

OPEC

Monthly Oil Market Report

14 May 2019

Feature article:
Non-OPEC oil supply development

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Organization of the Petroleum Exporting Countries

Helferstorferstrasse 17, A-1010 Vienna, Austria

E-mail: [prid\(at\)opec.org](mailto:prid(at)opec.org)

Website: www.opec.org

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Contributors to the OPEC Monthly Oil Market Report

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

Analysts

Crude Oil Price Movements

Yacine Sariahmed
email: ysariahmed(at)opec.org

Commodity Markets

Hector Hurtado
email: hhurtado(at)opec.org

World Economy

Afshin Javan
email: ajavan(at)opec.org
Imad Al-Khayyat
email: ial-khayyat(at)opec.org
Joerg Spitzzy
email: jspitzzy(at)opec.org

World Oil Demand

Hassan Balfakeih
email: hbalfakeih(at)opec.org

World Oil Supply

Mohammad Ali Danesh
email: mdanesh(at)opec.org

Product Markets and Refinery Operations

Tona Ndamba
email: tndamba(at)opec.org

Tanker Market *and* Oil Trade

Anisah Almadhayyan
email: aalmadhayyan(at)opec.org

Stock Movements

Aziz Yahyai
email: ayahyai(at)opec.org

Technical team

Nadir Guerer
email: nguerer(at)opec.org
Aziz Yahyai
email: ayahyai(at)opec.org
Douglas Linton
email: dlinton(at)opec.org
Viveca Hameder
email: vhameder(at)opec.org

Statistical services

Adedapo Odulaja, Head, Data Services Department (aodulaja(at)opec.org),
Hossein Hassani, Statistical Systems Coordinator (hhassani(at)opec.org),
Pantelis Christodoulides (World Oil Demand, Stock Movements), Klaus Stoeger (World Oil Supply),
Mohammad Sattar (Crude Oil Price Movements, Commodity Markets, Tanker Market, Oil Trade),
Mihni Mihnev (World Economy, Product Markets and Refinery Operations)

Editing, production, design and circulation

James Griffin, Maureen MacNeill, Scott Laury, Matthew Quinn,
Hataichanok Leimlehner, Liane-Sophie Hamamciyan, Diana Lavnick, Andrea Birnbach

Oil Market Highlights

Crude Oil Price Movements

The OPEC Reference Basket (ORB) rose by \$4.41, or 6.6%, in April month-on-month (m-o-m), to average \$70.78/b. The ORB extended its gains during the month, reaching a six-month high, as the ongoing bullish market sentiment was fuelled by concerns about additional oil supply disruptions in the wake of new geopolitical risks in key oil producing regions. Crude oil futures prices also reached their highest level since last October on the back of improved market sentiment and robust oil market fundamentals amid oil supply outages. In April, ICE Brent was on average \$4.60, or 6.9%, higher m-o-m at \$71.63/b, while NYMEX WTI rose by \$5.70, or 9.8%, m-o-m to average \$63.87/b. DME Oman crude oil futures also increased m-o-m by \$4.25, or 6.4%, over the previous month to settle at \$71.20/b. The Brent and Dubai backwardation structures firmed with the front of the curves steepening further, while the NYMEX WTI contango structure narrowed. Hedge funds and other money managers added more bullish positions in April for both Brent and WTI.

World Economy

The global economic growth estimate remains at 3.6% for 2018 and is forecast to grow by 3.2% in 2019, unchanged from the previous month's assessment. Improving growth trends in some economies point at some stabilisation on a global level, but downside risks still prevail. In the OECD economies, US growth is revised up by 0.2 pp to 2.6% for 2019, compared to 2.9% for 2018. GDP growth in Japan is revised lower by 0.2 pp from 0.6% to 0.4% for 2019, following growth of 0.8% in 2018. Euro-zone 2018 growth remains unchanged at 1.2% for 2019, down from 1.8% for 2018. In the non-OECD economies, China's 2019 growth forecast is now revised up by 0.1 pp, to stand at 6.2%, after reaching 6.6% in 2018. India's 2019 growth forecast remains at 7.1%, following 7.3% in 2018. Growth in Brazil is revised lower to 1.7% from 1.8% for 2019, after seeing 1.1% in 2018, while Russia's 2019 GDP growth forecast is unchanged at 1.6%, following growth of 2.3% for 2018.

World Oil Demand

In 2018, oil demand is estimated to have increased by 1.41 mb/d, unchanged from last month's assessment, with total oil demand reaching 98.73 mb/d. OECD America and Other Asia led oil demand growth in 2018, with a combined increase of around 0.90 mb/d. For 2019, world oil demand growth is now forecast to increase by 1.21 mb/d, also unchanged from last month's assessment, with total world consumption anticipated to reach 99.94 mb/d. Throughout the regions, there are revisions which broadly cancel each other out. Some positive upward revisions are accounted for in OECD Americas and China, due to better economic projections than in the previous month. On the other hand, some downward revisions are seen due to lower than expected oil demand data in Latin America and the Middle East during 1Q19, in addition to some downward adjustments to OECD Europe, Latin America and the Middle East for the entire year.

World Oil Supply

Non-OPEC oil supply growth in 2018 is revised up by a minor 0.01 mb/d from the previous month's assessment, mainly due to an upward revision to Canada's supply in 4Q18, which non-OPEC supply is now estimated to have grown by 2.91 mb/d to average 62.37 mb/d. In contrast, non-OPEC oil supply growth in 2019 is revised down by 0.03 mb/d to average 2.14 mb/d, mainly due to lower than expected output in 1Q19 in the US, Brazil and the UK, which is partially offset by upward revisions in China. Total supply for the year is now projected to average 64.52 mb/d. The US, Brazil, Russia, Australia and the UK are the main drivers for this year's growth, while Mexico, Kazakhstan, Norway and Indonesia are projected to see the largest declines. OPEC NGLs and non-conventional liquids were revised downward for the years 2016 thru 2018. In addition, growth in OPEC NGLs and non-conventional liquids was revised upward by 83 tb/d y-o-y in 2018, reaching 4.76 mb/d, representing a growth of about 0.13 mb/d, y-o-y. For 2019, OPEC NGLs and non-conventional liquids are forecast to grow by 0.08 mb/d to average 4.84 mb/d, a slight downward revision of 0.01 mb/d. In April 2019, OPEC crude oil production was broadly unchanged from the previous month to average 30.03 mb/d, according to secondary sources.

Product Markets and Refining Operations

In April, refining margins globally saw a counter-seasonal positive performance, as the tightness in the gasoline market witnessed in the previous month prevailed, providing stimulus for trade flows amid limited product output. Meanwhile, the peak spring refinery maintenance season is slowly approaching its end. In all main trading hubs, markets of all other key products, with the exception of gasoline, witnessed losses, in line with seasonal trends and given the recently increasing supply-side pressure.

Tanker Market

Average dirty tanker spot freight rates continued to decline from the high levels seen at the end of last year. Fixtures were lower on seasonal factors with the start of refinery maintenance being particularly pronounced this year as refiners gear up for the implementation of IMO 2020. In April, dirty tanker freight rates saw a decline compared to the previous month, with VLCCs and Aframax rates falling on average by 30% and 13%, respectively, partially offset by a 13% rise in Suezmax rates supported by West Africa-to-US Gulf Coast activity. Clean tanker spot freight rates continued to have a mixed performance in April, resulting in a 1% decline in rates on average compared to the previous month.

Stock Movements

Preliminary data for March showed that total OECD commercial oil stocks rose by 3.3 mb m-o-m to stand at 2,875 mb. This was 58.5 mb higher than the same time one year ago, and 22.8 mb above the latest five-year average. Within the components, crude and products stocks indicated a surplus of 20.3 mb and 2.5 mb, respectively, above the latest five-year average. In terms of days of forward cover, OECD commercial stocks rose by 0.1 days m-o-m in March to stand at 60.6 days. This was 1.0 day above the same period in 2018 but 1.0 day below the latest five-year average.

Balance of Supply and Demand

Demand for OPEC crude in 2018 is estimated at 31.6 mb/d, 1.6 mb/d lower than the 2017 level. In 2019, demand for OPEC crude is forecast at 30.6 mb/d, around 1.0 mb/d lower than the estimated 2018 level.

Feature Article

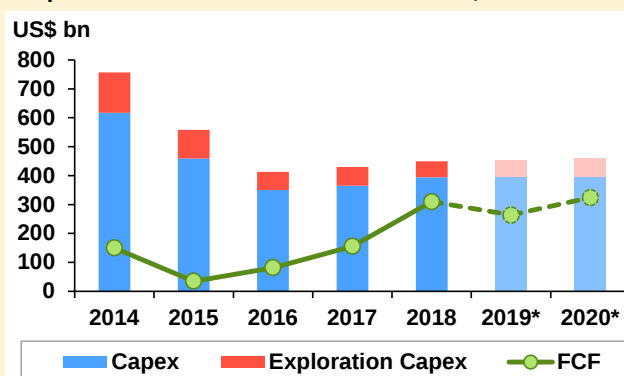
Non-OPEC oil supply development

In 2018, non-OPEC oil supply experienced a robust growth of 2.91 mb/d, amounting to more than three times the increase seen in the previous year, and was led by the y-o-y gains of 2.26 mb/d in the US. In addition to the US, other non-OPEC countries, such as Canada, Russia and UK contributed to the gains. Indeed, the recovery in oil supply in 2017 and 2018, following the contraction in 2016, was driven by improving oil market conditions and rising oil prices, with NYMEX WTI increasing by around \$14/b, or 27.5%, y-o-y, to average \$64.90/b in 2018.

Free cash flow (FCF) in non-OPEC reached to a record high of \$310 bn in 2018, a jump by almost 100% y-o-y. There are several reasons to why free cash flows have improved from the low of \$35 bn seen following the oil price collapse in 2015. Key among these reasons are the higher oil prices, lower cost levels and reduced investments. The non-OPEC's FCF in 2019 is expected to decline 15%, before rising again by 23% to reach \$324 bn in 2020.

As a result of the higher cash-flow, non-OPEC upstream sanctioning activity appears set to reach an all-time high this year, marking the start of a new cycle of investment (**Graph 1**). With the improvements in FCF, E&P companies currently have large projects in Non-OPEC countries that they plan to sanction over the next two years. It is anticipated that this year, around \$26.5 bn will be spent on exploration in non-OPEC countries, \$184 bn on brownfields and \$180 bn on greenfields, totaling an estimated \$390 bn. Next year, this figure is expected to rise to around \$468 bn. The total capex for non-OPEC's tight oil – which consists mainly of the US – will be around \$124 bn in 2019. Despite having the lion's share of total capex, this

Graph 1: Non-OPEC's FCF and investment, 2014-2020



Note: * 2019-2020 = Forecast.

Sources: Rystad Energy and OPEC Secretariat.

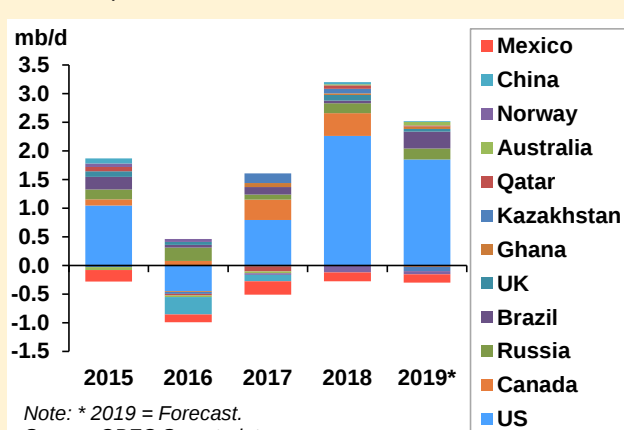
indicates a decline of \$9 bn, or -7% y-o-y, down from the \$133 bn level observed in 2018.

In addition to geopolitical developments, the performance of non-OPEC supply in 2019 will depend on a number of factors. Supply growth is likely to be slower than last year amid the expected weaker global economic growth at 3.2%. US tight oil production is increasingly faced with costly logistical constraints in terms of out-take capacity from land-locked production sites. Such constraints have also impacted Canada's oil production. Moreover, North American producers will continue facing pressure by shareholders demanding capital discipline and a return on their investments, and this could come at the expense of increased disposable capex.

On a country-basis, 86% of total non-OPEC supply growth in 2019 is expected to come from the US (1.85 mb/d), Brazil (0.30 mb/d), Russia (0.19 mb/d), Australia (0.06 mb/d), the UK (0.05 mb/d), and Ghana (0.04 mb/d), while supply declines will mainly be seen in Mexico, Kazakhstan, Norway, Indonesia, Canada and Vietnam (**Graph 2**).

Despite pipeline constraints in the Permian Basin, US liquids production is estimated to increase by 1.85 mb/d in 2019, of which 91% is attributed to tight crude and unconventional NGLs. This compares to a share of around 96% in 2018. In Canada, the slump in storage capacity, the wide differential between the price of WCS and WTI as well as pipeline capacity limitations prompted the Alberta government to mandate temporary production adjustments leading to a contraction in growth in 2019. In Brazil, following the new project production start-ups and ramp-ups at the recently installed FPSOs, oil supply is forecast to grow by 0.30 mb/d. A total of 252 oil & gas projects are anticipated to be approved in 2019 in non-OPEC countries, with 14 projects outside of tight oil currently in FID of which 54% will be onshore and 46% offshore, representing the same share as 2018, with Brazil showing the largest growth potential from new field start-ups.

Graph 2: Non-OPEC supply changes in selected countries, 2015-2019



Note: * 2019 = Forecast.

Source: OPEC Secretariat.

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Crude Oil Price Movements

The **OPEC Reference Basket (ORB)** extended its gains in April, climbing to a six-month high, as the ongoing bullish market sentiment was fuelled by concerns about additional oil supply disruptions in the wake of new geopolitical risks in key oil producing regions. The ORB value rose by \$4.41, or 6.6%, m-o-m, to average \$70.78/b, its highest level since October 2018. All ORB component values also edged up in April to their highest since October, sustained by higher benchmarks, firm crude differentials and official selling prices. Both medium/heavy sour and light sweet crude differentials rose in April on robust crude demand.

Crude oil futures prices increased further in April to a level not seen since last October on improved market sentiment and robust oil market fundamentals amid oil supply outages. Prospects for tighter global oil supply due to renewed geopolitical tensions pushed the ICE Brent front month to over \$74/b despite mixed economic signals and a downward revision of the IMF's 2019 global economic growth forecast. Nonetheless, oil futures retreated in late April and early May, after traders took profits following a steep rally earlier in April, while renewed trade tensions between the US and China raised worries about global energy demand, further weighing on the market. In April, ICE Brent was on average \$4.60, or 6.9%, m-o-m higher at \$71.63/b, while NYMEX WTI rose m-o-m by \$5.70, or 9.8%, to average \$63.87/b. Year-to-date (y-t-d), ICE Brent is \$2.58, or 3.8%, y-o-y lower at \$65.78/b, while NYMEX WTI declined by \$6.58, or 10.3%, y-o-y to \$57.20/b. DME Oman crude oil futures progressed m-o-m by \$4.25, or 6.4%, over the previous month to settle at \$71.20/b in April. Y-t-d, DME Oman was up by 23¢, or 0.3%, y-o-y at \$65.63/b.

Hedge funds and other money managers added even more bullish positions in April for both the Brent and WTI benchmarks, with speculative net length in combined ICE Brent and NYMEX WTI reaching the highest level since last October. Renewed geopolitical tensions in key production regions incentivised traders to raise their long positions further and to close more short positions.

The Brent and Dubai backwardation **price structure** firmed further in April with the front of the curve steepening further as the market rebalancing process accelerated, reflecting tighter global oil supplies and lower global crude oil inventory levels due to the voluntary production adjustments in accordance with the Declaration of Cooperation. Furthermore, prospects of more disrupted oil supply from the Middle East and Latin America in the coming months due to additional geopolitical tensions bolstered prompt prices. However, the WTI price structure remained in contango as growing US oil supply curbed prompt prices.

The **differential of light sweet to medium sour crude** widened in Asia and in the US Gulf Coast (USGC) despite a tighter global sour crude market, while the sweet/sour spread narrowed further in Europe due to prospects of reduced sour crude inflow into the region from other regions, and Urals supply disruption.

OPEC Reference Basket

The **ORB** extended its gains in April, climbing to a six-month high, as the ongoing bullish market sentiment was fuelled further by concerns about additional oil supply disruptions in the wake of new geopolitical risks in key oil producing regions. The ORB value continued to rise for the fourth consecutive month, gaining about \$14/b, or more than 25%, compared to the low level seen last December. On a monthly average, the ORB value rose by \$4.41, or 6.6%, m-o-m, to average \$70.78/b, the highest level since October 2018.

Oil prices rose over the first half of April on supportive oil market fundamentals as the Declaration of Cooperation continued to show high conformity levels with their voluntary production adjustments in order to bring more balance to the market, as OPEC crude oil production based on secondary sources declined again in March by 522 tb/d, m-o-m. Tighter global oil supply, robust physical crude demand and concerns related to renewed unrest in North Africa offset worries over global economic growth and downward revisions of global GDP.

Oil prices continued their uptrend in the second part of April on renewed geopolitical tensions in the Middle East that could lower crude production and exports in upcoming months. Supply disruptions of Russian Urals via the Druzhba pipeline to Eastern Europe and Germany due to crude contamination by organic chlorides also added support to prices.

Crude oil physical benchmarks rose in April as well, with Dated Brent, Dubai and WTI spot prices increasing m-o-m by \$5.07, \$4.02 and \$5.71, respectively, to settle at \$71.15/b, \$70.93/b and \$63.87/b. Y-t-d, the ORB value was 80¢, or 1.2%, lower at \$64.87/b compared to the same period in 2018.

All **ORB component values** edged up in April to their highest since October 2018, sustained by higher price benchmarks and firm crude differentials and official selling prices. Both medium/heavy sour and light sweet crude differentials rose in April on robust crude demand. Medium/heavy sour grades were supported further by a tight market and firm backwardation of the Dubai price structure. On a monthly average, the ORB value increased m-o-m by \$4.41, or 6.6%, to settle at \$70.78/b in April.

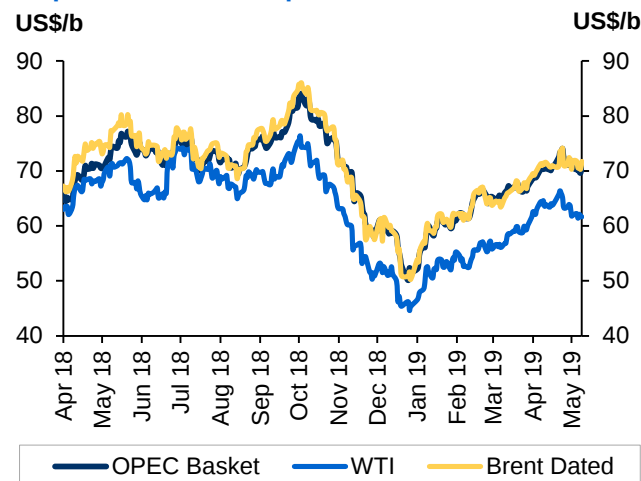
Light sweet crude **ORB components from West and North Africa**, including Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend and Zafiro, rose \$5.19 on average, or 7.8%, m-o-m to \$71.27/b in April. West African crude differentials strengthened further in April and reached multi-year highs on robust European and Asian demand for medium grades amid lower June loading programmes for Angolan grades. Favourable freight costs added support.

Latin American ORB components rose again, supported by a tighter sour crude market and higher fuel oil margins, as well as low heavy sour crude supply from Latin America. Venezuela's Merey and Ecuador's Oriente settled higher m-o-m by \$1.20, or 2.1%, to \$58.95/b; and by \$3.95, or 6.2%, to \$67.61/b, respectively.

The values of **multi-region destination grades**, including Arab Light, Basrah Light, Iran Heavy and Kuwait Export, rose by \$4.41, or 6.7%, m-o-m to \$70.51/b. Middle Est crude values firmed in April on strong demand, particularly from the Asia Pacific, and lower crude oil supply in an already tight heavy sour crude market. Higher official selling prices of heavier grades due to firm Dubai price backwardation added support to prices.

Middle Eastern spot component Murban – a light sour grade – also edged up, supported by a wide Brent-Dubai spread and higher crude differentials of similar grades in the Asia Pacific. Murban crude saw its values higher m-o-m by \$3.50, or 5.1%, to \$71.51/b.

Graph 1 - 1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

Table 1 - 1: OPEC Reference Basket and selected crudes, US\$/b

	<u>Mar 19</u>	<u>Apr 19</u>	<u>Change</u> <u>Apr/Mar</u>	<u>%</u>	<u>Year-to-date</u> <u>2018</u>	<u>2019</u>
Basket	66.37	70.78	4.41	6.6	65.67	64.87
Arab Light	67.40	71.88	4.48	6.6	66.23	65.88
Basrah Light	66.05	70.45	4.40	6.7	64.48	64.43
Bonny Light	67.71	72.81	5.10	7.5	68.98	66.50
Djeno	63.48	68.55	5.07	8.0	66.00	62.50
Es Sider	65.38	70.45	5.07	7.8	67.02	64.26
Girassol	67.16	72.88	5.72	8.5	68.68	66.27
Iran Heavy	64.17	68.52	4.35	6.8	64.25	62.53
Kuwait Export	66.78	71.20	4.42	6.6	64.32	65.08
Merey	57.75	58.95	1.20	2.1	58.52	55.80
Murban	68.01	71.51	3.50	5.1	68.03	66.43
Oriente	63.66	67.61	3.95	6.2	62.62	61.63
Rabi Light	65.33	70.40	5.07	7.8	67.02	64.35
Sahara Blend	66.38	71.15	4.77	7.2	68.74	65.22
Zafiro	67.15	72.65	5.50	8.2	67.99	66.15
Other Crudes						
Dated Brent	66.08	71.15	5.07	7.7	67.99	65.10
Dubai	66.91	70.93	4.02	6.0	65.01	65.27
Isthmus	66.53	70.34	3.81	5.7	66.51	64.63
LLS	65.59	70.69	5.10	7.8	66.75	64.44
Mars	64.88	68.93	4.05	6.2	63.47	63.13
Minas	59.63	67.64	8.01	13.4	60.41	58.92
Urals	66.21	71.90	5.69	8.6	66.19	65.57
WTI	58.16	63.87	5.71	9.8	63.75	57.12
Differentials						
Brent/WTI	7.92	7.28	-0.64	-	4.23	7.98
Brent/LLS	0.49	0.46	-0.03	-	1.24	0.65
Brent/Dubai	-0.83	0.22	1.05	-	2.98	-0.17

Sources: Argus Media, Direct Communication, OPEC Secretariat and Platts.

On 13 May, the ORB stood at \$71.21/b, 43¢ above the April average.

The oil futures market

Crude oil futures prices rose further in April to levels not seen since October 2018 on improved market sentiment and robust market fundamentals amid planned and unplanned oil supply outages. Meanwhile, prospects of tighter global oil supply due to renewed geopolitical tensions pushed the ICE Brent front month to over \$74/b in the second part of the month, despite mixed economic signals and the IMF's downward revision of its 2019 global economic growth forecasts. The backwardation structure of Brent futures widened further in April signalling a balanced global oil market and expectations of tighter oil supply in coming months, while crude demand is expected to increase when refineries return from maintenance. Again, the bullish market seen in April can also be attributed to expectations of improving global refinery throughput in 2Q19 and 3Q19, which is expected to rise after heavy spring refining maintenance season, particularly in Asia and in the US, to meet coming oil demand during summer season. The NYMEX WTI futures front month has risen by more than 40% from early January to reach above \$66/b in the second part of April, growing more than Brent, despite rising US crude oil stocks in April. WTI futures prices were supported by sustained US crude exports, firmer gasoline margins and low US gasoline stocks. There were also signs of lower US drilling activity after Baker Hughes data showed a significant drop in the US oil rig count in April, which reached its lowest since April of last year. Furthermore, US refiners' crude intake is expected to rebound in the coming weeks as US oil refiners start to emerge from spring peak maintenance season, to meet driving season demand.

Crude Oil Price Movements

Nonetheless, oil futures retreated in late April and early May after traders took profits following a steep rally earlier in April. Weekly data showed two large consecutive builds in US crude inventories in the second half of April, amid a continuing rise of US oil supply to record levels, while renewed trade tensions between the US and China raised worries about global energy demand, further weighing on the market.

In April, **ICE Brent** was on average \$4.60, or 6.9%, m-o-m higher at \$71.63/b, while **NYMEX WTI** rose m-o-m by \$5.70, or 9.8%, to average \$63.87/b. On a y-t-d, ICE Brent was \$2.58, or 3.8%, y-o-y lower at \$65.78/b; NYMEX WTI declined by \$6.58, or 10.3%, y-o-y to \$57.20/b.

DME Oman crude oil futures also progressed m-o-m by \$4.25 in April, or 6.4%, over the previous month, to settle at \$71.20/b. On a y-t-d, DME Oman was up by 23¢, or 0.3%, y-o-y at \$65.63/b.

On 13 May, ICE Brent stood at \$70.23/b and NYMEX WTI at \$61.04/b.

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

	<u>Mar 19</u>	<u>Apr 19</u>	<u>Change</u> <u>Apr/Mar</u>	<u>%</u>	<u>Year-to-date</u> <u>2018</u>	<u>2019</u>
NYMEX WTI	58.17	63.87	5.70	9.8	63.77	57.20
ICE Brent	67.03	71.63	4.60	6.9	68.36	65.78
DME Oman	66.95	71.20	4.25	6.4	65.40	65.63
Transatlantic spread (ICE Brent-NYMEX WTI)	8.86	7.76	-1.10	-12.4	4.59	8.59

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

Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

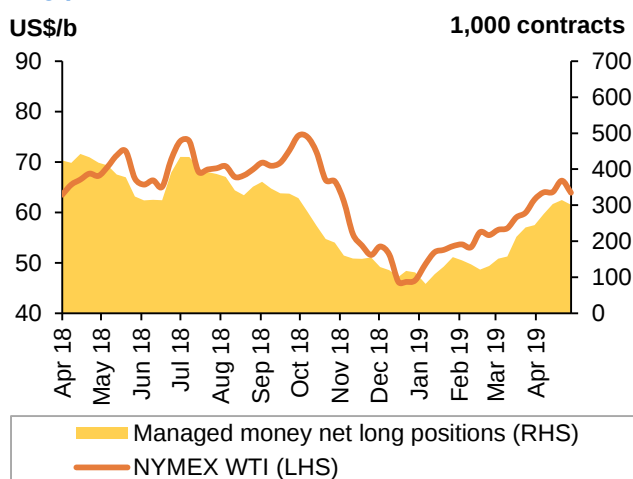
Hedge funds and money managers added even more bullish positions in April for both crude benchmarks Brent and WTI, with speculative net lengths in combined ICE Brent and NYMEX WTI reaching the highest level since last October. Renewed geopolitical tensions incentivised traders to raise their net long positions further and to close more short positions.

Hedge funds and money managers raised their bullish wagers on US crude WTI for nine consecutive weeks, to 338,832 contracts, or 21.7%, for the week ending 23 April.

The speculator group lifted their **combined net long positions for futures and options' positions** in the **NYMEX WTI** by 76,182 contracts, or 32.0%, to 314,387 contracts for the week ending 23 April, according to the US Commodity Futures Trading Commission (CFTC).

During the same period, gross short positions fell significantly by 18,098 contracts to 24,445 contracts, the lowest since last September, while gross long positions rose by 58,084 contracts, data showed. During this period, NYMEX WTI prices rose by about 11%.

Graph 1 - 2: NYMEX WTI vs. managed money net long positions



Sources: CFTC, CME Group and OPEC Secretariat.

Hedge funds and other money managers continued to increase consistently their combined futures and options net long positions linked to **ICE Brent** by 74,231 contracts, or 23.1%, to 396,266 contracts for the week ending 23 April, according to the ICE Exchange.

The **long-to-short ratio** in ICE Brent speculative positions increased in April to 13:1, compared to 7:1 in late March, while the NYMEX WTI long to short ratio increased to 14:1 for the week ending 23 April, compared to 7:1 in late March.

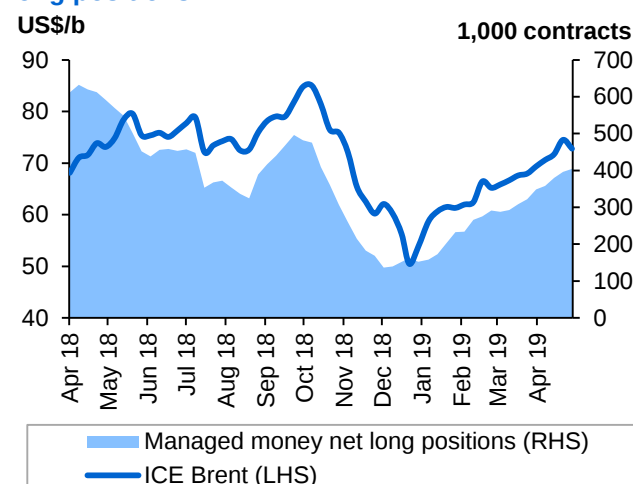
The **total futures and options open interest volume** in the two exchanges increased by 319,032 contracts to stand at 6.1 million contracts in the week ending 23 April.

The **daily average traded volume** for NYMEX WTI contracts rose by 181,229 lots, or 16.0%, in April to 1,315,639 contracts. The daily average traded volume for ICE Brent rose by 69,811 contracts, or 8.4%, to 904,156 lots.

The **daily aggregate traded volume** for both crude oil futures markets increased in April by 251,040 contracts m-o-m to stand at 2.2 million futures contracts, or about 2.2 billion b/d of crude oil.

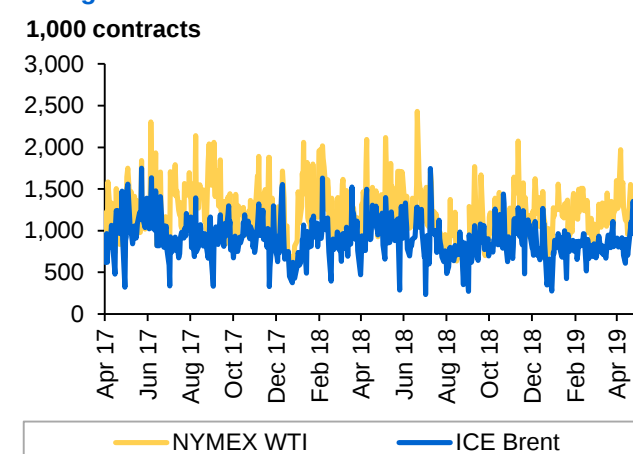
The April **total traded volume** in NYMEX WTI was significantly higher at 27.6 million contracts, or 16.0%, while that of ICE Brent was 8.4% higher at 19.0 million contracts.

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



Sources: Intercontinental Exchange and OPEC Secretariat.

Graph 1 - 4: NYMEX WTI and ICE Brent daily trading volumes



Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

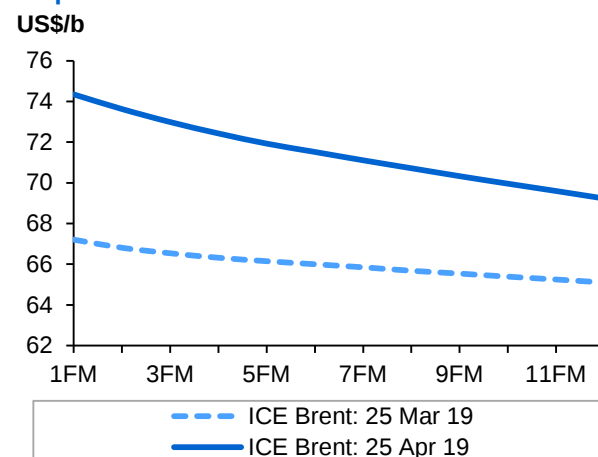
The futures market structure

The Brent and Dubai backwardation **price structure** firmed further in April with the front of the curve steepening further, as the market rebalancing process accelerated. At the same time, concerns about more disrupted oil supply from the Middle East and Latin America in the coming months due to additional geopolitical tensions bolstered prompt prices. However, the WTI price structure remained in contango as growing US oil supply curbed prompt prices.

The **Brent** futures price structure remained in **backwardation** for the second consecutive month as the global oil market continued the rebalancing process and physical crude demand remained strong. Concerns about potential supply disruptions in an already tight market and expectations for higher crude demand in the second and third quarters when refineries return from maintenance pushed prompt prices higher. ICE Brent's first to sixth-month moved into deeper backwardation last month to settle at \$2.83 on 25 April compared to \$1.21 one month earlier.

The **DME Oman** market structure has been in **backwardation** for several months, signalling robust demand for heavy and medium sour crudes amid tightening global supply of sour crude quality. Differentials for some Middle Eastern medium sour grades reached their highest premiums against Dubai in years. The Dubai backwardation widened further, pushing official selling prices higher for almost all Middle Eastern crudes.

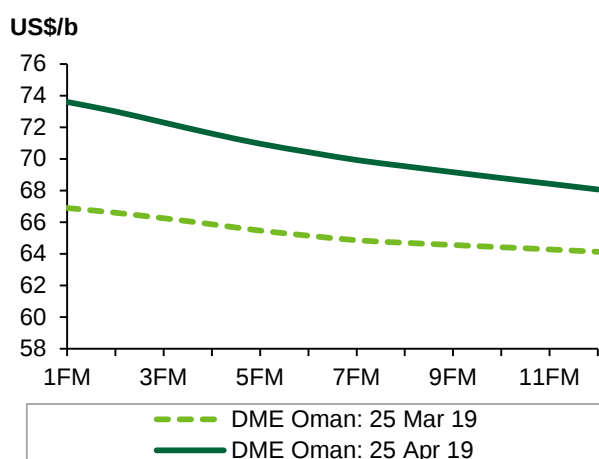
Graph 1 - 5: ICE Brent forward curves



Note: FM = future month.

Sources: Intercontinental Exchange and OPEC Secretariat.

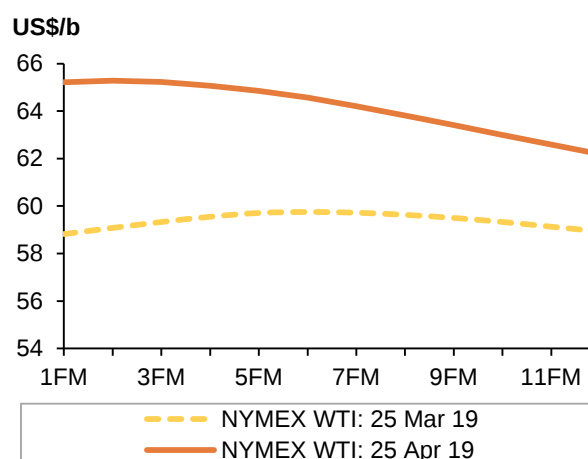
Graph 1 - 6: DME Oman forward curves



Note: FM = future month.

Sources: Dubai Mercantile Exchange and OPEC Secretariat.

Graph 1 - 7: NYMEX WTI forward curves



Note: FM = future month.

Sources: CME Group and OPEC Secretariat.

The **contango** structure of **NYMEX WTI** narrowed significantly, and the front of the curve flattened despite higher US crude oil stocks that rose to their highest since September 2017 due to growing US oil supply and low US refinery utilisation rates that held below 89% on average in April. WTI prompt prices were supported by sustained US crude exports and expectations of higher US crude intakes as refineries started their return from maintenance to meet driving season demand. WTI front month was also supported by the decrease of crude stocks in the US trading hub at Cushing, and healthy refining margins, particularly gasoline margins. The NYMEX WTI first to sixth-month spread slipped into a backwardation of 64¢ on 25 April compared to a contango of 93¢ one month earlier.

Regarding the **M1/M3 structure**, the North Sea Brent M1/M3 backwardation of 27¢/b, on a monthly average, widened to 93¢/b, a rise of 66¢. The Dubai M1 63¢/b premium to M3 increased to a \$1.32/b premium in April, up by 74¢ on a monthly average. In the US, the WTI contango of 59¢/b narrowed to 7¢/b, where the spread M1-M3 increased by 52¢.

The **spread between the ICE Brent and NYMEX WTI** benchmarks narrowed in April for the second consecutive month as NYMEX WTI rose more than ICE Brent benchmark. The transatlantic spread narrowed by \$1.10 on a monthly basis to stand at \$7.76/b. The narrowing Brent/WTI spread pressured US coastal crude differentials and decreased the competitiveness of WTI-linked crudes in the Atlantic Basin and Asia.

Table 1 - 3: Crude oil futures forward curves, US\$/b

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	25 Mar 19	58.82	59.08	59.33	59.75	58.93	0.11
	25 Apr 19	65.21	65.28	65.23	64.57	62.19	-3.02
	Change	6.39	6.20	5.90	4.82	3.26	-3.13
ICE Brent	25 Mar 19	67.21	66.81	66.54	66.00	65.10	-2.11
	25 Apr 19	74.35	73.63	72.99	71.52	69.23	-5.12
	Change	7.14	6.82	6.45	5.52	4.13	-3.01
DME Oman	25 Mar 19	66.90	66.60	66.25	65.15	64.13	-2.77
	25 Apr 19	73.60	73.00	72.30	70.43	68.07	-5.53
	Change	6.70	6.40	6.05	5.28	3.94	-2.76

Note: FM = future month.

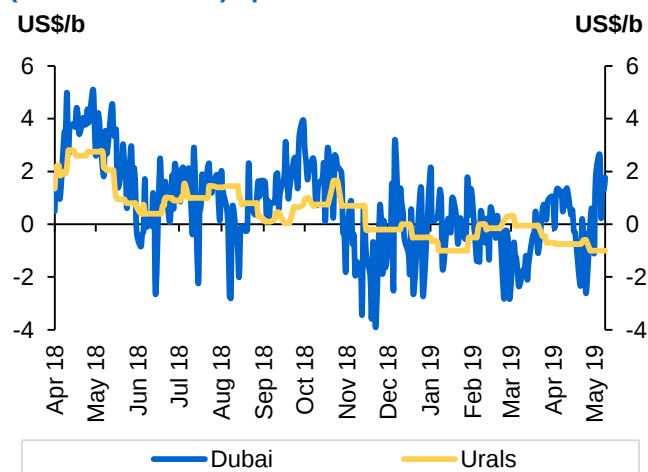
Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

The light sweet/medium sour crude spread

The **light sweet differential to medium sour crudes** widened in Asia and in the USGC despite tightening global sour crude market, while the sweet/sour spread narrowed further in Europe due to prospects of reduced sour crude inflow into the region from other regions, and Urals supply disruption.

In **Europe**, the medium sour crude premiums to light sweet widened further in April, with the Urals premium to the Brent benchmark widening by 62¢ on a monthly average to stand at 75¢/b. Urals crude differentials were trading at steady levels in the first part of April compared to the firm levels seen in March, underpinned by prospects of reduced sour crude inflow into the region from other regions, and by robust European demand despite ample Urals May loadings. In the last week of the month, Urals crude differentials soared to highest level in several years after Russia halted Urals flows via the Druzhba pipeline to Eastern Europe and Germany due to contamination, while refiners competed on available non-contaminated Urals cargoes out of the port of Primorsk in the Baltic Sea. Urals crude differentials reached plus 90¢/b to Brent benchmarks on the CIF Rotterdam basis.

Graph 1 - 8: Brent Dated vs. sour grades (Urals and Dubai) spread



Sources: Argus Media, OPEC Secretariat and Platts.

However, the sweet/sour spread widened in **Asia** despite lower supplies of medium and heavy sour crude quality and prospects of disrupted supply from the Middle East in the coming months. The Tapis/Dubai spread widened in April by \$1.06 in average compared to the previous month to settle at \$4.12/b. The Brent differentials to Dubai also widened with EFS Dubai reaching \$2.74/b, its highest in six months, and settling at \$1.98/b on a monthly average in April, a rise of \$1.28 from the previous month. The widening Brent/Dubai differentials were partly due to weaker fuel oil margins and healthier light distillate cracks, while renewed geopolitical tensions added a risk premium to international benchmark Brent.

