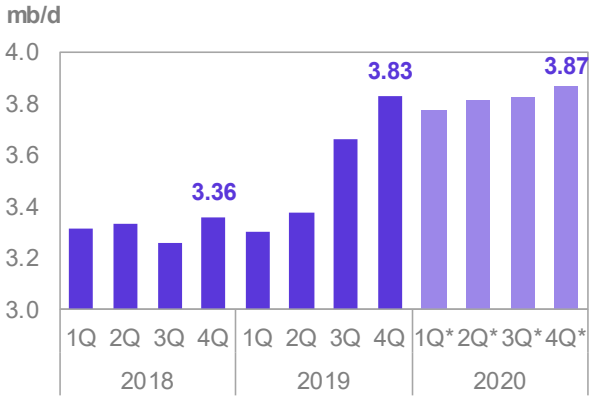
In the coming months, if maintenance in offshore fields deepens and Petrobras decides to shut down part of its expensive production by around 100 tb/d, then the original supply forecast for this year will be revised down further. Brazil's liquids production in **2020** is forecast to increase by 0.28 mb/d y-o-y to average 3.82 mb/d.

Graph 5 - 20: Brazil's crude oil and liquids supply



*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

Graph 5 - 21: Brazil's quarterly liquids supply



*Note: * 1Q20-4Q20 = Forecast. Sources: ANP and OPEC.*

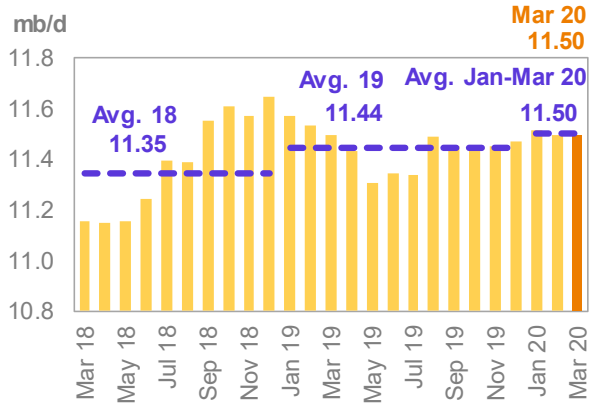
FSU

For **2020**, the FSU oil supply forecast was revised down significantly, by 1.65 mb/d, following the decision of the countries participating in the DoC. As a result, oil production of Russia is forecast to decline by 1.30 mb/d y-o-y to average 10.14 mb/d, a downward revision by 1.38 mb/d, while the oil supply forecasts for Kazakhstan and Azerbaijan are projected to decline by 0.17 mb/d and 0.09 mb/d, respectively. Oil production of FSU Others is forecast to decline by a minor 0.01 mb/d to average 0.31 mb/d in 2020.

Russia

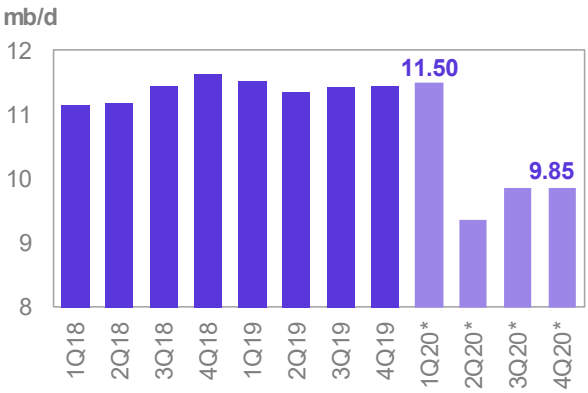
Preliminary data for Russia's liquids production in **March** shows the same level of production as in February at an average of 11.50 mb/d. Crude oil production in January averaged 10.60 mb/d, but in February, crude output fell by 19 tb/d to average 10.58 mb/d. In March, crude production remained unchanged at the same level of February, according to the Ministry of Energy. Russia's crude oil production reached the 10 mb/d level for the first time in September 2012, following which the highest level of 10.77 mb/d was recorded in August 2019. In March, total condensate and NGL output from gas condensate fields was unchanged from both January and February at 0.91 mb/d.

Graph 5 - 22: Russia's monthly liquids supply



Sources: Nefte Compass and OPEC.

Graph 5 - 23: Russia's quarterly liquids output



*Note: * 1Q20-4Q20 = Forecast.*
Sources: Nefte Compass and OPEC.

Annual liquids production in **2019** is estimated to have increased by 0.09 mb/d y-o-y to average 11.44 mb/d, the highest level since 1987. At the same time, crude oil production in 2019 rose by 0.1 mb/d y-o-y to average 10.63 mb/d.

For **2020**, Russian liquids supply is expected to decline by 1.30 mb/d y-o-y to average 10.14 mb/d, revised down by 1.38 mb/d compared to last month's assessment. Russia carries the largest share of the production adjustments of the non-OPEC countries participating in the DoC.

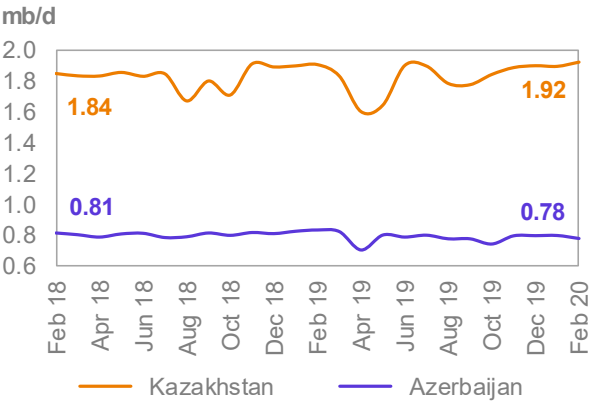
Caspian

Kazakhstan

Kazakhstan's liquids output in February rose by 0.03 mb/d to average 1.92 mb/d, higher by 0.02 mb/d y-o-y. While crude oil production increased by 27 tb/d to average 1.65 mb/d, up by 13 tb/d y-o-y, NGL output remained flat m-o-m at 0.27 mb/d, and flat y-o-y.

Kazakhstan's oil production in **2019** is not estimated to have grown y-o-y due to heavy maintenance, but for **2020,** total liquids production was revised down by 193 tb/d and is now forecast to decline by 0.17 mb/d to average 1.65 mb/d. It is worth noting that production costs in Kazakhstan are among the highest in the region, with some fields at more than $30/b.

Graph 5 - 24: Kazakhstan and Azerbaijan monthly liquids output



Sources: Nefte Compass and OPEC.

Azerbaijan

Azerbaijan's liquids output in **February** fell by 0.02 mb/d m-o-m to average 0.78 mb/d, lower by 0.05 mb/d y-o-y. Crude oil production fell by 11 tb/d to average 0.66 mb/d, while NGLs and condensates also dropped, falling by 8 tb/d to average 0.12 mb/d.

For **2019**, Azerbaijan's oil production is estimated to have declined by 0.02 mb/d to average 0.79 mb/d.

For **2020**, due to planned maintenance at the Chirag oil field and Shah Deniz gas-condensate field and considering the agreed voluntary adjustment, Azeri production is forecast to decline by 0.09 mb/d to average 0.70 mb/d.

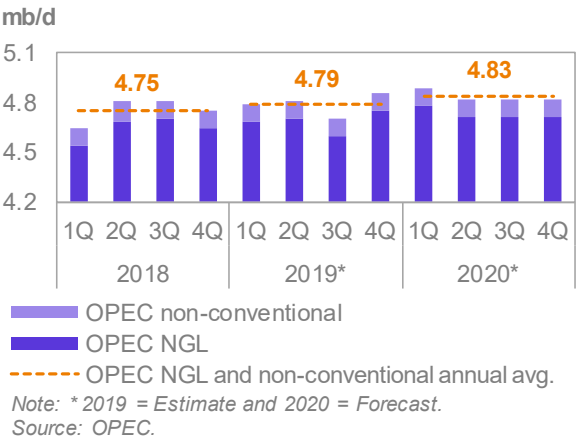
OPEC NGL and non-conventional oils

OPEC NGLs and non-conventional liquids are estimated to have grown by 0.04 mb/d in **2019** to average 4.79 mb/d, unchanged from last month's assessment, following growth of 0.12 mb/d in 2018.

OPEC NGL output in **February** remained unchanged at an average of 4.88 mb/d. Preliminary production in March also indicates the same level as in February.

The preliminary **2020** forecast indicates growth of 0.04 mb/d to average 4.83 mb/d, representing an upward revision by 0.01 mb/d, due to higher-than-expected NGL output in 1Q20.

Graph 5 - 25: OPEC NGL and non-conventional liquids output



*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

Table 5 - 7: OPEC NGL + non-conventional oils, mb/d

	2018	2019	Change 19/18	1Q20	2Q20	3Q20	4Q20	2020	Change 20/19
Total OPEC	**4.75**	**4.79**	0.04	4.88	4.82	4.82	4.82	**4.83**	0.04

Note: 2019 = Estimate and 2020 = Forecast.
Source: OPEC.

OPEC crude oil production

According to secondary sources, total **OPEC-13 preliminary crude oil production** averaged 28.61 mb/d in March, higher by 821 tb/d m-o-m. Crude oil output increased mainly in Saudi Arabia, UAE and Kuwait, while production decreased primarily in Venezuela, Libya and IR Iran.

Table 5 - 8: OPEC crude oil production based on *secondary sources*, tb/d

	2018	2019	3Q19	4Q19	1Q20	Jan 20	Feb 20	Mar 20	Change Mar/Feb
Algeria	1,042	1,022	1,021	1,022	1,016	1,012	1,009	1,027	18
Angola	1,505	1,401	1,390	1,350	1,388	1,375	1,387	1,402	15
Congo	317	325	325	315	300	294	305	301	-4
Equatorial Guinea	125	118	119	122	123	125	122	121	-1
Gabon	187	208	204	209	196	192	194	203	10
Iran, I.R.	3,553	2,356	2,189	2,113	2,056	2,082	2,070	2,018	-52
Iraq	4,550	4,680	4,752	4,633	4,565	4,508	4,604	4,585	-20
Kuwait	2,745	2,687	2,655	2,688	2,727	2,668	2,670	2,840	170
Libya	951	1,097	1,103	1,163	349	793	147	93	-54
Nigeria	1,718	1,786	1,842	1,777	1,800	1,760	1,788	1,853	65
Saudi Arabia	10,311	9,770	9,452	9,846	9,826	9,739	9,671	10,058	388
UAE	2,986	3,094	3,096	3,135	3,189	3,042	3,065	3,451	386
Venezuela	1,354	796	714	722	730	772	760	660	-100
Total OPEC	**31,344**	**29,338**	**28,862**	**29,096**	**28,264**	**28,360**	**27,790**	**28,612**	**821**

Notes: Totals may not add up due to independent rounding.
Source: OPEC.

Table 5 - 9: OPEC crude oil production based on *direct communication*, tb/d

	2018	2019	3Q19	4Q19	1Q20	Jan 20	Feb 20	Mar 20	*Change* Mar/Feb
Algeria	1,040	1,023	1,025	1,023	1,018	1,011	1,009	1,033	24
Angola	1,473	1,377	1,318	1,345	1,402	1,414	1,387	1,404	17
Congo	323	332	333	309	310	312	295	323	28
Equatorial Guinea	120	110	109	110	126	130	126	123	-4
Gabon	193	218	220	212	224	220	216	234	18
Iran, I.R.	..	..	..	..	..	..	..	..	..
Iraq	4,410	4,576	4,630	4,568	4,490	4,470	4,500	4,500	0
Kuwait	2,737	2,678	2,636	2,683	2,744	2,660	2,665	2,901	236
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,602	1,727	1,794	1,702	1,754	1,739	1,742	1,780	37
Saudi Arabia	10,317	9,808	9,503	9,929	9,755	9,748	9,784	9,733	-51
UAE	3,008	3,058	3,068	3,058	3,173	2,990	2,990	3,526	536
Venezuela	1,510	1,013	864	859	821	882	865	718	-147
Total OPEC	..	..	..	..	..	..	..	..	..

Notes: .. Not available. Totals may not add up due to independent rounding.
Source: OPEC.

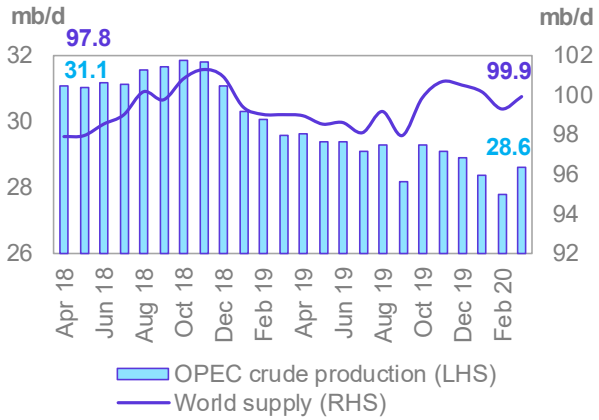
World oil supply

Preliminary data indicates that **global liquids production** in **March** increased by 0.62 mb/d to average 99.86 mb/d, compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) decreased in March by 0.20 mb/d compared with the previous month to average 71.25 mb/d, higher by 1.84 mb/d y-o-y. Preliminary declines in production during March 2020 were mainly driven by OECD Americas, Norway, Brazil and Kazakhstan.

The **share of OPEC crude oil in total global production** increased by 0.6 pp to 28.7% in March compared with the previous month. Estimates are based on preliminary data from direct communication for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

Graph 5 - 26: OPEC and world oil supply



Source: OPEC.

Product Markets and Refinery Operations

Refinery margins came under added pressure, affected by the downturn in product consumption inflicted by COVID-19 pandemic lockdowns. March prices for all products fell sharply, by around $20/b, in all regions. Nonetheless, performances varied across the different regions.

In the **US**, margins weakened as support from gasoil/diesel was offset by losses in gasoline cracks, with complex setups taking most of the hit as complex margins came close to negative territory.

In **Europe**, product markets strengthened slightly, supported by a fall in feedstock prices with most of the support coming from the gasoil segment. A traditionally tighter market compared to all other key products has made gasoil the margin leader, predominantly in Europe, aided by contango-structure-driven storage incentives, output cuts and ongoing industrial production of essential goods during the COVID-19 lockdown.

Meanwhile in **Asia**, margins suffered compared with the other regions and re-entered negative territory, pressured by weakness at the top of the barrel, despite positive performance in the gasoil and fuel oil crack markets.

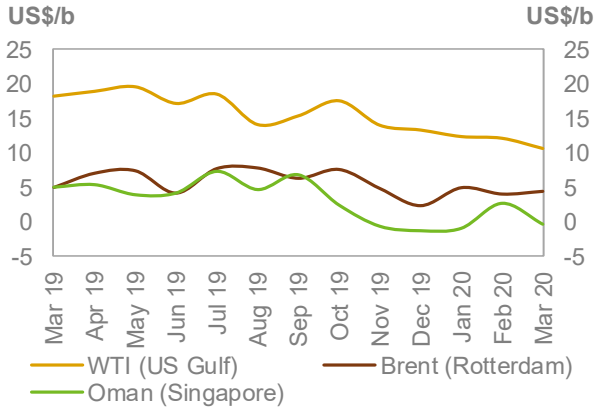
Refinery margins

US refining markets lost ground in March, impacted by negative performance at the top section of the barrel despite significant inventory drawdowns for most products.

Gasoline markets during the month suffered severely as cracks plummeted to record-breaking lows because of COVID-19 pandemic lockdowns and the subsequent fuel demand destruction.

The spread of the virus in the US precipitated several refinery intake cuts. Intakes were reported to have declined by around 20% compared with the previous month, in an effort to reduce product output as much as possible.

Graph 6 - 1: Refining margins



Sources: Argus and OPEC.

A common trend observed in all markets was the continued sharp losses in jet/kerosene markets due to air travel disruptions. Gasoil markets remained resilient, supported by continued industrial activity, domestic uses that were hardly affected by the pandemic, as well as stockpiling initiatives given the lower feedstock prices during the month. Simultaneously, the low feedstock price environment incentivised refiners to maximize diesel production, which could lead to relatively higher outputs in the coming month. US refinery margins against WTI averaged $10.76/b in March, down by $1.47/b m-o-m and by $7.51/b y-o-y.

European margins strengthened slightly with support from the decline in crude prices and sharp reductions in refinery processing rates. Refineries proactively cut intakes to mitigate the negative impact caused by plunging demand and the implementation of COVID-19 confinement measures.

Besides the call for lower throughputs due to the sharp downturn in fuel demand, refinery maintenance ramped up over the month, but remained below five-year average levels. The resulting support outweighed pressure linked to the demand side weakness.

In the physical market, gasoil and diesel were the only products to perform positively with combined inventories in the Amsterdam-Rotterdam-Antwerp trading hub down by 32.4% y-o-y around the end of the month.

Demand for diesel with lower sulphur content gasoil barges was strong in late March as more people staying at home and cooler temperatures at the end of the month bolstered demand for heating oil, while the steep contango in the paper market boosted inland demand for storage. Furthermore, the market was supported by a closed arbitrage for diesel volumes from the US Gulf Coast and unfavourable economics for arrivals from East of Suez into Europe. Refinery margins for Brent in Europe averaged $4.44/b in March, slightly up by 39¢ compared to a month earlier but down by 55¢ y-o-y.

In **Asia**, margins plunged during the month and re-entered negative territory as the demand side weakness continues to weigh on gasoline and jet fuel markets, and exerted significant pressure on complex margins. As the number of new COVID-19 cases declined in China, economic activities picked up along with refinery outputs, exacerbating the pressure on product markets. While the fall in infections in China and associated pickup in economic activity is supportive, this is being massively outweighed by extensive containment measures in other Asian countries. In India, declining consumption forced state refiners, which own around 60% of India's 5.0 mb/d refining capacity, to reduce the amount of crude they process as storage facilities fill up with unsold products. Similar events were reported throughout Asia, suggesting a growing product surplus over the month and further challenges for product markets in the coming month. Refinery margins for Oman lost $3.01 m-o-m to average minus 29¢/b in March, and were lower by $5.33 y-o-y.

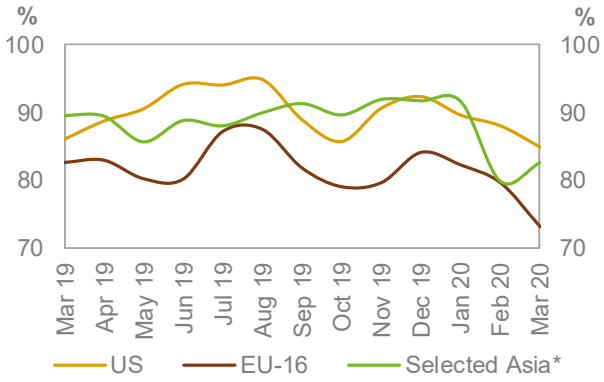
Refinery operations

US refinery utilization rates decreased, averaging 84.99%, which corresponds to a throughput of 15.98 mb/d. This represented a drop of 3.12 pp and 580 tb/d compared to the previous month. Y-o-y, the March refinery utilization rate was down by 1.11 pp, with throughputs down by 206 tb/d.

European refinery utilization averaged 76.28% in March, corresponding to a throughput of 9.46 mb/d. This is a m-o-m drop of 3.66 pp, or 450 tb/d. Y-o-y, utilization rates decreased by 6.31 pp and throughputs were down by 1.17 mb/d.

In **selected Asia** – comprising Japan, China, India, Singapore and South Korea – refinery utilization rates declined, averaging 82.59% in March, corresponding to a throughput of 23.40 mb/d.

Graph 6 - 2: Refinery utilization rates



*Note: * Japan, China, India, Singapore and South Korea.*
Sources: Argus, EIA, Euroilstock, PAJ and OPEC.

Compared to the previous month, throughputs were up by 2.80 pp and by 790 tb/d. Meanwhile, y-o-y they were down by 7.01 pp, which corresponded to a decline of 1.62 mb/d.

Product markets

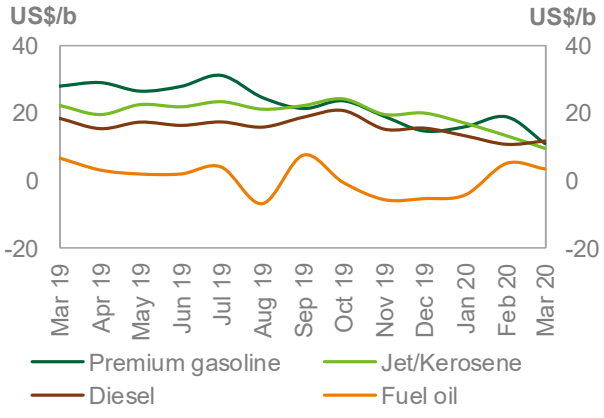
US market

US gasoline cracks moved lower, reaching a new multiyear record low pressured by weaker fundamentals as consumption remained depressed due to social distancing measures. Negative market sentiment triggered by concerns over plunging gasoline demand overshadowed supply side support as gasoline inventory levels and refinery intakes declined.

A surplus of winter-grade gasoline in the US prompted the US Environmental Protection Agency (EPA) to delay the shift to summer grade gasoline from 1 May to 20 May, which most likely added to the bearish sentiment in US gasoline markets.

In March, the gasoline crack spreads lost $7.92 m-o-m to average $10.85/b, and were down by $16.99 y-o-y.

Graph 6 - 3: US Gulf crack spread vs. WTI



Sources: Argus and OPEC.

The USGC **jet/kerosene crack spread** extended its gradual descent to reach a new multiyear low**,** affected by the disruption of air travel as COVID-19 cases in the US rose and sparked concerns of a surge in aviation fuel supplies. Flight cancellations were initially applied to voyages from and to Europe, but evolved into further restrictions on air travel to the rest of the world as well as within the country. Interestingly, this uplift recorded in jet fuel crack spreads took place despite considerable pressure on inventory levels, which may be attributed to elimination of stocks by the way of blending due to the quality degradation of the product during long-term

storage. The US jet/kerosene crack spread against WTI averaged $9.44/b, down by $3.81 m-o-m and by $12.98 y-o-y.

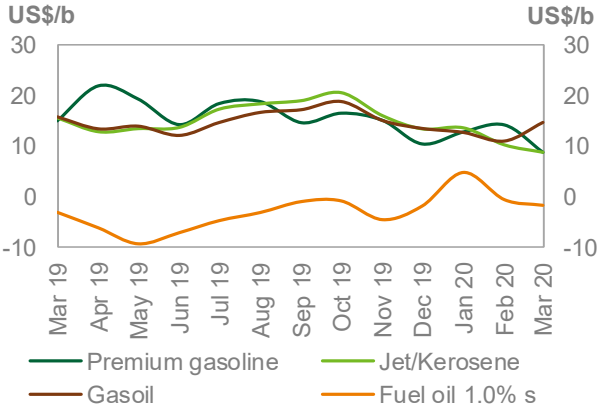
US **gasoil crack spreads** gained some ground, backed by market tightness reflected in US gasoil inventory movements during the month. Gasoil stock levels dropped consistently all weeks of March. This supportive factor, coupled with refinery intake cuts, contributed to the positive performance of US gasoil markets during the month. The US gasoil crack spread averaged $11.60/b, up by $1.00 m-o-m but down by $6.96 y-o-y.

US **fuel oil crack spreads** weakened following the strong gains of the previous month. The poor performance was in line with inventory level movements, which increased significantly over the month pressured by slower demand and significant inflows from Europe. In March, the US fuel oil crack spread averaged $3.48/b, down by $1.64 m-o-m and by $3.26 y-o-y.

European market

Gasoline crack spreads showed solid losses as prices tumbled under continued lockdowns across the region. The severe decline in domestic consumption and falling import interest from many countries have contributed to a rise in inventory levels. This has led to stronger floating storage in Europe to accommodate the gasoline surplus registered over the month, exacerbating the negative market sentiment. The gasoline crack spread averaged $8.81/b in March, down by $5.39 m-o-m and by $6.20 y-o-y.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus and OPEC.

The **jet/kerosene** crack spreads continued to decline and reached a multiyear record low, pressured by strong demand concerns due to the impact of COVID-19 on air travel. The Rotterdam jet/kerosene crack spread averaged $8.78/b, down $1.44 m-o-m and by $6.72 y-o-y.

European **gasoil** crack spreads showed robust performance in March, making it the strongest gasoil market compared with the other main trading hubs, with much of the support coming from industrial activity in sectors deemed critical and thus less affected by the COVID-19 pandemic. At the same time, cooler temperatures in late March and storage incentives boosted heating oil demand and contributed to the positive performance. In addition, lower refinery runs, amid a traditionally tight European gasoil market, all led to the solid m-o-m gains. The gasoil crack spread averaged $14.65/b, which was higher by $3.65 m-o-m but lower by $1.10 y-o-y.

At the bottom of the barrel, **fuel oil 3.5% crack spreads** in Rotterdam strengthened significantly with support from lower product availability amid some export opportunities to the USGC and stocking interest backed by the contango structure. The fuel oil 3.5% futures moved to their steepest contango in 11 years as demand waned from markets due to the coronavirus pandemic. Fuel oil 1% crack spreads remained nearly flat m-o-m, with divergent trends between the two products resulting in a narrowing of the LSFO-HSFO spread and pointing to a less economically favoured scenario for ship owners that invested in scrubbers. Land storage for fuel oil was reported fuller, forcing participants to seek floating storage despite rising freight rates, suggesting a bearish fuel oil market in Europe for the near term, particularly when storage space is exhausted.

The fuel oil crack spread against Brent averaged minus $10.59/b, which was higher by $6.65 m-o-m but lower by $4.25 y-o-y.

Asian market

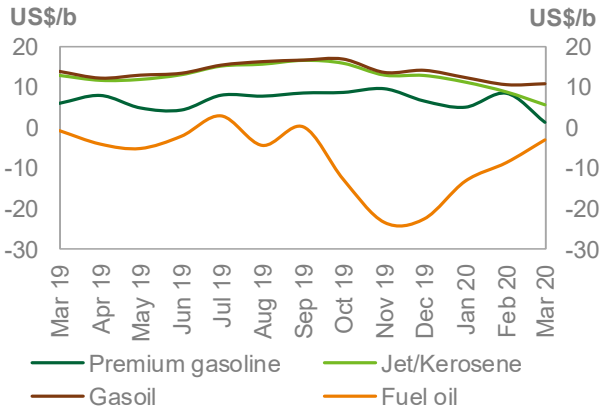
The **Asian gasoline 92** crack spread against Dubai dropped in March, pressured by expectations of stronger gasoline availability as economic activity and refinery intakes picked up in China. The cancellation of gasoline import orders from outside the region weighed further. The Singapore gasoline crack spread against Oman averaged $1.30/b in March, down by $7.07 m-o-m and by $4.62 y-o-y.

Singapore light distillate **naphtha crack spreads** performed negatively, pressured by healthy inflows amid poor gasoline blending economics. Robust fixing activities for arbitrage cargoes from both Europe and the US, coupled with requirement uncertainties from the petrochemical industry, had a negative impact on naphtha fundamentals.

Concerns over processing rate reductions at petrochemical plants in China should petrochemical product exports to the US and Europe decline due to the lockdowns and the impact of the pandemic on those economies, could continue to weigh on naphtha markets in the near term. The Singapore naphtha crack spread against Oman averaged minus $3.18/b, down by $1.49 m-o-m and by $3.49 y-o-y.

In the middle of the barrel, the **jet/kerosene** crack spreads in Asia fell as airlines cancelled flights on international and domestic routes amid stringent travel restrictions to slow down the rate of new COVID-19 cases. The plunge in global jet demand led to stock builds, which were exacerbated by bearish signals triggered by rising refinery intakes in China. The Singapore jet/kerosene crack spread against Oman averaged $5.61/b, down by $3.19 m-o-m and by $7.30 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

The Singapore **gasoil crack spread** posted gains this month. The improvement is attributed to the fuel's long-term storage suitability amid a worldwide contango structure. This was reflected in the robust gasoil arrivals in Singapore, which reached a record 515 tb/d in March, up by 75% y-o-y. The Singapore gasoil crack spread against Oman averaged $10.64/b, up by 23¢m-o-m but lower by $3.11 y-o-y.

The Singapore **fuel oil 3.5% crack spread** extended the upward trend of the previous month, and inched closer to positive territory. This development is attributed to favourable pricing signals for VLSFO, as it is generally trading solidly above gasoline and jet fuel. This boosted VLSFO markets for maximum storage interest, which in turn supported HSFO as well. Singapore fuel oil cracks against Oman averaged minus $3.07, up by $5.62 m-o-m but down by $2.30 y-o-y.

Table 6 - 1: Short-term prospects for product markets and refinery operations

Event	Time frame	Asia	Europe	US	Observations
COVID-19 lockdown	Mar 20	↓ Negative impact on product markets	↓ Negative impact on product markets	↓ Negative impact on product markets	The severe downturn in fuel consumption is expected to extend to the coming month, and the negative impact (pressure on fuel prices due to higher product availability) could prolong to well into 2H20.
Further refinery intake cuts	Mar 20	↑ Some positive impact on product markets	↑ Some positive impact on product markets	↑ Some positive impact on product markets	Given the continued announcements of additional refinery intake cuts, amid extension of the lockdowns globally could help offset some of the demand side pressure.
Product storage capacity	Apr 20–May 20	↓ Negative impact on product markets	↓ Negative impact on product markets	↓ Negative impact on product markets	Diminishing product storage space given the severe downturn in demand could place further pressure on product markets forcing refiners to make deeper intake reductions. This could ultimately hurt refining margins as well.
Driving season	2Q20	↓ Negative impact on product markets	↓ Negative impact on product markets	↓ Negative impact on product markets	The traditional bullish factors for fuel markets typically seen during summer season are expected to be largely outweighed by the COVID-19 related weakness.

Source: OPEC.