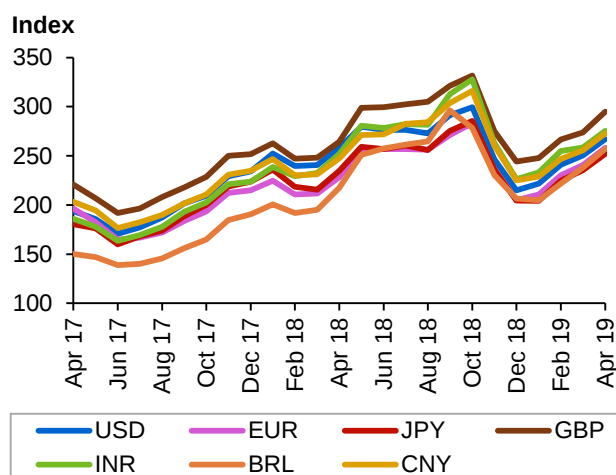
Similarly, in the **USGC**, the Light Louisiana Sweet (LLS) premium over Mars crude widened in April by \$1.05 to \$1.76/b. Mars value weakened compared to LLS in the USGC, after some refiners increased their runs of LLS crude, as the LLS/Mars spread narrowed significantly in recent months. However, the sour crude market remained firm in the USGC amid lower supplies from Latin America.

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

The **USD** generally advanced against both major and emerging market currencies in April, supported by the stronger performance of the US economy vis-a-vis its major economic counterparts.

Against the **major currencies**, the euro versus the dollar advanced on average by 0.6%, with the European Central Bank retaining an accommodative monetary policy stance in view of softening first quarter economic growth. Against the Swiss franc it increased by around 0.6% too. Against the Japanese yen, the dollar advanced by 0.4%, with the Bank of Japan committing to keep interest rates at current levels, at least until spring next year, in view of very low growth, and inflation rate that is far from the 2% target. The dollar, also advanced by 1.0% against the UK pound sterling, as the prospects of a political agreement on Brexit worsened in the second half of the month.

Graph 1 - 9: ORB crude oil price index compared with different currencies (base January 2016 = 100)



Sources: IMF and OPEC Secretariat.

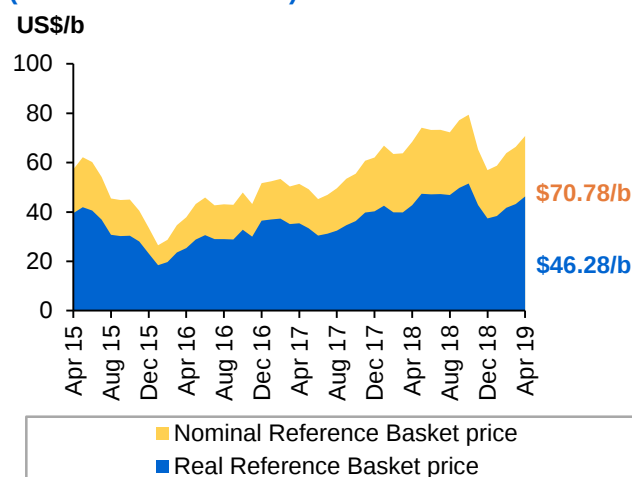
In the **emerging market currencies**, on average, the USD advanced slightly against the Chinese yuan, breaking a three-month declining trend, up by 0.1% m-o-m. However, following the further intensification of the US and China trade dispute, the dollar has advanced by a further 2% against the yuan since the beginning of May. Against the Indian rupee, the dollar decreased slightly by 0.1% m-o-m, with the rupee still supported by political developments surrounding the upcoming elections. Against the currencies of large commodity exporters, the USD advanced by 1.3% against the Brazilian real, with concerns regarding a slower than expected pace of economic reform negatively affecting sentiment. Against the Russian ruble, the dollar lost 0.8% as oil prices saw an upward trend over the month. Against the currencies of Turkey and Argentina, the dollar increased by 5.5% and by 4.5%, respectively, on political developments and continuing external vulnerabilities.

In **nominal terms**, the price of the **ORB** increased by \$4.41, or 6.6%, from \$66.37/b in March to \$70.78/b in April.

In **real terms**, after accounting for inflation and currency fluctuations, the **ORB** increased to \$46.28/b in April, from a revised \$43.21/b (base June 2001=100) the previous month.

Over the same period, the **USD** advanced by 0.5% against the import-weighted modified Geneva I + USD basket, while inflation was stable m-o-m.

Graph 1 - 10: Impact of inflation and currency fluctuations on the spot ORB price (base June 2001 = 100)



Source: OPEC Secretariat.

Commodity Markets

In April, **energy commodity** prices showed similar trends as in the previous three months, with crude oil prices rising and average coal and natural gas prices generally declining.

For **non-energy commodities**, base metal prices declined with amid further deceleration in global manufacturing activity. In the group of precious metals, gold declined further amid a strong performance in the US economy that would likely support current interest rate levels. Most recently, in view of the intensification of the trade disputes at the beginning of May, prices for oil and industrial metals have experienced declines.

Trends in selected commodity markets

The **energy price index** increased by around 5.4% m-o-m in April, but was down on average by 5.0% y-t-d compared to the same period the last year. The increase in the energy index mainly reflects the price increase of crude oil, however, natural gas and coal have dropped significantly in Europe and Asia. The non-energy index was up 0.3% m-o-m, but down 6.7% y-t-d compared to last year.

Table 2 - 1: Commodity prices

Commodity	Unit	Monthly averages			% Change Apr 19/Mar 19	Year-to-date	
		Feb 19	Mar 19	Apr 19		2018	2019
Energy*		77.4	80.0	84.3	5.4	83.0	78.9
Coal, Australia	US\$/mt	95.4	93.1	86.8	-6.8	100.7	93.5
Crude oil, average	US\$/b	61.1	63.8	68.6	7.5	65.7	62.5
Natural gas, US	US\$/mbtu	2.7	2.9	2.7	-9.7	2.9	2.8
Natural gas, Europe	US\$/mbtu	6.0	5.2	4.9	-5.0	6.8	5.8
Non-energy*		82.6	82.6	82.8	0.3	88.2	82.3
Base metal*		84.7	86.2	85.6	-0.6	95.7	84.4
Precious metals*		100.4	98.7	97.6	-1.1	102.2	98.8

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

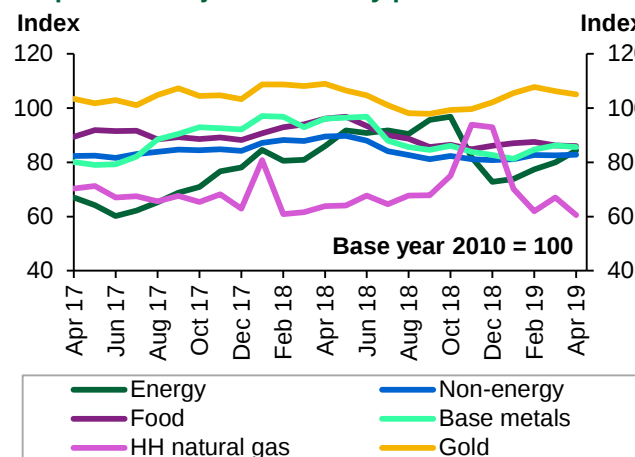
Sources: World Bank, Commodity price data; OPEC Secretariat.

In April, the **Henry Hub natural gas index** decreased on average by 9.7% to \$2.65/mmbtu. Y-t-d, the index was 3.2% lower compared to the same period last year. Amid moderate temperatures and rising production, inventories have recovered some of their deficit from the five-year average. According to the US Energy Information Administration (EIA), utilities added 123 bcf to working gas underground storage during the week ending April 26th, second-largest net injection ever reported in the history of the *Weekly Natural Gas Storage Report*. The build left total working gas in underground storage at 1,462 bcf, which was 17.8% lower than the previous five-year average, but already 9.8% above last year's levels. One month ago, inventories were 30.9% below the five-year average.

Natural gas prices in Europe declined with the **Title Transfer Facility** price falling by 5.0% to \$4.92/mmbtu in April. This is its lowest since mid-2017. Prices weakened as inventories continued to replenish at a fast pace as a result of mild temperatures during the winter that reduced seasonal demand, and strong LNG imports due to favourable price differentials, as weaker Asian demand – also partly due to the mild winter – pushed down spot prices in that region. Natural gas inventories for EU Member States were 48.6% full at the end of April, which is almost double the level at the end of April last year, according to Gas Infrastructure Europe.

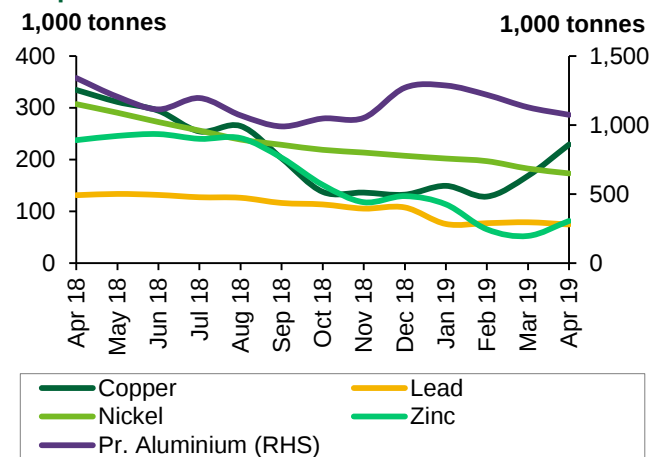
Australian thermal coal prices decreased to an average of \$86.77/mt in April, or 6.8% m-o-m. Prices fell sharply at the beginning of the month to around \$78/Mt on news of further delays to Australian exports at Chinese ports. At the same time, other factors such as higher hydroelectric output in China that was up 12% y-o-y in the January-March period, and milder weather, limited coal consumption, which added further downward pressure to prices. China's coal output meanwhile increased in March by 2.7% y-o-y and by 0.4% y-o-y in the January-March period. Recent Chinese trade data, however, shows that despite the aforementioned import delays to Australian supplies, imports recovered both in March and April, up by 33% 7.8% m-o-m, respectively after having dropped significantly in February. This strong import performance helped provide some support prices after the initial falls during April.

Graph 2 - 1: Major commodity price indices



Sources: World Bank, Commodity price data; S&P Goldman Sachs; Haver Analytics and OPEC Secretariat.

Graph 2 - 2: Inventories at the LME



Sources: LME, Thomson Reuters and OPEC Secretariat.

The **base metal price index** declined on average by 0.6% in April m-o-m, and was down 11.8% in the January-April period compared to the same months last year. Prices were mixed during the month, with some support coming from the acceleration of the Chinese economy at the end of 1Q19, including a rebound in industrial production figures for March on the back of a strong stimulus by China's government. Nonetheless, doubts about the continuation of the stimulus – and at what pace – as well as rising stocks for some metals prevented further gains. Indeed, the overall picture for global manufacturing worsened again in April after some stabilization the previous month. The JP Morgan global manufacturing PMI declined to 50.3 from a final reading of 50.5 the previous month, with the new export sub-components still in the contraction zone, although it rose slightly to 49.0 compared to 48.9 the previous month.

Copper prices were stable m-o-m in April on the back of the stimulus measures from China. The International Copper Study group estimated the global refined copper balance to be a balanced market in January 2019. However, in April inventories increased considerably, with stocks at the London Metal Exchange (LME) – designated warehouses – increasing to around 229,000 mt from 168,000 mt at the end of March, casting doubts about a sustained demand recovery as a result of the stimulus program. Most recently, at the beginning of May, metal prices have been under pressure due to the impact of an escalation in the trade dispute between the US and China, with copper down by around 2%. **Iron Ore** prices increased by 8.4% in April after some consolidation the previous month, and are up by 19% y-o-y in the January-April period. Prices are still affected by supply disruptions, mainly arising from the mining accident in Brazil and the subsequent security reviews that reduced Brazilian Vale's output by more than 20%. Chinese Iron Ore imports declined by 6.5% in April, and are down by 3.7% y-o-y, in view of the supply shortages.

In the group of **precious metals**, the index declined by 1.1%, with a strong performance from the US economy and a continuing recovery in financial markets reducing demand for safe haven assets. Gold prices declined by 1.2%, silver by 1.6%, but platinum rose by 5.3%.

Investment flows into commodities

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

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

	Open interest		Net length			
	Mar 19	Apr 19	Mar 19	% OI	Apr 19	% OI
Crude oil	2,003	2,075	216	11	314	15
Natural gas	1,180	1,227	154	13	73	6
Precious metals	697	649	47	7	-7	-1
Copper	255	252	10	4	-4	-2
Total	4,135	4,203	-99	42	-138	32

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

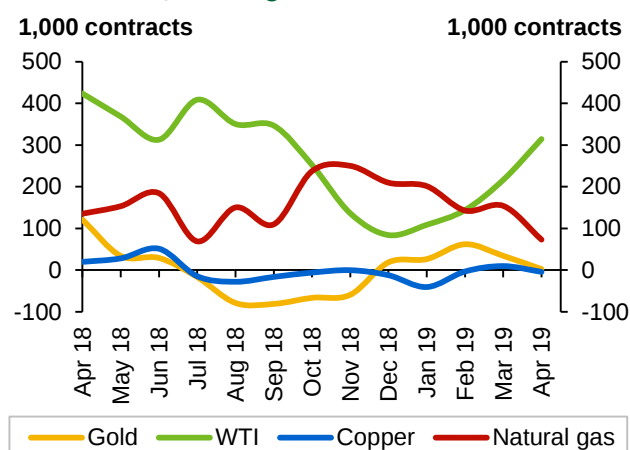
Sources: CFTC and OPEC Secretariat.

Henry Hub's natural gas OI increased in April by 3.9%, while money managers' average net long positions decreased by 52% to 73,101 contracts, with moderated temperatures allowing fast inventory replenishment.

Copper's OI decreased in April by 1.1%. Money managers switched to a net long short of around 4,223 contracts, from an average net long position of 9,960 contracts the previous month, as manufacturing prospects worsened further.

Precious metals' OI decreased by 6.8%. Money managers decreased their net long positions leading to a net short position of 6,879 contracts from 46,621 contracts the previous month amid strong US economic performance.

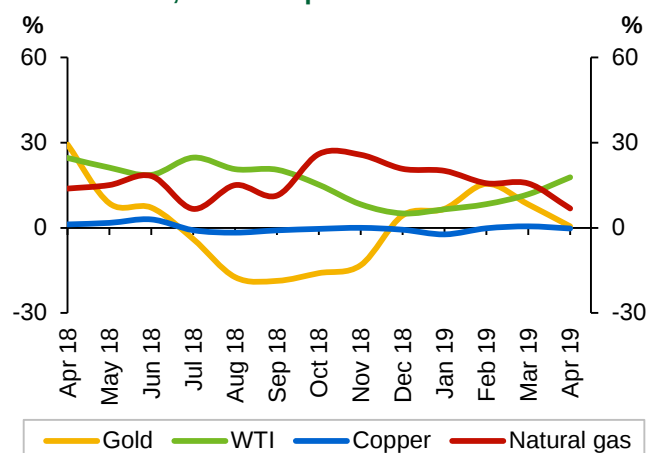
Graph 2 - 3: Money managers' activity in key commodities, net length



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

Sources: CFTC and OPEC Secretariat.

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 Secretariat.

World Economy

The global economic growth forecast for 2019 remains unchanged at 3.2%, following growth of 3.6% in 2018. While certain economies experienced better-than-expected 1Q19 growth levels, a number of other economies faced a softening trend. It remains to be seen if strong growth in the US and the improving trends in the Euro-zone and China in 1Q18 will be sustained. Given the ongoing decline in global trade at the beginning of the year and the continued causal uncertainties thereof, in combination with a variety of further challenges, the **upside potential for global economic growth in 2019 remains limited**.

OECD growth remained unchanged at 1.7% for 2019, considerably lower than the growth of 2.3% in 2018. While US 2019 growth was revised up to 2.6%, after strong 1Q19 growth, Japan's 2019 growth forecast was revised down to 0.4%. The Euro-zone's 2019 growth is unchanged to stand at 1.2%, following growth of 1.8% in 2018.

In the **emerging economies**, China's 2019 growth forecast was revised up slightly to 6.2%, following growth of 6.6% in 2018. Some upside may still come from further fiscal and monetary stimulus in China, although as noted, trade related tensions continue. India's 2019 growth forecast is unchanged at 7.1%, compared to 7.3% in 2018. Brazil's 2019 growth forecast was revised down to 1.7%, after growth of 1.1% in 2018. Russia's growth forecast for 2019 remains unchanged at 1.6%, following growth of 2.3% in 2018.

Offsetting growth trends have stabilised global economic growth to some extent, but considerable underlying risks remain. Growth risks pertain to continued trade issues, ongoing challenges in several emerging and developing economies and high debt levels in several important economies. Moreover, Brexit, fiscal issues in some EU Member Country economies and Japan's slowdown, as well as the fading impact of the US fiscal stimulus pose additional risks.

Table 3 - 1: Economic growth rate and revision, 2018-2019*, %

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
2018	3.6	2.3	2.9	0.8	1.8	1.4	6.6	7.3	1.1	2.3
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	3.2	1.7	2.6	0.4	1.2	1.3	6.2	7.1	1.7	1.6
Change from previous month	0.0	0.0	0.2	-0.2	0.0	0.0	0.1	0.0	-0.1	0.0

Note: * 2019 = Forecast.

Source: OPEC Secretariat.

OECD

OECD Americas

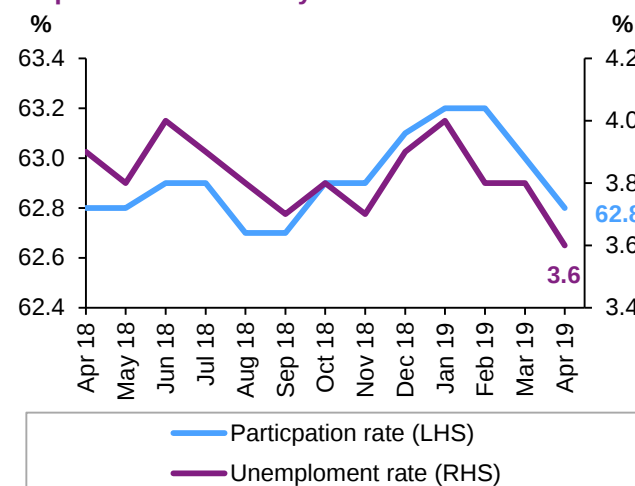
US

US economic growth continued on an unexpected and better-than expected trend in 1Q19. This comes after signs of a slowdown in 4Q18 and an expectation of a carry-over into 1Q19. However, 1Q19 GDP growth was reported at 3.2% q-o-q at a seasonally-adjusted annualized rate (SAAR) in the first of three estimates, according to the Bureau of Economic Analysis. This compares to 2.2% q-o-q in 4Q18 and almost matches 3Q18 growth, which stood at 3.4% y-o-y. This higher-than-expected number came despite the fact that this was a quarter impacted by the government shutdown, the cold weather on the East Coast and the 1Q19 downward trend in consumer sentiment. However, by reviewing the details of the growth trend it can be seen that the underlying growth was not that strong. Private household consumption, the backbone of the US economy and contributing usually around two-thirds of economic growth, was slowing and stood at only 1.2% q-o-q SAAR growth. The main support came mainly from net exports on one side as imports declined in

1Q19, given the likelihood that the US economy saw a ramp-up in imports in 3Q18 and 4Q18 in anticipation of an escalation of the US-China trade dispute. Net exports contributed more than 1 pp to GDP growth and also inventory building supported the 1Q19 growth by 0.7 pp. Contribution of personal household consumption, however, was exceptionally low, at only 0.8 pp. Given the ongoing trade tension, domestic political uncertainties, and the fading effects of the US fiscal stimulus, this 1Q19 growth trend may not be sustainable. While it is expected that consumption will recover, amid an ongoing relatively strong labour market, the other supportive factors in 1Q19 GDP growth will be lower for the remainder of the year. With presidential elections scheduled next year and further domestic and external political challenges ahead, some volatility in growth levels and in associated measures should be expected.

The **labour market report** continues to provide support to economic growth and while 1Q19 consumption was lower than usual, this support should lead to increased consumption. The unemployment rate retracted to stand at 3.6% in April, after a level of 3.8% in March. This is the lowest level since the 1960s. However, for various reasons historical low rates have reverted towards higher levels sometime thereafter. The analysis of previous incidents of low US unemployment show that relatively low rates last for up to around three years on average. Given that the unemployment rate entered below the 5% level at the end of 2016, it may seem that the trend will turn at around the 2H19 rate, carrying over into 2020. This also may coincide with the ongoing challenges of the US economy, namely external and domestic uncertainties in combination with the tapering off of the fiscal stimulus measures and also an apparently weakening housing market.

Graph 3 - 1: US monthly labour market



Sources: Bureau of Labor Statistics and Haver Analytics.

Non-farm payrolls in April increased by 263,000, after a slightly downwardly revised level of 189,000 job additions in March. Average hourly earnings' growth for the private sector remained above 3% for the seventh consecutive month at a rate of 3.2% y-o-y, unchanged from March. Also, long-term unemployment remained unchanged to stand at 21.1% in April. However, the participation rate fell to stand at 62.8%, compared to 63.0% in March and 63.2% in February.

Overall **inflation** increased slightly due to rising energy prices. Total yearly inflation stood at 1.9% in March, following 1.5% y-o-y in February and January. The important core inflation – excluding volatile items such as food and energy – stood at 2.0% y-o-y in March, unchanged from February. This remains a healthy level and an indication of robust underlying economic development. However, the Fed's favoured inflation index, the personal consumption expenditure price index (PCE index), rose slightly to stand at only 1.5% in March, compared to 1.3% in February, but clearly below the 2H18 level of more than 2%. This ongoing relatively low inflation in combination with softening underlying US growth provides the Fed with more flexibility as inflation does not currently seem to be a major challenge. Depending on the labour market developments a key-interest rate rise in 2019 seems to be unlikely.

The critically important **housing sector** continued to exhibit mixed development. While prices once again declined, home sales showed a healthy recovery again. The S&P CoreLogic Case-Shiller Home Price Index Composite 20 for metropolitan areas showed a continued slowing trend in terms of price increases. The February rise stood at 3.0% y-o-y, compared to 3.5% y-o-y in January. This is the 12th consecutive month of decline. Similarly, the yearly change in the house pricing index of the Federal Housing Finance Agency (FHFA) has also continued to see a slowing dynamic with a monthly price rise of 4.9% y-o-y in February, following growth of 5.6% y-o-y in January. This compares to a yearly average of 6.7% in 2018.

In what could be deemed a response to these lowering prices, and also due to improvements in the labour market, home sales data remained well supported.

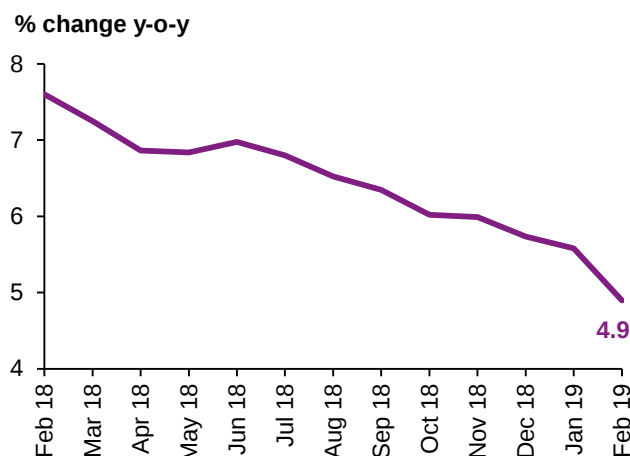
Existing home sales in March remained relatively strong at an annualised level 5.21 million, following 5.48 million in February. This compared to 5.34 million sold entities in 2018 and points at a stabilising trend, after a softening of the momentum at the end of 2018. New home sales recovered considerably rising by 692,000 in March, compared to 662,000 in February.

Supported by the improving labour market situation, **consumer sentiment has again recovered**. The lead-indicator, published by the Conference Board, rose in April, to now stand at 129.2, after 124.2 in March.

Retail sales grew by 3.6% y-o-y in March, compared to and 2.2% y-o-y in February. This may also be in response to the still supportive labour market. However, these 2019 levels compare to annual growth of 4.9% in 2018, hence the level still remains relatively lower.

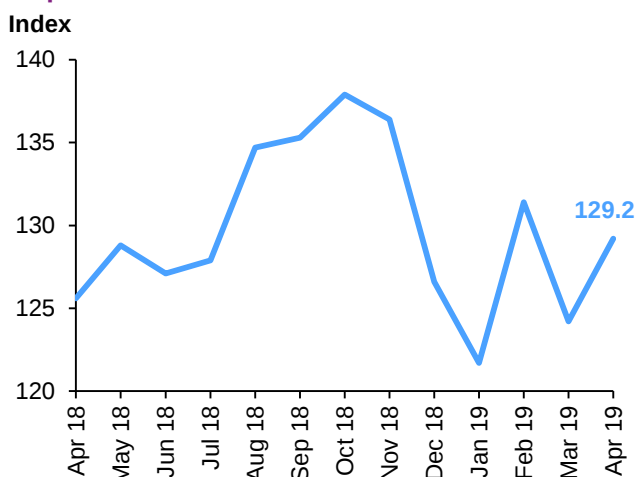
Industrial production growth declined as it fell by 2.8% y-o-y in March. This compares to a growth rate of 3.5% y-o-y in February and 3.7% y-o-y in January. This slow-down seems to continue, following the **manufacturing orders**, a good lead-indicator for future manufacturing activity. Manufacturing orders have already retracted to 1.7% y-o-y in February, and while improving in March to a level of 2.0%, growth remains low.

Graph 3 - 2: US house prices



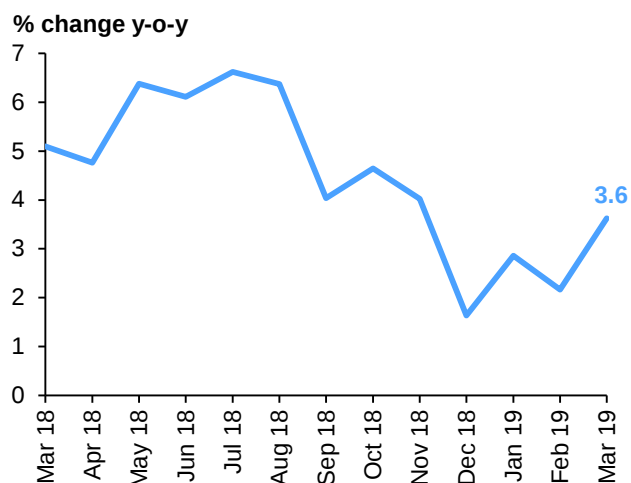
Sources: Federal Housing Finance Agency and Haver Analytics.

Graph 3 - 3: US consumer confidence index



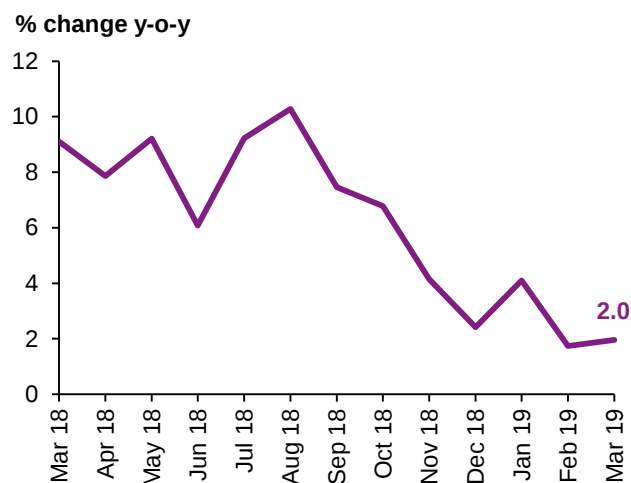
Sources: The Conference Board and Haver Analytics.

Graph 3 - 4: US retail sales



Sources: Census Bureau and Haver Analytics.

Graph 3 - 5: US manufacturing orders



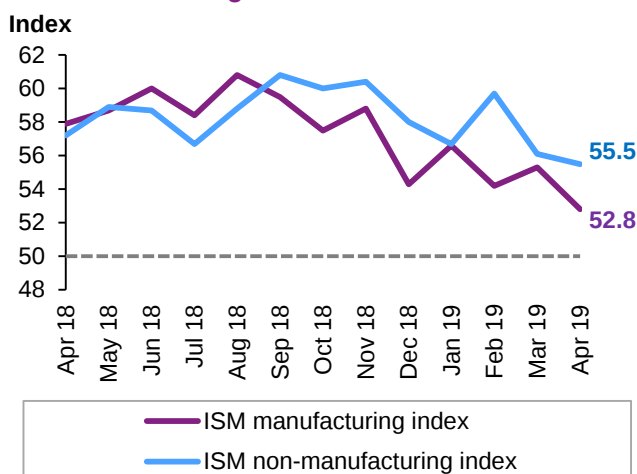
Sources: Census Bureau and Haver Analytics.

April's **Purchasing Managers' Index (PMI)**, as provided by the Institute of Supply Management (ISM) indicated a slight deceleration as well in both the manufacturing and the services sectors.

The manufacturing PMI fell to stand at 52.8 in April, compared to 55.3 in March and 54.2 in February. The index for the services sector fell to 55.5 in April from 56.1 in March and 59.7 in February, and index levels of up to and more than 60 in previous months, a clear sign of a slowing services sector.

However, the much stronger-than-expected 1Q19 growth is pushing the annual 2019 GDP growth number higher. 2019 GDP growth is now forecast to reach 2.6%, compared to 2.4% in the previous month. The high growth number from the beginning of the year is, however, seen as temporary and it is expected that growth will slow-down in the remainder of the year. This slow-down is evident in the current underlying growth momentum and compares with growth of 2.9% in 2018.

Graph 3 - 6: US-ISM manufacturing and non-manufacturing indices



Sources: Institute for Supply Management and Haver Analytics.

Canada

Current indicators point at a further slowdown in the **Canadian economy**, amid ongoing domestic and external challenges. After the most recent January monthly GDP growth indicated some recovery at a growth level of 0.3% m-o-m, February monthly's GDP indicator again pointed at some challenges, declining by 0.1% y-o-y. While the crude oil production adjustments in the province of Alberta may have some negative impact on the economy, on the other hand, rising oil prices seem to have helped to counterbalance this impact. So far, January and February GDP numbers showed that mining and oil declined considerably by 3.3% m-o-m and 1.6% m-o-m respectively. While construction activity recovered in January, rising by 2.2% m-o-m, it decelerated to stand at only 0.2% m-o-m in February. However, this comes after a considerably decline in 2H18. Additionally, house prices continued to decline, falling by 0.2% y-o-y in 1Q19, a trend that has also started in 2H19, pointing at an overheated Canadian housing market, and potential challenges for the economy coming from this important sector. With relatively high debt levels in the housing sector, it remains an area that should be closely monitored. External trade may also remain a challenge as Canada's most important trading partners are facing decelerating economies and as the country is currently dealing with a trade dispute with China.

The weakening trend is also reflected in the February's **industrial production** number, which declined by 0.2% y-o-y, after a rise of 2.0% y-o-y in January. The latest **PMI** index for manufacturing also points to a slow-down as it fell below the growth indicating level of 50, reaching a level of only 49.7 in April, following 50.5 in March and 52.6 in February.

Given that the downward trend is already being reflected in the growth forecast numbers, the **GDP growth forecast for 2019** remains unchanged to stand at 1.4%. This compares to GDP growth of 1.8% in 2018.

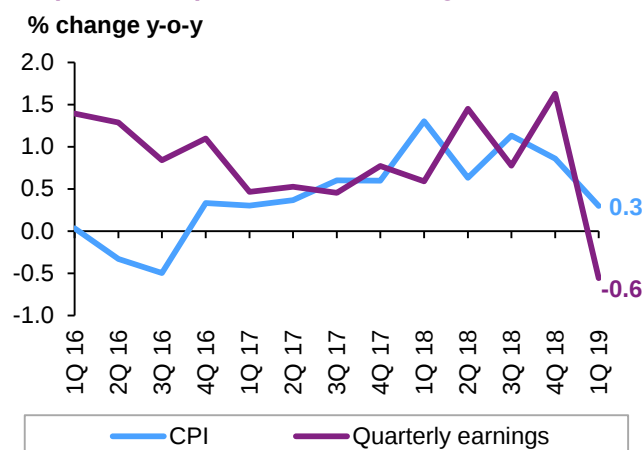
OECD Asia Pacific

Japan

Japan's economy seems to have stabilised at a low growth level. However, there is still a likelihood that 1Q19 GDP growth may have been negative, when taking into account export declines and ongoing lacklustre domestic demand. It is very likely that Japan will again face relatively anaemic growth in the current year, taking into account the anticipated low growth at the beginning of the year and the possibility of negative growth in 4Q19, as a result of the envisaged sales tax increase from 8% to 10%. Positively, domestic demand recovered somewhat and also exports improved slightly from a considerable decline. However, the ongoing trade uncertainties will continue to dent the Japanese economic growth trend, given that the dispute of the US and China may lead to lower exports to China and also the outcome of direct US-Japanese trade talks are still uncertain. Moreover, consumption has not appeared to pick up materially, despite labour market tightness. Exports have continued to decline, as has industrial production, and retail trade has remained muted. The current economic environment it is challenging for the economy to move its growth level significantly up.

The BoJ support may continue given the economic growth trend and low inflation. Total inflation picked up slightly in March, supported by rising energy prices. It moved to 0.5% y-o-y, rising from 0.2% y-o-y in February. The downward trend in the economy has also been accentuated by a decline in earnings in March, when monthly earnings fell by 1.7% y-o-y, a fourth consecutive monthly deceleration. This decline comes after last year's strong earnings appreciation with an average 1.6% y-o-y in 4Q18 and 0.8% y-o-y in 3Q18. This negative earning's growth trend will guide core inflation lower. Core inflation, which excludes food and energy, rose to 0.5% y-o-y in March, compared to 0.4% y-o-y in February. Given the labour market tightness, the unemployment rate stood at an extremely low level of 2.5% in March, compared to 2.3% in February.

Graph 3 - 7: Japan's CPI vs earnings



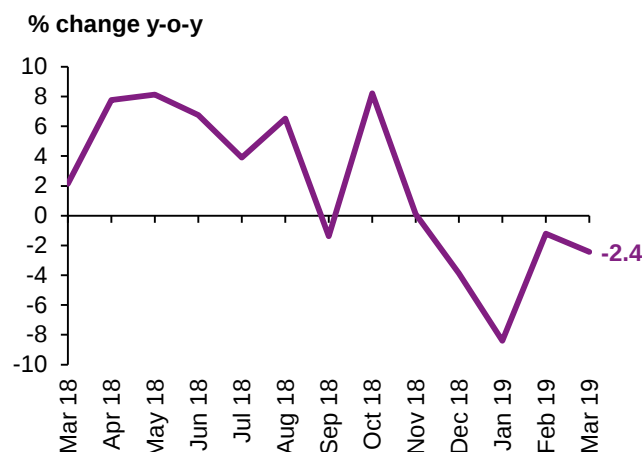
Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Haver Analytics.

Along with other economic indicators, **export** growth slowed significantly in March, when exports declined by 2.4% y-o-y, non-seasonally adjusted. This compares to -1.2% y-o-y in February and -8.4% y-o-y in January, leading to a 1Q19 decline of -3.9% y-o-y.

A continuation of the weak trend was also seen for **industrial production**, which fell again by 3.0% y-o-y in March, after -1.2% y-o-y. Hence, 1Q19 industrial production declined by 1.2% y-o-y. The lead-indicator of manufacturing orders points to a further challenging near-term development, with a decline of 2.7% y-o-y in February, compared to an already strong decline of 11.5% y-o-y in January. **Domestic retail demand** mirrored the slowing trend in the Japanese economy too, expanding by only 1.0% y-o-y in March, however this was better than the 0.6% y-o-y in both February and January.

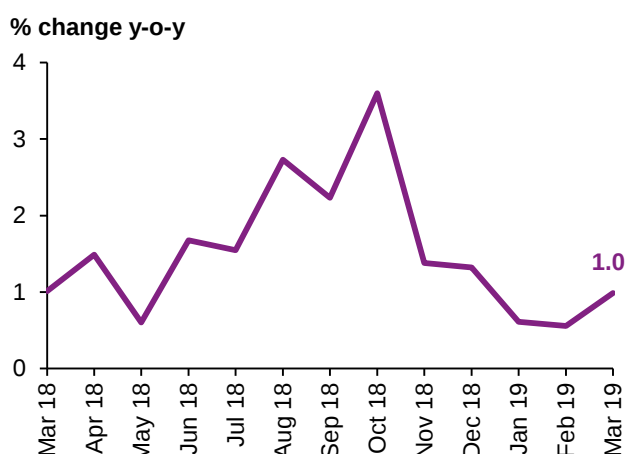
Moreover, **consumer confidence** fell again and now stands at 39.9 in April, compared to 40.4 in March, and 40.9 in February, based on the Cabinet Office's index level.

Graph 3 - 8: Japan's exports



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

Graph 3 - 9: Japan's retail trade

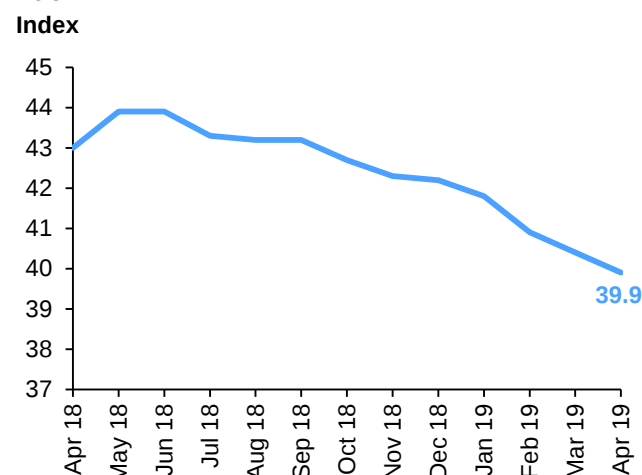


Sources: Ministry of Economy, Trade and Industry and Haver Analytics.

The latest **March PMI numbers** confirm the low growth trend for both manufacturing and the non-manufacturing sector. The manufacturing PMI stood at 50.2 in April, indicating a slight expansionary trend. This compares to 49.2, in March. The services sector PMI – the sector that constitutes around two-thirds of the Japanese economy – retracted to 51.8 in April, slightly below the 52.0 recorded in March.

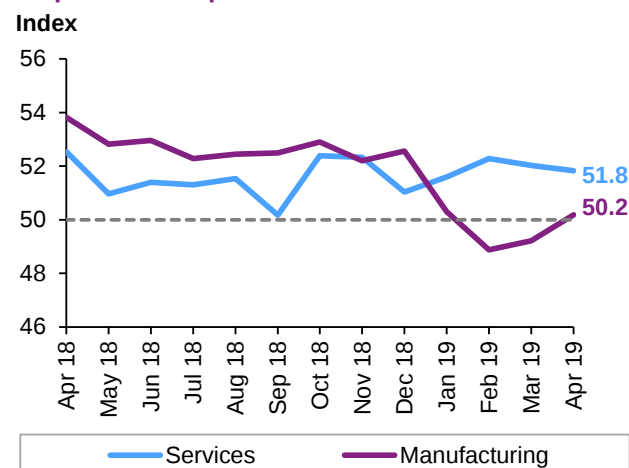
Given the clear downward trajectory, Japan's 2019 **GDP growth forecast** has been revised down. The weakness in 1Q19 is forecast to continue and given the envisaged sales tax increase later this year, the 4Q19 growth level is forecast to be negative. Hence, the 2019 GDP growth forecast was revised to 0.4%, compared to 0.6% in April's MOMR. This compares to growth of 0.8% in 2018.

Graph 3 - 10: Japan's consumer confidence index



Sources: Cabinet Office of Japan and Haver Analytics.