Table 6 - 2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				*Refinery utilization, %*			
	Jan 20	Feb 20	Mar 20	*Change* Mar/Feb	Jan 20	Feb 20	Mar 20	*Change* Mar/Feb
US	**16.87**	**16.57**	**15.98**	**-0.58**	**89.68**	**88.11**	**84.99**	**-3.1 pp**
Euro-16	**10.19**	**9.87**	**9.07**	**-0.80**	**82.23**	**79.62**	**73.17**	**-6.4 pp**
France	0.75	0.72	0.47	-0.25	59.83	57.27	37.62	-19.6 pp
Germany	1.85	1.84	1.60	-0.24	84.73	84.00	73.17	-10.8 pp
Italy	1.31	1.33	1.23	-0.11	63.83	65.20	59.87	-5.3 pp
UK	1.19	1.07	1.00	-0.07	90.40	81.49	76.24	-5.3 pp
Selected Asia*	**25.97**	**22.60**	**23.40**	**0.79**	**91.67**	**79.79**	**82.59**	**2.8 pp**

*Note: * Includes Japan, China, India, Singapore and South Korea.*

Sources: EIA, Euroilstock, PAJ, FGE, and OPEC.

Table 6 - 3: Refinery crude throughput, mb/d

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	1Q20
Total OECD	**38.35**	**38.23**	**37.60**	**37.45**	**37.34**	**38.58**	**37.21**	**37.03**
OECD Americas	**19.10**	**19.31**	**18.95**	**18.36**	**19.07**	**19.55**	**18.83**	**18.53**
US	16.88	17.32	16.98	16.46	17.14	17.43	16.87	16.47
OECD Europe	**12.44**	**12.17**	**12.09**	**12.22**	**11.82**	**12.50**	**11.99**	**11.94**
France	1.17	1.10	1.00	1.12	0.98	1.06	0.82	0.65
Germany	1.91	1.80	1.78	1.76	1.70	1.83	1.83	1.76
Italy	1.40	1.35	1.35	1.24	1.33	1.48	1.33	1.29
UK	1.10	1.06	1.08	1.08	1.03	1.07	1.14	1.09
OECD Asia Pacific	**6.82**	**6.74**	**6.56**	**6.87**	**6.45**	**6.54**	**6.39**	**6.56**
Japan	3.22	3.11	3.04	3.19	2.94	3.05	3.00	2.96
Total Non-OECD	**42.12**	**43.41**	**44.12**	**44.10**	**43.15**	**44.36**	**44.85**	**42.20**
China	11.35	12.03	12.98	12.62	12.66	12.95	13.68	11.95
Middle East	7.04	7.26	7.09	7.32	7.06	7.17	6.82	6.74
Russia	5.59	5.72	5.70	5.71	5.38	5.89	5.83	5.76
Latin America	4.49	4.22	4.05	4.06	3.98	4.12	4.02	4.04
India	4.79	4.89	5.03	5.11	4.97	4.96	5.08	5.14
Africa	2.24	2.24	2.30	2.22	2.22	2.35	2.39	2.23
Total world	**80.48**	**81.64**	**81.72**	**81.55**	**80.50**	**82.94**	**82.06**	**79.24**

Note: Totals may not add up due to independent rounding.

Sources: AFREC, APEC, EIA, IEA, Euroilstock, PAJ, Ministry data, including Ministry of Energy of the Russian Federation, Ministry of Petroleum and Natural Gas of India, OPEC and JODI.

Table 6 - 4: Refined product prices, US$/b

		Feb 20	Mar 20	Change Mar/Feb	Annual avg. 2019	Year-to-date 2020
US Gulf (Cargoes FOB)						
Naphtha*		50.25	22.13	-28.12	56.86	42.79
Premium gasoline	(unleaded 93)	69.37	40.74	-28.63	79.66	61.17
Regular gasoline	(unleaded 87)	64.13	35.58	-28.55	72.70	55.69
Jet/Kerosene		63.85	39.33	-24.52	79.32	59.25
Gasoil	(0.2% S)	61.20	41.49	-19.71	74.61	57.81
Fuel oil	(3.0% S)	43.55	23.84	-19.71	52.55	36.35
Rotterdam (Barges FoB)						
Naphtha		51.30	27.08	-24.22	55.71	45.53
Premium gasoline	(unleaded 98)	69.65	40.52	-29.13	79.52	62.12
Jet/Kerosene		65.67	40.49	-25.18	80.22	61.03
Gasoil/Diesel	(10 ppm)	66.45	46.36	-20.09	79.50	62.96
Fuel oil	(1.0% S)	54.82	29.98	-24.84	60.15	50.96
Fuel oil	(3.5% S)	44.31	31.50	-12.81	54.19	40.61
Mediterranean (Cargoes FOB)						
Naphtha		49.46	24.88	-24.58	54.48	43.46
Premium gasoline**		63.15	33.29	-29.86	71.36	55.16
Jet/Kerosene		63.27	37.76	-25.51	77.77	58.24
Diesel		65.88	44.99	-20.89	79.03	61.93
Fuel oil	(1.0% S)	58.81	33.38	-25.43	63.42	54.62
Fuel oil	(3.5% S)	40.47	22.93	-17.54	50.55	34.50
Singapore (Cargoes FOB)						
Naphtha		52.56	30.60	-21.96	57.10	48.07
Premium gasoline	(unleaded 95)	64.34	36.42	-27.92	72.45	57.30
Regular gasoline	(unleaded 92)	62.62	35.08	-27.54	69.45	55.59
Jet/Kerosene		63.05	39.39	-23.66	77.26	59.26
Gasoil/Diesel	(50 ppm)	65.67	45.22	-20.45	77.78	62.40
Fuel oil	(180 cst)	45.56	30.71	-14.85	57.29	42.36
Fuel oil	(380 cst 3.5% S)	44.34	30.06	-14.28	56.70	41.27

*Note: * Barges. ** Cost, insurance and freight (CIF).*

Sources: Argus and OPEC.

Tanker Market

The tanker market has been one of few segments of the oil industry that enjoyed positive momentum in **March**, with gains in both dirty and clean spot freight rates.

A sudden surge in crude exports early in March boosted demand for VLCCs and also pulled up Suezmax rates. **Dirty spot freight rates** declined mid-month before climbing again, as the market was buffeted by high demand for tankers. Charterers rushed to place cargoes amid a collapse in oil demand due to the COVID-19 pandemic. Increased options for time-chartering - including for floating storage - reflected a build-up of excess supply of both crude oil and products in the market. Dirty spot rates averaged 69% higher in March.

Clean tanker spot freight rates also rose, increasing by 19%, as disruptions and the need to find markets for excess product supply supported rates.

Spot freight rates declined w-o-w at the beginning of **April,** as charters pulled back from the market to await the outcome of efforts to address the glut of crude and products amid measures to stem COVID-19 disruptions.

Looking ahead, announced reductions in crude exports and a sharp cutback in refinery runs in the face of a massive collapse in end-user demand for products present a considerable downside risk for the tanker market from May onward. At the same time, with onshore commercial storage filling up, demand for floating storage for both crude and products will likely provide support to the market over the coming months.

Spot fixtures

Global spot fixtures increased m-o-m in March, gaining around 1.3 mb/d or 7%, to average 19.9 mb/d. However, spot fixtures were still 8.5 mb/d, or 30%, lower than the notably strong performance seen in the same month last year. The increase followed a jump in crude bookings from major exporters at the start of the month.

Table 7 - 1: Spot fixtures, mb/d

				Change
	Jan 20	Feb 20	Mar 20	Mar 20/Feb 20
All areas	18.19	18.62	19.92	1.30
OPEC	12.57	12.54	13.92	1.38
Middle East/East	7.70	7.40	8.01	0.61
Middle East/West	1.13	1.20	2.89	1.69
Outside Middle East	3.73	3.94	3.02	-0.92

Sources: Oil Movements and OPEC.

OPEC spot fixtures averaged 13.92 mb/d in March, representing an increase of 1.38 mb/d, or 11%, over the previous month, but still a substantial 5.8 mb/d, or 30%, lower y-o-y due to adjustments in OPEC supply since then.

Middle East-to-East fixtures rose by 0.6 mb/d, or 8%, in March, but remained 27% lower than the levels seen in the same month last year.

Middle East-to-West fixtures jumped more than 140% to average 2.9 mb/d, representing a gain of 1.69 mb/d. Fixtures on the route were 0.9 mb/d, or 44%, higher than the same month last year. The increase was driven by higher exports to Europe and the US.

Outside of the Middle East, fixtures declined by 0.9 mb/d, or 23%, to average 3.0 mb/d in March. In annual terms, fixtures were sharply lower, registering a decline of 3.8 mb/d, or 55%.

Sailings and arrivals

OPEC sailings declined by 0.4 mb/d in March to average 23.78 mb/d and were down by 0.5 mb/d, or 2%, compared with March 2019. The drop was due to sailings outside the Middle East, as those from the region rose slightly by 0.1 mb/d to average 17.58 mb/d, although they were still 0.8 mb/d, or 4%, lower y-o-y.

Crude arrivals were mixed in March. Arrivals in North America declined some 3% m-o-m to average 7.8 mb/d. Y-o-y, arrivals were 22% lower on the route, partly reflecting a continued drop in US crude imports. Arrivals also declined in West Asia, falling some 6% m-o-m from a relatively strong level in February and down around 2%

y-o-y. In contrast, arrivals in Europe and the Far East saw gains. Arrivals in Europe averaged 12.0 mb/d in March, representing an increase of 2% m-o-m and gains of more than 3% y-o-y. In the Far East, arrivals averaged 8.8 mb/d, representing an increase of 4% m-o-m and nearly 11% y-o-y. Monthly gains in the Far East were driven by a recovery from the prior month when arrivals were slowed by COVID-19 disruptions.

Table 7 - 2: Tanker sailings and arrivals, mb/d

	Jan 20	Feb 20	Mar 20	Change Mar 20/Feb 20
Sailings				
OPEC	24.61	24.17	23.78	-0.39
Middle East	17.94	17.47	17.58	0.11
Arrivals				
North America	8.98	8.04	7.79	-0.25
Europe	11.97	11.72	12.00	0.28
Far East	8.72	8.47	8.82	0.35
West Asia	4.11	4.32	4.06	-0.26

Sources: Oil Movements and OPEC.

Dirty tanker freight rates

Very large crude carriers (VLCCs)

The tanker market was one of the few segments of the oil industry that enjoyed positive momentum in March, as a sudden surge in crude exports boosted tanker demand and freight rates. Additionally, the sharp contango structure for both crude and products provided an incentive to book floating storage, cutting into tanker availability. As a result, **VLCC spot freight rates** saw impressive gains across the board in March, rising by an impressive 188% on average m-o-m.

Rates on the **Middle East-to-West** route led gains in March, more than tripling the figure seen the previous month to average WS100, following a sudden rise in Middle East exports to Europe and the US, reversing the decline in activity on the route over the last year. Rates saw a similar increase y-o-y.

Meanwhile, freight rates for tankers operating on the **Middle East-to-East** route surged by 194% m-o-m in March to average WS127. Y-o-y, rates rose by 112%.

The surge in activity also tightened the **West Africa-to-East** route, where rates rose by 155% to WS121, representing an increase of 109% compared with March 2019.

Table 7 - 3: Dirty VLCC spot tanker freight rates, Worldscale (WS)

	Size 1,000 DWT	Jan 20	Feb 20	Mar 20	Change Mar 20/Feb 20
VLCC					
Middle East/East	230-280	93	43	127	84
Middle East/West	270-285	53	30	100	70
West Africa/East	260	90	48	121	74

Sources: Argus and OPEC.

Suezmax

The factors driving the upward trend in VLCC activity had a similar impact on **Suezmax** rates, with **average spot freight rates** increasing by 55% m-o-m on average in March. The high VLCC rates encouraged some charterers to split cargoes to take advantage of the lower Suezmax rates, adding to the upward pressure. Rates enjoyed an even stronger improvement y-o-y, increasing by 125% compared with the same month last year.

Rates for tankers operating on the **West Africa-to-US Gulf Coast** (USGC) route averaged WS123 in March, an increase of 60% over the month before. Y-o-y, rates were 141% higher than in March last year.

Meanwhile, the **Northwest Europe (NWE)-to-USGC** route rose by 49% m-o-m to average WS98, representing a 108% jump compared with the same month last year.

Table 7 - 4: Dirty Suezmax spot tanker freight rates, WS

	Size				Change
	1,000 DWT	Jan 20	Feb 20	Mar 20	Mar 20/Feb 20
Suezmax					
West Africa/US Gulf Coast	130-135	130	77	123	46
Northwest Europe/US Gulf Coast	130-135	108	66	98	32

Sources: Argus and OPEC.

Aframax

Aframax rates rose by 34% in March, mirroring gains in other classes to a lesser extent. However, this was still below the strong performance seen at the end of last year, when Aframax rates were boosted by preparations for IMO 2020.

Rates in the **Mediterranean (Med)-to-NWE route** led the increase with 91%, recovering from poor performance in the previous month, to average WS139. The **cross-Med** route rose 77% to average WS142, while the Indonesia-to-East route increased by 20% to average WS121.

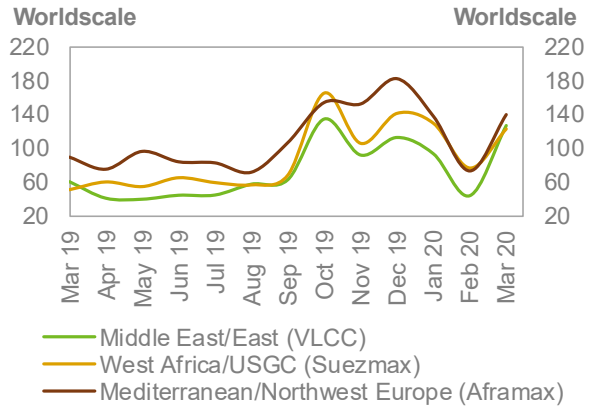
Table 7 - 5: Dirty Aframax spot tanker freight rates, WS

	Size				Change
	1,000 DWT	Jan 20	Feb 20	Mar 20	Mar 20/Feb 20
Aframax					
Indonesia/East	80-85	151	100	121	20
Caribbean/US East Coast	80-85	320	170	165	-5
Mediterranean/Mediterranean	80-85	151	80	142	62
Mediterranean/Northwest Europe	80-85	137	73	139	66

Sources: Argus and OPEC.

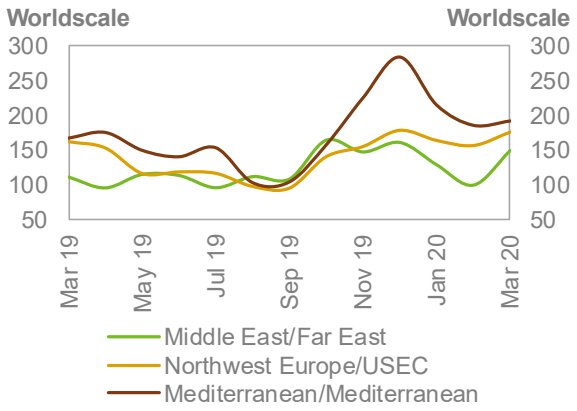
The Caribbean-to-US East Coast (USEC) route experienced a decline, edging down by 3% m-o-m to average WS165, though still managing a y-o-y increase of 67% to average WS121.

Graph 7 - 1: Crude oil spot tanker freight rates, monthly average



Sources: Argus and Platts.

Graph 7 - 2: Products spot tanker freight rates, monthly average



Sources: Argus and OPEC.

Clean tanker freight rates

The **clean spot tanker** market was not left out of the upward trend seen across the tanker market, increasing by 12% m-o-m in March, with gains on all major routes. Despite the decline, product tanker rates outperformed the same month last year by 6%.

On the **East of Suez** route, clean tanker spot freight rates increased by 27% m-o-m in March and were 19% higher than the same month last year. The **Middle East-to-East** route rose by 50% m-o-m to average WS150. Meanwhile, the **Singapore-to-East** route averaged WS154, representing a m-o-m increase of 10%.

Clean tanker spot freight rates for **West of Suez** were around 6% higher in March compared with the previous month and up some 13% from the same month last year. The **Cross-Med** and **Med-to-NWE** routes experienced a slight increase of 3% to average WS191 and WS201, respectively. Meanwhile, rates on the **NWE-to-USEC** route increased by 12% to WS177.

Table 7 - 6: Clean spot tanker freight rates, WS

	Size				*Change*
	1,000 DWT	Jan 20	Feb 20	Mar 20	Mar 20/Feb 20
East of Suez					
Middle East/East	30-35	130	100	150	50
Singapore/East	30-35	152	140	154	14
West of Suez					
Northwest Europe/US East Coast	33-37	165	157	177	19
Mediterranean/Mediterranean	30-35	214	185	191	6
Mediterranean/Northwest Europe	30-35	224	195	201	6

Sources: Argus and OPEC.

Oil Trade

Crude and product trade flows have been increasingly impacted since the end of last year by the COVID-19 pandemic and the uncertain outlook going forward amid the unprecedented measures taken to combat the spread of the virus. In broad terms, there has been a lag in how trade in various regions have been affected, with the Far East impacted first, followed by Europe, then the US and India.

US crude exports had a strong start to the year, averaging 3.6 mb/d in 1Q20, a gain of 0.8 mb/d over the same quarter last year, as the US remained a net liquids exporter for the seventh consecutive month. Products imports jumped 0.4 mb/d m-o-m in March, led by gains in gasoline but were still 1% below last year's level. Product exports were 0.3 mb/d higher y-o-y in the same month last year.

The release of official trade data from **China** was irregular since December, with only an aggregate figure provided for the first two months of the year. In January and February, China's crude imports averaged 10.5 mb/d, declining relative to December figures, as disruptions caused by the COVID-19 outbreak led to some imports being diverted or delayed. Product trade was also affected, with imports and exports averaging 0.4 mb/d lower in the first two months of the year, as domestic demand and refinery runs were sharply reduced.

India's crude imports increased slightly in February, although some estimates show a higher rise as the country took in some discounted cargoes diverted from China. Product imports were higher y-o-y supported by continued strength in LPG, which has been boosted by a government effort to expand energy access. India's crude and product trade is likely to be broadly affected in March by a 21-day government-ordered lockdown to combat the spread of COVID-19.

Japan's crude imports fell y-o-y in February for the second month in a row amid reduced refinery runs and weak product demand overall in the Asian region. Product imports declined y-o-y amid continued weakness in domestic product sales, although gasoline imports were somewhat higher. Product exports were lower y-o-y across all major products, except fuel oil.

The latest available official data for December shows that **OECD Europe** crude exports declined by 0.2 mb/d from the strong performance of the previous month, when exports jumped by 2.6 mb/d, supported by the ramp up of the Johan Sverdrup field in the North Sea. Product trade softened in December, with both imports and exports down by around 0.4 mb/d.

Trade flows are likely to continue to fluctuate over the coming months as measures taken to combat COVID-19 continue to impact demand for oil product imports, particularly transportation fuels. On the crude side, persistently low refinery runs will reduce the need to import crude. In this context, the historic agreement to stabilise the market by countries participating in the 'Declaration of Cooperation', together with the supportive measures by other major exporting countries, will have a considerable impact on crude trade flows from May onwards.

US

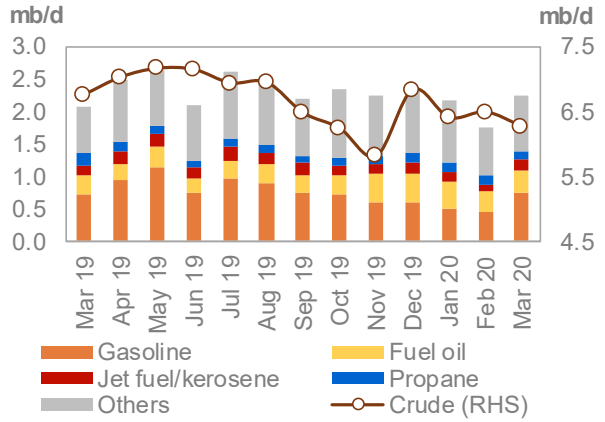
US crude exports had a strong start to the year, with preliminary data indicating that outflows hit a new record high of 3.7 mb/d in March, following an increase of 0.1 mb/d over the previous month. Y-o-y, crude exports jumped 1.0 mb/d or 38% compared to the same month last year. In 1Q20, US crude exports have averaged 3.5 mb/d, an increase of 28% or 0.8 mb/d over the previous year.

In terms of **destinations**, South Korea has emerged as a key buyer of US crude, taking in 0.55 mb/d in January. Canada remained the long-standing top buyer with 0.59 mb/d. While almost half of US crude exports go to Asia, China has been noticeably absent on the list of destinations so far this year, although exports reportedly resumed at the end of March with VLCCs booked to fill Chinese SPR. However, the disruption caused by COVID-19 are expected to weigh on demand for US exports, with exports potentially falling below 3.0 mb/d in the coming months.

Preliminary data showed **US crude oil imports** continued to fall since the start of the year, averaging 6.3 mb/d, in March. This represents a decline of 0.2 mb/d or 3% m-o-m and some 0.5 mb/d or 7% lower than the same period last year. In the first three months of the year, US crude oil imports averaged 6.34 mb/d, representing a decline of 8% or 0.6 mb/d compared to 2019. The decline came as rising domestic production dampened demand for imports.

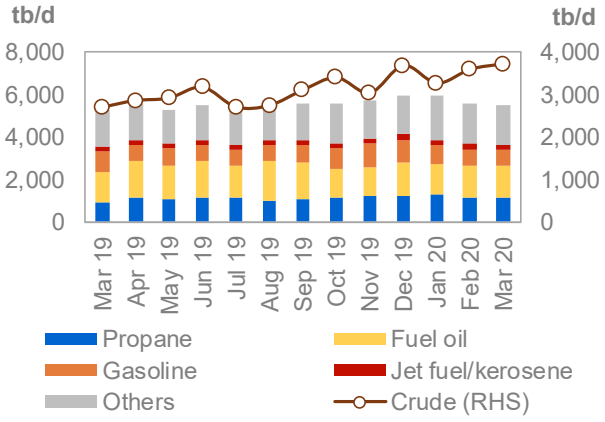
As a result, **US net crude imports** averaged 2.6 mb/d in March, a decline of over 0.3 mb/d or 12% from the previous month. Y-o-y, US net crude imports were 37% or 1.5 mb/d lower than the same period last year.

Graph 8 - 1: US imports of crude and products



Sources: EIA and OPEC.

Graph 8 - 2: US exports of crude and products



Sources: EIA and OPEC.

On the product side, preliminary data showed **US product exports** averaged 5.5 mb/d in March, representing a marginal decline compared to the previous month, but some 5% or 0.3 mb/d higher than the same month last year. In the first three months of 2020, product exports from the US averaged 5.7 mb/d, representing a gain of 5% or 0.3 mb/d y-o-y.

The most recent data for US product exports by **destinations** highlights the importance of Latin America, which took in almost 40% of US product outflows in January 2020. Disruptions caused by COVID-19 are likely to impact the demand for US products in these countries, with countries such as Brazil exporting diesel due to low demand and Mexico importing excess Chinese gasoline for the first time.

US product imports rose 0.5 mb/d, or around 28%, in March to average 2.2 mb/d. Compared to the same month last year, US product imports were 0.2 mb/d or around 8% higher. In 1Q20, product imports into the US averaged 2.1 mb/d, broadly stable compared to the same quarter in 2019.

As a result, **US net product exports** averaged 3.3 mb/d in March, a decline of 0.5 mb/d compared to the previous month. Y-o-y, net product exports were around 3% or 0.1 mb/d higher than in March 2019. **Net crude and product exports combined** averaged 0.7 tb/d in March, according to preliminary data. This can be compared to the same month last year when the US was a net crude and product import by 0.9 mb/d. It was the seventh-consecutive month whereby the US was a net crude and petroleum products exporter. However, the most recent monthly report by the Energy Information Administration (EIA) forecasts that the US will return to being a net importer of crude and products in 3Q20, as US exports of crude and products are expected to decline.

Table 8 - 1: US crude and product net imports, tb/d

				Change
	Jan 20	Feb 20	Mar 20	Mar 20/Feb 20
Crude oil	3,157	2,912	2,565	-347
Total products	-3,762	-3,799	-3,268	531
Total crude and products	**-605**	**-887**	**-703**	**184**

Sources: EIA and OPEC.

China

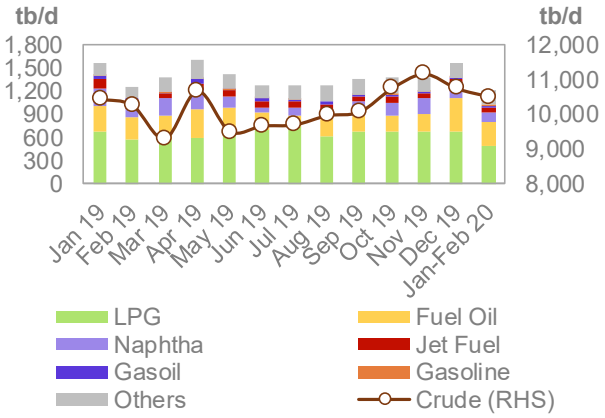
Official data on China's crude and product trade flows continues to be affected by COVID-19 disruptions, with only combined figures reported for January/February 2020 and December figures only recently released.

Crude imports were lower in the first two months of the year, as some China-bound cargoes were diverted, following cuts in refinery runs amid strict COVID-19 measures. Imports averaged 10.5 mb/d, representing a decline of 0.2 mb/d or 2% m-o-m. Y-o-y, crude imports were 0.1 mb/d or 1% higher compared to the same month last year.

Saudi Arabia regained the title of top **crude supplier** to China for the combined January/February period, with a share of 17.1% or 1.8 mb/d in imports, an increase of 9% over the previous month. Russia fell to second place while still retaining its 16% share, followed by Iraq with 12%, Brazil with 9% and Angola with 7%.

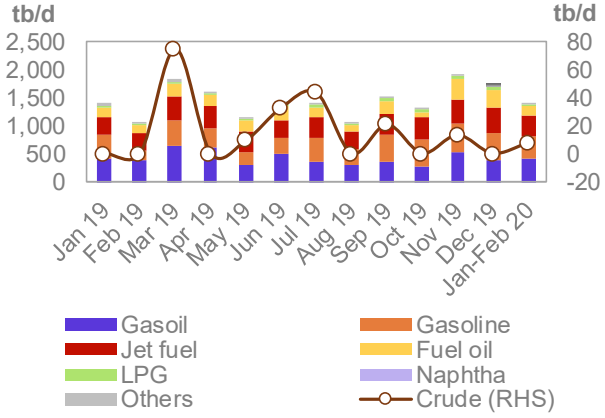
Given that China is ahead of the curve in terms of dealing with the COVID-19 outbreak, crude imports could see some improvement the next months amid an otherwise weak global market, supported by the restart of industrial activities and inflows into strategic reserves.

Graph 8 - 3: China's imports of crude and products



Sources: Argus and OPEC.

Graph 8 - 4: China's exports of crude and products



Sources: Argus and OPEC.

China's product imports averaged 1.2 mb/d in January/February, representing a decline of 0.3 mb/d or 22% compared to December 2019 and 0.2 mb/d or 7% lower compared to the same period in 2019. Most major products experienced declines, except gasoil, which was 27% higher than December levels, and gasoline, which nearly doubled. Jet fuel and LPG led the declines, down by 37% and 27%, respectively.

Product exports from China continued to decline from a peak of 1.9 mb/d reached in November 2019. In January/February, product outflows fell by 0.3 mb/d or almost 20%, likely reflecting the disruption in refinery operations as well as port delays following measures to stem the COVID-19 outbreak. Declines were seen in fuel oil (-44%), jet fuel (-21%) and gasoline (-19%), while gasoil outflows increased by 10% compared to December levels. Y-t-d, China's product exports were some 7% compared to the same period last year, with gains reflecting the country's continued increase in refinery capacity.

As a result, China has remained a **net product exporter** since November 2019, with net exports of 205 tb/d, compared to net exports of 188 tb/d in December 2019 and net imports of 166 tb/d in the same month last year.

Table 8 - 2: China's crude and product net imports, tb/d

				Change
	Nov 19	Dec 19	Jan-Feb 20	Jan-Feb 20/Dec 19
Crude oil	11,147	10,740	10,495	-245
Total products	-543	-188	-205	-17
Total crude and products	**10,605**	**10,552**	**10,290**	**-261**

Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC.

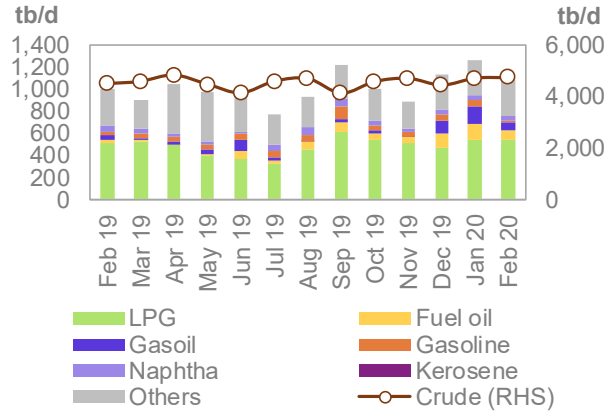
India

Official data showed **India's crude imports** increase marginally m-o-m in February, averaging 4.7 mb/d. Y-o-y, crude imports rose 0.2 mb/d or around 5%. Some estimates show a much higher increase as the country took in some discounted cargoes diverted from China because of COVID-19 disruptions.

Over the next months, India's crude imports are likely to be impacted by a 21-day government ordered lockdown. Spot purchases and tenders have been suspended during this period, with some refiners looking to delay cargoes or even resell those already on route.

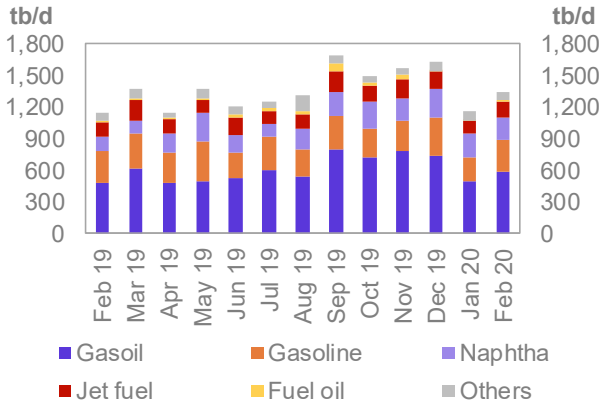
India's **product imports** declined in February, averaging 1.1 mb/d for the month, which represents a decline of 0.2 mb/d or nearly 14%. Compared to the same month last year, product imports were 0.1 mb/d or almost 9% higher. Diesel and fuel oil imports led declines, down 57% and 40%, respectively, compared with the previous month. Product imports are likely to be depressed over the next months amid reduced domestic demand, particularly for transportation fuels.