Graph 3 - 11: Japan's PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

South Korea

The **South Korean economy** shows some signs of stabilisation following its 1Q19 decline, when GDP fell by 1.4% q-o-q SAAR. The important indicator of **exports** recovered and grew by 4.8% y-o-y in April, after three months of decline, leading to a 1Q19 decline of 3.9% y-o-y in exports. This was accompanied by a -0.3% y-o-y decline in industrial production. The April recovery was supported by the latest **PMI number** for the manufacturing sector, which points to again expanding growth in the sector. After a March number of 48.8 and a February level of 47.2, the April level recovered to 50.2, slightly above the growth indicating 50-level.

While the downward trend seems to have stabilised, the slowdown in 1Q19 led to a downward revision in the 2019 growth forecast to 2.2% from 2.4%. This follows growth of 2.7% in 2018.

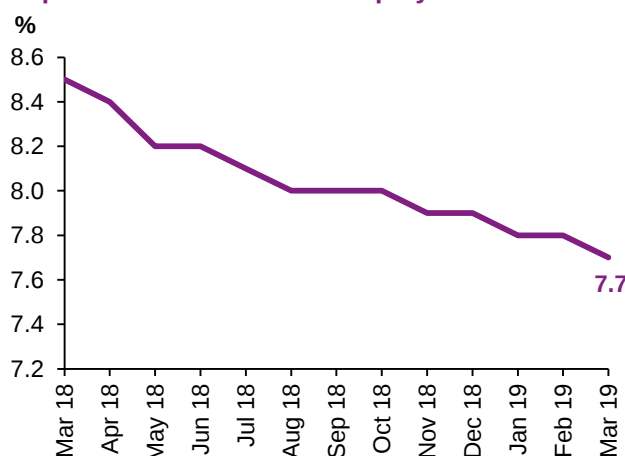
OECD Europe

Euro-zone

While the Euro-zone witnessed a considerably downward trend in 2H18, the **slow-down seems to have stabilised** in 1Q19. Growth was reported at 0.4% q-o-q seasonally adjusted, translating to a 1.5% growth on a seasonally adjusted annualised q-o-q growth rate for the first three months of the year. This indicates a recovery from 0.7% average quarterly growth in 2H18. As this is the first estimate by the statistical office, Eurostat, details are not available. This comes after 2H18 challenges in Germany, which showed negative growth in this period amid a global slowdown in trade, particularly capex related. Also, the ongoing uncertainties surrounding Brexit, and Italy's enduring economic issues, among others, were denting growth. As Brexit is now at least postponed up to the end of October and Italy's economic development seems to have stabilised, the downward momentum has eased somewhat. However, Italy is the weakest of the three largest Euro-zone economies and there is still the risk that the economy may face a mild recession in 2019. Moreover, global trade issues and the ongoing US-China trade dispute may continue, also negatively affecting the Euro-zone. With China showing some slowdown due to trade related issues and the Euro-zone economies probably being hit by car and car-parts related US tariffs, the near-term development in the Euro-zone remains uncertain. Ongoing monetary stimulus, will also support growth at this lower level for some time. German exports, an important indicator for the economy's well-being, have recovered in 1Q19, rising by 2.5% y-o-y, compared to 1.5% y-o-y in 4Q18.

In the **labour market**, the Euro-zone's unemployment rate retracted to stand at 7.7%, again an improvement and the lowest rate since 2008. In terms of countries, the large level differences in the unemployment rate continue. Germany recorded a low level of 3.2% in March, while France's unemployment rate stood at 8.8%. Spain's labour market improved further as its unemployment rate declined to 14.0%. After lagging behind the other major economies' improvements, the Italian unemployment rate moved down to now stand at 10.2% in March, compared to 10.5% in February.

Graph 3 - 12: Euro-zone unemployment rate



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

In line with labour market improvements, developments in the area of **retail trade** held up well. Retail trade growth in value terms stood at 2.4% y-o-y, comparing to 3.5% in February and 2.4% y-o-y in January.

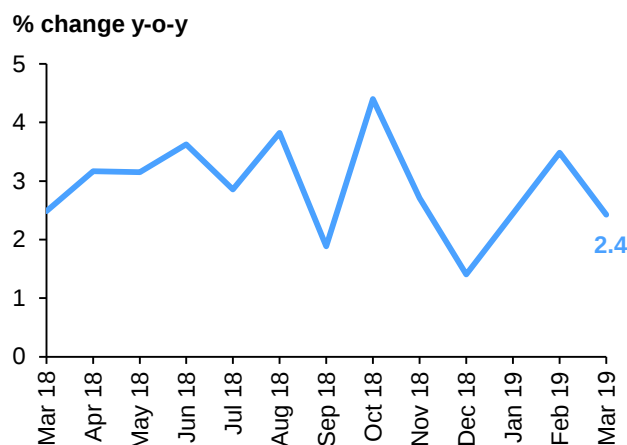
However, **Industrial production (IP)** in the Euro-zone fell again, albeit only slightly and also showing an improving trend. After a considerable decline in the three months up to January, the decline continued in February but at only a marginal level. IP declined by 0.1% y-o-y in February, compared to 0.9% y-o-y in January. 4.0% y-o-y in December and 3.0% y-o-y in November. This negative trend is still very much influenced by the development in Germany, where IP declined by 1.5% y-o-y in February and 2.4% y-o-y in March. IP in March was even negative in all four major Euro-zone economies, Germany, France, Italy and Spain.

Manufacturing activity recovered in February as it grew by 0.6% y-o-y, after three months of considerably slow-down. While this could indicate some rebound, manufacturing orders, a good lead indicator for future manufacturing activity, indicated that the slowing growth trend is likely to continue. Manufacturing order growth fell by 4.4% y-o-y in February, after a decline of 3.1% y-o-y in January and already strong decline of 4.4% y-o-y in December.

Inflation was mainly supported by the rise in energy prices but also by the improving labour market, growing by 1.7% y-o-y in April, compared to 1.4% y-o-y in March. Slightly rising consumption levels and improvements in the labour market, may continue to support near-term prices rises in the coming months. Support was also seen in the important core inflation – the CPI, excluding energy and food –, which rose by 1.2% y-o-y in April, comparing to 0.8% in March and 1.0% y-o-y in February.

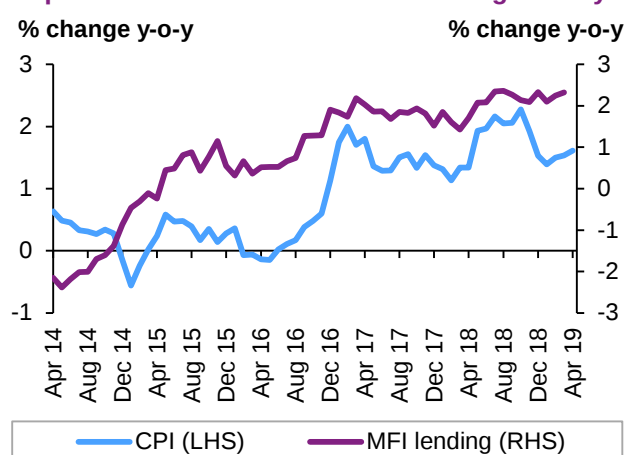
Developments in **lending activity** – as a motor for investments – remain supportive. The latest growth number from March improved slightly to stand at 2.3%, a pick up from the 2.2% y-o-y growth in February. While some areas of the Euro-zone's banking sector remain weak, the growth dynamic of the liquidity lines has recovered in past months.

Graph 3 - 13: Euro-zone retail sales



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

Graph 3 - 14: Euro-zone CPI and lending activity

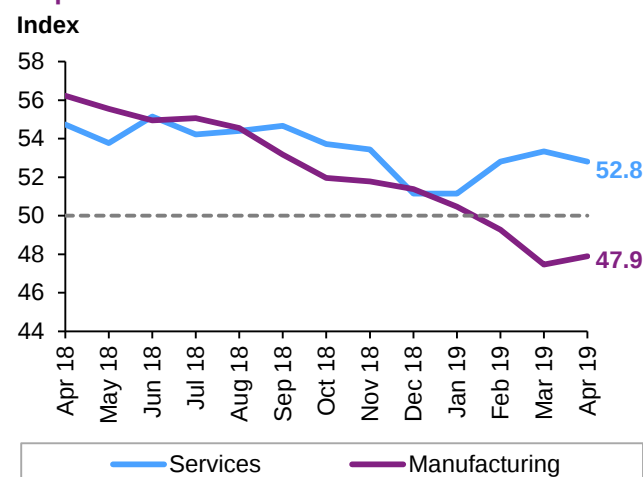


Sources: Statistical Office of the European Communities, European Central Bank and Haver Analytics.

The Euro-zone's latest April **PMI indicators** generally point to mixed developments. The manufacturing PMI improved very slightly, but remained below the growth indicating level of 50, and the services sector's index was retracted further, but showed relatively better growth. The manufacturing PMI in April improved to 47.9, compared to 47.5 in March. The important PMI for the service sector, which constitutes the largest sector in the Euro-zone, fell to 52.8, compared to 53.3 in March.

As the slowing 1Q19 momentum was already taken into consideration in the April MOMR, the growth forecast remains unchanged. 2019 **GDP growth** is forecast at 1.2%. This comes after growth of 1.8% in 2018. However, developments will need to be closely observed as numerous uncertainties remain. In general, political uncertainties, including the outcome of elections to the European parliament, the Brexit process, weaknesses in the banking sector, as well as monetary policies and the management of still-high sovereign debt levels in some economies remain important factors to monitor.

Graph 3 - 15: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

UK

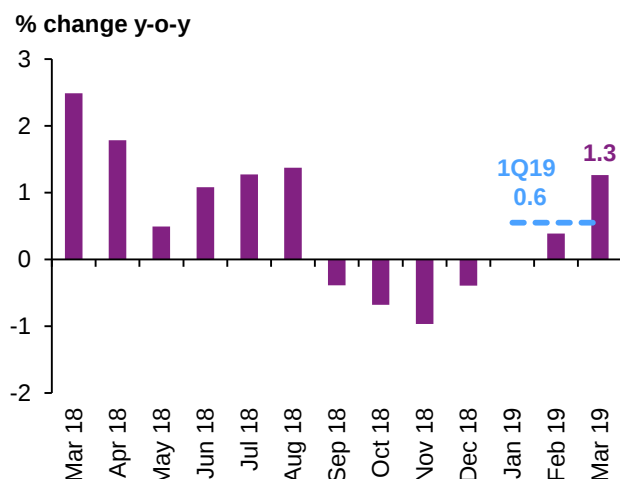
After the UK Prime Minister failed to win parliamentary approval for the "Brexit Withdrawal Agreement", the UK government requested the EU to extend the Article 50 period. The EU agreed to this request, moving the date of the UK's departure to 31 October 2019. If the UK and EU complete ratification of the Withdrawal Agreement sooner, the exit of the UK from the EU could be agreed also earlier. While still uncertain, the OPEC Secretariat's forecast assumes that the UK government will be successful to secure parliamentary approval for the Withdrawal Agreement, allowing the UK to leave the EU at the end of October. Nevertheless, since the latest round of failed April's discussions in parliament, limited progress has been made.

If no agreement will be found over the summer months, it will be very likely that the economy will continue to be impacted by this again rising uncertainty. Already, investments had a significantly negative trend in 2018, due to the ongoing uncertainties for investors.

In the meantime 1Q19 GDP growth was slightly better than expected and stood at 0.5% q-o-q seasonally adjusted rate, translating into 2.0% q-o-q annualised quarterly growth. This better-than-expected growth came also in anticipation of the March deadline of Brexit as households stepped up their consumption ahead of the potential exit at 31 March. However, this development is likely to offer only temporary support.

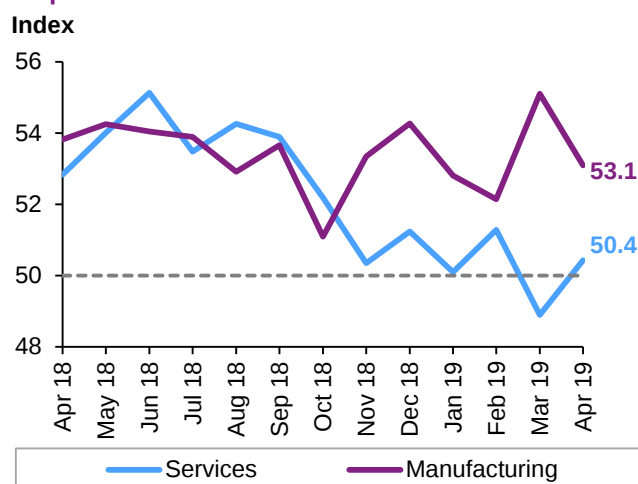
Consequently and after several months of decline at the end of 2018, **industrial production** recovered again in 1Q19, rising by 0.6% y-o-y. **Retail trade** in value terms improved further, rising by 5.3% y-o-y in 1Q19, compared to 4.2% y-o-y in 4Q18. **Exports** continued recovering as they rose by 5.6% y-o-y in March, compared to a rise of 3.9% y-o-y in February. However, it remains to be seen how this data at the beginning of the year was distorted by the uncertainty about the Brexit developments.

Graph 3 - 16: UK industrial production



Sources: Office for National Statistics and Haver Analytics.

Graph 3 - 17: UK PMIs



Sources: CIPS, IHS Markit and Haver Analytics.

The April **PMI lead indicators** showed varying signals. The PMI for manufacturing retracted to stand at 53.1 in April, compared to 55.1 in March. The very important PMI of the services sector, which constitutes the majority of the UK's economy, improved to stand at 50.4 in April, compared to 48.9 in March.

Given the ongoing Brexit uncertainties and despite a slightly better 1Q19 **GDP growth rate** the slowing trend in key parts of the UK economy may continue and the 2019 GDP growth estimate remains unchanged at 1.3%. GDP growth for 2018 stood at 1.4%.

Non-OECD

BRICs

Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2018-2019*

	GDP growth rate, %		Consumer price index, % change y-o-y		Current account balance, US\$ bn		Government fiscal balance, % of GDP		Net public debt, % of GDP	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
Brazil	1.1	1.7	3.7	3.7	-14.5	-26.8	-7.1	-5.8	77.2	82.1
Russia	2.3	1.6	2.9	4.9	109.1	107.5	2.7	2.4	10.3	9.3
India	7.3	7.1	3.9	3.3	-72.5	-53.3	-3.6	-3.4	50.2	49.6
China	6.6	6.2	1.9	2.5	48.5	34.7	-4.0	-4.5	19.2	22.3

Note: * 2019 = Forecast.

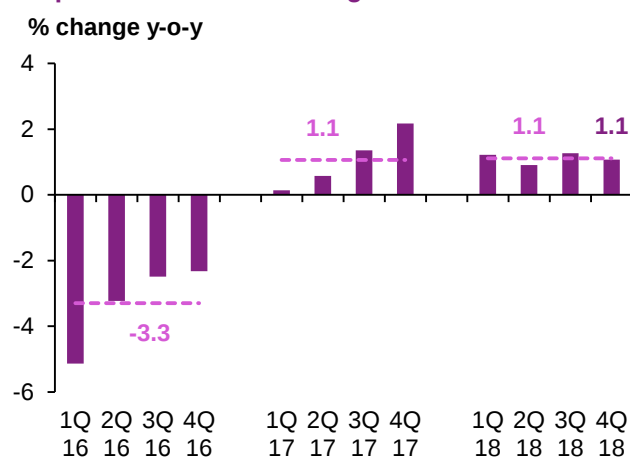
Sources: Consensus Economics, Economic Intelligence Unit, Financial Times, Oxford Economics and OPEC Secretariat.

Brazil

Exports from Brazil posted a 0.1% gain y-o-y in April, reaching \$19.7 billion. Exports of manufactured products declined by 14.0% y-o-y in March, while those of semi-manufactured decreased by 9.8% y-o-y, and primary products by 1.7% y-o-y. Imports, which totalled \$13.6 billion, were down by 1.2% y-o-y in April, posting. **Imports** of consumption goods dropped by 8.0% y-o-y in March, while those of capital goods increased by 2.3% y-o-y in March. Imports of intermediate goods declined by 4.3% y-o-y in March. The **trade surplus** increased to \$6.1 billion in April, up from \$4.9 billion in March. The trade surplus registered around \$5.9 billion in April 2018. GDP posted growth of 1.1% y-o-y in 4Q18, compared to 1.3% in the previous quarter. Thus, the full year growth stood at 1.1% y-o-y in 2018, similar to the economic growth registered in 2017.

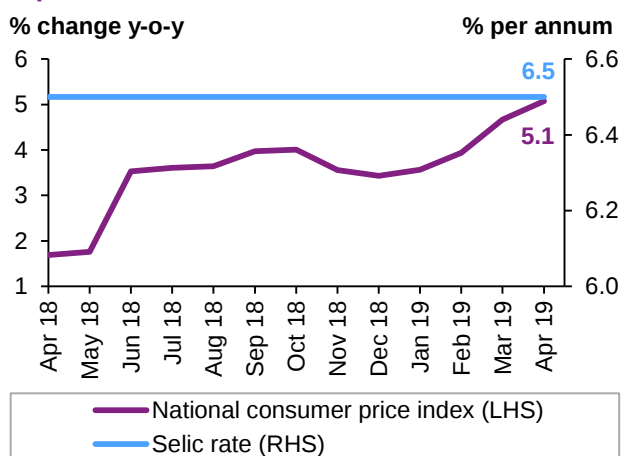
In April, the real depreciated by 1.3% m-o-m, after appreciating by 3.3% in March. On a y-o-y comparison, the real was lower by 14.3% versus the dollar in April 2019. The real depreciated by 18% in the full 2018. **Inflation** increased from 4.7% y-o-y in March 2019 to 5.1% in April. In 2018, inflation average stood at 2.9%. The central bank held its benchmark **interest rate** unchanged at 6.5% in April 2019 for the fourteenth month in a row. The **unemployment rate** rose for the third month in a row in March. It stood at 12.7% in March, compared to 12.4% and 12% in February and January 2019, respectively. The **consumer confidence index** went down for the third month in a row in April, when it registered 88.6. It was 92.8 in March, 96.1 in February, and 98.7 in January 2019.

Graph 3 - 18: Brazil's GDP growth



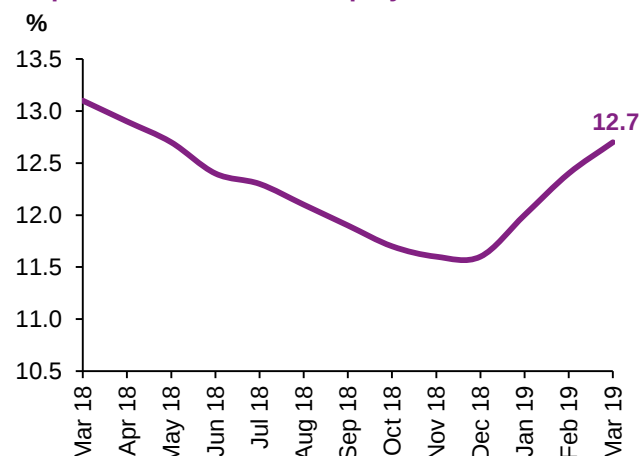
Sources: Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

Graph 3 - 19: Brazil's inflation vs. interest rate



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

Graph 3 - 20: Brazil's unemployment rate

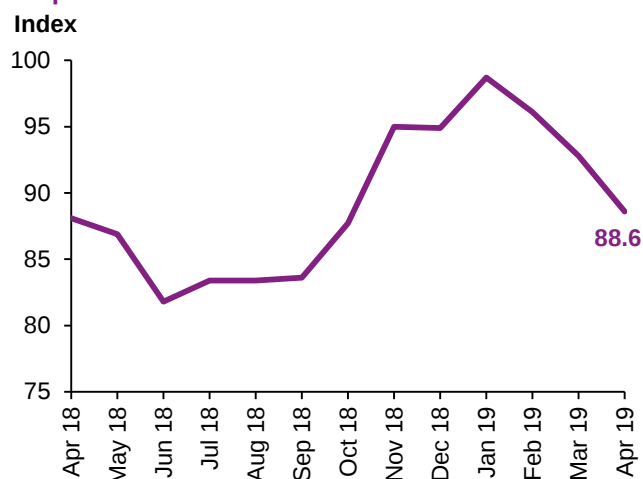


Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

The **manufacturing sector** survey on April showed a further slowdown in the manufacturing industry. Although business conditions in Brazil's manufacturing sector improved for the tenth straight month in April, growth lost further momentum. Factory orders increased at their weakest pace since mid-2018, leading to softer expansions in production, input buying and employment. The news of a slowdown was accompanied by signs of a build-up in input cost inflation and faltering exports. The IHS Markit Brazil Manufacturing PMI fell from 52.8 in March to a six-month low of 51.5 in April. Softer trends were evident in the consumer and intermediate goods categories, while growth among capital goods' makers held up.

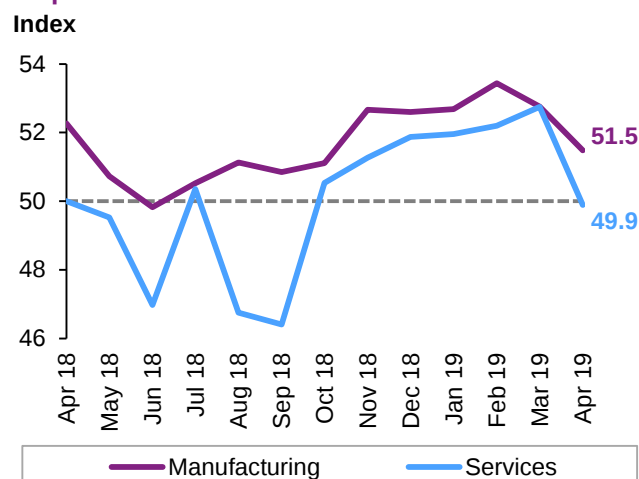
In the **services sector**, growth of new work lost traction in April despite rising for the seventh month in a row. The increase was the weakest since October, softening considerably from March's near eleven-and-a-half-year peak. The IHS Markit Brazil Services Business Activity Index posted below the 50.0 no-change mark for the first time in seven months during April. However, falling from 52.7 in March to 49.9, the latest figure was consistent with broadly stagnant services output. Companies that signalled contraction indicated weak consumption and unfavourable public policies. The upturn in total sales was domestically driven, as signalled by a solid and accelerated contraction in new export orders. Input prices in the Brazilian service economy increased at the quickest pace in five months during April. Brazilian service providers remained optimistic that business activity will increase in the coming 12 months, but confidence slipped to a ten-month low in April. Concerns about government policies, privatisation and bankruptcy were among the factors restricting sentiment.

Graph 3 - 21: Brazil's consumer confidence index



Sources: Fundação Getúlio Vargas and Haver Analytics.

Graph 3 - 22: Brazil's PMIs



Sources: IHS Markit and Haver Analytics.

The downbeat momentum in Brazil's private sector (services and manufacturing) during April accompanied by a rising unemployment rate and falling exports to Argentina since May 2018 have shed more negativity on the short-term path of the economy. Furthermore, significant uncertainty regarding the government's plan to revamp the country's pension system added to the forces dampening growth in 2019.

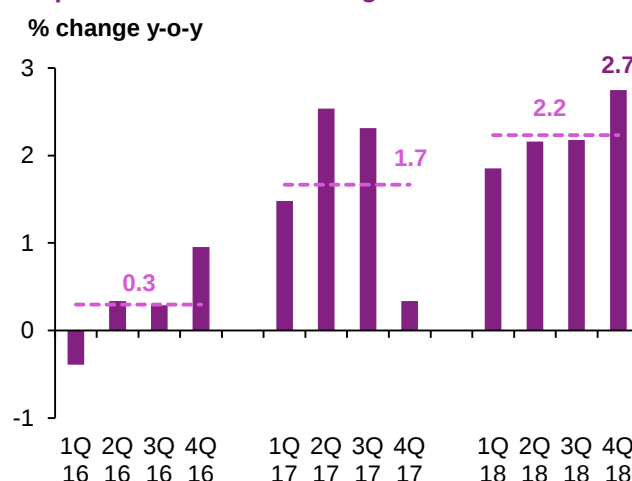
GDP is forecast to grow by 1.7% in 2019, from the 1.1% growth achieved in 2018.

Russia

Data from the Federal State Statistics Services showed **household consumption** increased by 2.6% y-o-y in 4Q18, from 2.0% in the previous quarter, while **government consumption** was stable at 0.3% y-o-y growth in 4Q18. **Gross capital formation** posted a 3.0% y-o-y rise in 4Q18, up from 1.1% in 3Q18. **Exports** went up by 2.6% y-o-y in 4Q18, from 4.8% growth in 3Q18, whereas **imports** declined by 0.3% in 4Q18, after increasing by 0.1% in the previous quarter.

The **ruble** appreciated by 0.8% m-o-m in April, following a 1.1% appreciation in March. On a y-o-y comparison, the ruble was 6.2% lower in April 2019 from the same time last year.

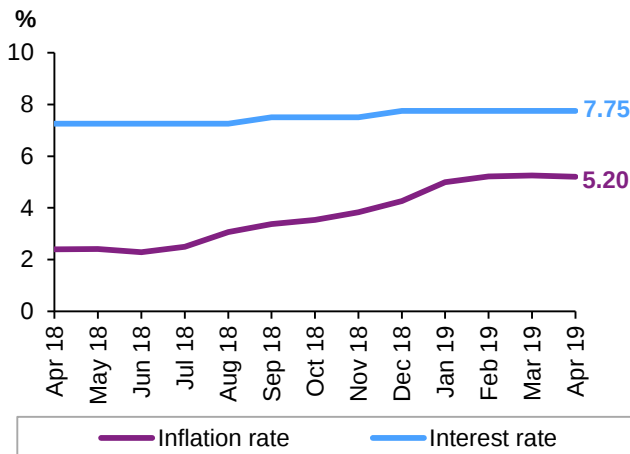
Graph 3 - 23: Russia's GDP growth



Sources: Federal State Statistics Service and Haver Analytics.

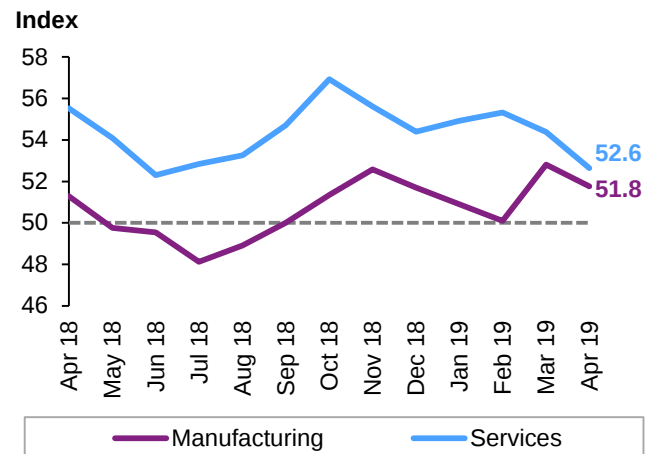
Consumer price inflation eased for the first time in nine months in April, posting 5.2% y-o-y, down from 5.3% in March which was the highest inflation rate since December 2016. In January, inflation accelerated to 5.0% y-o-y, up from December's 4.3% and November's 3.8%, as a result of the VAT increase. In August, inflation surpassed 3% y-o-y for the first time in 12 months. The central bank left its benchmark **one-week repo rate** unchanged in April at 7.75%.

Graph 3 - 24: Russia's inflation vs. interest rate



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

Graph 3 - 25: Russia's PMIs

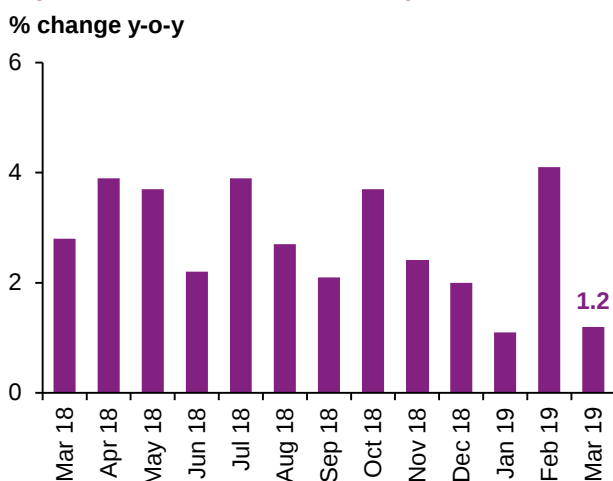


Sources: IHS Markit and Haver Analytics.

The Russian **manufacturing** sector registered a moderate improvement in operating conditions in April, supported by a solid rise in production and a strong increase in client demand. Domestic markets drove the upturn in sales, with new export orders unchanged from March. Despite a further monthly rise in new orders, employment fell for the second time in four months. Meanwhile, inflationary pressures softened as the impact of January's hike in VAT continued to peter out. The increase in cost burdens was the slowest since March 2018. Business confidence eased from March's recent peak, but was nonetheless the second-highest since May 2013. The IHS Markit Russia manufacturing PMI registered 51.8 in April, down from 52.8 in March. The modest improvement in the health of the manufacturing sector was the second-strongest since last November and broadly in line with the series trend. Industrial production grew by 4.1% y-o-y in February, from 1.1% y-o-y in January 2019. This highlights the fastest pace of industrial production growth since August 2017.

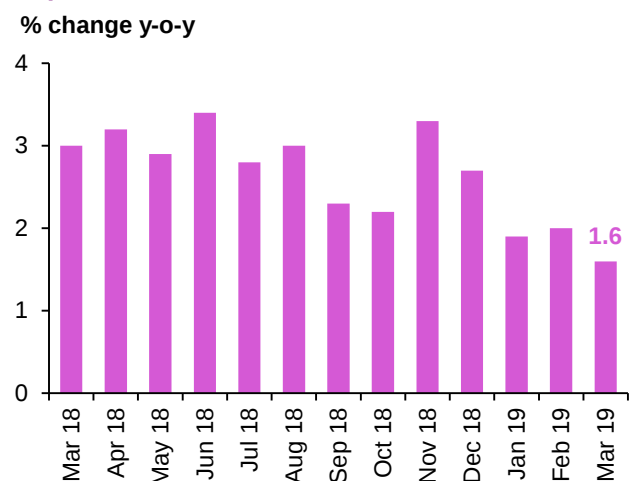
The IHS Markit Russia **Services** Business Activity Index posted 52.6 in April, notably down from 54.4 in March. The latest expansion in output was the slowest for ten months and below the long-run series average. The modest expansion in new orders was in part driven by a sharp rise in new export business. The rate of growth was the strongest since data collection for the series began in September 2014. Russian service providers registered only a fractional increase in employment in April. The latest data extended the current sequence of job creation to seven months, but signalled the slowest rise in workforce numbers since last October.

Graph 3 - 26: Russia's industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 27: Russia's retail sales



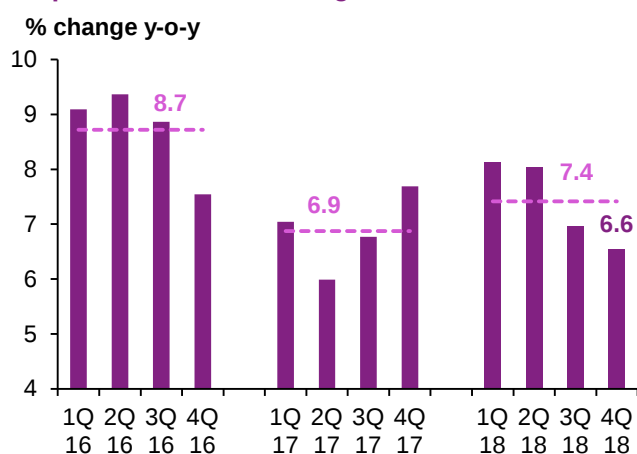
Sources: Federal State Statistics Service and Haver Analytics.

GDP growth forecast still point to 1.6% y-o-y in 2019. Among challenges to faster growth in 2019 are the base-line effect of a strong harvest, the impact of higher inflation and interest rates on domestic demand, and commodity price uncertainties.

India

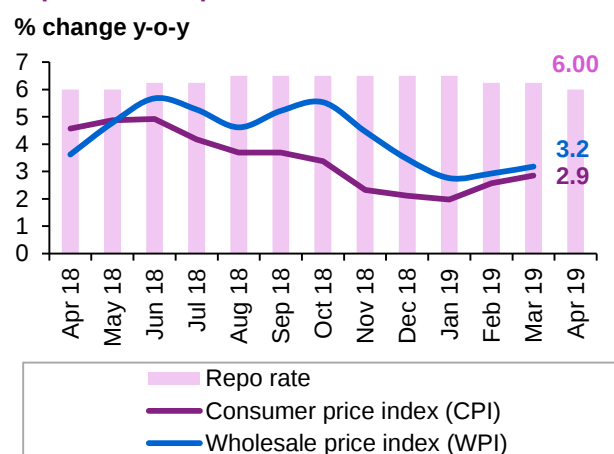
India's general elections kicked off on 11 April, with results due on 23 May 2019. It seems pre-election spending limit the economic downside risks in 1H19 and reduced monetary policy transmission and increased banking sector fragility. Also, with upside risks to inflation on the rise, it does not seem that the Reserve Bank of India (RBI) will lower interest rates further. Following the weak performance of the economy in 2H18, it is expected that the downside trend will continue in 2019, despite some positive pre-election signals. In the short term, expansionary macro-economic policies and pre-election spending could provide some boost to consumption. However, their impact is likely to fade in 2H19.

Graph 3 - 28: India's GDP growth



Sources: National Informatics Centre (NIC) and Haver Analytics.

Graph 3 - 29: Repo rate and inflation in India



Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

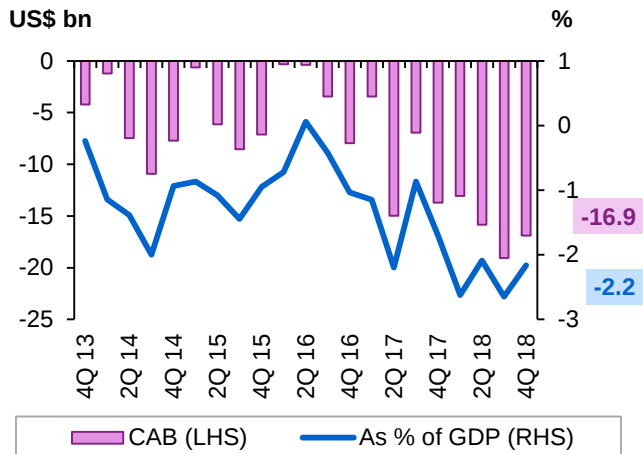
Infrastructure spending has likely peaked and the fiscal deficit widened to 134% of the fiscal year target in February 2019. This maintained the downside pressure on capital expenditure. In February 2019, capital expenditure stood at 86% of the budgeted target, as opposed to 113% at the equivalent period in FY18. It seems this trend will persist through the rest of 2019.

Early indications that **manufacturing activity** picked up in late 2018 have not been sustained. Given excess capacity in manufacturing, slow deleveraging in infrastructure sectors and an anticipated slowdown in public Capex, we expect investment growth to slip back to single digits in the coming quarters.

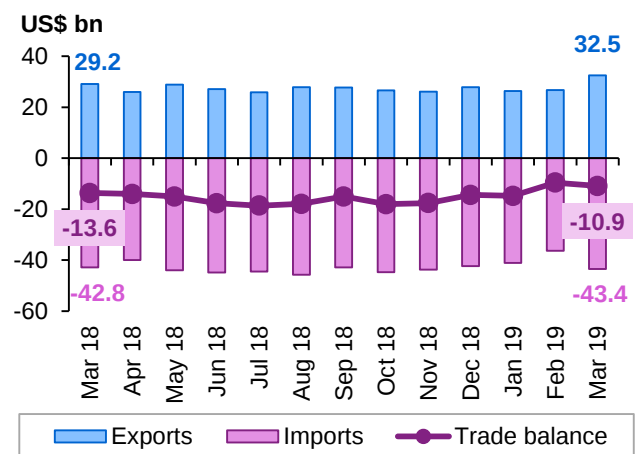
India's CPI inflation rose to a five-month high of 2.9% y-o-y in March 2019 from 2.6% in the previous month. Food prices rose for the first time in six months. **India's WPI** accelerated to 3.2% y-o-y in March 2019 from 2.9% in the previous month. It was the highest WPI rate since December, as prices rose faster for food and fuel products. **Cost of food** increased 0.3% in March of 2019 over the same month in the previous year.

India's **trade balance** narrowed to \$10.89 billion in March 2019 from \$13.51 billion y-o-y. **Exports** increased 11.02% to \$32.55 billion boosted by sales of organic and inorganic chemicals (16.98%), engineering goods (16.27%), ready-made garments (RMG) or mass-produced finished textile products of the clothing industry (15.13%), drugs and pharmaceuticals (13.59%), and petroleum products (6.55%). **Imports** rose at a much slower 1.44% to \$43.44 billion, due mainly to purchases of oil.

In terms of India's monetary policy, it seems that the RBI kept **repo rate** unchanged but the market was more dovish. In India, there is room for an additional cut in 3Q19, but we also expect this move to be reversed in 1H20.

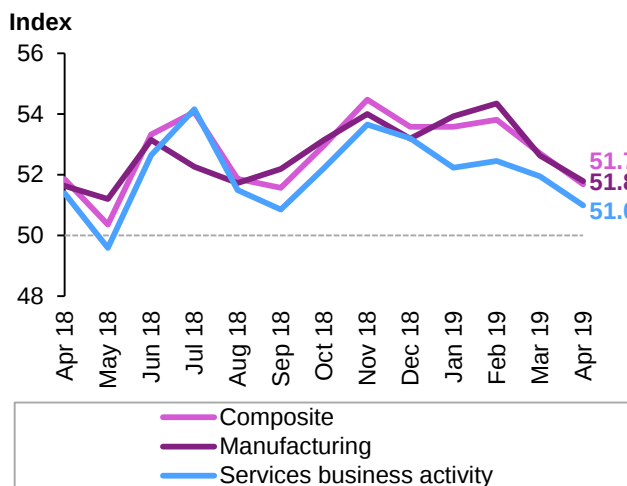
Graph 3 - 30: India's current account balance (CAB)

Sources: Reserve Bank of India and Haver Analytics.

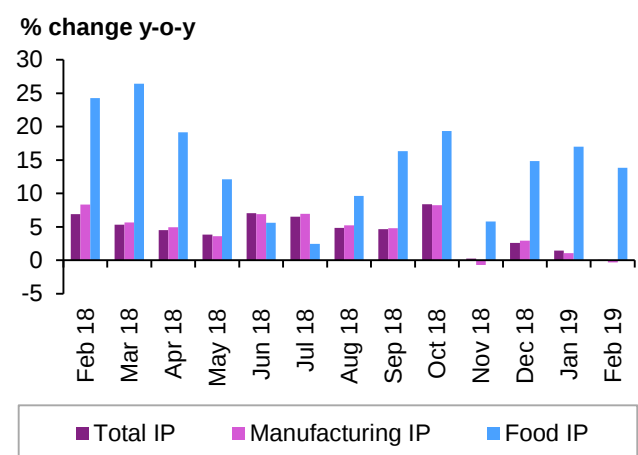
Graph 3 - 31: India's trade balance

Sources: Ministry of Commerce and Industry and Haver Analytics.

The **Nikkei India Manufacturing PMI** dropped to 51.8 in April 2019 from 52.6 in the previous month. This was the weakest PMI reading since August last year, as output rose by the least amount since September 2018 and new business growth moderated to its lowest level in eight months, amid cash flow difficulties and competitive pressures. Additionally, employment expanded at the mildest rate in the current 13-month sequence of job creation, while buying levels went up at the slowest pace since the latest stretch of growth started in mid-2018. Meanwhile, export sales grew at a solid rate that was marginally faster than in March. On the price front, input cost inflation eased to a 43-month low and the rate of charge inflation was marginal and below its long-run average. Finally, output expectations remained positive in April, with optimism supported by post-election growth predictions.