Graph 8 - 5: India's imports of crude and products



Sources: PPAC and OPEC.

Graph 8 - 6: India's exports of products



Sources: PPAC and OPEC.

India's **product exports** increased in February, with a m-o-m gain of 0.2 mb/d or 15% to average 1.3 mb/d. Product exports were also some 0.2 mb/d or 17% higher than in the same month last year. In terms of major products, diesel and gasoline led gains, while naphtha and kerosene declined. The increase came amid declining domestic product demand, product storage limitations, and as refiners were reluctant to cut runs.

As a result, India was a **net product exporter** in February, after briefly being a marginal importer the month before. Net product exports averaged 0.2 mb/d in February, broadly in line with the country's performance in the same month last year.

Table 8 - 3: India's crude and product net imports, tb/d

				Change
	Dec 19	Jan 20	Feb 20	Feb 20/Jan 20
Crude oil	4,419	4,689	4,707	18
Total products	-502	93	-258	-351
Total crude and products	**3,917**	**4,782**	**4,449**	**-333**

Note: India data table does not include information for crude import and product export by Reliance Industries.
Sources: PPAC and OPEC.

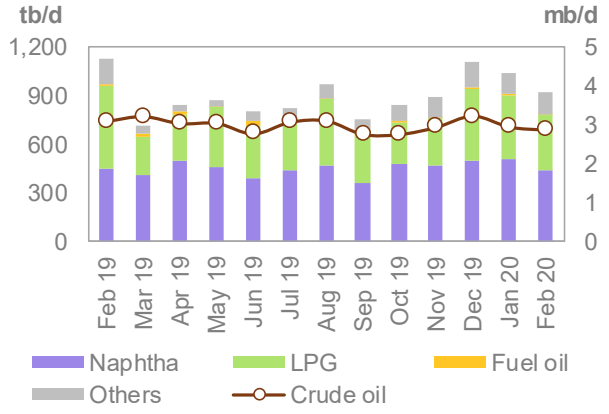
Japan

Japan's crude imports fell y-o-y in February for the second month-in-a-row amid reduced refinery runs and weak product demand overall in the Asian region. Crude oil imports averaged 2.9 mb/d in February, representing a marginal decline m-o-m of around 3%. Y-o-y, crude oil imports were 221 tb/d or 7% lower.

The UAE was the **top supplier of crude** to Japan in February, averaging 1.0 mb/d, representing a share of 35%. Saudi Arabia held the second spot with around 34%, followed by Qatar 10%.

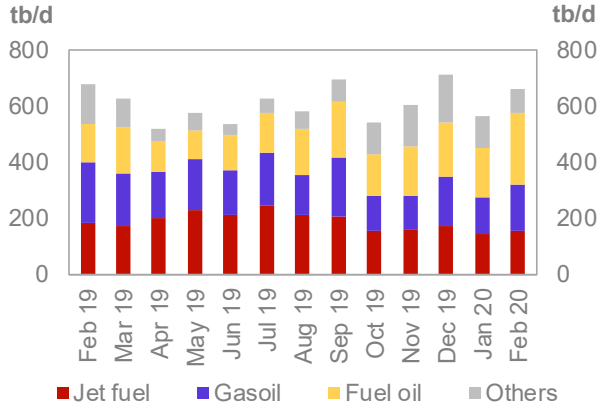
Product imports to Japan, including LPG, averaged 0.9 mb/d in February, representing a decline of 118 tb/d or 11% over the previous month. Naphtha and LPG experienced the biggest declines, while gasoline and jet fuel imports rose, likely encouraged by competitive prices amid excess supplies of transport fuels in the region.

Graph 8 - 7: Japan's imports of crude and products



Sources: METI and OPEC.

Graph 8 - 8: Japan's exports of products



Sources: METI and OPEC.

Meanwhile, **product exports**, including LPG, averaged 654 tb/d in February, representing 16% increase over the previous month. Gains were led by gasoil, fuel oil and by a lesser extent jet fuel, as weak domestic demand forced refiners to look for overseas markets to absorb excess supplies.

Table 8 - 4: Japan's crude and product net imports, tb/d

				Change
	Dec 19	Jan 20	Feb 20	Feb 20/Jan 20
Crude oil	3,223	2,948	2,872	-77
Total products	403	477	267	-210
Total crude and products	**3,626**	**3,426**	**3,139**	**-287**

Sources: METI and OPEC.

As a consequence, Japan's **net product imports** averaged 267 tb/d in February, representing a decline of 185 tb/d or 41% compared to the previous year.

OECD Europe

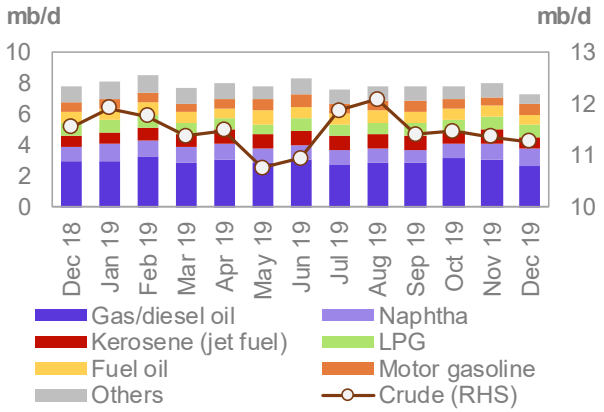
The latest available data shows **OECD Europe crude imports** averaged 11.3 mb/d in December, reflecting a decline of 0.1 mb/d m-o-m and down 0.2 mb/d y-o-y. The drop in demand for crude imports came amid a refinery strike in France, which cut around 1 mb/d of the country's 1.24 mb/d of refining capacity, as well as refinery outages in Germany and The Netherlands during the month.

After peaking at 2.6 mb/d in November, **crude exports** from OECD Europe declined in December, averaging 2.5 mb/d and preliminary data pointing to a continued decline in January to 2.3 mb/d, driven primarily by fluctuations in Norwegian supply following the ramping up of the Johan Sverup field in the North Sea.

As a result, OECD Europe **net crude imports** averaged 9.4 mb/d in 2019, an increase of 0.2 mb/d over the same period in 2018.

OECD Europe **product imports** averaged 7.3 mb/d in December, representing a decline of 732 tb/d or 9% m-o-m and 532 tb/d or 7% y-o-y. Among major products, jet kerosene, gasoline and diesel led declines, down 20%, 14% and 13%, respectively.

Graph 8 - 9: OECD Europe imports of crude and products

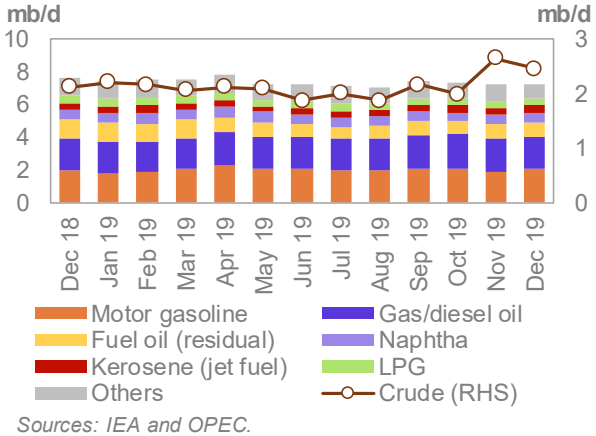


Sources: IEA and OPEC.

In 2019, OECD Europe product imports averaged 7.3 mb/d, representing a decline of 180 tb/d or around 1% compared to the same period in 2018.

Product exports averaged 7.2 mb/d in December, marginally unchanged m-o-m and some 0.5 mb/d lower than in December 2018. Exports were supported by increased outflows of motor gasoline and jet kerosene, while fuel oil, diesel oil and kerosene led declines. In 2019, product exports from OECD Europe averaged 7.3 mb/d, representing a decline of 290 tb/d or 4% compared to the same period in 2018.

Graph 8 - 10: OECD Europe exports of crude and products



Sources: IEA and OPEC.

Table 8 - 5: OECD Europe's crude and product net imports, tb/d

	Oct 19	Nov 19	Dec 19	Change Dec 19/Nov 19
Crude oil	9,480	8,714	8,814	100
Total products	444	783	63	-720
Total crude and products	**9,924**	**9,497**	**8,877**	**-620**

Sources: IEA and OPEC.

FSU

Total crude oil exports from the Former Soviet Union (FSU) declined by less than 8% m-o-m in February to average 7.1 mb/d, representing a decrease of 54 t/bd. Compared to the same month in the previous year, FSU crude exports were broadly unchanged.

Crude exports through the **Transneft system** also were broadly stable in February, up by just 20 tb/d or less than 1% m-o-m to average 4.2 mb/d. Exports saw a similar increase y-o-y.

Total shipments from the Black Sea declined 11 tb/d m-o-m, or around 3%, to average 450 tb/d in February. Total Baltic Sea exports were broadly flat at 1.5 mb/d, with shipments from Ust-Luga increasing by 26% to 645 tb/d and Primorsk exports down by 13% or 132 tb/d. Meanwhile, shipments via the Druzhba pipeline rose 47 tb/d to average 1.0 mb/d. Kozmino shipments fell 14 tb/d m-o-m, or 2%, to average 673 tb/d. Exports to China via the ESPO pipeline averaged 604 tb/d in February, down 33% from the start of the year.

In the **Lukoil system**, exports via the Barents Sea edged up 9 tb/d to 143 tb/d in February, while those from the Baltic Sea remained broadly unchanged at 6 tb/d.

Russia's Far East total exports were broadly unchanged m-o-m at 396 tb/d but were some 3% higher than the same month last year.

Central Asia's total exports averaged 209 tb/d, down by 4% compared with the previous month and some 9% lower y-o-y.

Black Sea total exports fell 97 tb/d m-o-m to average 1.4 mb/d, with Novorossiyk port terminal (CPC) driving the decline while the Supsa port terminal saw a 7% increase m-o-m.

FSU total product exports rose 415 tb/d or almost 14% m-o-m to average 3.4 mb/d in February. Gains were seen across all major products, except VGO, which fell 19%. Gasoil and fuel oil exports led gains in volume terms. Y-o-y, FSU product exports were 0.3 mb/d or 11% higher.

Stock Movements

Preliminary February data showed that total **OECD commercial oil stocks** rose by 5.6 mb m-o-m to stand at 2,945 mb. This was 64.3 mb higher than the same time one year ago and 24.7 mb above the latest five-year average. Within components, crude stocks fell by 6.1 mb, while product stocks rose by 11.7 mb m-o-m. In terms of **days of forward cover**, OECD commercial stocks rose by 5.0 days m-o-m in February to stand at 72.7 days. This was 11.5 days above the same period in 2019, and 10.3 days above the latest five-year average. Preliminary data for March showed that **US total commercial oil stocks** increased by 8.2 mb m-o-m to stand at 1,922 mb. This was 31.8 mb, or 1.7%, above the same period a year ago, and 16.2 mb, or 0.8%, lower than the latest five-year average. Within components, crude stocks rose by 25.1 mb, while product stocks fell by 16.8 mb.

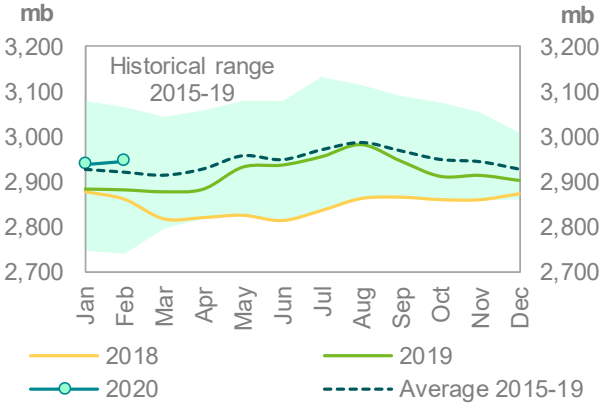
OECD

Preliminary February data February showed that total **OECD commercial oil stocks** rose by 5.6 mb m-o-m to stand at 2,945 mb. This was 64.3 mb higher than the same time one year ago and 24.7 mb above the latest five-year average.

Within components, crude stocks fell by 6.1 mb, while product stocks rose by 11.7 mb m-o-m. It should be noted that the overhang of total OECD commercial oil stocks has fallen by around 132.1 mb since beginning of 2017. OECD America saw stocks build, OECD Asia Pacific stocks remained flat, while OECD Europe stocks were lower than January.

OECD **commercial crude stocks** fell by 6.1 mb m-o-m in February, ending the month at 1,426 mb. This was down 31.1 mb compared with the same time a year ago and 31.5 mb below the latest five-year average.

Graph 9 - 1: OECD commercial oil stocks



Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

Compared with the previous month, OECD America crude stocks rose by 1.3 mb, while crude stocks in OECD Asia Pacific and OECD Europe fell by 1.1 mb and 6.3 mb, respectively.

OECD **total product inventories** rose by 11.7 mb m-o-m in February to stand at 1,520 mb. This was 95.4 mb above the same time a year ago, and 56.1 mb higher than the latest five-year average. Within the OECD regions, product stocks in OECD America, OECD Asia Pacific and OECD Europe, rose by 8.6 mb, 0.9 mb, and 2.2 mb, respectively.

In terms of **days of forward cover**, OECD commercial stocks rose by 5.0 days m-o-m in February to stand at 72.7 days. This was 11.5 days above the same period in 2019, and 10.3 days higher the latest five-year average. Within the regions, OECD Americas was 11.1 days above the latest five-year average at 72.4 days; OECD Europe was 11.9 days higher than the latest five-year average at 83.0 days; and OECD Asia Pacific was 5.3 days above the latest five-year average at 55.9 days.

Table 9 - 1: OECD's commercial stocks, mb

					Change
	Feb 19	Dec 19	Jan 20	Feb 20	Feb 20/Jan 20
OECD stocks					
Crude oil	1,457	1,432	1,432	1,426	-6.1
Products	1,424	1,469	1,508	1,520	11.7
Total	**2,881**	**2,902**	**2,940**	**2,945**	**5.6**
Days of forward cover	**61.2**	**63.7**	**67.7**	**72.7**	**5.0**

Note: Totals may not add up due to independent rounding.

Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

OECD Americas

OECD Americas total commercial stocks rose by 9.9 mb m-o-m in February to settle at 1,566 mb. This was 56.9 mb above one year ago and 42.6 mb higher than the latest five-year average. Within components, crude and product stocks rose by 1.3 mb and 8.6 mb, respectively.

Commercial crude oil stocks in OECD Americas rose by 1.3 mb m-o-m in February to stand at 788 mb. This was 5.7 mb lower than the same time a year ago and 3.6 mb below the latest five-year average. The build was driven by lower refinery throughput. However, higher exports and lower imports of crude oil restricted the crude stocks build in February.

Total product stocks in OECD Americas rose by 8.6 mb m-o-m in February to stand at 778 mb. This was 62.6 mb higher than the same time one year ago and 46.2 mb above the latest five-year average. Lower regional consumption and lower refinery utilization was behind the product stock build.

OECD Europe

OECD Europe's total commercial stocks fell by 4.1 mb m-o-m in February to end the month at 987 mb. This was 9.3 mb higher than the same time a year ago and 6.5 mb below the latest five-year average. Crude stocks fell by 6.3 mb, while product stocks rose by 2.2 mb, m-o-m.

OECD Europe's **commercial crude stocks** fell by 6.3 mb m-o-m in February to end the month at 424 mb. This was 13.6 mb below year-ago levels and 1.1 mb lower than the latest five-year average. The drop occurred despite lower refinery throughput in the EU-16 countries.

In contrast, OECD Europe's **commercial product stocks** rose by 2.2 mb m-o-m to end February at 564 mb. This was 22.8 mb higher than the same time a year ago, but 5.4 mb lower than the latest five-year average. The build came on the back of lower regional consumption.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks fell by 0.2 mb m-o-m in February to stand at 392 mb. This was 1.9 mb lower than a year ago, and 11.4 mb below the latest five-year average. Within components, crude stocks fell by 1.1 mb, while product stocks rose by 0.9 mb, m-o-m.

OECD Asia Pacific's **crude inventories** were down by 1.1 mb m-o-m to end February at 214 mb. This was 11.8 mb lower than one year ago and 26.7 mb below the latest five-year average.

In contrast, OECD Asia Pacific's **total product inventories** rose by 0.9 mb m-o-m to end February at 178 mb. This was 9.9 mb higher than the same time a year ago, and 15.3 mb above the latest five-year average.

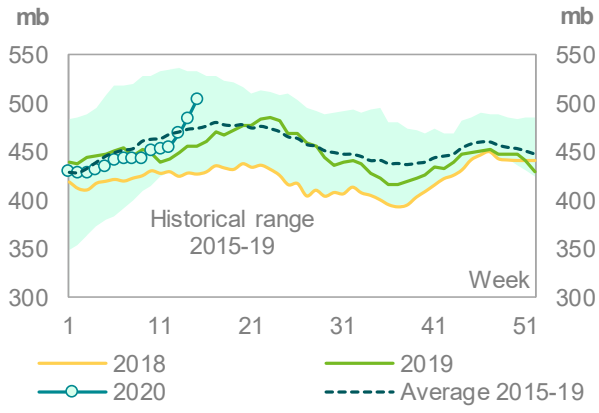
US

Preliminary data for March showed that **US total commercial oil stocks** increased by 8.2 mb m-o-m to stand at 1,922 mb. This was 31.8 mb, or 1.7%, above the same period a year ago, and 16.2 mb, or 0.8%, lower than the latest five-year average. Within components, crude stocks rose by 25.1 mb, while product stocks fell by 16.8 mb.

US **commercial crude stocks** rose in March to stand at 469.2 mb. This was 9.9 mb, or 2.1%, above the same time last year, and 5.0 mb, or 1.1%, below the latest five-year average. The build was driven by lower refinery throughput, which dropped by around 580 tb/d m-o-m to average 16.0 mb/d. Higher net exports of crude took part in the build in crude oil stocks.

In contrast, **total product stocks** fell in March by 16.8 mb m-o-m to stand at 817.6 mb. This was 36.1 mb, or 4.6%, above March 2019 levels, and 32.2 mb, or 4.1%, above the latest five-year average. Within components, apart from residual fuel oil and other unfinished product stocks, all products registered stock draws.

Graph 9 - 2: US weekly commercial crude oil inventories



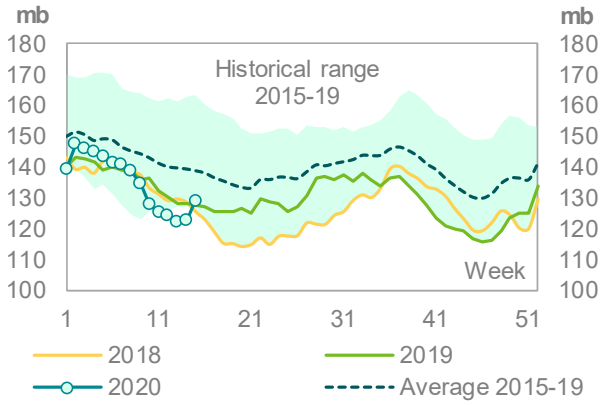
Sources: EIA and OPEC.

Gasoline stocks fell in March by 5.2 mb m-o-m to settle at 264.8 mb. This was 10.8 mb, or 4.6%, higher than levels seen in the same month last year, and 8.4 mb, or 3.5%, higher than the latest five-year average. This monthly decrease came mainly on the back of lower refinery utilization, which fell by 3.1% m-o-m in March. However, the rise in gasoline imports during March limited the stocks increase.

Distillate stocks fell by 12.2 mb m-o-m in March to reach 122.3 mb. This was 10.2 mb, or 7.7%, lower than the same period a year ago, and 18.5 mb, or 13.1%, below the latest five-year average.

Residual fuel oil stocks increased in March by 3.8 mb m-o-m. **Jet fuel** stocks fell in March by 3.7 mb. At 34.4 mb, residual fuel oil was 5.7 mb, or 19.8%, higher than the same month a year ago, but 2.4 mb, or 6.6%, below the latest five-year average. Jet fuel stocks ended March at 38.3 mb, which is 3.1 mb lower than the latest five-year average.

Graph 9 - 3: US weekly distillate inventories



Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

	Mar 19	Jan 20	Feb 20	Mar 20	Change Mar 20/Feb 20
US stocks					
Crude oil	459.3	442.8	444.1	469.2	25.1
Gasoline	236.1	264.2	252.0	246.8	-5.2
Distillate fuel	132.4	143.0	134.5	122.2	-12.2
Residual fuel oil	28.7	30.7	30.6	34.4	3.8
Jet fuel	41.6	44.0	42.0	38.3	-3.7
Total products	781.6	855.8	834.5	817.6	-16.8
Total	1,240.9	1,298.7	1,278.6	1,286.8	8.2
SPR	649.1	635.0	635.0	635.0	0.0

Sources: EIA and OPEC.

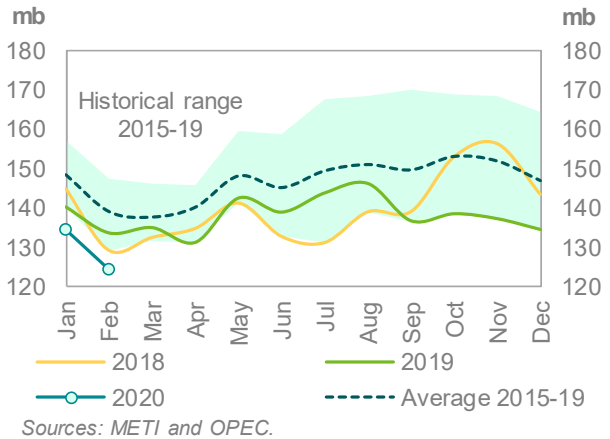
Japan

In **Japan**, **total commercial oil stocks** fell in February by 10.2 mb m-o-m to settle at 124.2 mb. This was 9.4 mb, or 7.1%, lower than one year ago and 15.0 mb, or 10.8%, below the latest five-year average. Within components, crude stocks fell by 1.1 mb, while product stocks dropped by 9.1 mb.

Japanese **commercial crude oil stocks** fell in February to stand at 68.2 mb. This was 9.2 mb, or 11.8%, below the same period a year ago, and 13.9 mb, or 17.0%, below the latest five-year average. The drop was driven mainly by lower consumption and crude imports during February.

Japan's **total product inventories** fell by 9.1 mb m-o-m to end February at 56.0 mb. This was 0.3 mb, or 0.5%, lower than the same month last year, and 1.1 mb, or 1.9%, below the latest five-year average. All products experienced stock decreases.

Graph 9 - 4: Japan's commercial oil stocks



Sources: METI and OPEC.

Gasoline stocks fell by 0.7 mb m-o-m to stand at 11.3 mb in February. This was 1.1 mb, or 10.4%, higher than a year ago, and 0.5 mb, or 4.7%, above the latest five-year average.

Distillate stocks decreased by 5.3 mb m-o-m to end February at 24.0 mb. This was 0.8 mb, or 3.5%, higher than the same time a year ago, and 0.5 mb, or 2.2%, above the latest five-year average. Within distillate components, jet fuel dropped by 7.4% m-o-m, and gasoil declined by 15.0% m-o-m. The drop was driven by lower imports and the decrease in domestic sales.

Total residual fuel oil stocks fell by 0.7 mb m-o-m in February to stand at 12.2 mb. This was 1.1 mb, or 8.6%, lower than the same month last year, and 0.7 mb, or 5.4%, below the latest five-year average. Within components, fuel oil A and fuel oil B.C stocks fell m-o-m by 4.9% and 5.7%, respectively on the back of higher exports.

Table 9 - 3: Japan's commercial oil stocks*, mb

				Change
	Feb 19	Dec 19	Jan 20	Feb 20	Feb 20/Jan 20
Japan's stocks					
Crude oil	77.3	73.7	69.3	68.2	-1.1
Gasoline	10.2	10.9	12.0	11.3	-0.7
Naphtha	9.5	9.2	10.9	8.5	-2.4
Middle distillates	23.2	28.6	29.3	24.0	-5.3
Residual fuel oil	13.4	12.2	12.9	12.2	-0.7
Total products	56.3	60.8	65.1	56.0	-9.1
Total**	133.6	134.5	134.4	124.2	-10.2

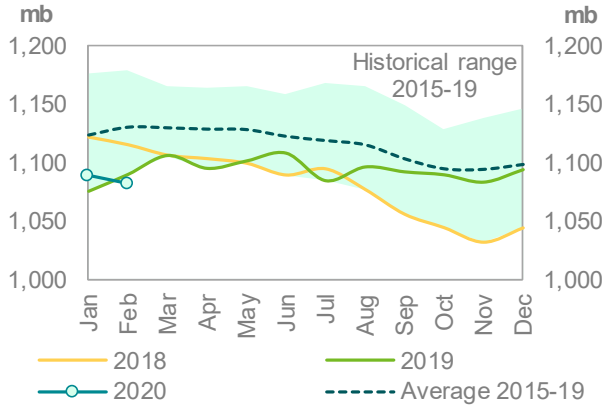
*Note: * At the end of the month. ** Includes crude oil and main products only.*
Sources: METI and OPEC.

EU-15 plus Norway

Preliminary data for February showed that **total European commercial oil stocks** fell by 7.1 mb m-o-m to stand at 1,081.7 mb. This was 8.3 mb, or 0.8%, below the same time a year ago, and 48.7 mb, or 4.3%, lower than the latest five-year average. Within components, crude stocks fell by 6.3 mb, while product stocks dropped by 0.8 mb.

European **crude inventories** fell in February to stand at 458.1 mb. This was 18 mb, or 3.8%, lower than the same period a year ago, and 24.8 mb, or 5.1%, below the latest five-year average. The drop in crude oil inventories came despite lower refinery throughput in the EU-16 countries, which fell by 32 tb/d to stand at 9.87 mb/d.

Graph 9 - 5: EU-15 plus Norway's total oil stocks



Sources: Argus, Euroilstock and OPEC.

European **total product stocks** showed similar movements to crude oil, albeit to a smaller degree, falling by 0.8 mb m-o-m to end February at 624 mb. This was 9.7 mb, or 1.6%, higher than the same month a year ago, but 23.9 mb, or 3.7%, lower than the latest five-year average. The build in product stocks could be attributed to relatively lower demand in the region together with lower refinery utilization.

Gasoline stocks rose by 0.3 mb m-o-m in February to stand at 115.1 mb. This was 11.0 mb, or 8.7%, lower than the same time a year ago, and 12.4 mb, or 9.7%, below the latest five-year average.

Distillate stocks decreased by 0.6 mb m-o-m in February, to stand at 417.2 mb. This was 20.8 mb, or 5.2%, higher than the same time last year, but 2.9 mb, or 0.7%, below the latest five-year average.

Naphtha stocks fell by 0.4 mb in February to end the month at 26.0 mb. This was 4.4 mb, or 14.5%, below the February 2019 level, and 1.7 mb, or 6%, lower than the latest five-year average.

Residual fuel stocks remained unchanged in February to end the month at 65.33 mb. This was 4.2 mb, or 6.9%, higher than the same time one year ago, but 7.0 mb, or 9.6%, below the latest five-year average.

Table 9 - 4: EU-15 plus Norway's total oil stocks, mb

	Feb 19	Dec 19	Jan 20	Feb 20	Change Feb 20/Jan 20
EU stocks					
Crude oil	476.1	482.0	464.4	458.1	-6.3
Gasoline	126.1	110.3	114.8	115.1	0.3
Naphtha	30.4	23.3	26.4	26.0	-0.4
Middle distillates	396.4	414.8	417.8	417.2	-0.6
Fuel oils	61.1	63.7	65.3	65.3	0.0
Total products	613.9	612.0	624.4	623.6	-0.8
Total	1,090.0	1,094.0	1,088.8	1,081.7	-7.1

Sources: Argus, Euroilstock and OPEC.

Singapore, Amsterdam-Rotterdam-Antwerp (ARA) and Fujairah

Singapore

At the end of February, **total product stocks in Singapore** rose by 3.2 mb m-o-m, to stand at 50.5 mb. This was 0.1 mb, or 0.2%, higher than the same period a year ago. All products registered a stock build.

Light and middle distillate stocks rose m-o-m in February by 0.2 mb and 0.5 mb, respectively. At 13.4 mb, light distillates stood at 3.3 mb, or 19.8%, lower than the same time one year ago. Middle distillate stocks ended February at 11.6 mb, which was 0.6 mb, or 4.9%, lower than in February 2019.

Fuel oil stocks rose by 2.5 mb m-o-m to end February at 25.5 mb. This was 4.0 mb, or 18.6%, higher than the same period a year ago.

ARA

Total product stocks in ARA fell by 2.2 mb m-o-m in February to a level of 38.3 mb. This was 1.8 mb, or 4.5%, below the same period a year ago. Within products, naphtha, gasoil, and jet fuel registered stock draws, while gasoline, and fuel oil stocks saw a build.

Gasoil and naphtha stocks fell m-o-m in February by 3.0% mb and 0.3 mb to stand at 15.9 mb and 2.1 mb, respectively. Gasoil stocks were 2.0 mb, or 11.2%, lower than the same month last year. Naphtha stocks were 0.2 mb, or 10.5%, higher than last year's February level.

Jet oil stocks fell m-o-m in February by 0.6 mb to stand at 3.3 mb by end of February. This was 1.5 mb, or 31.3%, lower than the same time a year ago.

In contrast, **gasoline stocks** in February rose by 1.0 mb m-o-m to stand at 9.8 mb. This was 0.2 mb, or 2.1%, higher than the same time a year ago.

Residual fuel stocks increased by 0.7 mb m-o-m in February to stand at 7.2 mb. At this level, they are 1.3 mb, or 22.0%, above last year's level.

Fujairah

During the week ending 6 April 2020, **total oil product stocks in Fujairah** increased by 0.80 mb w-o-w to stand at 23.70 mb, according to data from FEDCom and S&P Global Platts. At this level, total oil stocks were 1.39 mb lower than the same time a year ago. Light distillate stocks saw a decrease, while middle and heavy distillates witnessed a stock build.