Graph 3 - 32: India's PMI

Sources: Nikkei, IHS Markit and Haver Analytics.

Graph 3 - 33: India's industrial production (IP) breakdown

Sources: Ministry of Statistics and Program Implementation of India and Haver Analytics.

The **Nikkei India Services PMI** unexpectedly declined from 52.0 in March to 51.0 in April 2019, and missed the market consensus of 52.5. The latest PMI reading pointed to the weakest expansion in the services sector since September last year, amid disruptions arising from the elections, with both output and new business rising the least in seven months. Meanwhile, export sales expanded the most in ten months, and employment growth accelerated. At the same time, firms continued to report greater levels of unfinished business as clients delayed payment. On the price front, rates of inflation for input costs and output charges remained weak by historical standards. Input price inflation hit its lowest level in nearly two years, while only negligible increases in output charges were registered. Looking ahead, sentiment strengthened to its highest since September 2018, supported by marketing initiatives, the upcoming launch of low-cost services and efforts to expand capacity.

The **Business Expectations Index (BEI)** in India fell to 113.5 in the 2Q19 from 116.2 in 1Q19, as firms anticipated softer expansion in demand, with the prospect of employment figures holding up, while expressing muted optimism on profit margins as they see large increases in staff costs. Still, sentiment on the overall financial situation remained optimistic on expectations of easier availability of finance from internal accruals. **Consumer Confidence** in India increased to 105 Index Points in the 2Q19 from 104.60 Index Points in the 1Q19.

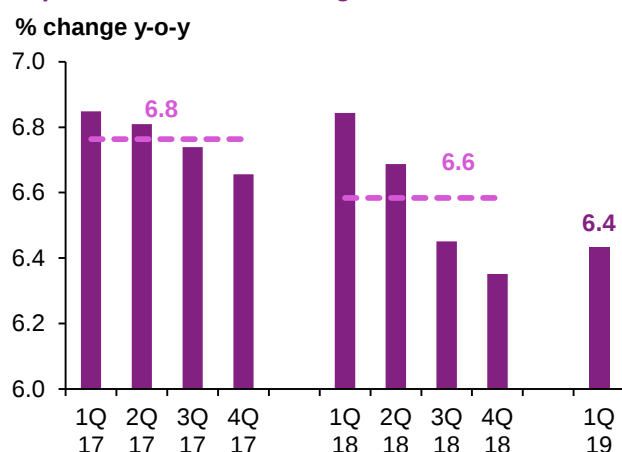
India's GDP growth rate remains unchanged at 7.1% for 2019.

China

The **Chinese economy** advanced 6.4% y-o-y in 1Q19 on the back of the impact of policy stimulus, which has resulted in a strong pick-up in credit growth in 1Q19 and unchanged from 4Q18. Investors have moved on to focus on the possibility that with growth broadly on target again, Chinese policymakers may dial back stimulus.

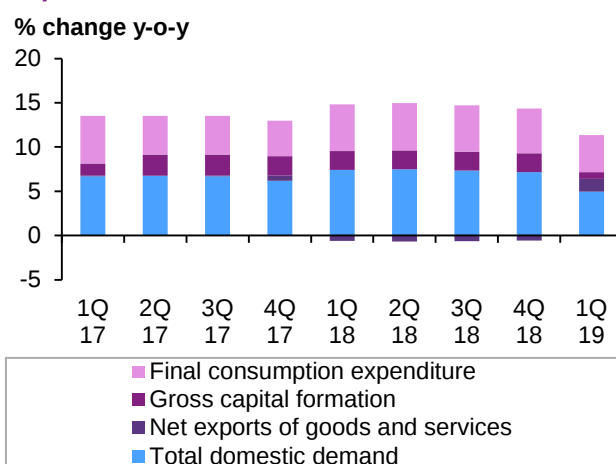
Growth of **industrial value added** picked up strongly in March, lifting average growth in 1Q19 as a whole to 6.4% y-o-y, from 5.7% in 4Q18. Although growth of exports and investment slowed in 1Q19 from the previous quarter, the momentum improved in March. Meanwhile, despite robust retail sales' growth, overall household consumption eased slightly in 1Q19, underscoring that downward pressure on domestic demand remains. Goods export growth slowed in 1Q19 to an estimated 1% y-o-y, in real terms, from 2.1% in 4Q18, indicating ongoing weak global trade conditions. That said, export volumes rose sequentially in March, which suggests that external demand momentum improved within the quarter. Investment momentum weakened in 1Q, with overall **fixed asset investment (FAI)** growth slowing to 6.2% y-o-y from 7.2% in 4Q18. However, monthly data suggest that FAI growth picked up in March on stronger infrastructure investment amid government efforts to support it. On the back of the upward surprise in industry and real estate, the GDP growth forecast was revised for 2019 to 6.2% from 6.1%.

Graph 3 - 34: China's GDP growth



Sources: China's National Bureau of Statistics and Haver Analytics.

Graph 3 - 35: China's GDP breakdown



Sources: China National Bureau of Statistics and Haver Analytics.

China's **CPI inflation** rose to 2.3% y-o-y in March 2019 from 1.5% in the previous month, in line with market consensus. This was the highest rate since October last year, mainly due to a surge in food prices.

China's **PPI** 0.4% y-o-y in March 2019, accelerating from a 0.1% gain in February and in line with market estimates.

China's **trade balance** shifted to a \$32.67 billion surplus in March 2019 from a \$5.79 billion deficit y-o-y. **Exports** from China jumped 14.2% y-o-y to \$198.7 billion in March 2019, the most in five months. **Imports** to China dropped 7.6 % y-o-y to \$166 billion in March 2019, worse than market expectations of a 1.3% fall and following a 5.2% decline in the previous month. This was the fourth straight month of decline in inbound shipments, suggesting the country's domestic demand remains weak.

In terms of **trade barriers**, the US president dramatically increased pressure on China to reach a trade deal in mid-May 2019, it seems the US wants to hike tariffs on \$200 billion worth of Chinese goods this week and target hundreds of billions more soon. The trade negotiations with China continues, albeit slowly.

The US president said tariffs on \$200 billion of goods would increase to 25% from 10%, reversing a decision he made in February to keep them at the 10% rate. The US president also said he would target a further \$325 billion of Chinese goods with 25% tariffs "shortly," essentially covering all products imported to the US from China. Tariffs on Chinese goods are actually paid to the US by the companies importing the goods, and most of those companies are US-based. Oil prices slumped and Asian shares took a beating after the tweet by President Trump

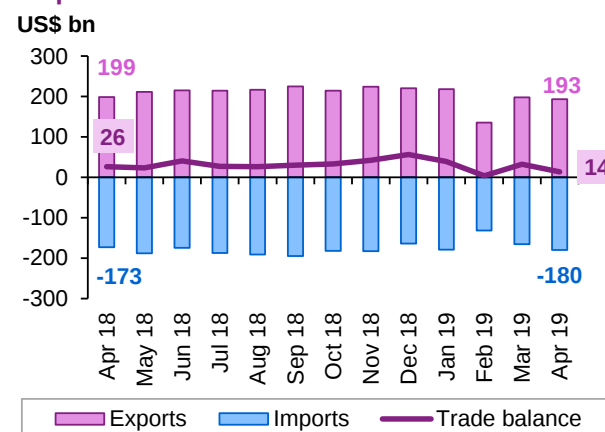
China's central bank will cut **reserve requirement ratios (RRRs)** to release about 280 billion yuan (\$41 billion) for some small and medium-sized banks, in a targeted move to help companies struggling amid an economic slowdown. The cut in the amount of cash that banks must hold as reserves would be the smallest since January 2018, when the People's Bank of China (PBOC) started its latest round of policy easing to support the world's second-largest economy. The cut, while widely expected at some point, was announced right before China's stock market opened, and just hours after President Trump sharply escalated trade tensions between the world's two largest economies. The PBOC has already delivered five RRR cuts since early 2018, lowering the ratio to 13.5% for big banks and 11.5% for small-to medium-sized lenders. The central bank pumped out 3.35 trillion yuan in net liquidity through the five reserve cuts. Now it seems PBOC has less room to

ease policy after it cut RRRs and interest rates aggressively during the global financial crisis, and delivered more cuts in 2012 and 2015 - a year marked by a stock market crash and a slide in the yuan. In terms of monetary policy easing, increased infrastructure spending and tax cuts to support economic growth in 2019.

The **Official NBS Manufacturing PMI (Business Confidence)** fell unexpectedly to 50.1 in April 2019 from a five-month high of 50.5 in the previous month. At the same time, employment declined at a faster rate and new export orders continued to fall.

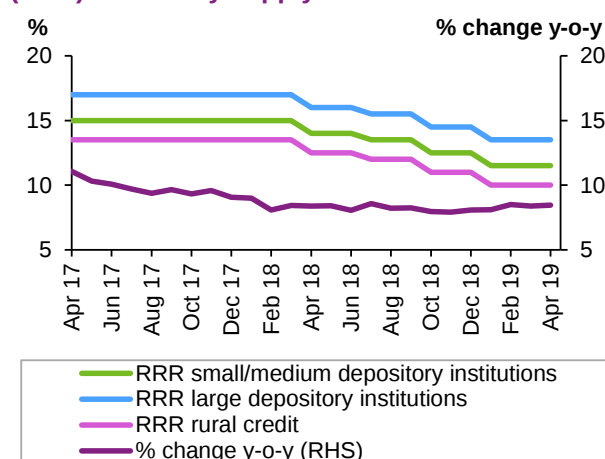
The **Caixin China General Manufacturing PMI** fell unexpectedly to 50.2 in April 2019 from an eight-month high of 50.8 in March, missing market expectations of 51.0. Both output and new orders expanded at softer rates and new export sales fell for the second straight month, amid weaker overseas demand. At the same time, buying activity broadly stabilized, but relatively subdued demand conditions led firms to remain reluctant to expand their inventories. On the price front, both input costs and output charges rose marginally, with some linking lower selling prices to recent sales tax reforms. Finally, confidence strengthened to an 11-month high, boosted by new product launches, planned company expansions and expectations that global demand conditions will improve.

Graph 3 - 36: China's trade balance



Sources: General Administration of Customs of China and Haver Analytics.

Graph 3 - 37: China's reserve requirement ratio (RRR) vs. money supply

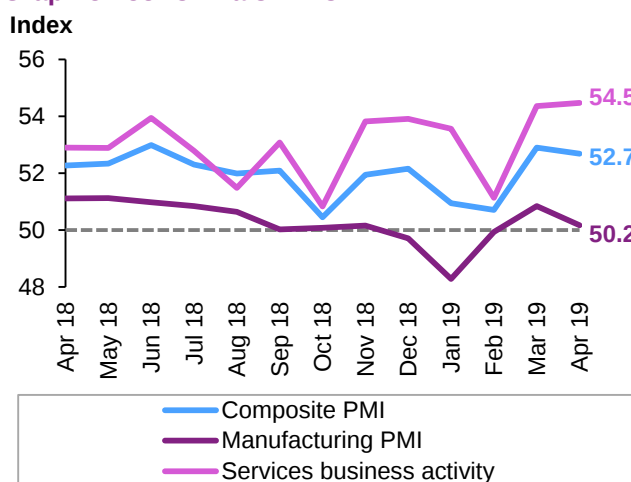


Sources: People's Bank of China and Haver Analytics.

The **official Non-Manufacturing PMI** dropped to 54.3 in April 2019 from a six-month high of 54.8 in the previous month. In terms of prices, input cost inflation rose to a six-month high, while output charges increased for the third month in a row. Looking ahead, business sentiment softened to its lowest official Non-Manufacturing PMI in three months.

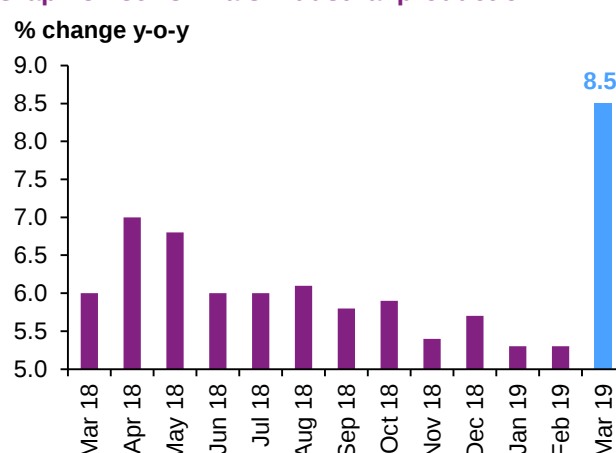
The **Caixin China General Services PMI** edged up unexpectedly to 54.5 in April 2019 from 54.4 in the previous month, easily beating market expectations of 52.8. This was the strongest pace of expansion in the service sector since January 2018, as export sales grew the most since the survey began in September 2014, employment expanded at the fastest rate in ten months, and new orders continued to advance, amid improved marketing strategies, new product offerings and firmer underlying market demand. Meantime, outstanding workloads fell further, though the rate of backlog depletion was the slowest so far this year. On the price front, input price inflation hit its highest level since September last year, while factory charges went up the most since June 2018, with some firms linking it to firmer demand conditions. Finally, sentiment reached its lowest in five months, due to concerns over the strength of the global economy.

Graph 3 - 38: China's PMIs



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3 - 39: China's industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

China's industrial production increased by 8.5 % y-o-y in March 2019, following a 5.3% rise in the previous month. It was the biggest gain in industrial output since July 2014.

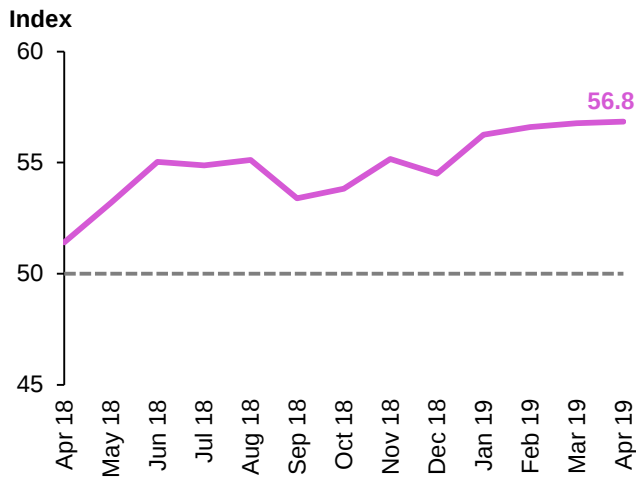
China's real GDP growth expectation upgraded to 6.2% in 2019 in compare to the 6.1% to the last months.

OPEC Member Countries

Saudi Arabia

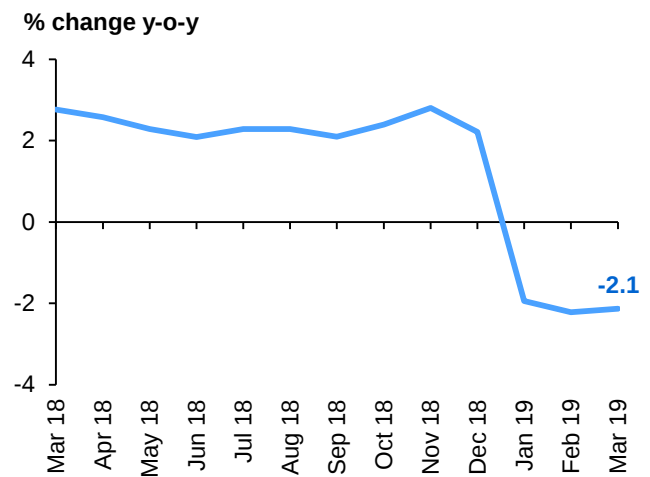
April saw a robust increase in business activity across **Saudi Arabia's** non-oil private sector, with the rate of growth quickening for the fourth month in a row, to the fastest level since December 2017. Firms that reported higher output in April often linked this to stronger underlying demand and an associated rise in new business. Growth of new work eased slightly from March's near four-year high, but nonetheless remained sharp overall and stronger than that of output. New export orders meanwhile rose modestly in April compared with total new business. The Emirates NBD Saudi Arabia PMI registered a reading of 56.8 for the second consecutive month in April, remaining at its highest level since the end of 2017. GDP growth in 4Q18 was revised from 4.0% y-o-y to 3.6% and the full year growth from 2.3% y-o-y to 2.1%, which is its highest level since 2015. Data from the General Authority for Statistics showed that government final consumption expenditure declined by 15.6% y-o-y in 4Q18, from a 7.6% growth in the previous quarter. Private consumption went up by 0.1% y-o-y in 4Q18, from 1.6% in 3Q18. Gross capital formation rose by 13.6% y-o-y in 4Q18, after declining in the first three quarters of the year. Exports increased by 12.4% y-o-y in 4Q18, up from 8.0% in 3Q18, while imports barely rose by 0.1% in the last quarter of 2018, after increasing by 7.2% in 3Q18.

Graph 3 - 40: Saudi Arabia's composite PMI



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 41: Saudi Arabia's inflation

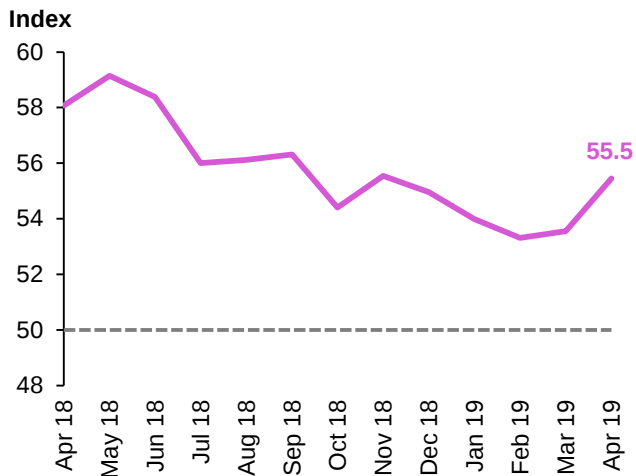


Sources: General Authority for Statistics and Haver Analytics.

Nigeria

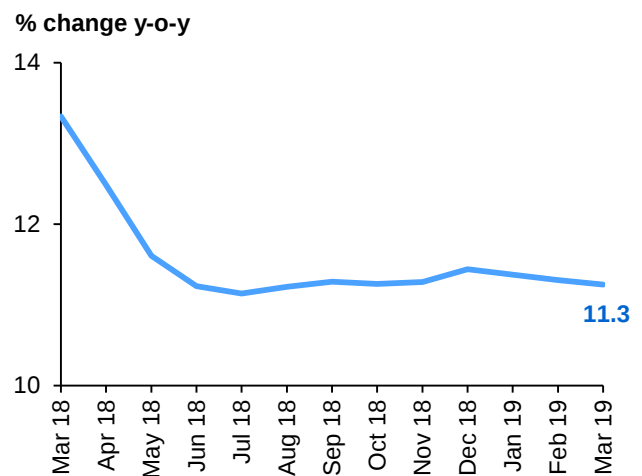
In **Nigeria**, the Stanbic IBTC Bank Nigeria PMI survey showed stronger customer demand, leading to much faster rises in output and new orders. As a result, purchasing activity increased sharply and the rate of job creation quickened. Meanwhile, inflationary pressures remained relatively muted. The index rose to 55.5 in April from 53.6 in March, thereby pointing to a marked and stronger improvement in the health of the Nigerian private sector. In fact, the latest strengthening of business conditions was the sharpest since last November. Rising output requirements encouraged firms to increase their purchasing activity and employment at the start of the second quarter. Job creation has now been recorded on a monthly basis throughout the past two years, with the latest solid rise in employment the most marked since June 2018. GDP registered growth of 2.4% y-o-y in 4Q18, its highest since 3Q15. This brings GDP growth in 2018 to 1.9% y-o-y, up from a contraction of 1.6% y-o-y in 2016 and a 0.8% y-o-y growth in 2017. It is also the highest rate of GDP growth since 2015.

Graph 3 - 42: Nigeria's composite PMI



Sources: IHS Markit, Stanbic IBTC Bank and Haver Analytics.

Graph 3 - 43: Nigeria's inflation

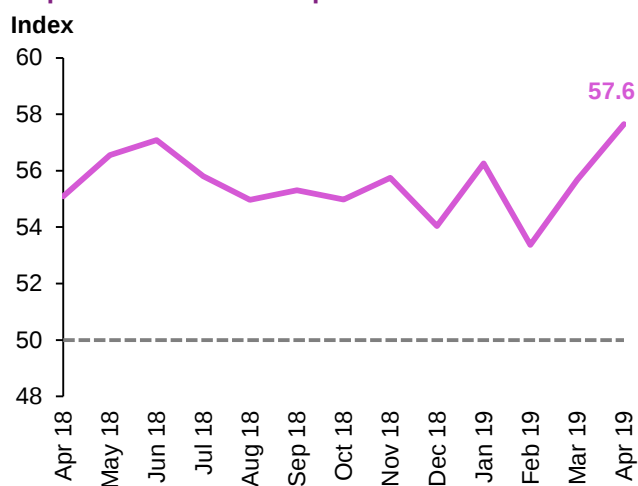


Sources: National Bureau of Statistics and Haver Analytics.

The United Arab Emirates (UAE)

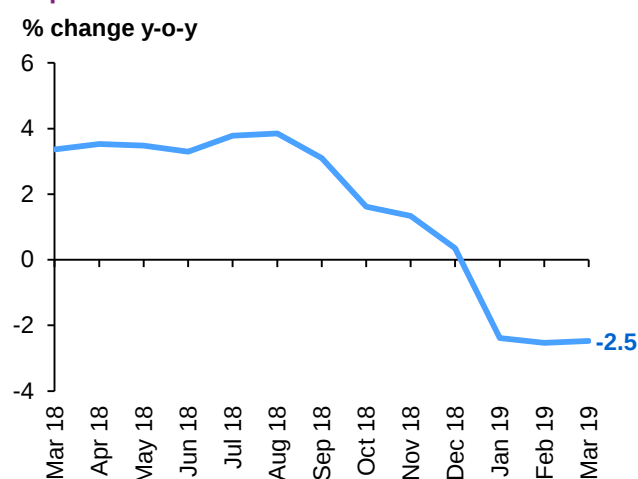
In the **UAE**, the Emirates NBD PMI rose for the second month running in April, hitting 57.6 from 55.7 in March. The reading signalled a sharp monthly improvement in business conditions and was the greatest since December 2017. Latest data pointed to a sharp acceleration in the rate of new order growth at UAE non-oil companies, with the pace of expansion at a 16-month high. Higher new orders combined with a number of ongoing projects led to a substantial rise in business activity in April. Moreover, the rate of expansion was the fastest since January 2015. As part of efforts to limit cost inflation, staffing levels were raised only slightly again at the start of the second quarter, despite strong increases in workloads. A combination of sharp new order growth and relatively weak hiring led backlogs of work to rise at a faster pace. The GDP of Abu Dhabi accelerated in 4Q18 to 3.7% y-o-y, up from 1.8% in the previous quarter. This faster pace of growth brought the full 2018 growth up to 1.9% y-o-y compared to a 0.9% y-o-y decline in 2017.

Graph 3 - 44: UAE's composite PMIs



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 45: UAE's inflation



Sources: National Bureau of Statistics and Haver Analytics.

Other Asia

Indonesia

In **Indonesia**, GDP grew by 5.1% y-o-y in 1Q19, from a 5.2% growth in 4Q18. Private consumption expenditure increased by 5.0% y-o-y in 1Q19, while general government consumption expenditure accelerated by 5.2% y-o-y in 1Q19. Gross capital formation had a notable dip, growing by only 3.8% y-o-y in 1Q19, from a 10.9% rise in 4Q18. Exports of goods and services declined by 2.1% y-o-y in 1Q19, compared to a 4.3% y-o-y increase in the previous quarter. Imports dropped by 7.8% y-o-y in 1Q19. Indonesia's trade surplus narrowed to \$0.54 billion in March 2019, from a \$1.12 billion in March 2018. Exports tumbled 10.0% y-o-y, while imports fell at a softer 6.8%. Considering the first three months of the year, the trade balance recorded a deficit of \$0.19 billion, compared with a surplus of \$0.31 billion in the same period of 2018. The Nikkei Indonesia manufacturing PMI fell to 50.4 in April, down from 51.2 in March. The latest figure signalled a marginal improvement in the health of the sector, to indicate moderating growth at the start of the second quarter. Underlying demand conditions showed signs of weakening as the second quarter began. After an increase in March, inflows of new orders were little changed in April despite growth in new export orders. Overseas sales of Indonesian goods increased for the first time in almost one-and-a-half years. Stalling demand saw production growth ease to a marginal rate which, in turn, led to a slower expansion of purchasing activity. Consequently, the accumulation of input stocks also moderated. Despite softer demand conditions, firms expanded their workforce numbers in April, though the rate of job creation edged down to a three-month low.

Africa

In **South Africa**, GDP posted the first y-o-y contraction in 4Q18 since 1Q16. GDP contracted by 0.1% y-o-y in 4Q18, from a 0.2% growth in the previous quarter. Private consumption increased by 1.1% y-o-y in 4Q18, similar to 3Q18. Public consumption showed slight acceleration in the pace of growth in 4Q18 compared to 3Q18, growing by 1.9% y-o-y in 4Q18 vs 1.8% in 3Q18. GFCF suffered a sharp drop in 4Q18 by 3.6% y-o-y, after dropping by 0.5% in 3Q18. Exports growth stood at 5.4% y-o-y in 4Q18, from 5.8% in the previous quarter, whereas imports had a notable drop in growth pace in 4Q18. Imports went up by only 1.2% y-o-y in 4Q18, from 9.6% in 3Q18. South Africa's private sector saw a slight improvement in operating conditions in March. Output stabilised after nine successive months of contraction. However, a run of weak demand culminated in a second successive drop in selling prices and the first fall in input prices throughout the survey history. Rising from 48.8 in March, the IHS Markit South Africa PMI posted 50.3 in April to signal only the second improvement to business conditions in ten months. As with February, the rate of improvement was only slight, as both output and new orders recorded little change.

Latin America

Colombia

In **Colombia**, the net international reserves increased to \$51.3 billion in March 2019, from \$50.5 billion in February. The central bank left the benchmark interest rate unchanged at 4.25% in April 2019. Policymakers noted no significant changes regarding inflation expectations and also mentioned that global growth prospects declined since their previous policy meeting. The Committee also reiterated a 3.5% domestic growth forecast for 2019. The annual inflation rate in Colombia increased to 3.2% in March 2019 from 3.0% in the previous month. The trade deficit widened to \$0.77 billion in February 2019 from \$0.65 billion in February 2018. Exports rose 6.2% y-o-y to \$3.2 billion in February 2019. Imports went up 8.2% to \$4 billion. Balance of trade in Colombia averaged -\$0.2 billion from 1980 until 2019, reaching an all-time high of \$0.8 billion in December of 2011 and a record low of -\$2.0 billion in January of 2015. The Colombian manufacturing sector shows signs of revival in April as operating conditions improved, following deteriorations throughout 1Q19. Strength came from a renewed increase in sales, which in turn supported output growth, input buying and job creation. At the same time, native protests weighed on the ability of suppliers to deliver purchased materials on time and exerted upward pressure on cost inflation. At 51.0 in April, the Davivienda Colombia manufacturing PMI registered above the critical 50.0 threshold for the first time in the year-to-date. Rising from 48.9 in March, the latest figure pointed to a slight improvement in the health of the sector that was broadly in line with the long-run survey average.

Transition region

The Czech Republic

In the **Czech Republic**, GDP posted growth of 3.0% y-o-y in 4Q18, up from 2.5% in 3Q18. Government consumption rose by 3.6% y-o-y in 4Q18, after growing by 5.2% in the previous quarter. Household consumption increased by 2.4% y-o-y in 4Q18, from 2.8% in 3Q18. Exports rose by 5.7% y-o-y in 4Q18 and imports registered 6.3% growth in the same period. GFCF posted 10.9% y-o-y growth in 4Q18, from 11.3% in 3Q18. April PMI data signalled a gloomy start to the second quarter of 2019 for the Czech manufacturing sector, with output, new orders and employment continuing to contract. The latest headline PMI figure dipped to its lowest level since December 2012, indicating a solid deterioration in overall business conditions. The fall was driven by a strong decline in client demand. At 46.6, April's IHS Markit Czech Republic PMI signalled a solid decline in the health of the Czech goods-producing sector. The index was down from 47.3 in March and fell for the tenth month in succession to the lowest level since December 2012.

World Oil Demand

World oil demand growth in **2018** was unchanged at 1.41 mb/d with total oil demand at 98.73 mb/d. OECD oil demand growth was at 0.39 mb/d, led by OECD America, while non-OECD oil demand growth was at 1.02 mb/d, led by Other Asia and China.

For **2019**, world oil demand is projected to increase by 1.21 mb/d, unchanged from last month's report despite some revisions within the regions, to average 99.94 mb/d.

In the **OECD** region, oil demand is anticipated to increase by 0.21 mb/d in 2019, with slight revisions among the regions compared with last month. Oil demand growth expectations in OECD Americas have improved, on the back of improved regional economic developments. On the other hand, a softer economic outlook in OECD Europe for the remainder of the year has mitigated the overall oil demand increase in the OECD region. OECD Americas is expected to continue to be the motor for oil demand growth in the OECD region, amid steady NGL and middle distillate requirements.

In the **non-OECD** region, oil demand is foreseen to rise by 1.00 mb/d, which is 0.01 mb/d lower than last month's projections. Oil requirements in both Latin America and the Middle East were revised down in light of weak data in 1Q19, as well as slower economic expectations compared to last month. China, on the other hand, was revised upward amid a better economic outlook relative to last month. As such, Other Asia and China are expected to lead oil demand growth in the region with a combined potential of around 0.72 mb/d in 2019.

World oil demand in 2018 and 2019

Table 4 - 1: World oil demand in 2018, mb/d

	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018</u>	<u>Change 2018/17</u> <u>Growth</u>	<u>%</u>
Americas	25.06	25.20	25.40	25.78	25.74	25.53	0.48	1.90
of which US	20.27	20.57	20.64	20.93	20.78	20.73	0.46	2.26
Europe	14.30	13.95	14.19	14.68	14.32	14.29	-0.01	-0.09
Asia Pacific	8.06	8.54	7.65	7.70	8.08	7.99	-0.07	-0.86
Total OECD	47.42	47.69	47.24	48.16	48.14	47.81	0.39	0.83
Other Asia	13.24	13.55	13.84	13.38	13.87	13.66	0.42	3.14
of which India	4.53	4.83	4.74	4.40	4.96	4.73	0.20	4.43
Latin America	6.51	6.35	6.48	6.81	6.47	6.53	0.02	0.31
Middle East	8.20	8.22	7.98	8.43	7.85	8.12	-0.08	-0.98
Africa	4.20	4.35	4.32	4.27	4.40	4.33	0.13	3.13
Total DCs	32.16	32.46	32.62	32.89	32.59	32.64	0.49	1.52
FSU	4.70	4.66	4.65	4.94	5.01	4.82	0.12	2.45
Other Europe	0.72	0.73	0.69	0.73	0.82	0.74	0.03	3.48
China	12.32	12.28	12.84	12.65	13.07	12.71	0.39	3.18
Total "Other regions"	17.74	17.68	18.18	18.32	18.90	18.27	0.53	2.99
Total world	97.32	97.83	98.05	99.38	99.63	98.73	1.41	1.45
Previous estimate	97.29	97.80	98.02	99.35	99.60	98.70	1.41	1.45
Revision	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00

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

Source: OPEC Secretariat.

Table 4 - 2: World oil demand in 2019*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18	
							Growth	%
Americas	25.53	25.43	25.65	26.07	26.01	25.79	0.26	1.02
of which US	20.73	20.79	20.86	21.21	21.03	20.97	0.24	1.17
Europe	14.29	13.97	14.15	14.66	14.29	14.27	-0.01	-0.10
Asia Pacific	7.99	8.53	7.61	7.67	8.05	7.96	-0.03	-0.41
Total OECD	47.81	47.94	47.41	48.40	48.35	48.03	0.21	0.45
Other Asia	13.66	13.92	14.21	13.75	14.25	14.03	0.37	2.72
of which India	4.73	5.03	4.93	4.58	5.15	4.92	0.19	4.05
Latin America	6.53	6.36	6.51	6.85	6.50	6.56	0.03	0.47
Middle East	8.12	8.25	8.01	8.47	7.88	8.15	0.03	0.37
Africa	4.33	4.45	4.42	4.36	4.50	4.43	0.10	2.31
Total DCs	32.64	32.98	33.16	33.43	33.13	33.18	0.53	1.63
FSU	4.82	4.75	4.74	5.03	5.11	4.91	0.09	1.87
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	13.00	13.43	13.06	0.35	2.77
Total "Other regions"	18.27	18.13	18.64	18.78	19.38	18.74	0.46	2.53
Total world	98.73	99.05	99.20	100.61	100.86	99.94	1.21	1.22
Previous estimate	98.70	99.02	99.18	100.59	100.83	99.91	1.21	1.23
Revision	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00

Note: * 2019 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

OECD

OECD Americas

US

The most recent available monthly **US oil demand** data for February 2019 implied solid growth compared to the same month in 2018 following a slight decline in demand during January 2019, y-o-y.

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

	Feb 19	Feb 18	Change 2018/17	
			tb/d	%
LPG	3,391	3,015	376	12.5
Naphtha	213	219	-6	-2.7
Gasoline	8,963	8,817	146	1.7
Jet/kerosene	1,619	1,600	19	1.2
Diesel oil	4,331	3,962	369	9.3
Fuel oil	301	282	19	6.7
Other products	1,667	2,015	-348	-17.3
Total	20,485	19,910	575	2.9

Sources: US EIA and OPEC Secretariat.

Implied February 2019 oil demand growth amounts to almost 0.6 mb/d, or around 3% y-o-y, and is the largest since July 2018. February 2019 figures draw a healthy picture in terms of oil demand, which is in line with major leading indicators, notably the country's economy, which expanded solidly during the 1Q19. As in previous months, the bulk of oil demand gains were attributed to the light and medium parts of the barrel. Petrochemical feedstock for the petrochemical industry and gasoline, which grew mainly due to a very low baseline during the same month in 2018. Finally, demand for diesel fuel for both industrial and road transportation usage increased as well.

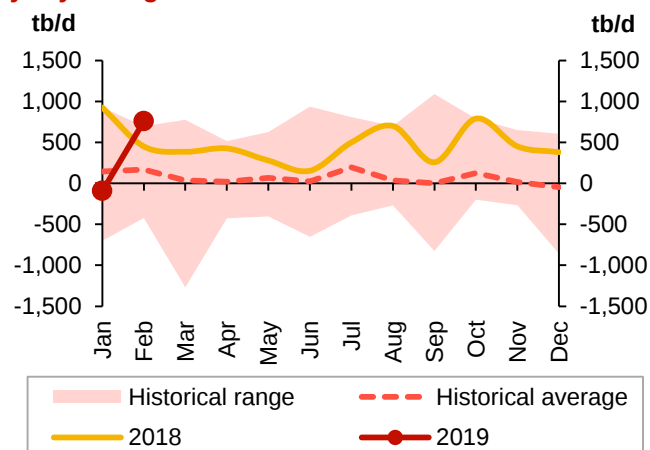
Gasoline requirements grew by 0.15 mb/d, equal to 2% y-o-y, which marks the highest y-o-y growth since January 2018. These gains came despite colder-than-anticipated weather conditions, slightly falling mileage levels, and a drop in light vehicle sales, mainly as a result of the low historical baseline.

Vehicle miles travelled, as reported by the federal highway administration, registered a marginal decline of 0.34% y-o-y, while total light vehicle sales posted a decline of around 2.6% y-o-y during February.

Preliminary March and April 2019 data that are based on averaged weekly figures, show a continuation of the current solid oil demand trend, with industrial and road transportation fuels, notably natural gas plant liquids, diesel fuel and gasoline accounting for the bulk of these increases.

While 2019 US oil demand remains strongly dependent on US economic developments, the current forecasting risks remain balanced. The healthy petrochemical industry and the implied demand for light liquid hydrocarbons, in addition to the flourishing industrial activities, notably in the energy sector and the demand for diesel fuel are the main factors pointing to the upside; substitution and efficiencies are the main risks on the downside.

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



Sources: Joint Organisations Data Initiative and OPEC Secretariat.

Graph 4 - 2: US gasoline demand, y-o-y change



Sources: US EIA and OPEC Secretariat.

Mexico

In **Mexico**, March 2019 saw a drop in oil demand with falling requirements for all main petroleum categories, the exception being industrial diesel. The increase in industrial diesel demand was for the fifth month in succession. Conversely, fuel oil demand has been decreasing for the last two months, reflecting fuel substitution towards natural gas.

Canada

The latest **Canadian** data for February 2019 showed overall oil demand increasing; gains were solid for diesel fuel, gasoline and fuel oil, but this was partly offset by declines in LPG requirements. The 2019 projections for Canadian oil demand remain unchanged from those reported last month, pointing towards a slight increase y-o-y, with forecasting risks being balanced between the upside and downside.

In 2018, **OECD Americas oil demand** is estimated to have grown by 0.48 mb/d over the previous year. For 2019, oil demand is projected to grow by 0.26 mb/d.

OECD Europe

European oil demand remained in positive territory during the 1Q19 with implied growth of 0.03 mb/d. This was mainly the result of unusually strong oil demand during January, which was followed by declining oil requirements during February and March.

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

	Mar 19	Mar 18	Change 2019/18	
			tb/d	%
LPG	476	533	-57	-10.8
Naphtha	567	527	40	7.6
Gasoline	1,121	1,138	-17	-1.5
Jet/kerosene	807	800	7	0.9
Diesel oil	3,151	3,356	-205	-6.1
Fuel oil	233	252	-19	-7.7
Other products	590	616	-26	-4.2
Total	6,945	7,222	-277	-3.8

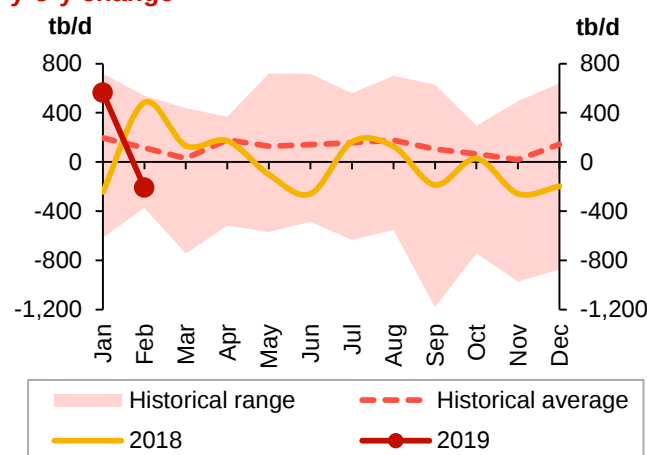
Note: * Germany, France, Italy and the UK.

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

The main reasons behind the oil demand increase in January 2019 were colder weather and the low historical baseline during the same month in 2018, while February and March oil demand was sluggish.

Y-t-d the road transportation sector accounts for the bulk of losses in oil usage, relating mostly to diesel fuel and gasoline, while jet kerosene demand continues to be strong in line with an expanding economy and airline activities. Oil usage y-t-d in the industrial sector, notably diesel, naphtha and residual fuel, also remains in expansion territory. On the other hand, vehicle sales declined during March 2019 and overall in 1Q19, y-o-y. Furthermore, recent trends exhibit a continuation in the shift towards gasoline and away from diesel-driven cars.

Graph 4 - 3: OECD Europe's oil demand, y-o-y change



Sources: Joint Organisations Data Initiative and OPEC Secretariat.

Graph 4 - 4: UK diesel fuel demand, y-o-y change



Sources: Joint Organisations Data Initiative, UK Department for Business, Energy & Industrial Strategy and OPEC Secretariat.

Preliminary March 2019 data for the **European Big 4** indicates a drop in oil demand of around 0.3 mb/d y-o-y, with requirements for most petroleum categories declining, except naphtha and jet kerosene. Within the Big 4, 2019 March oil demand seems to have contracted in the UK, Germany and France, while in Italy it was relatively flat y-o-y. The factors that could further reduce European oil demand in the remaining part of 2019 are fuel substitution, efficiencies and the high historical baseline.

The main factor that may point to the upside is the improving economy, which would consequently lift specific oil demand-related sectors, such as industrial and petrochemicals. The general expectations for the region's oil demand during 2019 are slightly in the negative with the majority of the risks pointing to the downside.

In 2018, **European oil demand** is estimated to have fallen by a slight 0.01 mb/d, while oil demand in 2019 is projected to again fall by 0.01 mb/d.

OECD Asia Pacific

Japan

Based on preliminary March 2019 data from the Japanese Ministry of Economy, Trade and Industry (METI), **Japanese oil demand** fell by around 0.12 mb/d which is approximately 3% y-o-y, with diminishing requirements in all main product categories, except for naphtha.

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

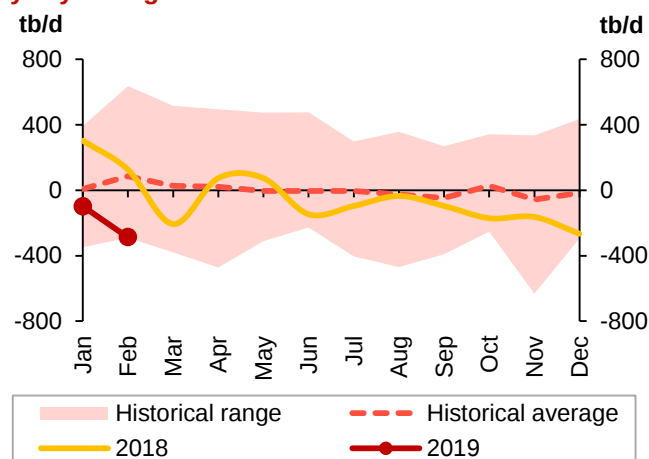
	Mar 19	Mar 18	Change 2019/18 tb/d	%
LPG	404	468	-64	-13.6
Naphtha	782	706	76	10.8
Gasoline	832	877	-45	-5.1
Jet/kerosene	552	569	-17	-3.1
Diesel oil	826	845	-19	-2.3
Fuel oil	245	300	-55	-18.4
Other products	398	395	3	0.9
Total	4,039	4,160	-121	-2.9

Sources: JODI, Ministry of Energy and Trade and Industry of Japan and OPEC Secretariat.

Demand for naphtha increased as steam cracker margins preferred naphtha as a feedstock to LPG. Naphtha requirements were around 0.08 mb/d higher y-o-y.

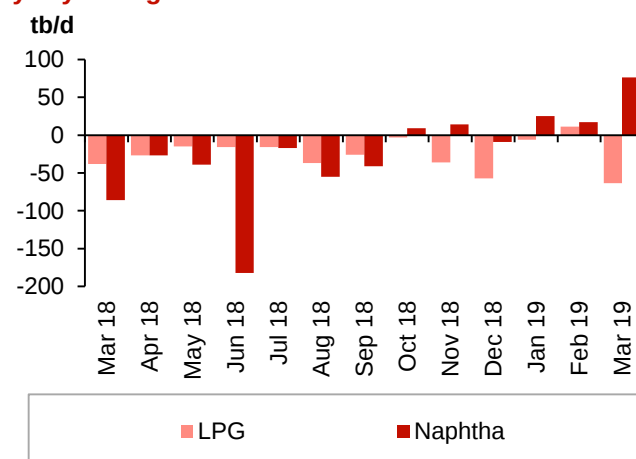
Despite colder weather, fuel oil requirements for electricity generation fell for another month, in line with increasing fuel substitution. Overall fuel oil demand was lower compared to the same month in 2018 and to historical patterns.

Graph 4 - 5: OECD Asia Pacific oil demand, y-o-y change



Sources: Joint Organisations Data Initiative and OPEC Secretariat.

Graph 4 - 6: Japan's LPG and naphtha demand, y-o-y change



Sources: Ministry of Economy Trade and Industry of Japan, Joint Organisations Data Initiative and OPEC Secretariat.

Declining March 2019 oil demand does not contradict the overall oil demand picture for 1Q19, as economic concerns in the country and increasing energy efficiencies continue to impact oil demand growth levels. The risks to the 2019 outlook remain skewed to the downside as a result of less optimistic economic forecasts.

South Korea

In **South Korea**, February 2019 oil demand showed a decline by 0.08 mb/d y-o-y. Sluggish petrochemical activities resulted in declining LPG and naphtha requirements.

LPG fell by around 0.02 mb/d, while naphtha shed around 0.04 mb/d, y-o-y. Light distillates dropped due to cracker maintenance that saw almost 50 ktpy of ethylene capacity offline during the month of February. The declines in light distillates were accompanied by solid demand for petroleum products in the transportation sector, notably gasoline, jet kerosene and diesel fuel as the government extended cuts on retail fuel taxes. Fuel oil requirements also increased.

Risks for the 2019 South Korean oil demand outlook remain slightly skewed to the upside compared to last month's projections.

Australia

Flat oil demand y-o-y was seen in **Australia** during February 2019. Residual fuel oil and petroleum coke accounted for the bulk of gains.

OECD Asia Pacific oil demand in 2018 is estimated to have declined by 0.07 mb/d. Oil demand declines are projected to persist in 2019, albeit at a lower volume of 0.03 mb/d compared to 2018.

Non-OECD

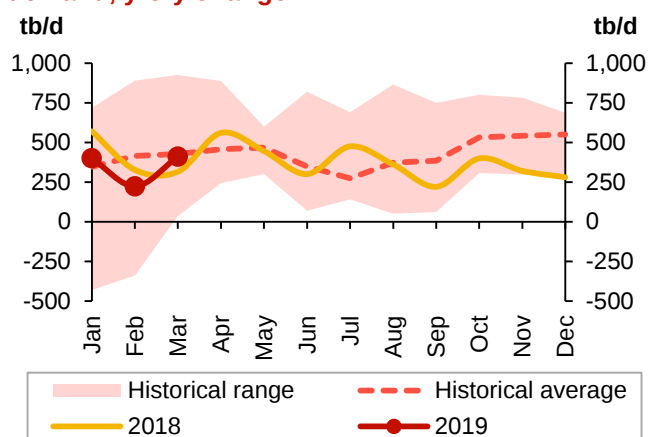
China

China oil demand growth data for March 2019 was solid, supported by an expanding transportation sector, particularly aviation, and steady development in the petrochemical sector. Jet/kerosene demand reached 0.9 mb/d, higher by 0.17 mb/d, or 23% y-o-y, as jet fuel demand remained robust, given the solid growth in air transportation.

Gasoline demand was at 2.87 mb/d, higher by 0.07 mb/d, or 3%, y-o-y. This increase came despite continued weakness in passenger car sales in March. According to China's Passenger Car Association, sales reached around 2.0 million units, down by around 7% y-o-y. This marks the ninth monthly consecutive decline. On a cumulative basis, with data up to March, passenger car sales were around 5.1 million units, or around 13%, lower y-o-y. SUV sales continued to decline by almost 16%, compared to the same period in 2018. MPV sales also dropped sharply during 1Q19, shedding around 18% y-o-y.

In the petrochemical sector, LPG consumption rose by around 1% y-o-y, implying steady demand from the sector.

Graph 4 - 7: Changes in China's apparent oil demand, y-o-y change



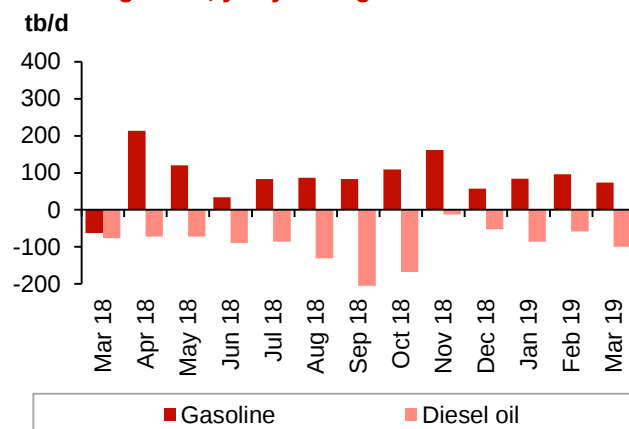
Sources: Argus Global Markets, China OGP (Xinhua News Agency), Facts Global Energy, JODI, National Bureau of Statistics of China and OPEC Secretariat.

Elsewhere, diesel fuel demand declined, falling by as much as 0.10 mb/d and despite the m-o-m improvements in PMI readings. The manufacturing PMI edged higher to positive territory at 50.5 in March, from 49.2 in February. Consumption of fuel oil rose for another month, as data suggests an increase of around 0.05 mb/d y-o-y.

Looking ahead in 2019, oil consumption risks in China are balanced. Downside risks are linked to slower economic activities, in addition to government policies that encourage a reduction in transportation fuels.

In contrast, government stimulus programmes and the steady performance of the petrochemical sector provide upside potential for China's oil demand growth.

Graph 4 - 8: China's diesel oil and gasoline demand growth, y-o-y change



Sources: Facts Global Energy, China OGP (Xinhua News Agency), Argus Global Markets, JODI, National Bureau of Statistics, China and OPEC Secretariat.

In 2018, Chinese oil demand is estimated to have grown by 0.39 mb/d, while oil demand in 2019 is projected to increase by 0.35 mb/d.

Other Asia

India

In March, **oil consumption in India** continued to grow, with demand increasing by 0.06 mb/d y-o-y, which equates to a rise of over 1% y-o-y. Total consumption was at 4.92 mb/d. Most product categories registered steady growth with LPG and gasoline increasing the most. LPG rose by 10% and gasoline by around 7% y-o-y.

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

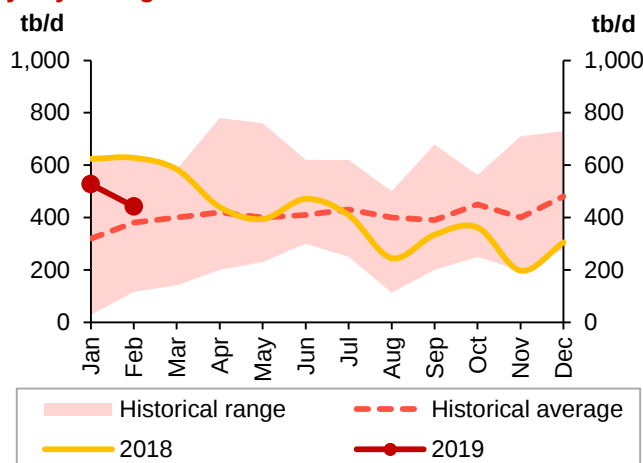
	Mar 19	Mar 18	Change 2019/18	
			tb/d	%
LPG	879	797	81	10.2
Naphtha	359	332	27	8.0
Gasoline	757	706	51	7.2
Jet/kerosene	275	261	14	5.2
Diesel oil	1,802	1,778	23	1.3
Fuel oil	252	255	-4	-1.5
Other products	595	724	-128	-17.7
Total	4,919	4,855	64	1.3

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

For LPG, demand picked up compared to last year, with growth of around 0.08 mb/d y-o-y, as increases in household consumption continued to provide support. March oil demand data for gasoline remained positive, with total consumption close to 0.76 mb/d, showing an increase of 0.05 mb/d y-o-y. This was largely supported by rising disposable incomes for the lower and middle-income families in response to government income support schemes, including tax cuts. The increase in gasoline requirements came despite weak passenger car sales data, which exhibited a drop of around 3% y-o-y.

The continued steady expansion in construction activities, an increase in sales of commercial vehicles – marginally higher y-o-y – and weather-related developments, boosted diesel fuel consumption in India during March. Drought conditions in some parts of the country limited the availability of water, which in turn impacted hydropower generation output and pushed consumption for diesel fuel and fuel oil higher. As such, diesel fuel demand grew by 0.02 mb/d, which translates to around a 1% rise y-o-y.

Graph 4 - 9: Other Asia's oil demand, y-o-y change



Sources: Joint Organisations Data Initiative and OPEC Secretariat.

Graph 4 - 10: India's gasoline demand, y-o-y change



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

Indonesia

In **Indonesia**, the latest available February 2019 data indicates steady growth in oil requirements, with a rise of around 0.02 mb/d or 2% y-o-y.

All product categories were in the positive, with the exception of fuel oil. Diesel fuel, jet/kerosene and LPG led growth, increasing by around 4%, 5% and 1%, y-o-y, respectively.

For the remainder of 2019, India's continuing positive oil demand momentum, along with a number of other countries in **Other Asia**, points to an optimistic projection for the region's consumption going forward. Demand is anticipated to be supported by the positive push in India, Indonesia, Singapore and Thailand oil consumption levels in line with the positive economic outlook for those countries and the region in 2019.

Other Asia's oil demand is estimated to have increased by 0.42 mb/d in 2018. For 2019, oil demand is anticipated to increase by around 0.37 mb/d.

Latin America

Brazil

Oil demand in **Brazil** declined in March. Product demand dipped by around 0.10 mb/d, which equates to a drop of above 3% y-o-y with total consumption at 2.61 mb/d. Most of the product categories lost momentum, in particular gasoline, diesel fuel and fuel oil.

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

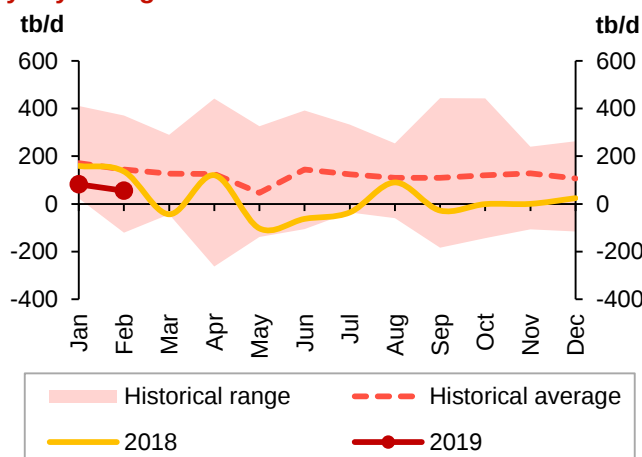
	Mar 19	Mar 18	Change 2019/18 tb/d	%
LPG	213	222	-9	-4.0
Naphtha	147	146	1	0.7
Gasoline	632	737	-104	-14.2
Jet/kerosene	122	117	4	3.7
Diesel oil	924	979	-55	-5.6
Fuel oil	93	100	-8	-7.5
Other products	481	405	76	18.9
Total	2,612	2,707	-94	-3.5

Note: * = Inland deliveries.

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

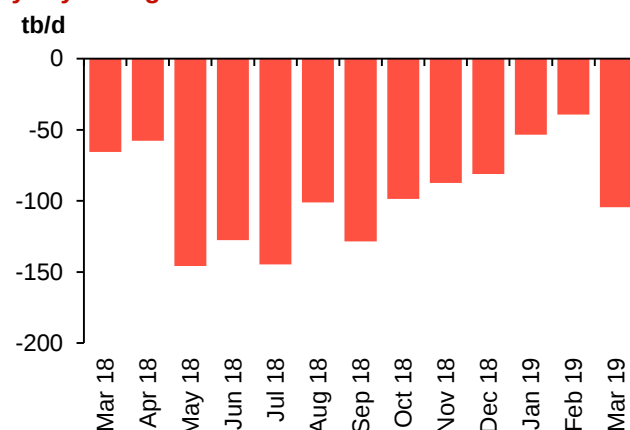
Brazil's sluggish economy – due in part to slower industrial output – was the main contributor to the weaker oil demand performance. However, ethanol demand increased y-o-y, adding around 0.08 mb/d from the level seen in March 2018, as the product continued to have a competitive edge over gasoline. Ethanol retail prices were hovering around 2.9 Brazilian reais per litre, while gasoline retail prices were around 4.3 reais per litre.

Graph 4 - 11: Latin America oil demand, y-o-y change



Sources: Joint Organisations Data Initiative and OPEC Secretariat.

Graph 4 - 12: Brazil's gasoline demand, y-o-y change



Sources: Agencia Nacional do Petroleo, Gas e Biocombustiveis of Brazil, Joint Organisations Data Initiative and OPEC Secretariat.

Gasoline demand continued to decline by more than 0.10 mb/d y-o-y, a trend that started in September 2017. This equates to a drop of around 14%. Diesel fuel requirements also eased when compared to the same month last year, declining by around 0.06 mb/d in line with softening industrial production data. Fuel oil consumption fell too, dropping by around 0.01 mb/d y-o-y, which again reflects the slower requirements from the industrial and power generation sectors.

Conversely, jet/kerosene requirements inched up in March 2019, compared to the same month in 2018, adding around 4% y-o-y.

Argentina

In **Argentina**, oil demand declined for the sixth consecutive month and for the ninth time in the last ten months. Most of the product mix fell, with the sharpest drop seen in heavy fuels. Fuel oil dropped by around 26% y-o-y, a reflection of slower industrial output during the month. The transportation fuels – jet kerosene and gasoline – were lower by around 12% and 1% y-o-y, respectively.

The risks for 2019 oil demand in Latin America currently point to the downside as weaker economic momentum in Brazil and Argentina is anticipated to slow oil demand performance for the rest of 2019. However, transportation fuels should receive some support during 2Q19 and 3Q19, in line with seasonal patterns.

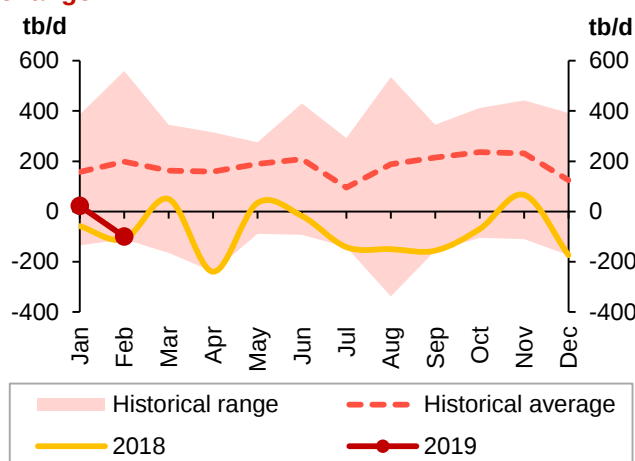
In 2018, Latin America's oil demand is estimated to have inched up by round 0.02 mb/d from 2017 levels. For 2019, oil demand is projected to increase by around 0.03 mb/d.

Middle East

Saudi Arabia

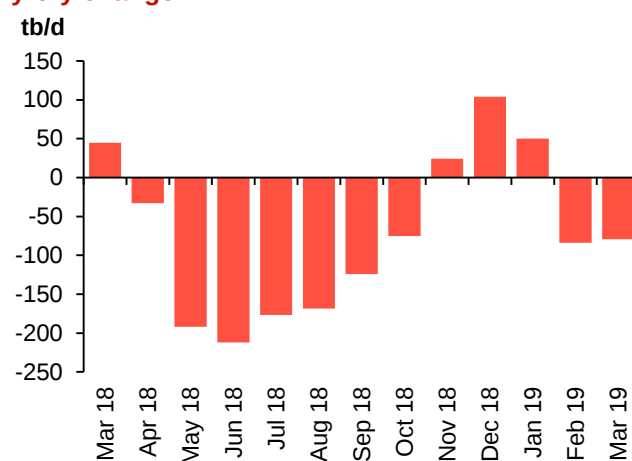
In **Saudi Arabia**, oil demand in March 2019 returned to a declining trend. Oil demand fell by as much as 0.21 mb/d, or around 9%, y-o-y.

Graph 4 - 13: Middle East oil demand, y-o-y change



Sources: Joint Organisations Data Initiative, direct communication and OPEC Secretariat.

Graph 4 - 14: Saudi Arabia's direct crude burning, y-o-y change



Sources: Joint Organisations Data Initiative, direct communication and OPEC Secretariat.

However, on a cumulative basis for 1Q19, oil demand remained marginally in positive territory, slightly increasing by 0.01 mb/d compared to 1Q18. However, most products witnessed negative growth, with the exception of fuel oil.

Crude oil for direct burning in the power generation sector, naphtha and jet/kerosene were the products that saw the highest decline levels at around 0.08 mb/d, 0.06 mb/d and 0.01 mb/d, y-o-y, respectively. The expansion in fuel oil consumption can be largely attributed to the higher-than-anticipated demand for power generation requirements, as well as substitution with direct crude for burning.

Generally, policies focused on reducing subsidies for electricity in the residential and industrial sectors were a major factor in falling consumption levels in Saudi Arabia in 2018. This is expected to continue in 2019.

Iraq

Oil demand in Iraq increased during March 2019 continuing the positive trend witnessed since mid-2018. Total demand increased by 0.03 mb/d, or around 4%, y-o-y.

In absolute terms, total oil demand is now at 0.68 mb/d after reaching a historical high level of 0.75 mb/d during February 2019.

Fuel oil, which is used in the industrial sector and for power generation, was the only product to decline in March, decreasing by around 0.03 mb/d, or 11%, y-o-y.

In 2019, oil demand growth is expected to gain momentum over the levels experienced in 2018, mainly as a result of predicted improvements in the economy. On the other hand, geopolitical concerns, substitution towards other fuels, as well as subsidy reduction policies are assumed to limit demand growth potential.

For 2018, **Middle East oil demand** is estimated to have declined by 0.08 mb/d, while oil demand in 2019 is projected to increase by 0.03 mb/d.

World Oil Supply

Non-OPEC oil supply growth in 2018 was revised up by a minor 8 tb/d from the previous month's report and is now estimated to have grown by 2.91 mb/d to average 62.37 mb/d. The adjustment was mainly due to upward revisions for Canada in 4Q18. Expected y-o-y growth of 2.26 mb/d in the US, along with Canada, Russia, the UK, Kazakhstan, Qatar, Other OECD Europe, Brazil, Ghana and China is estimated to have supported non-OPEC supply growth in 2018, while Mexico, Norway and Vietnam have shown the largest declines.

In contrast, **non-OPEC oil supply growth in 2019** was revised down by 33 tb/d to average 2.14 mb/d, mainly due to lower-than-expected output in 1Q19 compared with the previous forecast for the US (-91 tb/d), the UK (-43 tb/d), Australia (-7 tb/d), Malaysia (-7 tb/d), Brazil (-46 tb/d), Bahrain (-14 tb/d), and Kazakhstan (-14 tb/d), which was partially offset by upward revisions to China by 55 tb/d in the same quarter. Total non-OPEC supply for the year is now projected to average 64.52 mb/d. The US (+1.85 mb/d), Brazil, Russia, Australia, the UK, Ghana and the Sudans are forecast to be the main drivers for this year's growth, while Mexico, Kazakhstan, Norway, Indonesia and Vietnam are projected to see the largest declines.

Absolute OPEC NGLs and non-conventional liquids were revised down by 233 tb/d, 301 tb/d and 218 tb/d in 2016, 2017 and 2018, respectively, according to direct communication, leading to an upward revision in y-o-y growth of 83 tb/d in 2018 to average 0.13 mb/d, indicating average production of 4.76 mb/d. For 2019, OPEC NGLs and non-conventional liquids are likely to grow by 0.08 mb/d to average 4.84 mb/d, showing a downward revision of 0.01 mb/d. In April 2019, **OPEC crude oil production** marginally unchanged from the previous month to average 30.03 mb/d, according to secondary sources.

According to preliminary April data, **non-OPEC supply, including OPEC NGLs**, is estimated to have decreased by 0.07 mb/d m-o-m to average 68.79 mb/d, up by 2.62 mb/d y-o-y. As a result, global oil supply is estimated to have slightly decreased by 0.07 mb/d m-o-m to average 98.82 mb/d in April 2019.

Table 5 - 1: Non-OPEC supply forecast comparison in 2018-2019*, mb/d

Region	2018	Change 2018/17	2019	Change 2019/18
OECD Americas	24.00	2.50	25.68	1.68
OECD Europe	3.83	0.01	3.81	-0.02
OECD Asia Pacific	0.41	0.02	0.47	0.06
Total OECD	28.24	2.53	29.95	1.72
Other Asia	3.55	-0.07	3.47	-0.09
Latin America	5.19	0.04	5.48	0.29
Middle East	3.21	0.07	3.22	0.02
Africa	1.51	0.03	1.58	0.07
Total DCs	13.47	0.08	13.75	0.29
FSU	14.29	0.24	14.39	0.10
Other Europe	0.12	-0.01	0.12	0.00
China	4.01	0.03	4.03	0.01
Non-OPEC production	60.13	2.87	62.24	2.11
Processing gains	2.25	0.04	2.28	0.03
Non-OPEC supply	62.37	2.91	64.52	2.14

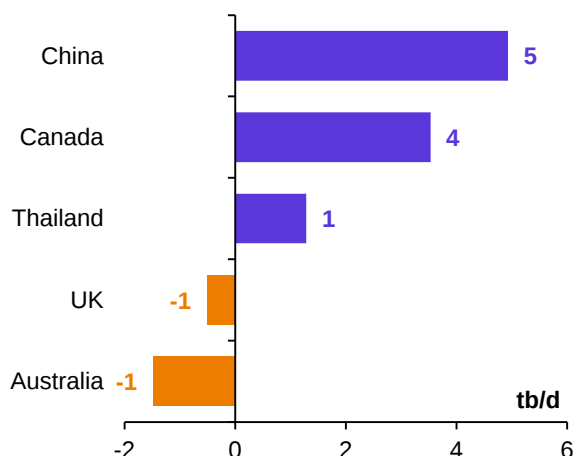
Note: * 2019 = Forecast.

Source: OPEC Secretariat.

Monthly revisions to non-OPEC supply growth forecast

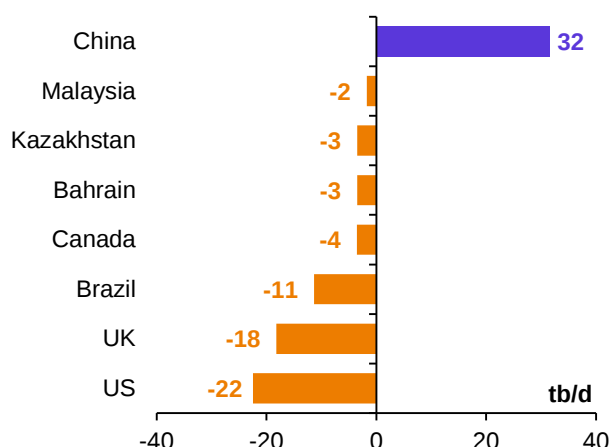
The **non-OPEC oil supply growth estimate for 2018** was revised up by 0.01 mb/d to average 2.91 mb/d. On a country-by-country basis, the expected growth in Canada and China, revised up by minor 4 tb/d and 5 tb/d, respectively (**Graph 5 - 1**).

Graph 5 - 1: Monthly oil market report
May 19/Apr 19 revisions in 2018 annual supply changes



Source: OPEC Secretariat.

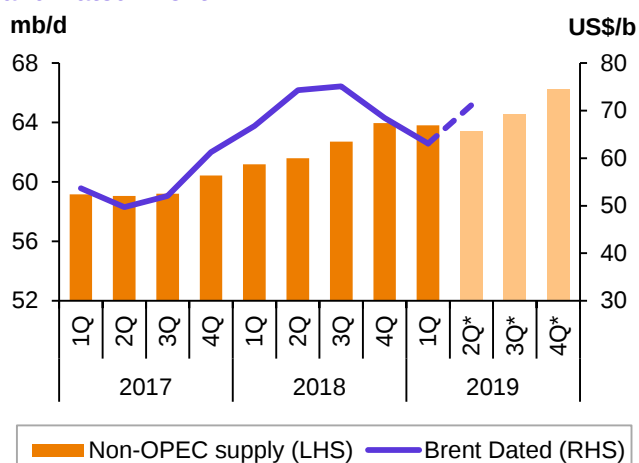
Graph 5 - 2: Monthly oil market report
May 19/Apr 19 revisions in 2019* annual supply changes



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

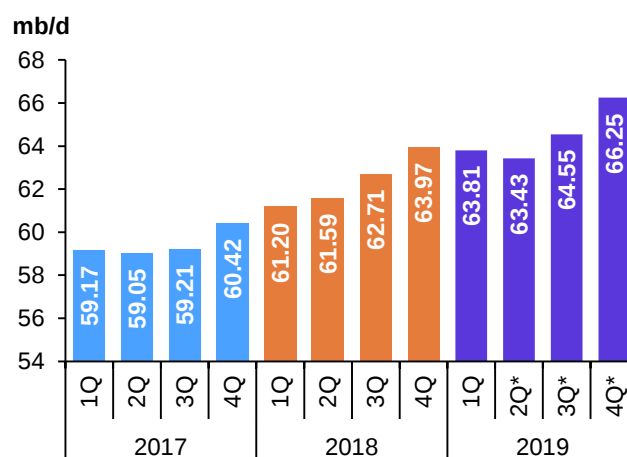
For **2019**, the non-OPEC supply forecast revised down by 0.03 mb/d to average 2.14 mb/d. on a country-by-country basis, the main downward revisions were in the US (-22 tb/d), the UK (-18 tb/d) and Brazil (-11 tb/d), while the supply growth forecast revised up by 32 tb/d in China (**Graph 5 - 2**).

Graph 5 - 3: Non-OPEC quarterly liquids supply and Dated Brent



Note: * 2Q19-4Q19 = Forecast.
Source: OPEC Secretariat.

Graph 5 - 4: Non-OPEC quarterly oil supply



Note: * 2Q19-4Q19 = Forecast.
Source: OPEC Secretariat.

Non-OPEC oil supply in 2018 and 2019

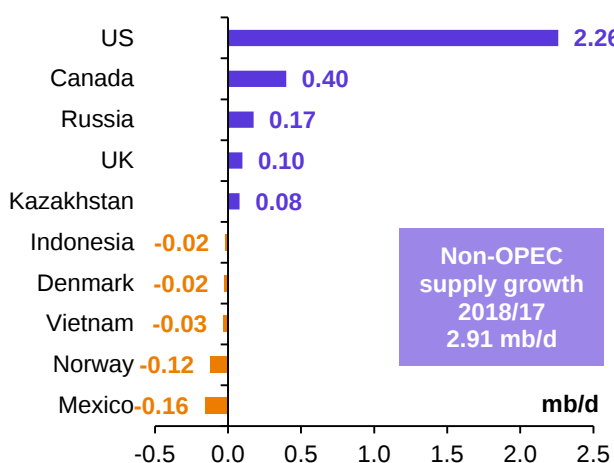
Table 5 - 2: Non-OPEC oil supply in 2018, mb/d

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17 Growth	%
Americas	21.49	22.93	23.37	24.52	25.15	24.00	2.50	11.65
of which US	14.40	15.53	16.22	17.17	17.70	16.66	2.26	15.69
Europe	3.82	3.94	3.79	3.70	3.89	3.83	0.01	0.26
Asia Pacific	0.39	0.40	0.38	0.42	0.44	0.41	0.02	4.49
Total OECD	25.71	27.27	27.53	28.65	29.47	28.24	2.53	9.84
Other Asia	3.62	3.62	3.57	3.51	3.51	3.55	-0.07	-1.97
Latin America	5.15	5.17	5.22	5.12	5.26	5.19	0.04	0.82
Middle East	3.13	3.16	3.21	3.22	3.24	3.21	0.07	2.29
Africa	1.48	1.50	1.52	1.55	1.49	1.51	0.03	2.26
Total DCs	13.39	13.45	13.52	13.40	13.50	13.47	0.08	0.57
FSU	14.05	14.10	14.14	14.33	14.57	14.29	0.24	1.67
of which Russia	11.17	11.14	11.18	11.44	11.61	11.35	0.17	1.56
Other Europe	0.13	0.12	0.12	0.12	0.12	0.12	-0.01	-4.58
China	3.98	4.01	4.03	3.97	4.05	4.01	0.03	0.87
Total "Other regions"	18.16	18.23	18.28	18.42	18.74	18.42	0.26	1.45
Total non-OPEC production	57.25	58.95	59.34	60.47	61.72	60.13	2.87	5.01
Processing gains	2.21	2.25	2.25	2.25	2.25	2.25	0.04	1.67
Total non-OPEC supply	59.47	61.20	61.59	62.71	63.97	62.37	2.91	4.89
Previous estimate	59.47	61.18	61.59	62.70	63.95	62.37	2.90	4.88
Revision	0.00	0.01	-0.01	0.01	0.01	0.01	0.01	0.01

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

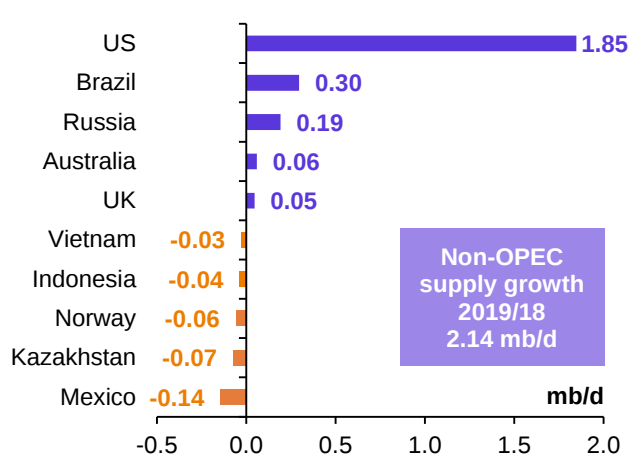
Source: OPEC Secretariat.

Graph 5 - 5: Annual supply changes for selected countries in 2018



Source: OPEC Secretariat.

Graph 5 - 6: Annual supply changes for selected countries in 2019*



Note: * 2019 = Forecast.

Source: OPEC Secretariat.

Table 5 - 3: Non-OPEC oil supply in 2019*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18 Growth	%
Americas	24.00	25.06	24.96	25.91	26.76	25.68	1.68	7.00
of which US	16.66	17.82	18.11	18.64	19.45	18.51	1.85	11.09
Europe	3.83	3.84	3.66	3.75	3.98	3.81	-0.02	-0.60
Asia Pacific	0.41	0.44	0.46	0.48	0.51	0.47	0.06	14.87
Total OECD	28.24	29.33	29.08	30.13	31.25	29.95	1.72	6.08
Other Asia	3.55	3.50	3.44	3.46	3.46	3.47	-0.09	-2.45
Latin America	5.19	5.17	5.44	5.58	5.72	5.48	0.29	5.51
Middle East	3.21	3.20	3.22	3.24	3.24	3.22	0.02	0.57
Africa	1.51	1.55	1.56	1.59	1.62	1.58	0.07	4.47
Total DCs	13.47	13.42	13.66	13.88	14.04	13.75	0.29	2.12
FSU	14.29	14.55	14.23	14.19	14.58	14.39	0.10	0.70
of which Russia	11.35	11.53	11.40	11.61	11.61	11.54	0.19	1.70
Other Europe	0.12	0.12	0.12	0.12	0.12	0.12	0.00	-1.08
China	4.01	4.11	4.06	3.96	3.98	4.03	0.01	0.32
Total "Other regions"	18.42	18.78	18.41	18.26	18.69	18.53	0.11	0.61
Total non-OPEC production	60.13	61.53	61.15	62.27	63.98	62.24	2.11	3.52
Processing gains	2.25	2.28	2.28	2.28	2.28	2.28	0.03	1.25
Total non-OPEC supply	62.37	63.81	63.43	64.55	66.25	64.52	2.14	3.43
Previous estimate	62.37	63.97	63.35	64.56	66.26	64.54	2.18	3.49
Revision	0.01	-0.16	0.08	-0.01	-0.01	-0.03	-0.03	-0.05

Note: * 2019 = Forecast.

Source: OPEC Secretariat.

OECD

Total OECD oil supply in 2018 is estimated to have grown by 2.53 mb/d to average 28.24 mb/d, unchanged from the previous month's assessment. Oil supply growth in OECD Americas, OECD Europe and OECD Asia Pacific remain unchanged to show y-o-y growth of 2.50 mb/d and average 24.00 mb/d, minor growth of 0.01 mb/d to average 3.83 mb/d (of which 3.16 mb/d is from the North Sea) and 0.02 mb/d y-o-y to average 0.41 mb/d, respectively.

OECD oil supply is forecast to grow by 1.72 mb/d in **2019** to average 29.95 mb/d, representing a downward revision of 44 tb/d compared with last month's assessment. While OECD Americas and OECD Asia Pacific are projected to grow by 1.68 mb/d and 0.06 mb/d to average 25.68 mb/d and 0.47 mb/d, respectively, oil production in OECD Europe is anticipated to decline by 0.02 mb/d to average 3.81 mb/d.

OECD Americas

US

US crude oil output (including lease condensate) in **February 2019** declined m-o-m by 187 tb/d to average 11.68 mb/d. However, output was higher by 1.43 mb/d, y-o-y. The m-o-m decrease in February came mainly from the Gulf of Mexico, where output declined by 187 tb/d to average 1.72 mb/d. This drop outpaced growth in Texas and New Mexico on the Gulf Coast (PADD3), as output in Texas rose by 61 tb/d m-o-m to average 4.89 mb/d – approximately the same growth as seen in January – while oil output in New Mexico increased by 26 tb/d to average 0.84 mb/d.

Looking at 2018, with regard to crude oil production by state, more than 40% of total crude oil output – at an average of 4.43 mb/d – came from Texas. This was mainly from the Permian Basin, which saw almost 64% of total US tight crude output growth at 1.03 mb/d in 2018. Oil production in the US Lower 48 in the same year grew by 1.56 mb/d y-o-y to average 8.73 mb/d, with the month of December averaging 9.55 mb/d.

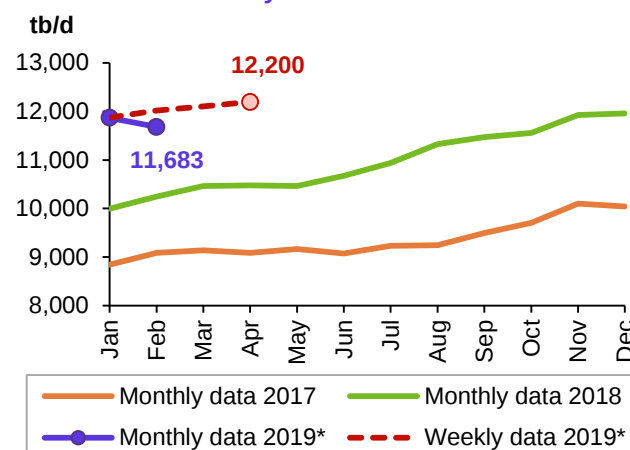
In February 2019, oil production in North Dakota declined by 64 tb/d m-o-m to average 1.31 mb/d. Oklahoma, Colorado, Wyoming and Alaska also saw a drop in production in February. It looks like US oil projects are beginning to show delays as producers are reportedly curbing spending and are not able to increase production due to limited pipeline capacity. The implementation of nine pipeline projects in the Texas area is expected to gradually add new take-away capacity in the amount of 5.4 mb/d through the first half of 2021. According to some of the biggest service companies, oil companies in the US and Canada are expected to see a double-digit drop in spending in 2019.

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

State	Jan 19	Feb 19	Feb 19/Jan 19
Alaska	496	488	-8
Colorado	500	485	-15
Oklahoma	580	573	-7
New Mexico	817	843	26
North Dakota	1,376	1,312	-64
Federal Offshore -			
Gulf of Mexico (GoM)	1,906	1,719	-187
Texas	4,829	4,890	61
Total US crude oil production	11,870	11,683	-187

Sources: US EIA and OPEC Secretariat.