Light distillate stocks fell by 0.38 mb w-o-w to stand at 5.73 mb, which was 5.49 mb lower than a year ago.

Middle and heavy distillate stocks increased by 0.23 mb and 0.96 mb, respectively. At 2.53 mb, middle distillate stocks were 0.40 mb above the same week in 2019, while heavy distillate stocks stood at 15.45 mb, which is 3.70 mb above the same time last year.

Balance of Supply and Demand

Demand for OPEC crude in 2019 stood at 29.9 mb/d, which is 1.2 mb/d lower than in 2018. According to secondary sources, OPEC crude production averaged 30.0 mb/d in 1Q19, about 0.3 mb/d higher than demand for OPEC crude in the same period, while in 2Q19 OPEC crude production averaged 29.5 mb/d, 0.1 mb/d higher than its demand. In 3Q19, OPEC crude production averaged 28.9 mb/d, around 2.2 mb/d lower than its demand. In 4Q19, OPEC crude oil production stood at 29.1 mb/d, around 0.5 mb/d below its demand. For 2019, OPEC crude oil production averaged 29.3 mb/d, around 0.6 mb/d below its demand.

Demand for OPEC crude in 2020 is forecast at 24.5 mb/d, around 5.4 mb/d lower than for 2019.

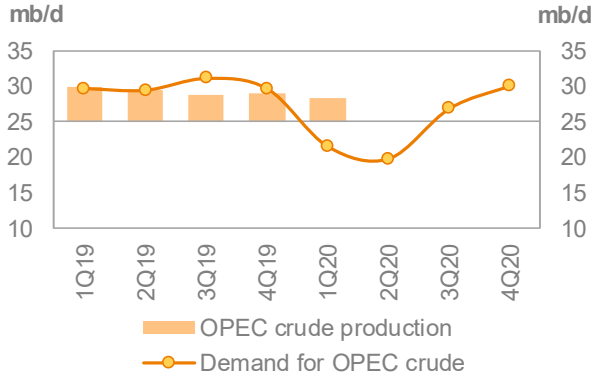
Balance of supply and demand in 2019

Demand for OPEC crude in 2019 stood at 29.9 mb/d, which is 1.2 mb/d lower than in 2018.

When compared with the same quarters in 2018, demand for OPEC crude in 1Q19 and 2Q19 was 2.1 mb/d and 1.7 mb/d lower, respectively. The 3Q19 and 4Q19 show drops of 0.3 mb/d and 0.8 mb/d, respectively.

According to secondary sources, OPEC crude production averaged 30.0 mb/d in 1Q19, about 0.3 mb/d higher than the demand for OPEC crude in the same period, while in 2Q19 OPEC crude production averaged 29.5 mb/d, 0.1 mb/d higher than its demand. In 3Q19, OPEC crude production averaged 28.9 mb/d, around 2.2 mb/d lower than its demand. In 4Q19, OPEC crude oil production stood at 29.1 mb/d, around 0.5 mb/d below its demand. For 2019, OPEC crude oil production averaged 29.3 mb/d, around 0.6 mb/d below its demand for the year.

Graph 10 - 1: Balance of supply and demand, 2019–2020*



*Note: * 2019 = Estimate and 2020 = Forecast.*
Source: OPEC.

Table 10 - 1: Supply/demand balance for 2019*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18
(a) World oil demand	**98.84**	**98.75**	**98.56**	**100.53**	**100.79**	**99.67**	**0.83**
Non-OPEC liquids production	62.99	64.35	64.37	64.78	66.34	64.97	1.98
OPEC NGL and non-conventionals	4.75	4.79	4.81	4.70	4.85	4.79	0.04
(b) Total non-OPEC liquids production and OPEC NGLs	**67.74**	**69.14**	**69.18**	**69.49**	**71.20**	**69.76**	**2.02**
Difference (a-b)	**31.10**	**29.61**	**29.38**	**31.04**	**29.59**	**29.91**	**-1.19**
OPEC crude oil production	**31.34**	**29.96**	**29.45**	**28.86**	**29.10**	**29.34**	**-2.01**
Balance	**0.25**	**0.34**	**0.08**	**-2.18**	**-0.50**	**-0.57**	**-0.82**

Note: Non-OPEC liquids production includes the Republic of Ecuador.
** 2019 = Estimate. Totals may not add up due to independent rounding.*
Source: OPEC.

Balance of supply and demand in 2020

Demand for OPEC crude in 2020 is forecast at 24.5 mb/d, around 5.4 mb/d lower than in 2019.

When compared with the same quarters in 2019, demand for OPEC crude in 1Q20 and 2Q20 is expected to be 8.2 mb/d and 9.6 mb/d lower, respectively. The 3Q20 shows a decline of 4.2 mb/d, while 4Q20 is expected to rise by 0.4 mb/d compared with 4Q19.

Table 10 - 2: Supply/demand balance for 2020*, mb/d

	2019	1Q20	2Q20	3Q20	4Q20	2020	Change 2020/19
(a) World oil demand	99.67	92.92	86.70	94.28	97.30	92.82	-6.85
Non-OPEC liquids production	64.97	66.60	62.15	62.67	62.47	63.47	-1.50
OPEC NGL and non-conventionals	4.79	4.88	4.82	4.82	4.82	4.83	0.04
(b) Total non-OPEC liquids production and OPEC NGLs	69.76	71.48	66.96	67.49	67.29	68.30	-1.46
Difference (a-b)	29.91	21.44	19.73	26.80	30.01	24.52	-5.39
OPEC crude oil production	29.34	28.26					
Balance	-0.57	6.83					

Note: Non-OPEC liquids production includes the Republic of Ecuador.

** 2019 = Estimate and 2020 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Appendix

Table 11 - 1: World oil demand and supply balance, mb/d

	2016	2017	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
World oil demand and supply balance													
World demand													
OECD	47.07	47.61	48.01	47.72	47.15	48.46	48.29	47.91	45.53	38.37	45.17	46.55	43.92
Americas	24.89	25.07	25.60	25.14	25.29	26.03	25.99	25.62	24.55	20.35	24.78	25.26	23.74
Europe	14.04	14.38	14.33	14.09	14.25	14.75	14.25	14.34	13.10	11.37	13.55	13.78	12.96
Asia Pacific	8.14	8.15	8.08	8.50	7.61	7.68	8.05	7.96	7.88	6.65	6.84	7.50	7.22
DCs	31.56	32.13	32.62	32.96	32.84	33.41	33.10	33.08	31.92	30.56	31.42	32.00	31.48
FSU	4.57	4.64	4.76	4.70	4.68	4.96	5.04	4.84	4.50	4.38	4.55	4.71	4.53
Other Europe	0.70	0.72	0.74	0.75	0.71	0.75	0.84	0.76	0.71	0.64	0.57	0.66	0.65
China	11.80	12.32	12.71	12.63	13.19	12.95	13.52	13.07	10.27	12.75	12.57	13.38	12.25
(a) Total world demand	**95.70**	**97.42**	**98.84**	**98.75**	**98.56**	**100.53**	**100.79**	**99.67**	**92.92**	**86.70**	**94.28**	**97.30**	**92.82**
Non-OPEC liquids production													
OECD	24.86	25.71	28.33	29.32	29.64	29.74	31.02	29.94	31.12	29.82	29.63	29.36	29.98
Americas	20.59	21.49	24.08	25.07	25.59	25.69	26.62	25.74	26.55	25.36	25.09	24.66	25.41
Europe	3.85	3.83	3.84	3.82	3.57	3.55	3.88	3.71	4.06	3.91	3.96	4.12	4.01
Asia Pacific	0.43	0.39	0.41	0.43	0.48	0.51	0.52	0.48	0.52	0.54	0.58	0.58	0.55
DCs	14.10	13.94	14.02	14.03	14.10	14.25	14.47	14.21	14.48	14.06	14.17	14.23	14.24
FSU	13.85	14.05	14.29	14.55	14.16	14.34	14.42	14.37	14.50	11.82	12.43	12.43	12.79
Other Europe	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.12
China	4.09	3.97	3.98	4.05	4.08	4.05	4.03	4.05	4.04	4.00	3.99	4.01	4.01
Processing gains	2.19	2.22	2.25	2.28	2.28	2.28	2.28	2.28	2.33	2.33	2.33	2.33	2.33
Total non-OPEC liquids production	**59.23**	**60.02**	**62.99**	**64.35**	**64.37**	**64.78**	**66.34**	**64.97**	**66.60**	**62.15**	**62.67**	**62.47**	**63.47**
OPEC NGLs + non-conventional oils	4.57	4.63	4.75	4.79	4.81	4.70	4.85	4.79	4.88	4.82	4.82	4.82	4.83
(b) Total non-OPEC liquids production and OPEC NGLs	**63.80**	**64.65**	**67.74**	**69.14**	**69.18**	**69.49**	**71.20**	**69.76**	**71.48**	**66.96**	**67.49**	**67.29**	**68.30**
OPEC crude oil production (secondary sources)	31.66	31.48	31.34	29.96	29.45	28.86	29.10	29.34	28.26				
Total liquids production	95.47	96.13	99.08	99.10	98.64	98.35	100.29	99.10	99.75				
Balance (stock change and miscellaneous)	-0.23	-1.29	0.25	0.34	0.08	-2.18	-0.50	-0.57	6.83				
OECD closing stock levels, *mb*													
Commercial	3,007	2,860	2,873	2,877	2,936	2,945	2,902	2,902					
SPR	1,601	1,569	1,552	1,557	1,549	1,544	1,535	1,535					
Total	**4,608**	**4,428**	**4,425**	**4,434**	**4,485**	**4,489**	**4,437**	**4,437**					
Oil-on-water	1,102	1,025	1,058	1,013	995	1,012	1,011	1,011					
Days of forward consumption in OECD, *days*													
Commercial onland stocks	63	60	60	61	61	61	64	66					
SPR	34	33	32	33	32	32	34	35					
Total	**97**	**92**	**92**	**94**	**93**	**93**	**97**	**101**					
Memo items													
(a) - (b)	**31.89**	**32.77**	**31.10**	**29.61**	**29.38**	**31.04**	**29.59**	**29.91**	**21.44**	**19.73**	**26.80**	**30.01**	**24.52**

Note: Non-OPEC liquids production includes the Republic Ecuador.
Totals may not add up due to independent rounding.
Source: OPEC.

Table 11 - 2: World oil demand and supply balance: changes from last month's table*, mb/d

	2016	2017	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
Changes from last month's table													
World demand													
OECD	-	-	-	-	-	-	-	-	-1.74	-8.02	-3.24	-1.74	-3.68
Americas	-	-	-	-	-	-	-	-	-0.68	-5.02	-1.36	-0.84	-1.97
Europe	-	-	-	-	-	-	-	-	-0.79	-2.53	-1.17	-0.44	-1.23
Asia Pacific	-	-	-	-	-	-	-	-	-0.26	-0.47	-0.72	-0.46	-0.48
DCs	-	-	-	-	-	-	-	-	-1.26	-2.54	-2.48	-1.70	-2.00
FSU	-	-	-	-	-	-	-	-	-0.30	-0.40	-0.51	-0.44	-0.41
Other Europe	-	-	-	-	-	-	-	-	-0.06	-0.08	-0.19	-0.19	-0.13
China	-	-	-	-	-	-	-	-	-1.30	-0.47	-0.54	-0.47	-0.70
(a) Total world demand	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-4.66**	**-11.50**	**-6.97**	**-4.54**	**-6.91**
Non-OPEC liquids production													
OECD	-	-	-	-	-	-	-0.05	-0.01	-0.01	-1.11	-1.68	-2.13	-1.24
Americas	-	-	-	-	-	-	-0.04	-0.01	-0.04	-1.11	-1.68	-2.13	-1.24
Europe	-	-	-	-	-	-	-0.01	-	0.04	-	-	-	0.01
Asia Pacific	-	-	-	-	-	-	-	-	-0.02	-	-	-	-
DCs	-	-	-	-0.01	0.03	-	0.01	0.01	-	-0.60	-0.48	-0.49	-0.39
FSU	-	-	-	-	-	-	-	-	0.16	-2.61	-1.92	-2.20	-1.65
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.02	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC liquids production	-	-	-	-0.01	0.03	-	-0.05	-0.01	0.16	-4.32	-4.08	-4.82	-3.27
OPEC NGLs + non-conventionals	-	-	-	-	-	-	0.01	-	0.06	-	-	-	0.02
(b) Total non-OPEC liquids production and OPEC NGLs	**-**	**-**	**-**	**-0.01**	**0.03**	**-**	**-0.04**	**-0.01**	**0.23**	**-4.32**	**-4.08**	**-4.82**	**-3.25**
OPEC crude oil production (secondary sources)	**-**	**-**	**-**	**-**	**-**	**-**	**0.01**	**-**					
Total supply	-	-	-	-0.01	0.03	-	-0.03	-					
Balance (stock change and miscellaneous)	-	-	-	-0.01	0.03	-	-0.03	-					
OECD closing stock levels, *mb*													
Commercial	-	-	-	-	-	-	-	-					
SPR	-	-	-	-	-	-	-	-					
Total	-	-	-	-	-	-	-	-					
Oil-on-water	-	-	-	-	-	-	-	-					
Days of forward consumption in OECD, *days*													
Commercial onland stocks	-	-	-	-	-	-	2.34	5.11					
SPR	-	-	-	-	-	-	1.24	2.70					
Total	-	-	-	-	-	-	3.58	7.81					
Memo items													
(a) - (b)	**-**	**-**	**-**	**0.01**	**-0.03**	**-**	**0.04**	**0.01**	**-4.88**	**-7.19**	**-2.89**	**0.28**	**-3.66**

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the March 2020 issue.*
This table shows only where changes have occurred.

Source: OPEC.

Table 11 - 3: OECD oil stocks and oil on water at the end of period

	2017	2018	2019	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19
OECD oil stocks and oil on water												
Closing stock levels, mb												
OECD onland commercial	**2,860**	**2,873**	**2,902**	**2,860**	**2,816**	**2,812**	**2,865**	**2,873**	**2,877**	**2,936**	**2,945**	**2,902**
Americas	1,498	1,544	1,538	1,498	1,471	1,473	1,543	1,544	1,508	1,565	1,559	1,538
Europe	948	930	972	948	968	952	933	930	989	982	987	972
Asia Pacific	413	400	391	413	378	388	390	400	379	389	399	391
OECD SPR	**1,569**	**1,552**	**1,535**	**1,569**	**1,577**	**1,575**	**1,570**	**1,552**	**1,557**	**1,549**	**1,544**	**1,535**
Americas	665	651	637	665	667	662	662	651	651	647	647	637
Europe	481	481	482	481	487	491	486	481	488	485	482	482
Asia Pacific	423	420	416	423	422	422	422	420	417	417	416	416
OECD total	**4,428**	**4,425**	**4,437**	**4,428**	**4,393**	**4,387**	**4,435**	**4,425**	**4,434**	**4,485**	**4,489**	**4,437**
Oil-on-water	**1,025**	**1,058**	**1,011**	**1,025**	**1,036**	**1,014**	**1,041**	**1,058**	**1,013**	**995**	**1,012**	**1,011**
Days of forward consumption in OECD, days												
OECD onland commercial	**60**	**60**	**61**	**60**	**60**	**58**	**59**	**60**	**61**	**61**	**61**	**64**
Americas	59	60	60	59	58	57	60	61	60	60	60	63
Europe	66	65	69	67	68	65	65	66	69	67	69	74
Asia Pacific	51	50	51	48	49	50	48	47	50	51	49	50
OECD SPR	**33**	**33**	**33**	**33**	**33**	**33**	**32**	**33**	**33**	**32**	**32**	**34**
Americas	26	26	26	26	26	26	26	26	26	25	25	26
Europe	34	34	34	34	34	33	34	34	34	33	34	37
Asia Pacific	52	53	55	49	55	54	52	49	55	54	52	53
OECD total	**92**	**93**	**95**	**92**	**93**	**91**	**92**	**93**	**94**	**93**	**93**	**97**

Sources: Argus, EIA, Euroilstock, IEA, JODI, METI and OPEC.