Graph 5 - 7: US monthly crude oil production in 2017-2019 vs. weekly forecast in 2019

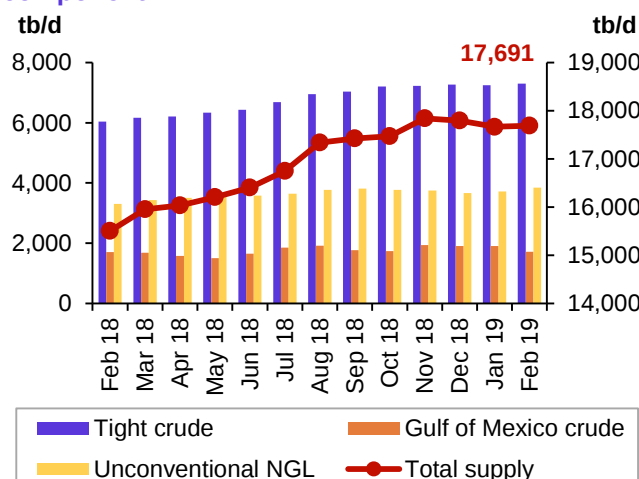


Note: * 2019 = Forecast.

Sources: US EIA and OPEC Secretariat.

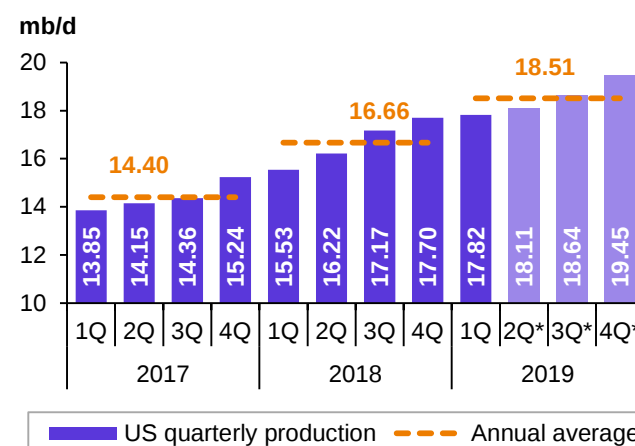
US crude oil production in 2019 is likely to grow by 1.44 mb/d, y-o-y, to average 12.40 mb/d. The highest incremental production is expected in the Gulf Coast, albeit at a slower pace compared with a year ago due to pipeline constraints in the Permian Basin. For 2019, y-o-y growth in crude oil output is expected to slow to a maximum of 13%. The share of tight crude out of the forecast growth of 1.44 mb/d in 2019 is projected at 1.33 mb/d to average 7.68 mb/d, and for the Gulf of Mexico is 0.15 mb/d to average 1.89 mb/d, while conventional crude (non-shale) is projected to decline by 0.03 mb/d to average 2.63 mb/d.

Graph 5 - 8: US monthly liquids supply by key component



Source: US EIA and OPEC Secretariat.

Graph 5 - 9: US total liquids supply quarterly

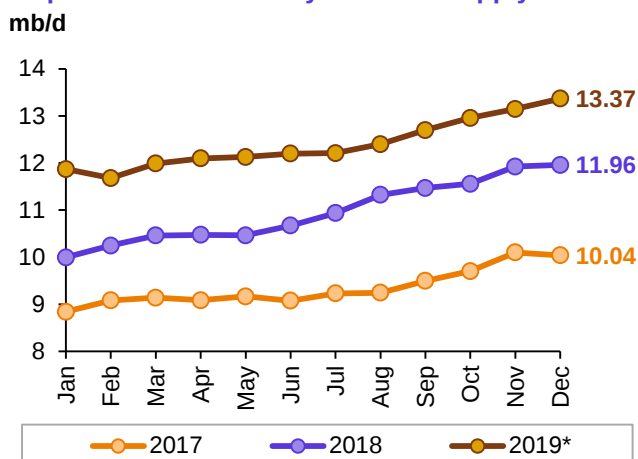


Note: * 2Q19-4Q19 = Forecast.

Sources: US EIA and OPEC Secretariat.

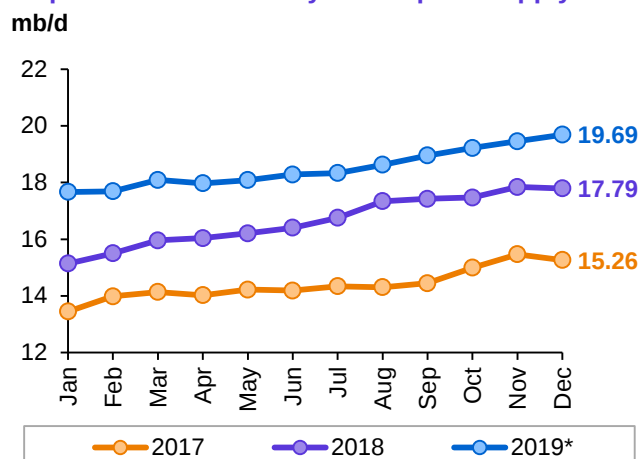
US liquids output in February (excluding processing gains) showed an increase of 0.02 mb/d m-o-m to average 17.69 mb/d, up by 2.19 mb/d y-o-y, despite the aforementioned decline in crude oil production by 187 tb/d. According to the EIA, this was due to an increase in production of NGLs and other liquids, mainly ethanol, by 161 tb/d and 49 tb/d to average 4.71 mb/d and 1.30 mb/d, respectively.

Graph 5 - 10: US monthly crude oil supply



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

Graph 5 - 11: US monthly total liquids supply



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

The **US liquids supply in 2019** is forecast to reach an average of 18.51 mb/d, representing y-o-y growth of 1.85 mb/d, revised down by 0.02 mb/d due to lower-than-expected output in January and February, compared with the previous month's assessment. Preliminary indications – such as drilling activities – show that the oil rig count has declined by 63 rigs since November 2018 to the end of April 2019. Started wells have increased to show an expected boost in production in March and April, although some shale producers are guiding flat-to-gradually declining activity levels, as they focus on capital discipline. Producers have seen a slowdown in completion activity during the first two months of 2019 amid cyclical winter and year-end factors. However, strong permitting activity in early 2019 supports the expectation of substantial growth in the second half of 2019. According to Rystad Energy's analysis, while producers such as EP Energy and PDC Energy, among others, have deliberately delayed completions at the beginning of 2019 as they await an improved price environment to realize higher margins, others have allocated a larger share of capital to 1H19, which is already supported by a substantial recovery in fracking during 2Q19. Moreover, preliminary estimates indicate that hydraulic fracturing rates across the US have reached 48 wells fracked daily in April 2019, a clear sign of continued post-winter recovery.

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

	2016	2017	Change 2017/16	2018	Change 2018/17	2019*	Change 2019/18
Tight crude	4.43	4.96	0.53	6.56	1.60	7.88	1.32
Gulf of Mexico crude	1.60	1.68	0.08	1.74	0.06	1.89	0.15
Conventional crude oil	2.80	2.71	-0.09	2.66	-0.05	2.63	-0.03
Unconventional NGLs	2.76	3.02	0.27	3.58	0.56	3.95	0.37
Conventional NGLs	0.75	0.76	0.01	0.77	0.01	0.78	0.01
Biofuels + Other liquids	1.27	1.27	0.00	1.35	0.08	1.38	0.03
US total supply	13.61	14.40	0.80	16.66	2.26	18.51	1.85

Note: * 2019 = Forecast.

Sources: US EIA, Rystad Energy and OPEC Secretariat.

US tight crude output in February 2019 is estimated to have increased by a minor 3 tb/d m-o-m to average 7.42 mb/d, an increase of 1.58 mb/d y-o-y, according to preliminary shale and tight oil production estimates. The main m-o-m drop in US tight crude output from shale and tight formations through horizontal wells occurred in the Bakken shale play in North Dakota, which fell by 65 tb/d to average 1.33 mb/d. While tight crude output in the Permian Basin increased m-o-m by 84 tb/d, mainly in Delaware, to average 3.42 mb/d in February, production in the Niobrara shale play declined by 13 tb/d to average 0.53 mb/d. Tight crude output

in the Eagle Ford play in New Mexico rose by a minor 3 tb/d to average 1.22 mb/d, while production showed a contraction of 8 tb/d in other US shale plays to average 0.93 mb/d.

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

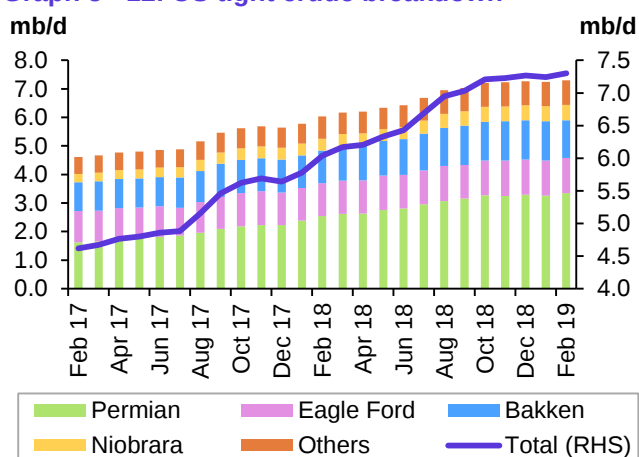
Shale play	2017	Y-o-y change	2018	Y-o-y change	2019*	Y-o-y change
tb/d	Production		Production		Production	
Permian tight	1.77	0.44	2.80	1.03	3.43	0.63
Bakken shale	1.06	0.03	1.26	0.20	1.48	0.22
Eagle Ford shale	1.09	0.02	1.18	0.09	1.34	0.16
Niobrara shale	0.34	0.02	0.48	0.14	0.63	0.15
Other tight plays	0.70	0.02	0.84	0.14	1.00	0.16
Total	4.96	0.53	6.56	1.60	7.88	1.32

Note: * 2019 = Forecast.

Source: OPEC Secretariat.

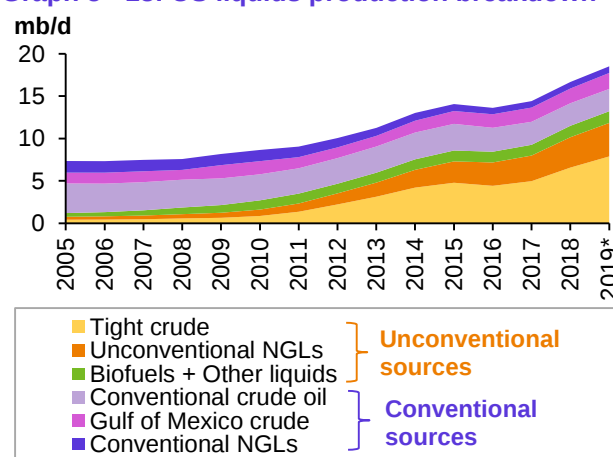
Y-o-y growth in US tight crude output for 2019 is forecast at a slower pace of 1.32 mb/d to average 7.88 mb/d, which is 0.28 mb/d less than estimated for 2018, due to fundamental constraints, mainly limited pipeline capacity to transfer Permian oil to the US Gulf Coast (USGC) as well as lower drilling and completion activity in main shale plays.

Graph 5 - 12: US tight crude breakdown



Sources: US EIA and OPEC Secretariat.

Graph 5 - 13: US liquids production breakdown



Note: * 2019 = Forecast.

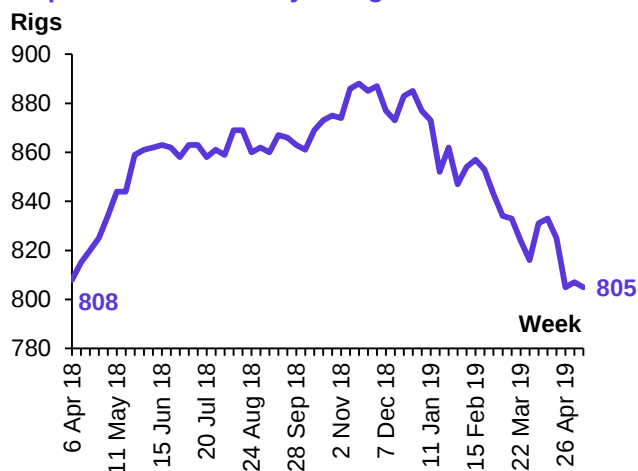
Sources: US EIA, Rystad Energy and OPEC Secretariat.

US rig, well and drilled but uncompleted wells (DUCs)

Overall, the **US rig count** decreased by 1 offshore unit only in the week ending 3 May 2019 to 990 rigs, according to a report by Baker Hughes. US onshore active rigs have now reached 966 rigs. The US oil rig count increased by 2 units w-o-w to 807 oil rigs. The oil rig count in the Permian Basin was down by 1 unit to stand at 459 rigs, almost the same level as a year earlier. For the other basins, on a yearly basis, the DJ-Niobrara added 7 oil rigs to stand at 29 rigs, the Eagle Ford Basin was reduced by 1 unit to 66 rigs, and the Williston Basin remained unchanged at 57 units. The total US oil rig count dropped by 27 units y-o-y to stand at 807 rigs in the week ending 3 May 2019. From November 2018 to 3 May 2019, US oil rigs have dropped by 80 units.

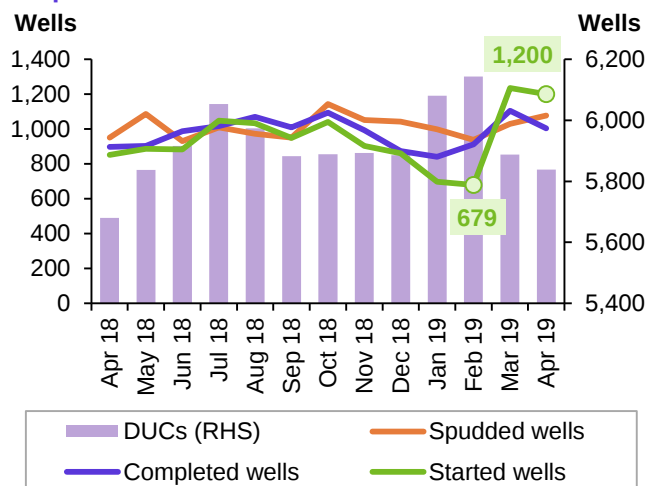
At the same time, a total of 2,965 horizontal (oil & gas) wells were spudded in 1Q19, representing a decline of 272 wells q-o-q, while in comparison, the number of total completed wells declined by 103 units to 2,857 wells in the same quarter. Wells starting to produce oil decreased by 193 units to 2,611 wells over the quarter, with crude oil production showing a cumulative decrease of 275 tb/d in January and February 2019, compared with December 2018.

Graph 5 - 14: US weekly oil rig count



Sources: Baker Hughes and OPEC Secretariat.

Graph 5 - 15: US well activities vs DUCs



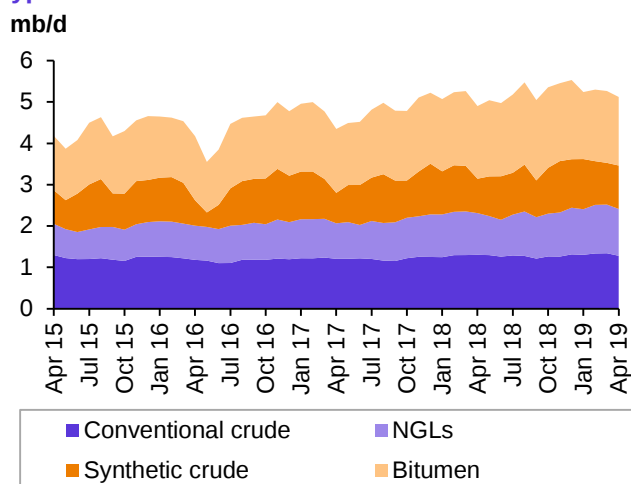
Sources: Rystad Energy and OPEC Secretariat.

Total **drilled but uncompleted horizontal wells (DUCs)** in tight and shale plays in February increased by 63 units to average 6,143 wells, while the preliminary count indicates a decline of 255 DUCs m-o-m in March and further drops of 50 DUCs to average 5,838 wells in April, according to Rystad Energy.

Canada

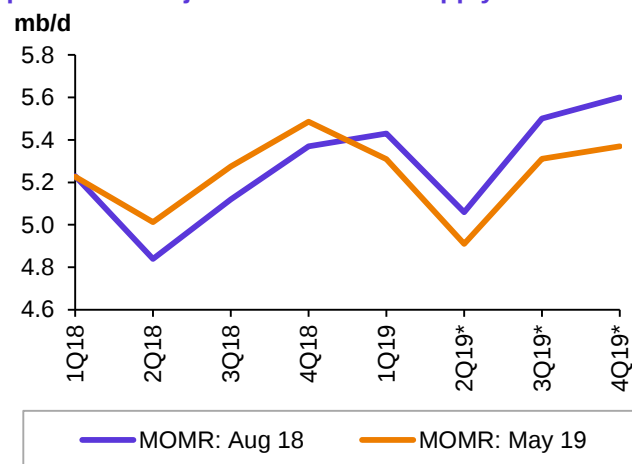
Canada's liquids supply declined by 0.29 mb/d in January 2019 m-o-m to average 5.28 mb/d, according to official data, following m-o-m growth of 0.08 mb/d in December and 0.10 mb/d in November. The main drop in January came from crude bitumen, where output was reduced by 295 tb/d to average 1.62 mb/d, owing to the mandate of the Alberta government to cut production due to storage and pipeline constraints. However, synthetic crude rose by 40 tb/d to average 1.21 mb/d. Conventional crude oil and NGLs also declined by 10 tb/d and 26 tb/d m-o-m, to average 1.30 mb/d and 1.10 mb/d, respectively. More outages in 2Q19 due to heavy maintenance and the turnaround of different projects indicates that production is expected to continue to decline, mainly in Alberta. Due to a recent announcement of a delay in permission for Enbridge's 370 tb/d Line 3 replacement project, and further delays for the 830 tb/d Keystone XL pipeline, oil sands producers are now pulling back on the completion of new projects.

Graph 5 - 16: Canada's production by product type



Source: OPEC Secretariat.

Graph 5 - 17: Impact of Alberta mandate for production adjustment on 2019 supply forecast

Note: * 2Q19-4Q19 = Forecast.
Source: OPEC Secretariat.

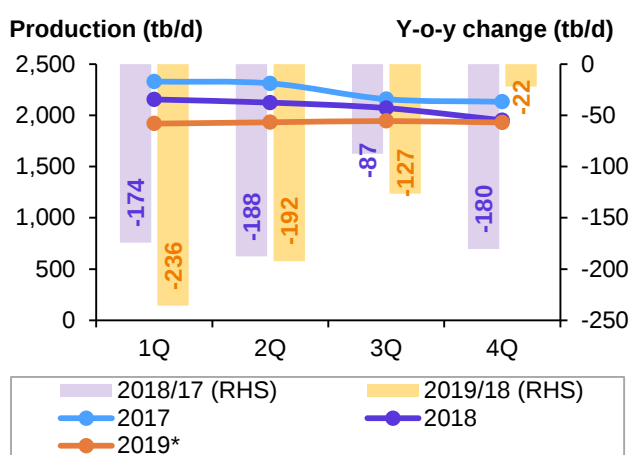
Canada's liquids supply in **2018** is estimated to have increased by 0.40 mb/d y-o-y to average 5.25 mb/d, following an upward revision to 4Q18 and revised up by 4 tb/d compared with the previous month's assessment. Canada's oil supply in **2019** is now forecast to see a contraction of 0.03 mb/d, y-o-y to average 5.23 mb/d.

Mexico

Mexico's average liquids output in March 2019 decreased by 0.01 mb/d m-o-m to average 1.94 mb/d, lower by a massive 0.18 mb/d y-o-y. Crude oil output was down by 10 tb/d m-o-m to average 1.69 mb/d. Production of heavy crude declined by a minor 7 tb/d to average 1.07 mb/d, remaining unchanged y-o-y. Light and super light crude oil production also dropped in March by 82 tb/d and 73 tb/d y-o-y, to average 0.48 mb/d and 0.14 mb/d, respectively. In March, oil production from the largest oil field complex in Mexico, Ku-Maloob-Zaap, declined by 9 tb/d to average 0.86 mb/d, showing a year-to-date contraction of 37 tb/d. PEMEX revised down its 2019 crude oil production forecast by 0.05 mb/d m-o-m to average 1.72 mb/d by year-end. In contrast, NGLs output in March inched up by a minor 3 tb/d m-o-m to average 0.22 mb/d.

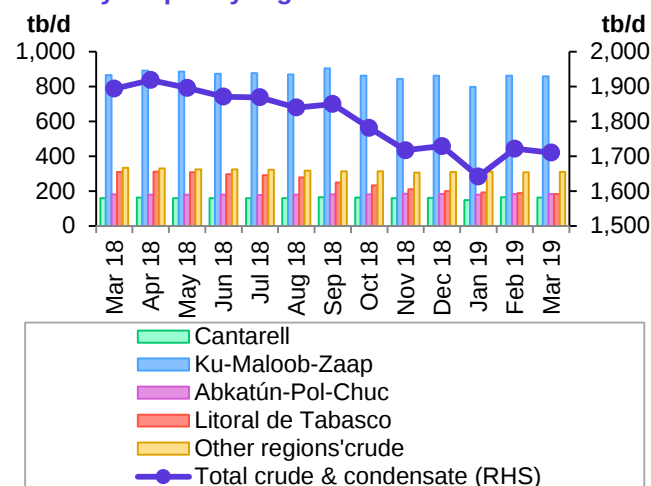
Mexico's liquids production declined by 0.16 mb/d, y-o-y in 2018. The country's liquids supply in **2019** is forecast to decline by 0.14 mb/d to average 1.93 mb/d.

Graph 5 - 18: Mexico's quarterly liquids supply



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

Graph 5 - 19: Mexico's crude and condensate monthly output by region



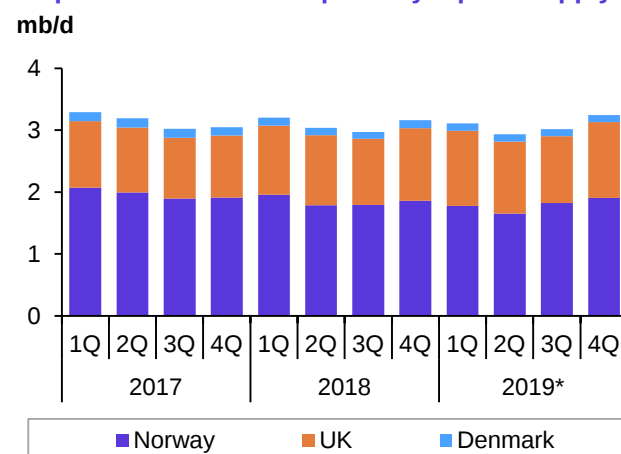
Sources: Pemex and OPEC Secretariat.

OECD Europe

OECD Europe's preliminary oil supply was down by 0.07 mb/d m-o-m in March 2019 to reach 3.80 mb/d, and down by 0.04 mb/d y-o-y, mainly due to a downward revision to UK production in the same month.

The region's oil supply in **2018** is estimated to have reached 3.83 mb/d, indicating y-o-y growth of 0.01 mb/d. While production in Norway and Denmark is estimated to have declined by 0.12 mb/d and 0.02 mb/d to average 1.85 mb/d and 0.12 mb/d, respectively, oil supply in the UK and Other OECD Europe is likely to have grown by 0.10 mb/d and 0.05 mb/d to average 1.12 mb/d and 0.74 mb/d, respectively.

Graph 5 - 20: North Sea quarterly liquids supply



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

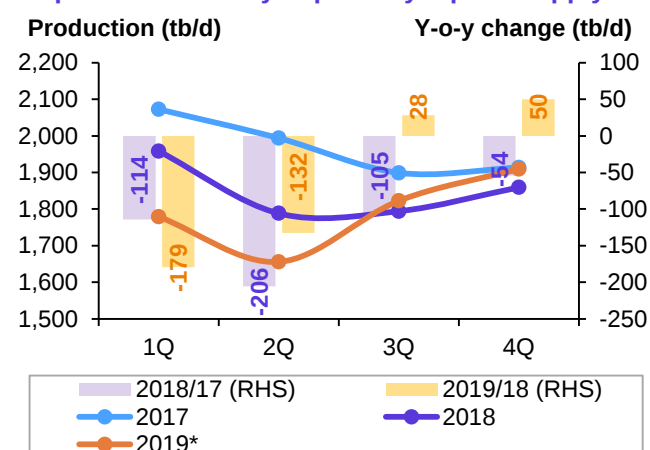
For **2019**, oil supply in the region is forecast to see a slight contraction of 0.02 mb/d to average 3.81 mb/d. The projected increase of 0.05 mb/d for the UK is expected to be offset by production declines in other countries of the region. North Sea oil production is expected to see a gradual ramp-up from 4Q19 onward, owing to the start-up of the giant Norwegian Johan Sverdrup field.

Norway

Norway's preliminary liquids production figures for **March 2019** by the NPD, show average daily production of 1.77 mb/d of crude, NGLs and condensate, indicating an increase of 0.02 mb/d m-o-m, following a rise in crude oil production by 8 tb/d to average 1.40 mb/d. In 2018, crude oil production is estimated to have declined by 0.1 mb/d, or 6.5%, y-o-y, to average 1.49 mb/d.

For **2019**, the total liquids output is forecast to decline at a lesser rate of 0.06 mb/d, to average 1.79 mb/d, unchanged compared with the previous month's assessment. The annual decline rate for crude oil is expected to rise to around 10% in 2019. Norwegian oil production generally has dropped in the last two years, due to field decline and technical outages. Production outages in 2Q19 and 3Q19 due to planned maintenance in the Goliat field as well as in Ekofisk are forecast to be compensated for by new production from the start-up of the Johan Sverdrup field in 4Q19.

Graph 5 - 21: Norway's quarterly liquids supply



Note: * 2019 = Forecast.

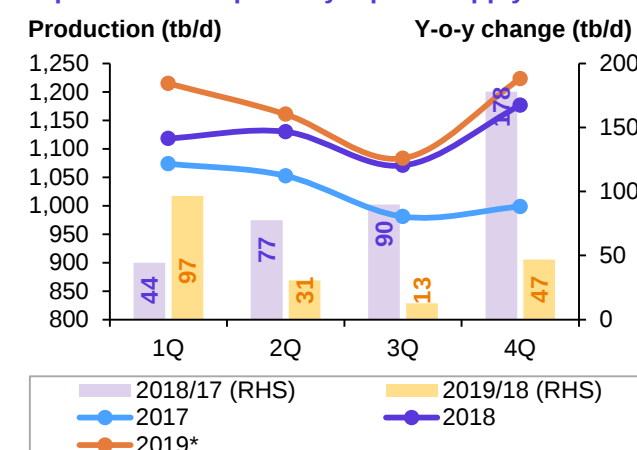
Source: OPEC Secretariat.

UK

In **March 2019**, **UK crude oil output** decreased by 67 tb/d to average 1.07 mb/d, higher by 0.14 mb/d, y-o-y. Consequently, liquids output in March decreased by 0.06 mb/d to average 1.20 mb/d.

Preliminary data for April indicates a rise in crude production by 38 tb/d, following higher loading. UK oil output is forecast to grow by 0.05 mb/d, y-o-y in 2019, amid new capacity additions of 0.12 mb/d, assuming that the start-up of the Mariner ultra-heavy crude oil field is shifted to 4Q19. Indeed, part of the new production will be offset by shut-in production at the main platforms. For instance, the Buzzard field is expected to go offline in July, resulting in a production reduction of 30 tb/d for the month, and heavy maintenance is planned at Ekofisk in June.

Graph 5 - 22: UK quarterly liquids supply



Note: * 2019 = Forecast.

Source: OPEC Secretariat.

Developing Countries (DCs)

Total developing countries' (DCs) oil supply for 2019 is expected to grow by 0.29 mb/d to average 13.75 mb/d, unchanged compared with the last monthly report. This is subject to anticipated y-o-y growth of 0.29 mb/d in Latin America, owing to planned new project start-ups and ramp-ups at recently installed FPSOs in Brazil. Moreover, oil production in Africa and the Middle East is likely to grow by 0.07 mb/d and 0.02 mb/d, y-o-y, to average 1.58 mb/d and 3.22 mb/d, respectively. In Africa, this growth will come mainly from Ghana and the Sudans, and in the Middle East, from Qatar. Oil production in the other Asia region will decline by 0.09 mb/d, y-o-y, as was also seen in the last three years (2016-2018), to average 3.47 mb/d, mainly in Indonesia (-0.04 mb/d), Vietnam (-0.03 mb/d) and Thailand (-0.02 mb/d).

Meanwhile, in **2018**, oil production in DCs is estimated to have risen by 0.08 mb/d to average 13.47 mb/d, mainly due to increased output in Qatar (0.06 mb/d), Brazil (0.05 mb/d) and Ghana (0.03 mb/d).

Table 5 - 7: Developing countries' liquids supply, mb/d

	1Q	2Q	3Q	4Q	Yearly	Change Y-o-y
2017	13.26	13.37	13.46	13.47	13.39	-0.14
2018	13.45	13.52	13.40	13.50	13.47	0.08
2019*	13.42	13.66	13.88	14.04	13.75	0.29

Note: * 2019 = Forecast.

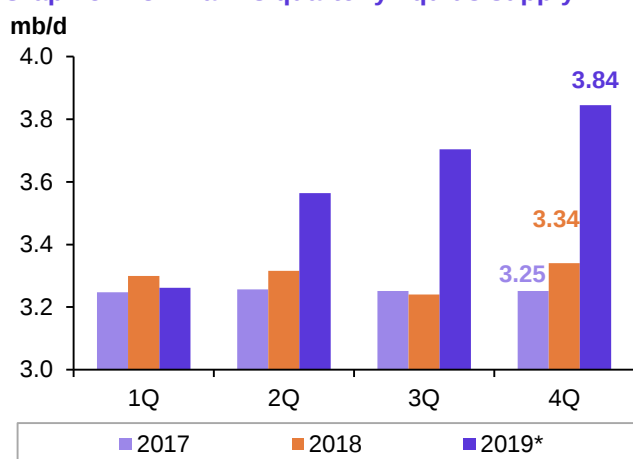
Source: OPEC Secretariat.

Latin America

Brazil

Brazil's crude oil output in March 2019 rose by 0.07 mb/d m-o-m to average 2.56 mb/d, unchanged from March 2018, amid the start-up of the P-67 platform in the Lula Norte area in March and the P-76 at Buzios 3 in February. The P-68 FPSO is projected to start production from the Berbgao/Sururu oil field by the end of this year. Output of NGLs and biofuels remained steady in March at 95 tb/d and 605 tb/d, respectively. However, oil production in 1Q19 was lower than forecast, leading to a downward revision of 46 tb/d for the quarter and 11 tb/d for the year, to average 0.30 mb/d. The main reason for this negative revision was maintenance in January at the P-74 and FPSO Cidade de São Paulo platforms in the Búzios and Sapinhoá fields, respectively. Contrary to past maintenance carried out in 2016-2018, Petrobras announced planned heavy maintenance to start in 2019, but projected lower levels for March-June. Strong production growth in 2019 is forecast, based on the six 150 tb/d capacity FPSOs that started last year and which have continued to ramp up so far this year. Preliminary liquids production in April is likely to increase by 190 tb/d to average 3.45 mb/d.

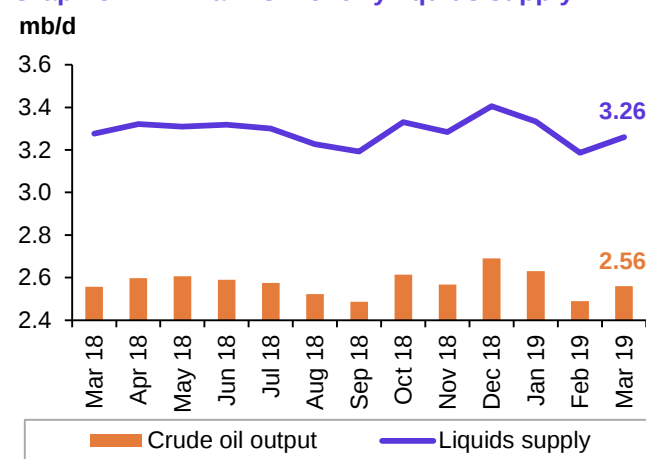
Graph 5 - 23: Brazil's quarterly liquids supply



Note: * 2019 = Forecast.

Source: OPEC Secretariat.

Graph 5 - 24: Brazil's monthly liquids supply



Source: OPEC Secretariat.

FSU

FSU oil production for 2018 is estimated to have grown by 0.24 mb/d to average 14.29 mb/d, unchanged from the previous forecast.

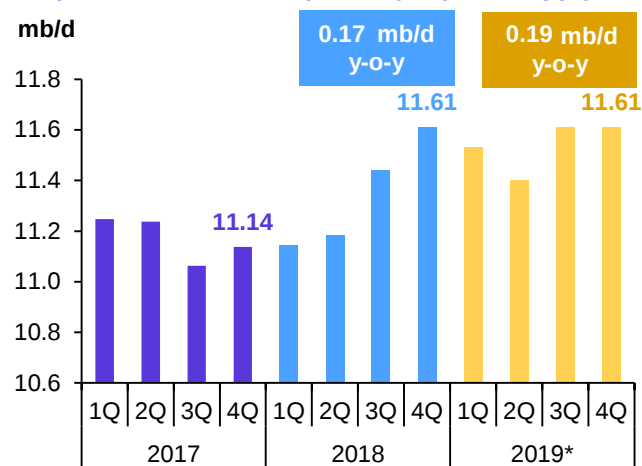
FSU oil supply is forecast to reflect voluntary production adjustments for those countries participating in the Declaration of Cooperation (DoC) for 1H19. For the entire year, FSU oil supply is forecast to increase by 0.10 mb/d to average 14.39 mb/d. Oil supply in Russia, based on running project ramp ups and assuming annual natural declines, is expected to increase by 0.19 mb/d, while Kazakhstan and FSU others supply is

likely to see a contraction of 0.07 mb/d and 0.02 mb/d, respectively in 2019. At the same time, Azerbaijan's oil production is expected to remain stagnant at 0.8 mb/d.

Russia

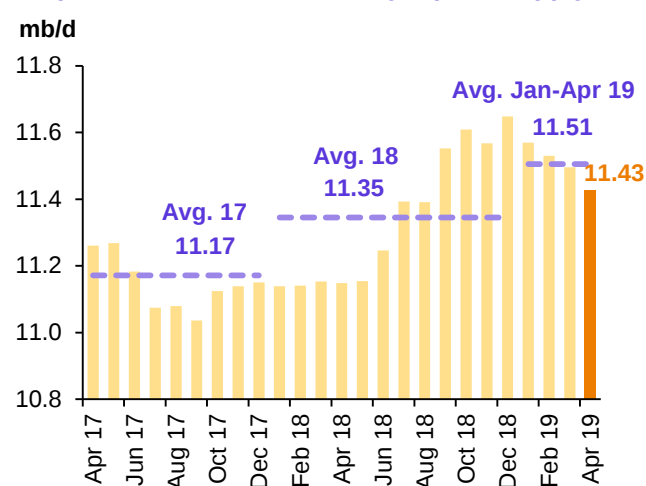
Preliminary data for **April 2019** sees a drop in **Russian liquids supply** by 0.07 mb/d, m-o-m to average 11.43 mb/d. The liquids output is forecast to grow by 0.19 mb/d in 2019 to average 11.54 mb/d.

Graph 5 - 25: Russia's quarterly liquids supply



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

Graph 5 - 26: Russia's monthly liquids supply



Sources: Nefta Compass and OPEC Secretariat.

Oil supply in 2Q19 is projected to continue to decline by 0.13 mb/d to average 11.40 mb/d. Incremental production of oil, NGLs and condensate could come from several projects, such as Uvat, East-Siberian, Vankorneft, Yamal LNG and Messoyakha.

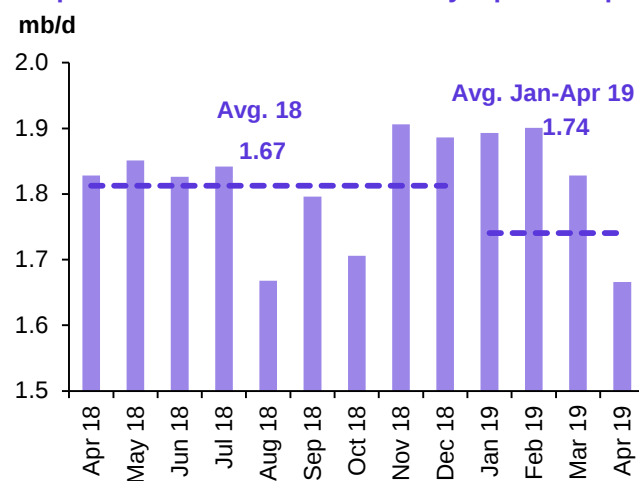
Russia's oil supply for **2018** is estimated to have reached a record high to average 11.35 mb/d, representing y-o-y growth of 0.17 mb/d.

Caspian

Kazakhstan

In **Kazakhstan**, **March 2019** liquids output was down by a minor 0.07 mb/d m-o-m to average 1.83 mb/d. Crude oil production declined by 74 tb/d to average 1.56 mb/d, following a production shutdown in the Kashagan field for planned maintenance since mid-March. This is likely to continue throughout the whole month of April, leading to a further m-o-m decline by 162 tb/d with output expected to drop to 1.4 mb/d. As was mentioned in the previous monthly report, a 45-day shutdown was planned for Kashagan in accordance with regulatory requirements as the operating company plans to overhaul the Bolashak oil and gas treatment plant ground and the D marine complex. For this year, according to the plan announced by different operators, oil production in the Tengiz and Karachaganak fields will also shut down for 42 days and 28 days in 2H19, respectively.

Graph 5 - 27: Kazakhstan's monthly liquids output



Source: OPEC Secretariat.

Hence, liquids production in **2019**, based on planned maintenance, is forecast to decline by 0.07 mb/d, y-o-y to average 1.74 mb/d. Kazakh oil supply in **2018** is estimated to have grown by 0.08 mb/d to average 1.81 mb/d.

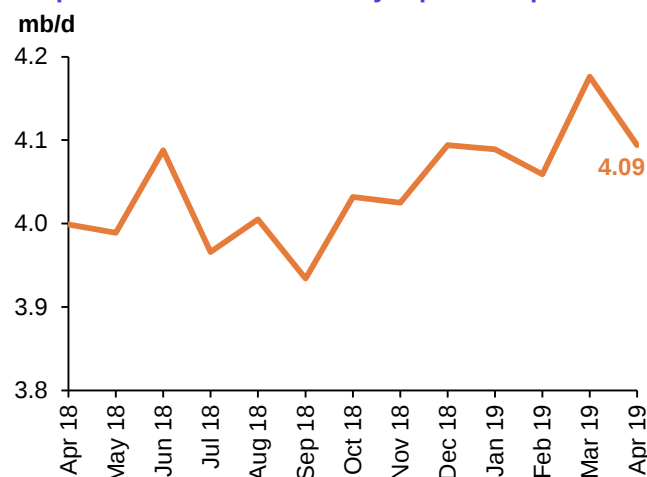
China

China's liquids production in March 2019 increased by 0.12 mb/d m-o-m to average 4.18 mb/d, according to official data, but was up by 0.14 mb/d y-o-y. Crude oil output in March rose by 115 tb/d to average 3.89 mb/d; 80 tb/d higher than a year earlier in the same month. Higher oil production in the second-largest field, Daqing, as well as in Bohai and Xinjiang, has led to this robust m-o-m growth in China.

Crude oil production in **2018** declined by a lesser 0.04 mb/d y-o-y to average 3.78 mb/d, compared with two years of heavy y-o-y declines in 2017 and 2016 of 0.11 mb/d and 0.30 mb/d, respectively. However, it is expected that higher capex spending on domestic crude oil projects will lead to 2019 production becoming stagnant or showing minor growth.

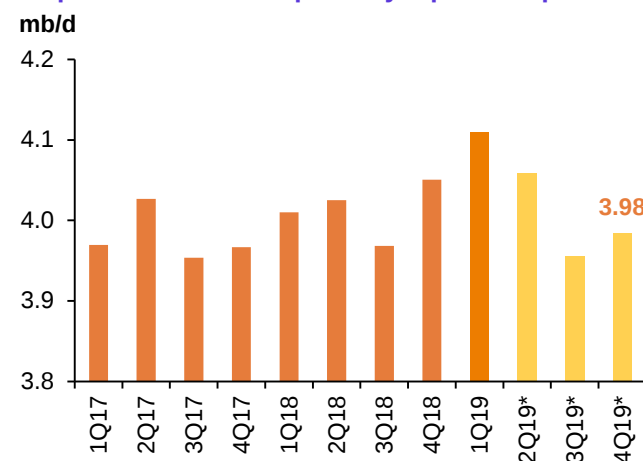
As mentioned in the last MONTHLY REPORT, China's state-controlled Sinopec plans to spend around \$8.9 billion on its upstream sector, largely focused on domestic production, which is an increase of 41% compared with 2018. A significant chunk of this capex is expected to go to natural gas developments. Sinopec also expects its domestic oil production to remain largely flat at 682 tb/d in 2019.

Graph 5 - 28: China's monthly liquids output



Source: OPEC Secretariat.

Graph 5 - 29: China's quarterly liquids output



Note: * 2Q19-4Q19 = Forecast.
Source: OPEC Secretariat.

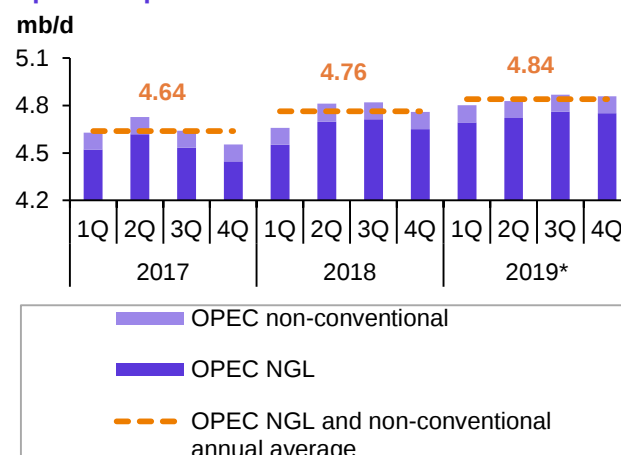
OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids in 2018 output were revised down to average 4.76 mb/d, of which 0.11 mb/d are classified as OPEC non-conventional liquids, considering the latest historical revisions for 2016, 2017 and 2018. However, in terms of y-o-y growth, OPEC NGLs and non-conventional liquids were revised up by 0.09 mb/d to average 0.13 mb/d.

For 2019, OPEC NGLs and non-conventional liquids are likely to grow by 0.08 mb/d to average 4.84 mb/d, a downward revision of 0.01 mb/d from the previous month's assessment.

Preliminary production data in April 2019 shows steady output at an average of 4.83 mb/d compared with a month earlier, up by 0.11 mb/d y-o-y.

Graph 5 - 30: OPEC NGL and non-conventional liquids output



Note: * 2019 = Forecast.
Sources: OPEC Secretariat.

Table 5 - 8: OPEC NGL + non-conventional oils, mb/d

	<u>2017</u>	<u>2018</u>	<u>Change</u> <u>18/17</u>	<u>1Q19</u>	<u>2Q19</u>	<u>3Q19</u>	<u>4Q19</u>	<u>2019</u>	<u>Change</u> <u>19/18</u>
Total OPEC	4.64	4.76	0.13	4.80	4.83	4.87	4.86	4.84	0.08

Note: 2019 = Forecast.

Source: OPEC Secretariat.

OPEC crude oil production

According to secondary sources, **total OPEC-14 preliminary crude oil production** averaged 30.03 mb/d in April, marginally unchanged from the previous month. Crude oil output decreased mostly in IR Iran, Saudi Arabia and Angola, while production increased in Iraq, Nigeria and Libya.

Table 5 - 9: OPEC crude oil production based on secondary sources, tb/d

	<u>2017</u>	<u>2018</u>	<u>3Q18</u>	<u>4Q18</u>	<u>1Q19</u>	<u>Feb 19</u>	<u>Mar 19</u>	<u>Apr 19</u>	<u>Apr/Mar</u>
Algeria	1,047	1,042	1,059	1,055	1,023	1,032	1,019	1,013	-5
Angola	1,634	1,505	1,470	1,497	1,446	1,441	1,454	1,413	-41
Congo	252	317	320	317	327	322	344	335	-9
Ecuador	530	519	526	517	525	528	528	528	0
Equatorial									
Guinea	133	125	124	114	116	117	120	110	-10
Gabon	200	186	184	185	204	204	211	186	-25
Iran, I.R.	3,813	3,553	3,603	2,982	2,725	2,726	2,718	2,554	-164
Iraq	4,446	4,550	4,606	4,668	4,627	4,649	4,517	4,630	113
Kuwait	2,708	2,745	2,794	2,774	2,714	2,713	2,707	2,697	-10
Libya	811	951	892	1,057	966	905	1,105	1,176	71
Nigeria	1,658	1,719	1,704	1,740	1,731	1,730	1,728	1,819	92
Saudi Arabia	9,954	10,311	10,422	10,749	10,020	10,102	9,787	9,742	-45
UAE	2,915	2,986	2,982	3,236	3,066	3,067	3,057	3,060	3
Venezuela	1,911	1,354	1,272	1,191	969	1,021	740	768	28
Total OPEC	32,013	31,863	31,959	32,083	30,459	30,556	30,034	30,031	-3

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

Source: OPEC Secretariat.

Table 5 - 10: OPEC crude oil production based on direct communication, tb/d

	<u>2017</u>	<u>2018</u>	<u>3Q18</u>	<u>4Q18</u>	<u>1Q19</u>	<u>Feb 19</u>	<u>Mar 19</u>	<u>Apr 19</u>	<u>Apr/Mar</u>
Algeria	1,059	1,041	1,066	1,067	1,027	1,025	1,023	1,019	-4
Angola	1,632	1,478	1,475	1,440	1,421	1,419	1,373	1,392	19
Congo	263	327	329	330	345	342	339	361	22
Ecuador	531	517	524	516	529	533	530	529	-1
Equatorial									
Guinea	129	120	118	112	108	101	112	114	2
Gabon	210	194	192	206	215	215	220	..	..
Iran, I.R.	3,867	..	3,789	..	..	..	..	..	..
Iraq	4,469	4,410	4,460	4,460	4,540	4,545	4,500	4,500	0
Kuwait	2,704	2,737	2,784	2,755	2,712	2,707	2,713	2,690	-23
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,536	1,605	1,611	1,671	1,689	1,690	1,732	1,779	46
Saudi Arabia	9,959	10,317	10,399	10,790	10,053	10,136	9,787	9,807	20
UAE	2,967	3,001	2,998	3,285	3,055	3,050	3,045	3,050	5
Venezuela	2,035	1,516	1,451	1,469	1,289	1,432	960	1,037	77
Total OPEC	..	..	..	..	..	..	..	..	..

Notes: .. Not available.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

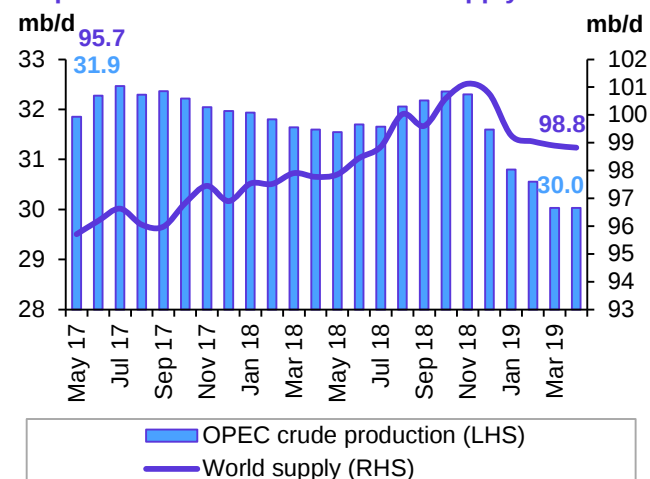
World oil supply

Preliminary data indicates that **global oil supply** slightly decreased by 0.07 mb/d to average 98.82 mb/d in April 2019, compared with the previous month.

A decrease in **non-OPEC supply (including OPEC NGLs)** of 0.07 mb/d in April, compared with the previous month, was mainly driven by Kazakhstan, Canada, China and Russia. Overall there has been a total increase in global oil output of 1.05 mb/d y-o-y.

The **share of OPEC crude oil in total global production** unchanged to 30.4% in April 2019 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 - 31: OPEC and world oil supply



Source: OPEC Secretariat.

Product Markets and Refinery Operations

Product markets in April globally exhibited a positive performance as the gasoline market tightness witnessed in the previous month prevailed. This provided stimulus for trade flows amid limited product output, as the peak spring refinery maintenance season slowly approaches an end. In all main trading hubs, with the exception of gasoline, all key products saw losses, in line with seasonal trends, despite the recently increasing supply side pressure.

In the **US**, continued gasoline-related tightening reinforced the bullish sentiment registered the previous month that exerted upside pressure on prices and supported refining economics. This came despite a significant improvement in refinery throughputs as refineries returned online.

In **Europe**, strength emerged from strong gasoline exports to the US and Africa. A steep decline in ARA inventory levels, which were reported to have reached the lowest levels this year, along with a strike at the 420 tb/d Pernis refinery in the Netherlands that further exacerbated tightness in product markets, provided support to refining margins.

In **Asia**, gains recorded in the previous month were sustained, further supported by scheduled refinery maintenance, as offline capacity volumes in the region remain high.

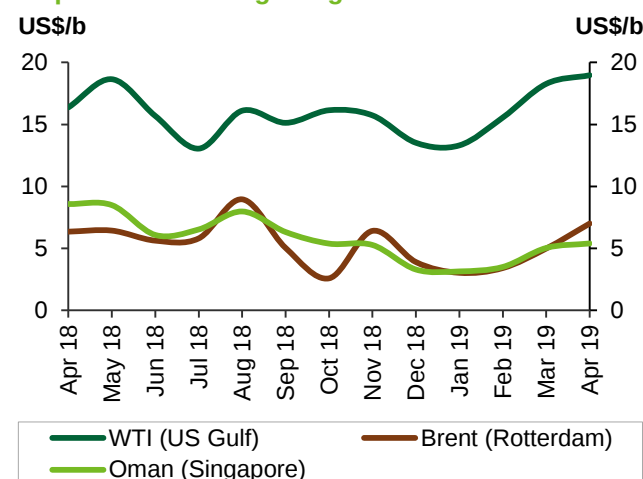
Refinery margins

US refinery margins rose in April, supported by supply-side pressure caused by a drop in US gasoline inventory levels that led to a tighter market over the month. Additional bullish sentiment was derived from a number of FCC unit outages and some refineries in maintenance earlier in the month, although offline volumes are now falling.

In addition, the expectation of increasing demand during the upcoming summer driving season continued to lend support to the market and allowed gasoline crack spreads to exhibit some gains.

US refinery margins for WTI averaged \$18.97/b in April, up by 69¢ m-o-m and by \$2.60 y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus Media and OPEC Secretariat.

Refinery margins in **Europe** gained some ground during April on the back of strong support from the top of the barrel with gasoline crack spreads strengthening sharply due to strong export opportunities to the US and Africa, despite weaker middle distillates fundamentals. Ongoing refinery turnarounds in the region during the month limited supplies, and prevented any further weakening. Refinery margins for Brent in Europe averaged \$7.01/b in April, up by \$2.01 compared with a month earlier and by 66¢ y-o-y.

Asian refinery margins showed positive performance, albeit at a lower level compared with the other main trading hubs. Tightening product market sentiment triggered by heavy maintenance, coupled with lower inflows to the region, allowed gasoline cracks to hold on to the gains recorded the previous month. This supported refining economics, despite the weakening associated with all key products. Refinery margins for Oman in Asia gained 36¢ m-o-m to average \$5.40/b in April, which was lower by \$3.18 y-o-y.

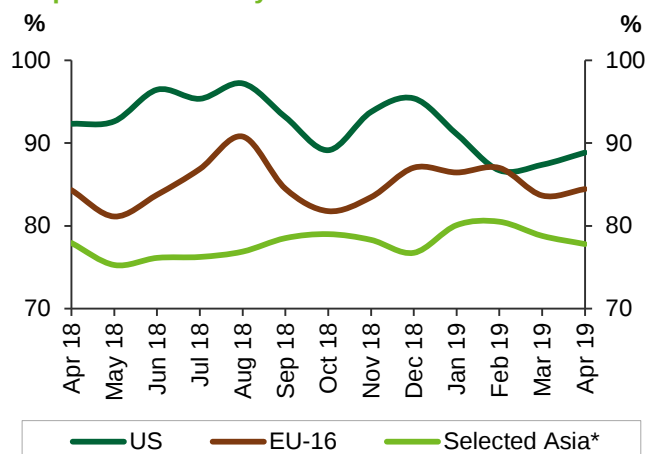
Refinery operations

In the **US**, refinery utilization rates increased in April to average 88.86%, which corresponds to a throughput of 17.25 mb/d. This represented a rise of 1.5 pp and 980 tb/d, respectively, compared with the previous month. Y-o-y, the April refinery utilization rate was down by 3.5 pp, with throughputs showing a rise of 139 tb/d.

European refinery utilization averaged 84.45%, corresponding to a throughput of 10.47 mb/d. This is a m-o-m rise of 0.8 pp or 100 tb/d. On a y-o-y basis, utilization rates inched up by 0.1 pp and throughputs were up slightly by 17 tb/d.

In **selected Asia** — comprising Japan, China, India and Singapore — refinery utilization rates declined, averaging 77.80% in April, corresponding to a throughput of 21.82 mb/d. Compared with the previous month, throughputs were down by 1 pp and by 280 tb/d. Meanwhile, y-o-y they were down by 0.13 pp but up by 606 tb/d.

Graph 6 - 2: Refinery utilization rates



Note: * Includes Japan, China, India and Singapore
Sources: EIA, Euroilstock, PAJ and Argus Media.

Product markets

US market

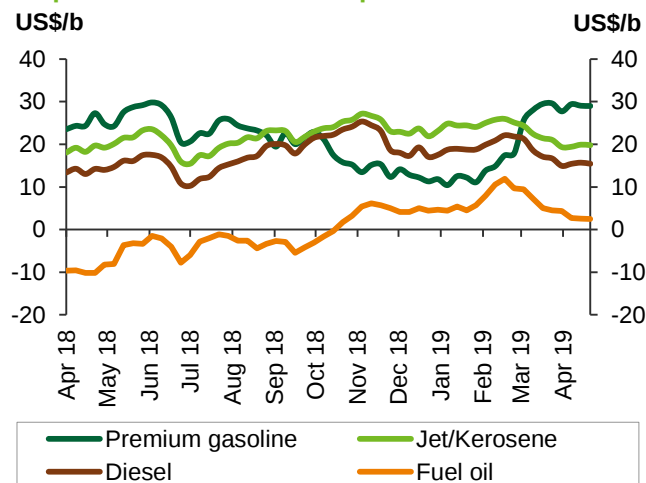
US gasoline cracks saw an extension of the upward trend as considerable inventory drawdowns, which were 10.7 mb lower m-o-m, created bullish market sentiment that supported prices. Gasoline exports in April were strong and headed mainly to Latin America and Africa.

Heavy flooding in the US Midwest has also hit ethanol deliveries to the environmentally stringent California market, further boosting pump prices in California to a nationwide high of \$4.03/gallon. Gasoline crack spreads gained \$1.05 m-o-m to average \$28.90 in April, up by \$3.90 y-o-y.

USGC **jet/kerosene** weakened as demand remained subdued, despite a slight drop inventory levels on a monthly basis. A pick up in air travel in the upcoming peak summer travelling season should provide some support to jet fuel markets. The US jet/kerosene crack spread against WTI averaged \$19.63/b, down by \$2.80 m-o-m, but up by 79¢ y-o-y.

US **gasoil crack spreads** against WTI trended downwards due to bearish sentiment fuelled by a loss of heating oil demand due to warmer weather and despite a decline in US gasoil inventory levels, which fell by 2.6 mb in April. The US gasoil crack spread against WTI averaged \$15.38/b, down by \$3.19 m-o-m, but up by \$12.90 y-o-y.

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



Sources: Argus Media and OPEC Secretariat.

US **fuel oil crack spreads** against WTI declined. They exhibited the strongest negative performance across the barrel as higher product availability, along with lower demand, led to a lengthening fuel oil balance. In April, the US fuel oil crack spread against WTI averaged \$3.15/b, down by \$3.60 m-o-m, but up by \$12.90 y-o-y.

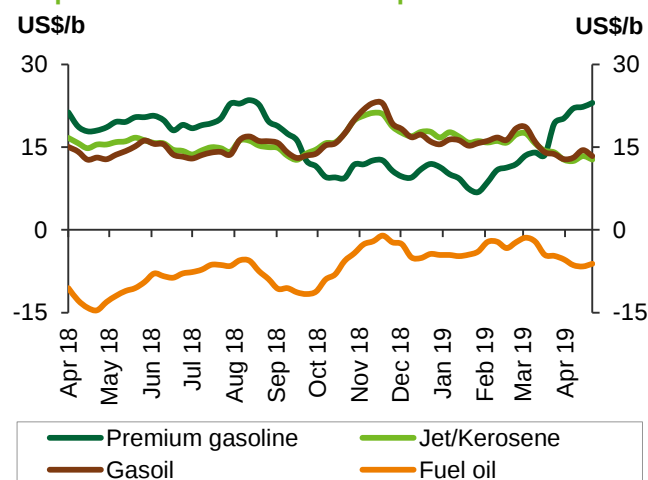
European market

The **gasoline crack spreads in Rotterdam** jumped sharply in April as more than 500 tb/d of summer-grade fuel was presumed to have left Europe for the US. This uncommon hike in European tankers moving to the US West Coast via the Panama Canal was to cover for refinery outages.

Gasoline in April traded at a \$22/b premium over crude in Europe, the highest premium since August 2018 as gasoline inventories in the ARA refining and trading hub fell by 10% m-o-m to 7.9 mb as of 25 April, which is a drop of more than 20% y-o-y.

The gasoline crack spread against Brent averaged \$21.91/b in April, up by \$6.91 m-o-m and by \$2.81 y-o-y.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus Media and OPEC Secretariat.

The **jet/kerosene crack spreads** against Brent lost some ground over the month, affected by weaker fundamentals as demand remained subdued and the loss of kerosene requirements for space heating in Asia pressured arbitrages. However, the negative impact from demand side pressure was somewhat tempered by declines in domestic supply attributed to turnarounds, which prevented further losses. The Rotterdam jet/kerosene crack spread against Brent averaged \$12.79/b, down by \$2.70 m-o-m and by \$3.08 y-o-y.

European **gasoil crack spreads** against Brent weakened in April pressured by a fall in heating oil demand amid firm imports. This contributed to a lengthening gasoil balance, keeping the gasoil market under pressure. The gasoil crack spread against Brent averaged \$13.39/b, which was lower by \$2.35 m-o-m and by 52¢ y-o-y.

At the bottom of the barrel, **fuel oil 3.5% cracks spreads** in Rotterdam weakened due to lower regional demand despite arbitrage openings to the US and Asia. In Europe, fuel oil cracks averaged minus \$9.09/b in April, a drop of \$2.74 m-o-m, albeit up \$6.88 y-o-y.

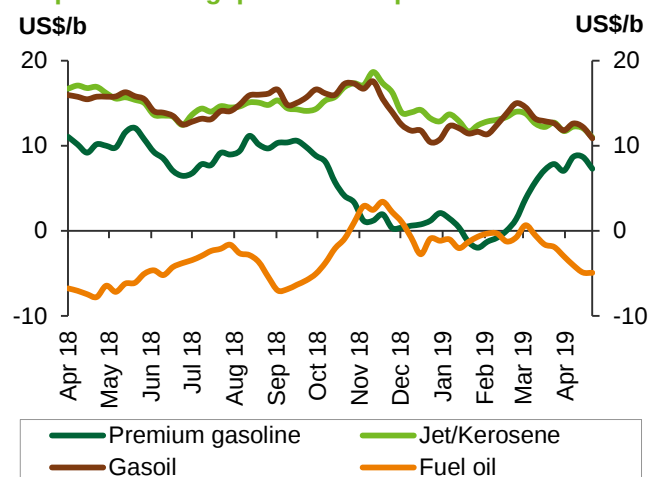
Asian market

The **Asian gasoline 92 crack spread** against Dubai continued to rise, supported by strong export opportunities to the USWC amid prospects of a demand pick-up as refineries in India prepare to shut down for fuel specification transition to Bharat stage 6.

Furthermore, continued refinery maintenance in Asia kept refinery outputs depressed, which contributed to the strengthening in gasoline spread cracks. Expectations of higher transportation fuel demand ahead of Ramadan, also led to bullish sentiment and provided further support.

The Singapore gasoline crack spread against Oman in April averaged \$7.84/b, up by \$1.92 m-o-m, but down by \$2.32 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus Media and OPEC Secretariat.

Singapore light **distillate naphtha crack spreads** lost some ground as demand for naphtha derived blending components for gasoline declined during the month, amid hefty steam cracker maintenance activities, particularly in South Korea. The Singapore naphtha crack spread against Oman averaged minus \$7.46/b, having decreased by 79¢ m-o-m, and by \$6.31 y-o-y.

In the middle of the barrel, the **jet/kerosene crack spreads** in Asia weakened, further pressured by bearish market sentiment as the end of the winter season points to declining kerosene consumption for space heating. The Singapore jet/kerosene crack spread against Oman averaged \$11.68/b, down by \$1.23 m-o-m and by \$5.19 y-o-y.

The Singapore **gasoil crack spread** weakened during the month, pressured by lower arbitrage opportunities to Europe. The Singapore gasoil crack spread against Oman averaged \$12.06/b, down by \$1.69 m-o-m and by \$3.69 y-o-y.

The Singapore **fuel oil crack spread** showed the steepest decline across the barrel in the Asian product market. This was attributed to higher supplies, which were boosted by secondary and conversion unit shutdowns due to maintenance works. Consequently, fuel oil arrivals in Singapore and stock levels rose relative to what had been registered in recent months, which fuelled bearish sentiment. The Singapore fuel oil cracks against Oman averaged minus \$4.12/b, down by \$3.35 m-o-m, but up by \$3.10 y-o-y.

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

<u>Event</u>	<u>Time frame</u>	<u>Asia</u>	<u>Europe</u>	<u>US</u>	<u>Observations</u>
IMO 2020	Dec 19	↑ Some positive impact on product markets (short term) ↓ Weaker high sulphur fuel cracks spreads	↑ Some positive impact on product markets (short term) ↓ Weaker high sulphur fuel cracks spreads	↑ Some positive impact on product markets (short term) ↓ Weaker high sulphur fuel cracks spreads	Refinery maintenance season in the current year is expected to include plant upgrades to accommodate IMO regulations. This could lead to pressure on demand for HSFO
Fuel quality standards	Aug 19	↑ Some positive impact on ULSF product markets	↑ Some positive impact on ULSF product markets	↑ Some positive impact on ULSF product markets	More stringent fuel quality standards in India and China will increase demand for cleaner products, which could also support prices.
CDU additions	2H19	↓ Negative impact on product markets	↓ Negative impact on product markets	↓ Negative impact on product markets	An overall increase in product output is to be expected, which could further exacerbate the oversupply environment and lead to trade flow rearrangements or a reduction of exports as more nations head towards self-sufficiency.
Spring peak maintenance season	May 19–Jun 19	↑ Some positive impact on product markets	-	-	Support expected to be softened by high global stock levels, particularly at the top of the barrel, as well as the slow-down in demand.
Issuance of additional export quotas in China	Dec 18	↓ Some negative impact on product markets	↓ Some negative impact on product markets	↓ Some negative impact on product markets	Refineries will most likely increase intakes to capitalize on middle distillates shortage. Higher gasoline exports could worsen oversupply environment.
Lower heavy crude availability	Mid-term	↑ Some positive impact on heavy products	↑ Some positive impact on heavy products	↑ Some positive impact on heavier products	May support prices – of heavier products – and cracks.

Source: OPEC Secretariat.

Table 6 - 2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Feb 19	Mar 19	Apr 19	Change Apr/Mar	Feb 19	Mar 19	Apr 19	Change Apr/Mar
US	16.11	16.27	17.25	0.98	86.71	87.39	88.86	1.5 pp
Euro-16	10.78	10.37	10.47	0.10	87.00	83.67	84.45	0.8 pp
France	1.17	1.02	1.02	0.00	93.38	81.79	81.64	-0.2 pp
Germany	2.07	1.71	1.83	0.12	94.70	78.02	83.41	5.4 pp
Italy	1.20	1.32	1.38	0.06	58.65	64.47	67.20	2.7 pp
UK	1.13	1.00	1.08	0.08	85.99	76.24	82.48	6.2 pp
Selected Asia*	22.58	22.10	21.82	-0.28	80.51	78.80	77.80	1.0 pp

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

Sources: EIA, Euroilstock, Petroleum Association of Japan and OPEC Secretariat.

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

	2016	2017	2018	2Q18	3Q18	4Q18	1Q19	2Q19
Total OECD	37.43	38.13	37.99	37.58	38.89	37.89	37.38	37.88
OECD Americas	18.78	19.09	19.30	19.50	19.79	19.14	18.51	19.58
of which US	16.51	16.88	17.32	17.50	17.68	17.33	16.49	17.62
OECD Europe	11.91	12.24	11.99	11.69	12.43	11.92	12.09	11.78
of which:								
France	1.14	1.17	1.10	0.94	1.21	1.15	1.11	0.95
Germany	1.93	1.91	1.80	1.86	1.78	1.65	1.86	1.81
Italy	1.30	1.40	1.35	1.33	1.37	1.35	1.27	1.26
UK	1.09	1.10	1.06	1.04	1.14	1.14	1.09	1.00
OECD Asia Pacific	6.75	6.80	6.70	6.39	6.66	6.82	6.78	6.53
of which Japan	3.28	3.22	3.11	2.85	3.07	3.20	3.19	2.87
Total Non-OECD	41.41	42.27	43.67	43.57	44.18	44.45	44.45	44.32
of which:								
China	10.77	11.35	12.03	12.04	12.10	12.25	12.63	12.38
Middle East	6.93	7.06	7.29	7.23	7.68	7.87	7.58	7.77
Russia	5.58	5.59	5.72	5.65	5.81	5.73	5.71	5.71
Latin America	4.66	4.54	4.48	4.54	4.46	4.00	3.96	4.21
India	4.68	4.73	4.83	4.80	4.78	4.83	5.23	5.21
Africa	2.20	2.21	2.16	2.26	2.10	2.35	2.28	2.17
Total world	78.84	80.39	81.66	81.15	83.07	82.34	81.83	82.20

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

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

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

	<u>Mar 19</u>	<u>Apr 19</u>	<u>Change Apr/Mar</u>	<u>Average 2018</u>	<u>Year-to-date 2019</u>
US Gulf (Cargoes FOB):					
Naphtha*	61.91	66.19	4.28	68.51	59.14
Premium gasoline (unleaded 93)	86.00	92.79	6.79	85.78	78.06
Regular gasoline (unleaded 87)	76.43	86.19	9.76	80.17	71.17
Jet/Kerosene	80.58	83.52	2.94	85.35	80.06
Gasoil (0.2% S)	76.72	79.27	2.55	80.99	75.51
Fuel oil (3.0% S)	62.92	65.15	2.23	60.17	61.47
Rotterdam (Barges FoB):					
Naphtha	58.80	62.12	3.32	66.47	56.65
Premium gasoline (unleaded 98)	81.08	92.99	11.91	87.34	79.18
Jet/Kerosene	81.57	83.87	2.30	86.93	80.42
Gasoil/Diesel (10 ppm)	81.82	84.47	2.65	85.94	80.57
Fuel oil (1.0% S)	62.98	64.94	1.96	62.33	61.06
Fuel oil (3.5% S)	59.73	61.99	2.26	59.04	57.19
Mediterranean (Cargoes FOB):					
Naphtha	57.61	60.84	3.23	65.79	55.38
Premium gasoline**	72.52	81.90	9.38	79.08	69.51
Jet/Kerosene	79.33	81.47	2.14	85.10	78.09
Diesel	81.71	83.55	1.84	85.66	80.26
Fuel oil (1.0% S)	64.50	65.71	1.21	63.53	63.04
Fuel oil (3.5% S)	61.11	63.04	1.93	60.36	58.69
Singapore (Cargoes FOB):					
Naphtha	60.24	63.47	3.23	67.24	58.05
Premium gasoline (unleaded 95)	74.42	80.72	6.30	79.93	70.62
Regular gasoline (unleaded 92)	72.83	78.77	5.94	77.66	68.77
Jet/Kerosene	79.82	82.61	2.79	84.81	78.03
Gasoil/Diesel (50 ppm)	80.66	82.99	2.33	84.67	78.53
Fuel oil (180 cst)	66.14	66.81	0.67	65.24	63.65
Fuel oil (380 cst 3.5% S)	65.56	65.80	0.24	64.74	63.31

Note: * Barges.

** Cost, insurance and freight (CIF).

Sources: Argus Media and OPEC Secretariat.

Tanker Market

Average **dirty tanker spot freight rates** in April continued to decline from the high levels seen at the end of last year. Fixtures were lower on seasonal factors with the start of refinery maintenance particularly pronounced this year as refiners gear up for the implementation of IMO 2020. Fleet growth weighed on the market as healthy freight rates in recent quarters discouraged scrapping and deliveries were concentrated in the 1H19, boosting availability. In April, dirty tanker freight rates for VLCCs and Aframax fell on average by 30% and 13%, respectively compared to March, although this was partially offset by a 13% rise in Suezmax rates supported by West Africa-to-US Gulf Coast (USGC) activity.

Clean tanker spot freight rates continued to show mixed performance in April, resulting in an average 1% decline in rates compared to the previous month. East of Suez, clean spot freight rates weakened due to declines on the Middle East-to-East route, while West of Suez rates showed some improvement, supported by gains within the Mediterranean and Mediterranean to Northwest Europe (NWE).

Spot fixtures

After a strong first quarter, **global fixtures** fell back in April by 33.2% m-o-m, or 9.5 mb/d, from the high levels seen in the previous two month. However, the drop was only 3.1% from the same month a year ago.

OPEC spot fixtures saw a proportional decline of 33.4%, or 6.60 mb/d, from the high levels in February and March, to average 13.18 mb/d.

Table 7 - 1: Spot fixtures, mb/d

	Feb 19	Mar 19	Apr 19	Change Apr 19/Mar 19
All areas	28.25	28.44	18.99	-9.45
OPEC	18.71	19.78	13.18	-6.60
Middle East/East	10.66	10.99	6.86	-4.12
Middle East/West	2.22	2.01	1.79	-0.23
Outside Middle East	5.83	6.78	4.53	-2.25

Sources: Oil Movements and OPEC Secretariat.

Fixtures on the Middle East-to-East route averaged 6.86 mb/d in April, broadly in line with last year, but down almost 38% m-o-m from the high levels seen in the previous two months.

The Middle East-to-West route continued the decline seen in the previous month, down around 11%, to average 1.79 mb/d. This was 28% lower y-o-y.

Outside of the Middle East, fixtures averaged 4.53 mb/d in April. This represents a decline of 33% from the high levels seen in the previous month, albeit a gain of almost 8% y-o-y.

Sailings and arrivals

OPEC sailings were 1.1% higher m-o-m in April, averaging 24.67 mb/d, which represents a similar increase y-o-y. Sailings from the **Middle East** fell 5.5% m-o-m, representing a decline of around 1 mb/d, but were down just 1.2%, or 0.2 mb/d, compared to the same month in 2018.

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

	<u>Feb 19</u>	<u>Mar 19</u>	<u>Apr 19</u>	<u>Change Apr 19/Mar 19</u>
Sailings				
OPEC	25.26	24.40	24.67	0.27
Middle East	18.50	18.51	17.48	-1.03
Arrivals				
North America	9.88	10.62	10.70	0.07
Europe	11.88	12.06	11.67	-0.39
Far East	9.07	8.61	8.76	0.15
West Asia	4.29	4.37	4.53	0.16

Sources: Oil Movements and OPEC Secretariat.

Crude arrivals increased in all areas except Europe, where they declined by 3% or just under 0.4 mb/d m-o-m. European arrivals were down 7%, or just under 0.9 mb/d, y-o-y.

Elsewhere, arrivals in North America continued at the strong levels seen in March, edging up to 10.7 mb/d.

Arrivals in Far East and West Asia ports increased by 1.7% and 3.7%, respectively, from a month ago. Arrivals in the Far East recovered after falling over the previous two months, while it was the third-consecutive monthly build for arrivals in West Asia.

Dirty tanker freight rates

Very large crude carriers (VLCCs)

After a tentative recovery in March, **VLCC spot freight rates** fell back in April. Rates were pressured by a lower number of cargoes, as well as seasonal factors heading into the lower demand second quarter.

Freight rates registered for tankers operating on the Middle East-to-East route declined by 33% compared to the previous month, to stand at Worldscale (WS) 40 points.

Middle East-to-West routes in April experienced a decline of 30% m-o-m to stand at WS21 points. West Africa-to-East routes in April also fell back, dropping 26% from a month ago, to average WS43 points.

Despite these declines, VLCC freight rates in April were broadly in line with those seen in the same month a year ago.

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

	<u>Size 1,000 DWT</u>	<u>Feb 19</u>	<u>Mar 19</u>	<u>Apr 19</u>	<u>Change Apr 19/Mar 19</u>
Middle East/East	230-280	52	60	40	-20
Middle East/West	270-285	26	30	21	-9
West Africa/East	260	52	58	43	-15

Sources: Argus Media and OPEC Secretariat.

Suezmax

Suezmax average spot freight rates saw a slight recovery in April, after falling the previous four months from the high levels achieved in November 2018. The increase came mainly from tankers operating on the West Africa-to-USGC route, which saw an 8% increase in spot freight rates to average WS51 points. The improvement in spot freight rates out of West Africa came from an influx of cargoes, although quiet markets elsewhere weighed on sentiment. NWE-to-USGC also provided some support, with an increase of 1% to average WS98 points.

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

	Size 1,000 DWT	Feb 19	Mar 19	Apr 19	Change Apr 19/Mar 19
West Africa/US Gulf Coast	130-135	63	51	60	9
Northwest Europe/US Gulf Coast	130-135	50	47	51	4

Sources: Argus Media and OPEC Secretariat.

Aframax

The **Aframax** sector in April continued to witness the declines seen on most routes since the start of the year, with only Indonesia-to-East showing a minimal increase.

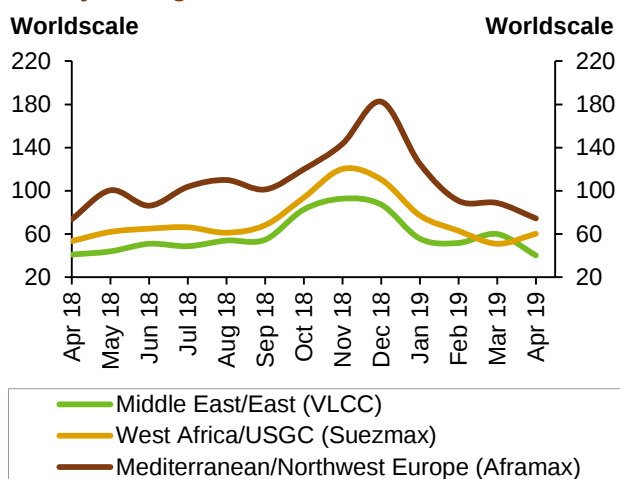
Table 7 - 5: Dirty Aframax spot tanker freight rates, WS

	Size 1,000 DWT	Feb 19	Mar 19	Apr 19	Change Apr 19/Mar 19
Indonesia/East	80-85	93	97	98	1
Caribbean/US East Coast	80-85	141	99	78	-21
Mediterranean/Mediterranean	80-85	95	95	80	-16
Mediterranean/Northwest Europe	80-85	91	89	75	-14

Sources: Argus Media and OPEC Secretariat.

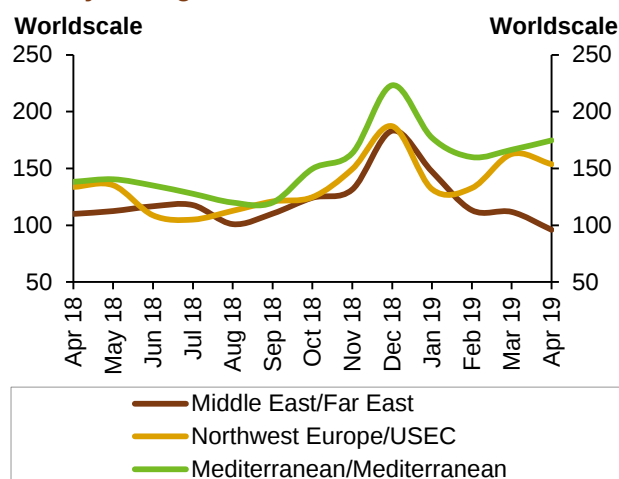
The Caribbean-to-US East Coast (USEC) route led the declines, dropping by 21%, weighed down by ample availability. Both intra-Mediterranean and Mediterranean-to-NWE fell by 16%, similarly impacted by ample availability and numerous holidays in the region dampening activities.

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



Sources: Argus Media and Platts.

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



Sources: Argus Media and OPEC Secretariat.

Clean tanker freight rates

Clean spot tanker freight rates continued to show a mixed performance in April, edging down 1% on average compared to March.

To the **East of Suez**, clean tanker freight rates declined by 5% in April from the previous month, weighed down by weakness on the Middle East-to-East route that experienced a drop of WS16 points, or 14%, to average WS96 points. In contrast, rates on the Singapore-to-East route edged up WS2 points.

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

	Size 1,000 DWT	<u>Feb 19</u>	<u>Mar 19</u>	<u>Apr 19</u>	<u>Change</u> <u>Apr 19/Mar 19</u>
East of Suez					
Middle East/East	30-35	113	112	96	-16
Singapore/East	30-35	154	144	146	2
West of Suez					
Northwest Europe/US East Coast	33-37	133	163	154	-9
Mediterranean/Mediterranean	30-35	160	167	175	8
Mediterranean/Northwest Europe	30-35	170	176	185	9

Sources: Argus Media and OPEC Secretariat.

In the **West of Suez**, average spot freight rates were about 2% higher, supported by gains on the Mediterranean-to-Mediterranean and the Mediterranean-to-NWE routes. Clean tanker spot freight rates on these routes were up around 5%, or WS8 and WS9 points, respectively.

In contrast, clean spot freight rates for tankers operating on the NWE-to-USEC route declined by 6%, or WS9 points, to average WS154 points.

Oil Trade

US crude imports averaged 6.8 mb/d in April, slightly higher than the previous month, but 1.4 mb/d, or 14%, lower y-o-y. US crude exports have declined from the record level seen in February 2019 to average 2.5 mb/d in April. US product imports rose 363 tb/d m-o-m, or 17%, to average just under 2.5 mb/d. Compared to a year ago, product inflows were 377 tb/d, or almost 18% higher.

After four months above 10 mb/d, **China's** crude oil imports fell back in March to average 9.3 mb/d. This represents a drop of 968 tb/d, or 9%, m-o-m. On an annual basis, crude imports were only marginally higher. China's product imports increased by 130 tb/d m-o-m, but were down 108 tb/d from a year earlier, averaging 1.4 mb/d in March. Meanwhile, product exports surged 71%, or 763 mb/d, to a record high of 1.8 mb/d in March.

India's crude imports averaged 4.6 mb/d in March, slightly higher m-o-m and a gain of 216 tb/d from the same month last year. Product imports averaged 902 tb/d, a decline of 100 tb/d from the record high achieved in February. Imports were up 60 tb/d, or 7%, from the same month last year.