Table 11 - 4: Non-OPEC liquids production and OPEC natural gas liquids, mb/d

	2016	2017	2018	3Q19	4Q19	2019	Change 19/18	1Q20	2Q20	3Q20	4Q20	2020	Change 20/19
Non-OPEC liquids production and OPEC NGLs													
US	13.6	14.4	16.7	18.4	19.1	18.4	1.7	19.0	18.4	18.0	17.6	18.2	-0.2
Canada	4.5	4.9	5.3	5.4	5.5	5.4	0.1	5.5	5.1	5.3	5.4	5.3	-0.1
Mexico	2.5	2.2	2.1	1.9	1.9	1.9	-0.2	2.0	1.8	1.8	1.7	1.8	-0.1
OECD Americas	**20.6**	**21.5**	**24.1**	**25.7**	**26.6**	**25.7**	**1.7**	**26.5**	**25.4**	**25.1**	**24.7**	**25.4**	**-0.3**
Norway	2.0	2.0	1.9	1.7	1.9	1.7	-0.1	2.1	2.0	2.1	2.1	2.0	0.3
UK	1.0	1.0	1.1	1.1	1.1	1.1	0.0	1.2	1.1	1.1	1.2	1.2	0.0
Denmark	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Other OECD Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
OECD Europe	**3.9**	**3.8**	**3.8**	**3.5**	**3.9**	**3.7**	**-0.1**	**4.1**	**3.9**	**4.0**	**4.1**	**4.0**	**0.3**
Australia	0.3	0.3	0.3	0.4	0.5	0.4	0.1	0.5	0.5	0.5	0.5	0.5	0.1
Other Asia Pacific	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
OECD Asia Pacific	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.1**	**0.5**	**0.5**	**0.6**	**0.6**	**0.6**	**0.1**
Total OECD	**24.9**	**25.7**	**28.3**	**29.7**	**31.0**	**29.9**	**1.6**	**31.1**	**29.8**	**29.6**	**29.4**	**30.0**	**0.0**
Brunei	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
India	0.9	0.9	0.9	0.8	0.8	0.8	0.0	0.8	0.8	0.9	0.9	0.8	0.0
Indonesia	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.8	0.8	0.8	0.9	0.0
Malaysia	0.7	0.7	0.7	0.6	0.7	0.7	0.0	0.7	0.6	0.6	0.6	0.6	-0.1
Thailand	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Vietnam	0.3	0.3	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Asia others	0.3	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Other Asia	**3.7**	**3.6**	**3.6**	**3.4**	**3.5**	**3.5**	**-0.1**	**3.5**	**3.3**	**3.3**	**3.3**	**3.4**	**-0.1**
Argentina	0.7	0.6	0.6	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	3.1	3.3	3.3	3.7	3.8	3.5	0.2	3.8	3.8	3.8	3.9	3.8	0.3
Colombia	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.8	0.8	0.9	-0.1
Ecuador	0.6	0.5	0.5	0.6	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Latin America others	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.5	0.5	0.5	0.5	0.1
Latin America	**5.6**	**5.7**	**5.7**	**6.1**	**6.3**	**6.0**	**0.3**	**6.3**	**6.3**	**6.3**	**6.4**	**6.3**	**0.3**
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Oman	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.8	0.8	0.8	0.9	-0.1
Qatar	2.0	1.9	2.0	1.9	1.9	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Syria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Middle East	**3.3**	**3.1**	**3.2**	**3.2**	**3.2**	**3.2**	**0.0**	**3.2**	**3.0**	**3.1**	**3.1**	**3.1**	**-0.1**
Cameroon	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Chad	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Egypt	0.7	0.7	0.7	0.6	0.6	0.7	0.0	0.6	0.6	0.6	0.6	0.6	0.0
Ghana	0.1	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
South Africa	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Sudans	0.3	0.2	0.2	0.3	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	-0.1
Africa other	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Africa	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**0.0**	**1.5**	**1.4**	**1.4**	**1.4**	**1.5**	**-0.1**
Total DCs	**14.1**	**13.9**	**14.0**	**14.2**	**14.5**	**14.2**	**0.2**	**14.5**	**14.1**	**14.2**	**14.2**	**14.2**	**0.0**
FSU	**13.9**	**14.0**	**14.3**	**14.3**	**14.4**	**14.4**	**0.1**	**14.5**	**11.8**	**12.4**	**12.4**	**12.8**	**-1.6**
Russia	11.1	11.2	11.3	11.4	11.5	11.4	0.1	11.5	9.4	9.8	9.8	10.1	-1.3
Kazakhstan	1.6	1.7	1.8	1.8	1.9	1.8	0.0	1.9	1.5	1.6	1.6	1.6	-0.2
Azerbaijan	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.8	0.6	0.7	0.7	0.7	-0.1
FSU others	0.4	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Other Europe	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0**
China	**4.1**	**4.0**	**4.0**	**4.0**	**4.0**	**4.1**	**0.1**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**0.0**
Non-OPEC production	57.0	57.8	60.7	62.5	64.1	62.7	2.0	64.3	59.8	60.3	60.1	61.1	-1.6
Processing gains	2.2	2.2	2.3	2.3	2.3	2.3	0.0	2.3	2.3	2.3	2.3	2.3	0.1
Non-OPEC liquids production	**59.2**	**60.0**	**63.0**	**64.8**	**66.3**	**65.0**	**2.0**	**66.6**	**62.1**	**62.7**	**62.5**	**63.5**	**-1.5**
OPEC NGL	4.5	4.5	4.6	4.6	4.7	4.7	0.0	4.8	4.7	4.7	4.7	4.7	0.0
OPEC Non-	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
OPEC (NGL+NCF)	**4.6**	**4.6**	**4.8**	**4.7**	**4.9**	**4.8**	**0.0**	**4.9**	**4.8**	**4.8**	**4.8**	**4.8**	**0.0**
Total Non-OPEC production and OPEC NGLs	**63.8**	**64.6**	**67.7**	**69.5**	**71.2**	**69.8**	**2.0**	**71.5**	**67.0**	**67.5**	**67.3**	**68.3**	**-1.5**

Note: Non-OPEC liquids production includes the Republic of Ecuador and OECD Americas includes Chile.
Totals may not add up due to independent rounding.
Source: OPEC.

Table 11 - 5: World rig count, units

	2017	2018	2019	Change 2019/18	2Q19	3Q19	4Q19	1Q20	Feb 20	Mar 20	Change Mar/Feb
World rig count											
US	875	1,031	944	-88	990	920	819	784	790	771	-19
Canada	207	191	134	-57	83	131	138	196	249	133	-116
Mexico	17	27	37	10	34	38	48	46	49	42	-7
OECD Americas	**1,099**	**1,249**	**1,114**	**-135**	**1,106**	**1,089**	**1,005**	**1,026**	**1,088**	**946**	**-142**
Norway	15	15	17	2	17	18	18	16	17	14	-3
UK	9	7	15	7	16	16	13	8	7	6	-1
OECD Europe	**92**	**85**	**149**	**63**	**159**	**190**	**154**	**129**	**130**	**123**	**-7**
OECD Asia Pacific	**15**	**21**	**29**	**8**	**29**	**31**	**30**	**30**	**29**	**32**	**3**
Total OECD	**1,206**	**1,355**	**1,292**	**-64**	**1,295**	**1,310**	**1,189**	**1,184**	**1,247**	**1,101**	**-146**
Other Asia*	208	222	221	-1	225	217	212	214	213	218	5
Latin America	119	131	129	-2	130	132	119	107	110	102	-8
Middle East	68	65	68	3	69	67	69	69	69	70	1
Africa	38	45	55	11	53	51	63	61	60	59	-1
Total DCs	**432**	**462**	**474**	**12**	**477**	**467**	**463**	**451**	**452**	**449**	**-3**
Non-OPEC rig count	**1,638**	**1,817**	**1,766**	**-52**	**1,771**	**1,777**	**1,652**	**1,635**	**1,699**	**1,550**	**-149**
Algeria	54	50	45	-5	49	42	41	38	38	34	-4
Angola	3	4	4	1	5	4	3	6	6	6	0
Congo	2	3	3	0	4	3	2	2	2	2	0
Equatorial Guinea**	1	1	2	1	2	2	2	2	2	2	0
Gabon	1	3	7	4	6	7	9	9	9	8	-1
Iran**	156	157	157	0	157	157	157	157	157	157	0
Iraq	49	59	74	14	75	77	77	74	72	74	2
Kuwait	54	51	46	-5	44	46	48	53	55	50	-5
Libya	1	5	14	10	15	16	16	14	16	11	-5
Nigeria	9	13	16	2	14	16	18	19	23	21	-2
Saudi Arabia	118	117	115	-2	115	118	109	113	114	114	0
UAE	52	55	62	7	59	64	67	66	65	68	3
Venezuela	49	32	25	-8	23	25	25	25	25	25	0
OPEC rig count	**547**	**550**	**569**	**19**	**569**	**577**	**575**	**578**	**584**	**572**	**-12**
World rig count* **	**2,185**	**2,368**	**2,335**	**-33**	**2,340**	**2,354**	**2,226**	**2,213**	**2,283**	**2,122**	**-161**
of which:											
Oil	1,678	1,886	1,840	-46	1,829	1,835	1,758	1,748	1,808	1,677	-131
Gas	466	448	464	15	482	486	431	411	420	381	-39
Others	42	33	31	-2	29	32	38	54	55	64	9

*Note: * Other Asia includes Indonesia.*
*** Estimated data when Baker Hughes Incorporated did not report the data.*
**** Data excludes China and FSU.*
Totals may not add up due to independent rounding.

Sources: Baker Hughes and OPEC.

Glossary of Terms

Abbreviations

b	barrels
b/d	barrels per day
bp	basis points
bb	billion barrels
bcf	billion cubic feet
cu m	cubic metres
mb	million barrels
mb/d	million barrels per day
mmbtu	million British thermal units
mn	million
m-o-m	month-on-month
mt	metric tonnes
q-o-q	quarter-on-quarter
pp	percentage points
tb/d	thousand barrels per day
tcf	trillion cubic feet
y-o-y	year-on-year
y-t-d	year-to-date

Acronyms

ARA	Amsterdam-Rotterdam-Antwerp
BoE	Bank of England
BoJ	Bank of Japan
BOP	Balance of payments
BRIC	Brazil, Russia, India and China
CAPEX	capital expenditures
CCI	Consumer Confidence Index
CFTC	Commodity Futures Trading Commission
CIF	cost, insurance and freight
CPI	consumer price index
DCs	developing countries
DUC	drilled, but uncompleted (oil well)
ECB	European Central Bank
EIA	US Energy Information Administration
Emirates NBD	Emirates National Bank of Dubai
EMs	emerging markets
EV	electric vehicle

FAI	fixed asset investment
FCC	fluid catalytic cracking
FDI	foreign direct investment
Fed	US Federal Reserve
FID	final investment decision
FOB	free on board
FPSO	floating production storage and offloading
FSU	Former Soviet Union
FX	Foreign Exchange
FY	fiscal year
GDP	gross domestic product
GFCF	gross fixed capital formation
GoM	Gulf of Mexico
GTLs	gas-to-liquids
HH	Henry Hub
HSFO	high-sulphur fuel oil
ICE	Intercontinental Exchange
IEA	International Energy Agency
IMF	International Monetary Fund
IOCs	international oil companies
IP	industrial production
ISM	Institute of Supply Management
LIBOR	London inter-bank offered rate
LLS	Light Louisiana Sweet
LNG	liquefied natural gas
LPG	liquefied petroleum gas
LR	long-range (vessel)
LSFO	low-sulphur fuel oil
MCs	(OPEC) Member Countries
MED	Mediterranean
MENA	Middle East/North Africa
MOMR	(OPEC) Monthly Oil Market Report
MPV	multi-purpose vehicle
MR	medium-range or mid-range (vessel)
NBS	National Bureau of Statistics
NGLs	natural gas liquids
NPC	National People's Congress (China)
NWE	Northwest Europe
NYMEX	New York Mercantile Exchange
OECD	Organisation for Economic Co-operation and Development
OPEX	operational expenditures
OIV	total open interest volume
ORB	OPEC Reference Basket
OSP	Official Selling Price
PADD	Petroleum Administration for Defense Districts
PBoC	People's Bank of China
PMI	purchasing managers' index
PPI	producer price index

RBI	Reserve Bank of India
REER	real effective exchange rate
ROI	return on investment
SAAR	seasonally-adjusted annualized rate
SIAM	Society of Indian Automobile Manufacturers
SRFO	straight-run fuel oil
SUV	sports utility vehicle
ULCC	ultra-large crude carrier
ULSD	ultra-low sulphur diesel
USEC	US East Coast
USGC	US Gulf Coast
USWC	US West Coast
VGO	vacuum gasoil
VLCC	very large crude carriers
WPI	wholesale price index
WS	Worldscale
WTI	West Texas Intermediate
WTS	West Texas Sour

OPEC Basket average price

US$/b

down 21.61 in March

March 2020	33.92
February 2020	55.53
Year-to-date	**51.39**

March OPEC crude production

mb/d, according to secondary sources

up 0.82 in March

March 2020	28.61
February 2020	27.79

Economic growth rate

per cent

	World	OECD	US	Euro-zone	Japan	China	India
2019	2.9	1.7	2.3	1.2	0.7	6.1	5.3
2020	–1.5	–4.2	–4.1	–6.0	–3.9	1.5	2.0

Supply and demand

mb/d

2019		**19/18**	**2020**		**20/19**
World demand	99.7	0.8	World demand	92.8	–6.8
Non-OPEC liquids production	65.0	2.0	Non-OPEC liquids production	63.5	–1.5
OPEC NGLs	4.8	0.0	OPEC NGLs	4.8	0.0
Difference	**29.9**	**–1.2**	**Difference**	**24.5**	**–5.4**

OECD commercial stocks

mb

	Dec 19	Jan 20	Feb 20	Feb 20/Jan 20	Feb 19
Crude oil	1,432	1,432	1,426	–6.1	1,457
Products	1,469	1,508	1,520	11.7	1,424
Total	**2,902**	**2,940**	**2,945**	**5.6**	**2,881**
Days of forward cover	63.7	67.7	72.7	5.0	61.2

Next report to be issued on 13 May 2020.