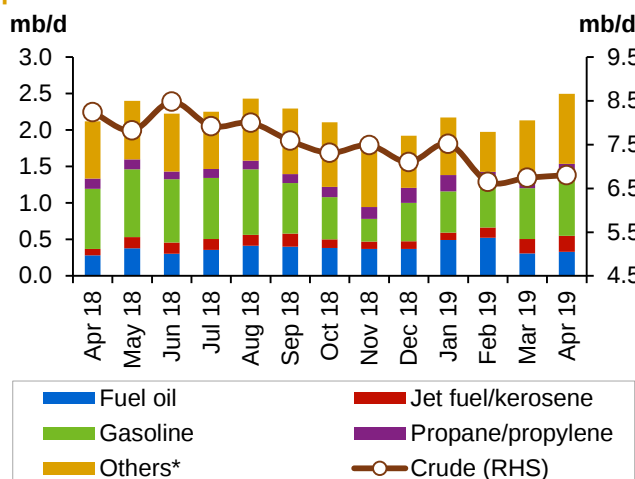
Japan's crude oil imports increased 119 tb/d, or almost 4%, to average 3.2 mb/d, but were broadly flat compared to the same month last year. Excluding LPG, product imports fell 145 tb/d in March to average 475 tb/d, and were 217 tb/d, or 31% lower, y-o-y.

US

US crude oil imports averaged 6.8 mb/d in April, representing a slight increase of 59 tb/d, or just under 1%, from the previous month, but a decline of 1.4 mb/d, or 18%, from the same month last year. Crude imports averaged 8.2 mb/d in 1Q19, a decline of 0.7 mb/d from the same quarter last year.

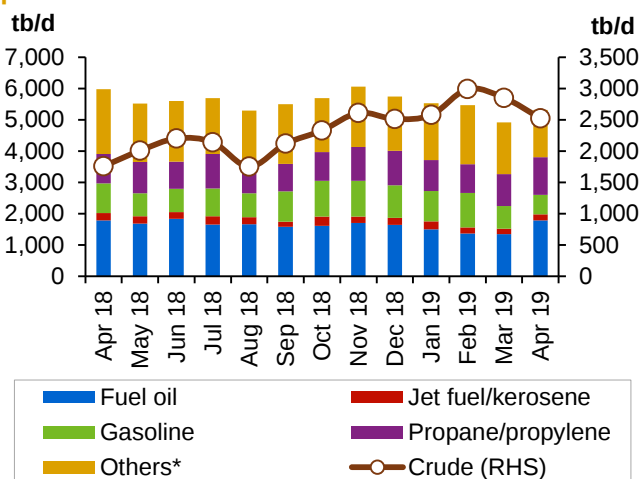
In April, **US crude exports** fell 326 tb/d m-o-m, or 11.5%, to average 2.5 mb/d, after reaching a record level in March of just under 3.0 mb/d. Y-t-d, US crude exports averaged 2.7 mb/d in 1Q19, down from 1.6 mb/d in the same quarter last year.

Graph 8 - 1: US imports of crude and petroleum products



Note: * Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.
Sources: US EIA and OPEC Secretariat.

Graph 8 - 2: US exports of crude and petroleum products



Note: * Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.
Sources: US EIA and OPEC Secretariat.

US product imports rose 363 tb/d m-o-m, or 17%, to average 2.5 mb/d, while y-o-y, they increased by 377 tb/d, or 18%. Y-t-d, product imports averaged 2.1 mb/d in 1Q19, down 0.1 mb/d from the same period last year.

Total product exports increased in April, up by 396 tb/d from the previous month to average 5.3 mb/d. On an annual basis, the figures showed a decline of 662 tb/d, or 11%.

As a result, **US total net imports in April increased 32% m-o-m to average 1.5 mb/d**, albeit down 44% from the same month last year.

The most recent data for February shows Canada as the **prime crude supplier to the US** with a share of 55%, compared to 53% the previous month. Mexico was the second largest crude supplier to the US, with a 10% share, up from 9% in January 2019. Saudi Arabia was third at 9%, up from 8% the month before.

Crude imports from OPEC Member Countries averaged 1.6 mb/d in February, representing a share of 24% compared to 30% the month before. The share of **US product imports from OPEC Member Countries** stood at 10%, down from 13% in January. Canada and India were the first and second **product suppliers** to the US, with shares of 33% and 9%, respectively, while Russia slipped to third place with a share of 7%, down from 10% the month before.

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

	Feb 19	Mar 19	Apr 19	Change Apr 19/Mar 19
Crude oil	3,662	3,895	4,280	385
Total products	-3,487	-2,782	-2,816	-34
Total crude and products	175	1,113	1,465	352

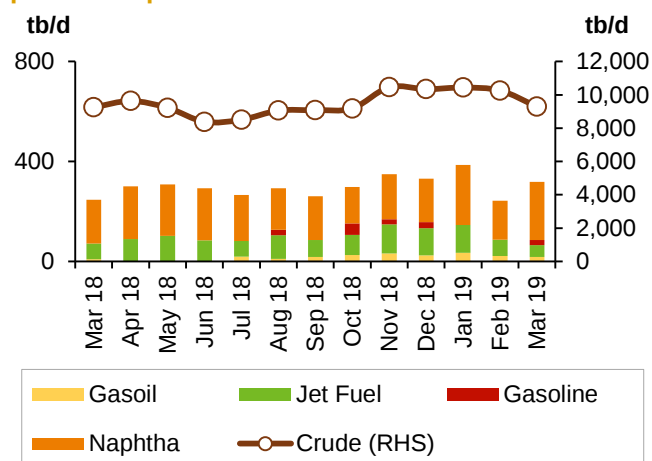
Sources: US EIA and OPEC Secretariat.

China

After four months above 10 mb/d, **China's crude oil imports** fell back in March to average 9.3 mb/d. This represents a decline of 968 tb/d, or 9% m-o-m. On an annual basis, crude imports were only marginally higher. In quarterly terms, China's crude imports still averaged 10.0 mb/d in 1Q19, compared to an average of 9.1 mb/d in 1Q18 and 8.5 mb/d in 1Q17.

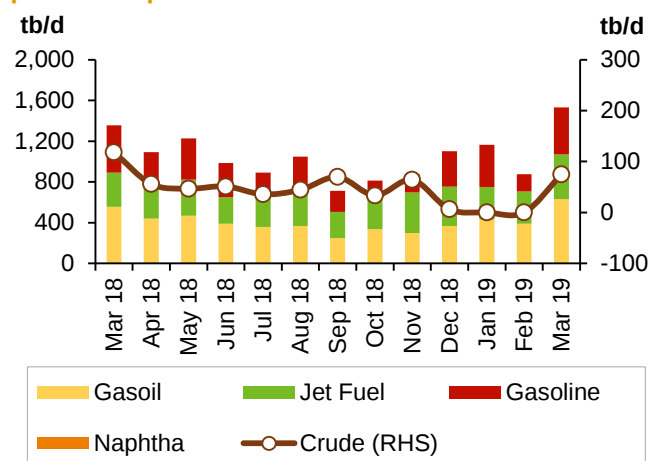
Saudi Arabia, Russia and Iraq were the **top crude suppliers to China** in March, holding shares of 19%, 14% and 10%, respectively.

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



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

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



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

China's product imports in March increased by 130 tb/d, or 10%, compared to the previous month, to average 1.4 mb/d. However, this represents a decline of 108 tb/d compared to the same month last year. Gains were led by gasoline, which averaged 20 tb/d in March 2019 from zero imports the month before, and naphtha, which jumped 49% to 232 tb/d. Meanwhile, jet fuel and diesel imports fell 26% and 20%, respectively.

Product exports increased by 763 tb/d, or 71%, to average 1.8 mb/d. Gasoline exports surged m-o-m to 463 tb/d in March, compared to 168 tb/d in February, but were broadly stable y-o-y. Diesel exports jumped more than 60% and jet fuel exports also increased. In quarterly terms, China's product exports continued to increase, averaging 1.4 mb/d in 1Q19, up from 1.3 mb/d in 1Q18 and 1.1 mb/d in 1Q17.

As a result, **China's net oil imports** in March declined by 1.7 mb/d, or 16%, from the previous month to average 8.8 mb/d, although this is only a decline of 129 tb/d from a year before.

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

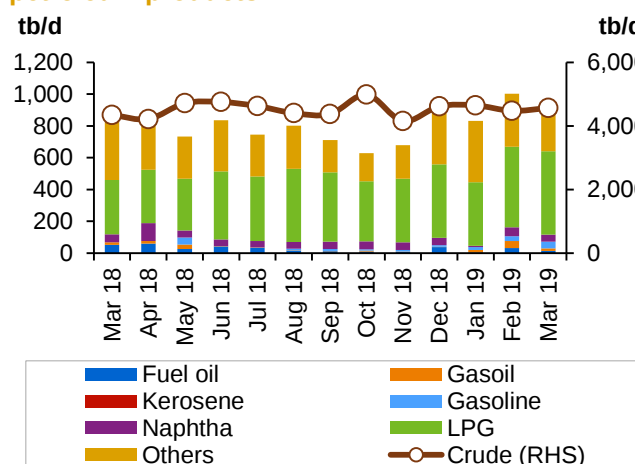
	Jan 19	Feb 19	Mar 19	Change Mar 19/Feb 19
Crude oil	10,436	10,257	9,214	-1,042
Total products	154	179	-454	-633
Total crude and products	10,590	10,436	8,760	-1,675

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

India

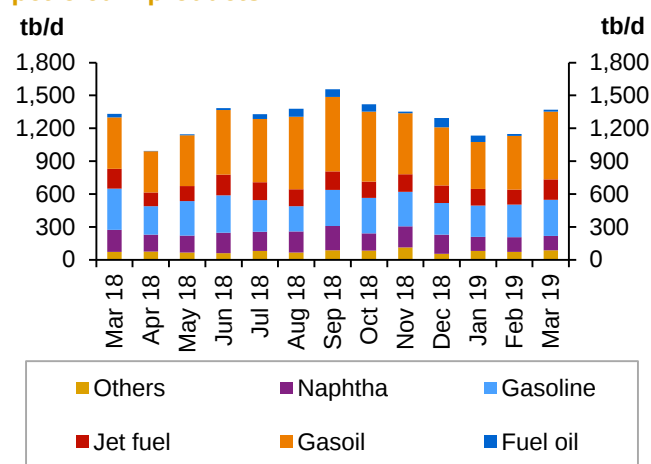
India's crude imports averaged 4.6 mb/d in March, representing a decline of 2% from the month before and an increase of 5% from the same month last year. In quarterly terms, India's crude imports averaged 4.6 mb/d in 1Q19, compared to 4.7 mb/d in 1Q18 and 4.1 mb/d in 1Q17.

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



Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

Graph 8 - 6: India's exports of crude and petroleum products



Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

In March, **product imports** fell 100 tb/d from the previous month to average 902 tb/d. Diesel and naphtha led the way with declines of 63% and 20%, respectively. Y-o-y, India's product imports were slightly higher, edging up 60 tb/d, or 7%. In quarterly terms, India's product imports averaged 0.9 mb/d in 1Q19, compared to 0.8 mb/d in both 1Q18 and 1Q17.

India's product exports rose in March by 223 tb/d, or 19%, from the previous month to average 1.4 mb/d, supported by a 26% increase in diesel exports. Y-o-y, product exports slipped 38 tb/d, or 3%, with fuel oil and naphtha leading the way with drops of 35% and 43%, respectively. In quarterly terms, product exports averaged 1.2 mb/d in 1Q19, compared to 1.4 mb/d in both 1Q18 and 1Q17.

Consequently, **India's net imports** dropped by 236 tb/d to average 4.1 mb/d, down by 5% from the previous month, but up by 6% from the previous year.

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

	Jan 19	Feb 19	Mar 19	Change Mar 19/Feb 19
Crude oil	4,647	4,474	4,562	88
Total products	-302	-146	-469	-324
Total crude and products	4,345	4,329	4,093	-236

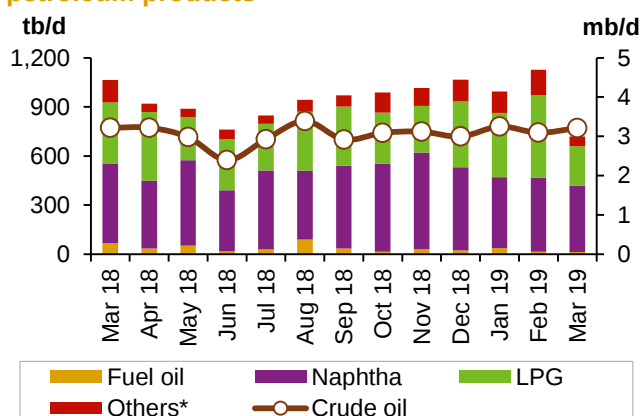
Note: India data table does not include information for crude import and product export by Reliance Industries.

Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

Japan

Japan's crude oil imports increased in March by 119 tb/d m-o-m, or 4%, to average 3.2 mb/d, while y-o-y, they showed a small drop of 6 tb/d.

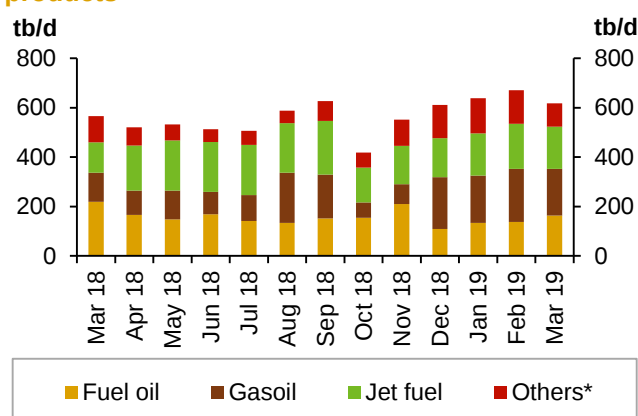
Graph 8 - 7: Japan's imports of crude and petroleum products



Note: * Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax.

Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

Graph 8 - 8: Japan's exports of petroleum products



Note: * Others: Contains LPG, gasoline, naphtha, kerosene, lubricating oil, asphalt and paraffin wax.

Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

Saudi Arabia maintained its status as the **top crude supplier to Japan**, holding a share of almost 40% of total exports. The UAE was the second largest supplier with a share of 23%.

Japan's product imports, not including LPG, fell in March by 145 tb/d to average 475 tb/d. **Product exports** in March were up from the previous month by 53 tb/d to average 618 tb/d.

Japan's total net imports rose in March by 26 tb/d m-o-m to average 3.1 tb/d, a drop of 276 tb/d y-o-y.

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

	Jan 19	Feb 19	Mar 19	Change Mar 19/Feb 19
Crude oil	3,250	3,093	3,212	119
Total products	-39	-50	-143	-93
Total crude and products	3,211	3,043	3,069	26

Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

FSU

In March, **total crude oil exports from the Former Soviet Union (FSU)** declined by 91 tb/d m-o-m, or around 1%, to average 7.2 mb/d. Crude exports through Russian pipelines also declined by 75 tb/d m-o-m to average 4.2 mb/d.

In the **Transneft system**, total shipments from the Black Sea went up by 16 tb/d m-o-m, or 3%, to average 555 tb/d in March. Total Baltic Sea exports rose 73 tb/d m-o-m as shipments from Primorsk increased by 92 tb/d m-o-m, outpacing a 19 tb/d decline from Ust-Luga. Meanwhile, shipments via the Druzhba pipeline declined 82 tb/d to average 950 tb/d. This was ahead of the disruptions on the Druzhba line, starting in mid-April, due to crude contaminated with organic chloride. Kozmino shipments also declined, down 4 tb/d m-o-m, or less than 1%, to average 635 tb/d.

In the **Lukoil system**, exports via both the Barents Sea and the Baltic Sea declined with the former down 28 tb/d. In contrast, Russia's Far East total exports increased from the previous month to average 425 tb/d.

Central Asia's total exports stood at 228 tb/d in March, an increase of 25 tb/d m-o-m.

Black Sea total exports went up by 16 tb/d m-o-m as a result of increased shipments from the Novorossiysk port terminal (CPC), which offset declines at Supsa.

In the **Mediterranean**, BTC supplies fell compared to the previous month, down 37 tb/d m-o-m, or 5%, to average 663 tb/d.

FSU total product exports declined by 460 tb/d m-o-m, or 14%, to average 2.9 mb/d. This fall came as a result of a sharp drop in gasoil, which declined by 317 tb/d.

Table 8 - 5: Recent FSU exports of crude and petroleum products by sources, tb/d

		2018	4Q18	1Q19	Feb 19	Mar 19
Transneft system						
Europe	Black Sea total	544	550	537	570	555
	Novorossiysk port terminal - total	544	550	537	570	555
	of which: Russian oil	383	407	345	332	390
	Others	160	143	192	238	165
	Baltic Sea total	1,306	1,413	1,381	1,387	1,460
	Primorsk port terminal - total	758	803	772	719	811
	of which: Russian oil	758	803	772	719	811
	Others	0	0	0	0	0
	Ust-Luga port terminal - total	549	610	609	668	649
	of which: Russian oil	375	446	442	514	487
	Others	173	164	167	154	162
	Druzhba pipeline total	997	1,009	992	1,032	950
	of which: Russian oil	965	977	959	999	917
	Others	32	32	33	33	33
Asia	Pacific ocean total	619	628	644	639	635
	Kozmino port terminal - total	619	628	644	639	635
	China (via ESPO pipeline) total	577	601	618	632	585
	China Amur	577	601	618	632	585
Total Russia's crude exports		4,043	4,202	4,172	4,260	4,184
Lukoil system						
Europe & North America	Barents Sea total	135	121	152	161	133
	Varandey offshore platform	135	121	152	161	133
Europe	Baltic Sea total	7	7	6	7	6
	Kalinigrad port terminal	7	7	6	7	6
Other routes						
Asia	Russian Far East total	371	395	407	405	425
	Aniva Bay port terminal	119	119	111	103	113
	De Kastri port terminal	252	276	296	302	312
	Central Asia total	233	222	220	203	228
	Kenkiyak-Alashankou	233	222	220	203	228
Europe	Black Sea total	1,386	1,457	1,502	1,490	1,506
	Novorossiysk port terminal (CPC)	1,323	1,392	1,421	1,383	1,448
	Supsa port terminal	61	65	81	107	58
	Batumi port terminal	2	0	0	0	0
	Kulevi port terminal	0	0	0	0	0
	Mediterranean Sea total	693	707	675	700	663
	Baku–Tbilisi–Ceyhan (BTC)	693	707	675	700	663
Russian rail						
	Russian rail	32	35	39	48	36
	of which: Russian oil	32	35	39	48	36
	Others	0	0	0	0	0
Total FSU crude exports		6,901	7,145	7,173	7,273	7,181
Products						
	Gasoline	212	208	233	249	230
	Naphtha	517	487	609	573	609
	Jet	37	36	32	30	40
	Gasoil	1,006	920	1,044	1,187	870
	Fuel oil	930	885	974	1,015	951
	VGO	277	250	268	309	203
Total FSU product exports		2,980	2,786	3,160	3,363	2,903
Total FSU oil exports		9,881	9,931	10,332	10,636	10,084

Sources: Argus Nefte Transport and Argus Global Markets.

Stock Movements

Preliminary data for March showed that total **OECD commercial oil stocks** rose by 3.3 mb m-o-m to stand at 2,875 mb, which was 58.5 mb higher than the same time one year ago and 22.8 mb above the latest five-year average. Within the components, crude and product stocks indicated surpluses of 20.3 mb and 2.5 mb, respectively, above the latest five-year average. In terms of **days of forward cover**, OECD commercial stocks rose by 0.1 days m-o-m in March to stand at 60.6 days, which was 1.0 day above the same period in 2018, but 1.0 day below the latest five-year average.

Preliminary data for April showed that total **US commercial oil stocks** rose by 26.5 mb m-o-m to stand at 1,255.6 mb, which was 55.5 mb above the same period a year ago and 24.7 mb higher than the latest five-year average. Within the components, crude and product stocks rose by 17.1 mb and 9.4 mb, m-o-m, respectively.

OECD

Preliminary data for March showed that **total OECD commercial oil stocks** rose by 3.3 mb m-o-m, reversing the stock draw of the previous month. At 2,875 mb, total OECD commercial oil stocks were 58.5 mb higher than at the same time one year ago and 22.8 mb above the latest five-year average.

Within the components, crude and product stocks indicated surpluses of 20.3 mb and 2.5 mb, respectively, above the latest five-year average. It should be noted that the overhang of total OECD commercial oil stocks has been reduced by around 278 mb since the Declaration of Cooperation in December 2016.

In March, OECD commercial crude stocks rose slightly by 23.4 mb, while product stocks fell by 20.1 mb, m-o-m.

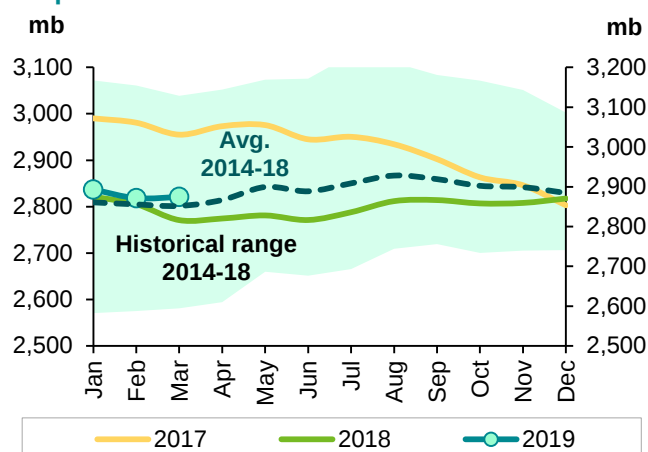
Within the regions, total commercial oil stocks in OECD Europe and OECD Asia Pacific rose by 26.9 mb and 0.5 mb, m-o-m, respectively. In contrast, stocks in OECD Americas fell by 24.1 mb.

OECD **commercial crude stocks** rose by 23.4 mb m-o-m in March, ending the month at 1,454 mb, which was 48.3 mb above the same time a year ago and 20.3 mb higher than the latest five-year average. Compared with the previous month, OECD Americas registered a stock draw, while OECD Europe and OECD Asia Pacific experienced stock builds.

By contrast, OECD **total product inventories** fell by 20.1 mb m-o-m in March to stand at 1,420 mb, which was 10.1 mb above the same time a year ago and 2.5 mb above the seasonal norm. Within the OECD regions, OECD Americas and OECD Asia Pacific fell by 21.9 mb and 2.3 mb, respectively, while OECD Europe's total product stocks rose by 4.1 mb, m-o-m.

In terms of **days of forward cover**, OECD commercial stocks rose by 0.1 days m-o-m in March to stand at 60.6 days, which was 1.0 day above the same period in 2018 but 1.0 day below the latest five-year average. Within the regions, OECD Americas was 1.7 days lower than the historical average to stand at 58.3 days. OECD Europe's stocks stood at 0.4 days above the latest five-year average to finish the month at 70.1 days. OECD Asia Pacific indicated a deficit of 1.4 days below the seasonal norm to stand at 50.9 days.

Graph 9 - 1: OECD commercial oil stocks



Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US EIA.

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

	Jan 19	Feb 19	Mar 19	Change Mar 19/Feb 19	Mar 18
Crude oil	1,422	1,431	1,454	23.4	1,406
Products	1,471	1,440	1,420	-20.1	1,410
Total	2,893	2,871	2,875	3.3	2,816
Days of forward cover	60.4	60.6	60.6	0.1	59.6

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

Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US EIA.

OECD Americas

OECD Americas total commercial stocks fell by 24.1 mb m-o-m in March following the drop of the last month to settle at 1,495 mb, which was 26.1 mb above a year ago and 12.7 mb above the latest five-year average. Within the components, crude and products stocks fell by 2.2 mb and 21.9 mb, m-o-m, respectively.

Commercial crude oil stocks in OECD Americas fell by 2.2 mb m-o-m in March to stand at 794 mb, which was 29.1 mb higher than the same time a year ago and 18.8 mb above the latest five-year average. The decline came mainly from higher US crude throughput, which increased by 0.16 mb/d to average 16.27 mb/d.

Total product stocks in OECD Americas fell by 21.9 mb m-o-m in March to stand at 700 mb, which was 3.0 mb below the same time one year ago and 6.1 mb below the seasonal norm. Higher consumption in the region was behind the product stock draw.

OECD Europe

OECD Europe's total commercial stocks rose massively by 26.9 mb m-o-m in March, ending the month at 993 mb, which was 22.9 mb higher than the same time a year ago and 23.4 mb above the latest five-year average. Crude and product stocks rose by 22.8 mb and 4.1 mb, m-o-m, respectively.

OECD Europe's **commercial crude stocks** rose by 22.8 mb m-o-m in March, ending the month at 439 mb, which was 14.6 mb above a year earlier and 21.8 mb higher than the latest five-year average. The build could be attributed to higher crude supply in the region, along with a drop in refinery throughput in the Euro-16 to 10.37 mb/d m-o-m.

OECD Europe's **commercial product stocks** rose by 4.1 mb m-o-m to end March at 554 mb, which was 8.3 mb above the same time a year ago and 1.6 mb higher than the seasonal norm. The build could be attributed to lower refined product consumption.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks rose slightly by 0.5 mb m-o-m in March to stand at 387 mb, which was 9.4 mb higher than a year ago, but 13.4 mb below the latest five-year average. Within the components, crude stocks rose by 2.8 mb, while products stocks fell 2.3 mb, m-o-m.

OECD Asia Pacific's **crude inventories** rose by 2.8 mb m-o-m to end the month of March at 221 mb, which is 4.6 mb above one year ago, but 20.3 mb lower than the seasonal norm.

In contrast, OECD Asia Pacific's **total product inventories** fell by 2.3 mb m-o-m to end March at 166 mb, standing 4.8 mb above the same time a year ago and 6.9 mb above the seasonal norm.

US

Preliminary data for April showed that **US total commercial oil stocks** rose by 26.5 mb m-o-m to stand at 1,255.6 mb, which was 55.5 mb, or 4.6%, above the same period a year ago, and 24.7 mb, or 2.0%, higher than the latest five-year average. Within the components, crude and product stocks rose by 17.1 mb and 9.4 mb, m-o-m, respectively.

US **commercial crude stocks** rose in April to stand at 466.6 mb, which was 31.5 mb, or 7.3%, above last year at the same time and 9.3 mb, or 2.0%, above the latest five-year average. This build came from higher crude output combined with higher crude imports. In contrast to the build in total crude oil stocks in Cushing, Oklahoma, fell by 1.1 mb to end the month of April at 46.0 mb.

Total product stocks also rose by 9.4 mb m-o-m in April to stand at 789.0 mb, which was 23.9 mb, or 3.1%, above the level seen at the same time in 2018, and 15.5 mb, or 2.0%, above the seasonal average. Within products, propylene and other unfinished product stocks witnessed stock builds, while gasoline, distillates and residual oil stocks saw stock draws.

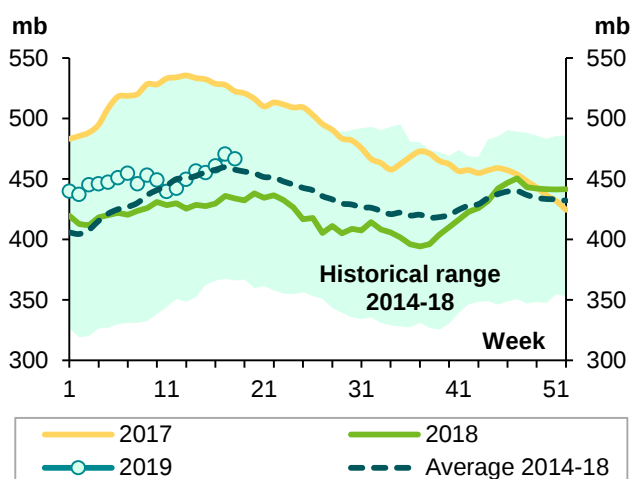
Gasoline stocks fell by 10.7 mb m-o-m in April to stand at 226.1 mb, which was 13.7 mb, or 5.7%, lower than levels at the same time last year and 8.3 mb, or 3.5%, lower than the seasonal norm. This monthly drop came on the back of higher gasoline demand, which increased by around 280 tb/d to average 9.5 mb/d. Relatively higher gasoline output limited a further drop in gasoline stocks.

Distillate stocks also fell by 2.6 mb m-o-m in April to end the month at 125.6 mb, which was 5.0 mb, or 4.1%, above the same period a year ago, and 9.8 mb, or 7.2%, below the latest five-year average. The stock draw could be attributed to higher distillate demand.

Residual fuel stocks also fell by 1.5 mb m-o-m, ending April at 28.0 mb, which was 4.4 mb, or 13.6%, below the same time a year ago and 9.5 mb, or 25.4%, lower than the latest five-year average.

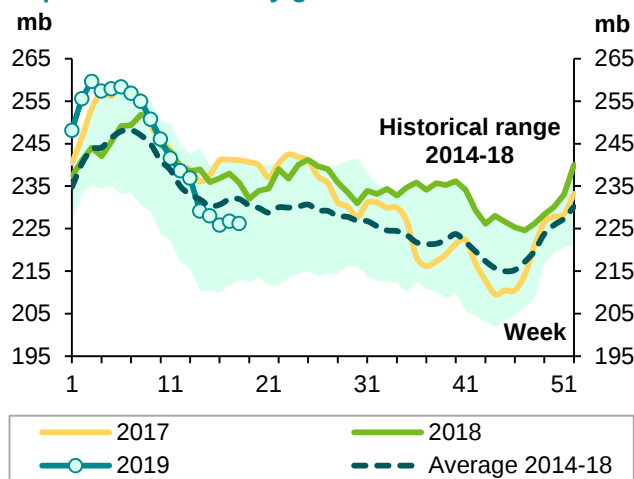
Jet fuel oil stocks were down by 0.6 mb m-o-m to stand at 39.7 mb in April, which was 1.2 mb, or 2.9%, lower than a year ago at the same time, and 1.6 mb, or 3.8%, below the latest five-year average.

Graph 9 - 2: US weekly commercial crude oil inventories



Sources: US EIA and OPEC Secretariat.

Graph 9 - 3: US weekly gasoline inventories



Sources: US EIA and OPEC Secretariat.

Table 9 - 2: US onland commercial petroleum stocks, mb

	Feb 19	Mar 19	Apr 19	Change Apr 19/Mar 19	Apr 18
Crude oil	451.7	449.5	466.6	17.1	435.1
Gasoline	251.4	236.8	226.1	-10.7	239.9
Distillate fuel	136.3	128.2	125.6	-2.6	120.6
Residual fuel oil	27.8	29.4	28.0	-1.5	32.3
Jet fuel	42.0	40.3	39.7	-0.6	40.9
Total products	801.5	779.6	789.0	9.4	765.1
Total	1,253.2	1,229.1	1,255.6	26.5	1,200.1
SPR	649.1	649.1	647.7	-1.4	664.0

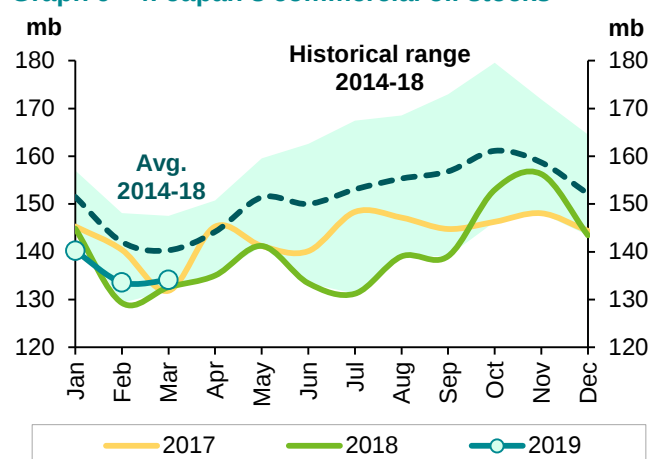
Sources: US EIA and OPEC Secretariat.

Japan

In Japan, **total commercial oil stocks** rose by 0.5 mb m-o-m in March, reversing the drop of the last three months, to settle at 134.1 mb, which was 1.6 mb, or 1.2%, above one year ago, but 6.2 mb, or 4.4%, below the latest five-year average. Within the components, crude stocks rose by 2.8 mb, while product stocks fell by 2.3 mb, m-o-m.

Japanese **commercial crude oil stocks** rose by 2.8 mb m-o-m in March to stand at 80.1 mb, which was 3.7 mb, or 4.8%, above the same period a year ago, but 4.2 mb, or 5.0%, below the seasonal norm. The build was driven by higher crude imports, which increased by 15% m-o-m, while higher refinery throughput limited further builds.

Graph 9 - 4: Japan's commercial oil stocks



Sources: Ministry of Economic, Trade and Industry of Japan and OPEC Secretariat.

In contrast, Japan's **total product inventories** fell m-o-m by 2.3 mb to end March at 54.0 mb, which was 2.1 mb, or 3.8%, lower than the same month last year and 2.0 mb, or 3.5%, below the seasonal norm. Within products, gasoline witnessed stock builds, while distillates and naphtha saw stock draws. Residual fuel oil stocks remained broadly unchanged in March, compared with the previous month.

Gasoline stocks rose by 0.2 mb m-o-m to stand at 10.4 mb in March, which was 0.2 mb, or 1.8%, higher than a year ago, but 0.5 mb, or 4.4%, lower than the latest five-year average. The build was mainly driven by higher gasoline output, which increased by 8.6% from the previous month. However, higher domestic sales, which increased by 8.1%, limited further builds.

In contrast, **distillate stocks** fell by 1.3 mb m-o-m to stand at 21.9 mb in March, which was 1.4 mb, or 6.1%, lower than the same time a year ago, however 0.1 mb, or 0.5%, higher than the seasonal average. Within distillate components, jet fuel stocks rose by 13.0%, while kerosene and gasoil fell by 13.5% and 6.0%, m-o-m, respectively. The build in jet fuel stocks was driven by higher output, while a decline in output was behind the fall in kerosene stocks. The fall in gasoil stocks was driven by higher domestic sales.

Total residual fuel oil stocks remained broadly unchanged in March to stand at 13.3 mb, which was 1.3 mb, or 10.6%, above the same period a year ago, and 0.1 mb, or 1.1%, higher than the latest five-year average. Within fuel oil components, fuel oil A stocks rose by 1.5%, while fuel oil B.C stocks fell by 1.2%, m-o-m. The build in fuel oil A was driven by lower domestic sales, while the drop in fuel oil B.C stocks could be attributed to lower output.

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

	<u>Jan 19</u>	<u>Feb 19</u>	<u>Mar 19</u>	<u>Change</u> <u>Mar 19/Feb 19</u>	<u>Mar 18</u>
Crude oil	79.5	77.3	80.1	2.8	76.4
Gasoline	10.7	10.2	10.4	0.2	10.2
Naphtha	9.4	9.5	8.3	-1.1	10.5
Middle distillates	26.6	23.2	21.9	-1.3	23.4
Residual fuel oil	14.0	13.4	13.3	0.0	12.1
Total products	60.7	56.3	54.0	-2.3	56.1
Total**	140.2	133.6	134.1	0.5	132.6

Note: * At the end of the month.

** Includes crude oil and main products only.

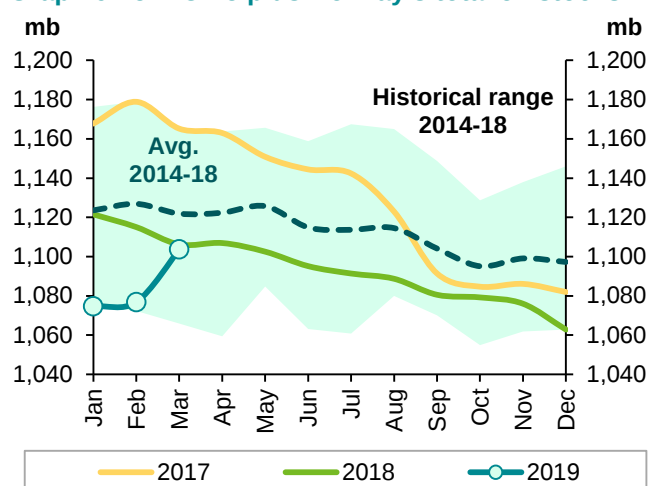
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

EU plus Norway

Preliminary data for March showed that **total European commercial oil stocks** rose significantly by 26.9 mb m-o-m to stand at 1,103.7 mb, which was 2.5 mb, or 0.2%, below the same time a year ago, and 18.2 mb, or 1.6%, lower than the latest five-year average. Within the components, crude and product stocks rose by 22.8 mb and 4.1 mb, m-o-m, respectively.

European **crude inventories** rose in March to stand at 481.1 mb, which was 0.8 mb, or 0.2%, lower than the same period a year ago, and 4.4 mb, or 0.9 %, lower than the latest five-year average. The build came on the back of lower refinery throughput in EU-16 countries.

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



Sources: Argus, Euroilstock and OPEC Secretariat.

European **total product stocks** rose by 4.1 mb m-o-m, ending March at 622.6 mb, which was 1.7 mb, or 0.3%, lower than the same time a year ago and 13.8 mb, or 2.2%, lower than the seasonal norm. Within products, gasoline witnessed a stock draw; while distillates, residual fuel and naphtha experienced stock builds.

Distillate stocks rose by 3.8 mb m-o-m in March for the third consecutive month to stand at 404.9 mb, which was 1.4 mb, or 0.3%, higher than last year at the same time, yet 10.8 mb, or 2.6%, below the seasonal norm.

Residual fuel stocks also rose by 0.4 mb m-o-m to end March at 62.5 mb, which was 4.4 mb, or 6.5%, lower than the same time one year ago and 10.6 mb, or 14.5%, lower than the seasonal norm.

Naphtha stocks also increased by 1.3 mb m-o-m to end March at 31.2 mb, which was 1.7 mb, or 5.2%, lower than last year's level at the same time, but about 4.8 mb, or 18.1%, higher than the latest five-year average.

The build in the three product categories could be attributed to the higher refinery output amid weak domestic consumption in the region.

In contrast, **gasoline stocks** fell by 1.4 mb m-o-m in March to stand at 123.9 mb, which was 3.0 mb, or 2.5%, higher than the same time a year ago and 2.9 mb, or 2.4%, above the latest five-year average.

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

	<u>Jan 19</u>	<u>Feb 19</u>	<u>Mar 19</u>	<u>Change</u> <u>Mar 19/Feb 19</u>	<u>Mar 18</u>
Crude oil	466.8	458.4	481.1	22.8	482.0
Gasoline	118.4	125.4	123.9	-1.4	120.9
Naphtha	31.7	29.9	31.2	1.3	32.9
Middle distillates	394.6	401.0	404.9	3.8	403.5
Fuel oils	63.2	62.1	62.5	0.4	66.9
Total products	607.9	618.5	622.6	4.1	624.3
Total	1,074.7	1,076.8	1,103.7	26.9	1,106.2

Sources: Argus, Euroilstock and OPEC Secretariat.

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

Singapore

At the end of March, **total product stocks in Singapore** fell by 2.8 mb m-o-m, reversing the builds of the last four consecutive months, to stand at 47.6 mb, which was 1.1 mb, or 2.4%, above the same period a year ago. All components namely light distillates, middle distillates and fuel oil stocks witnessed stock draws in March.

Most of the declines came from **middle distillate stocks**, which fell by 1.1 mb m-o-m, ending March at 11.1 mb, which was 0.5 mb, or 4.7%, above the same period a year ago. This drop may have been driven by higher imports from the hub.

Light distillate and residual fuel oil stocks also fell in March by 0.9 mb and 0.8 mb, m-o-m, respectively. At 15.8 mb, light distillate stocks were 0.7 mb, or 4.6%, above the same time a year ago. Residual fuel oil stocks stood at 20.7 mb at the end of March, indicating a deficit of 0.1 mb, or 0.5%, compared with the same time a year ago.

ARA

Total product stocks in ARA rose by 2.9 mb m-o-m in March, reversing the drop of last month, to settle at 43.0 mb, which was 2.9 mb, or 6.3%, below the same time a year ago. Within products, the picture was mixed; gasoil, jet fuel and naphtha stocks witnessed stock builds, while gasoline and fuel oil experienced stock draws.

Gasoline and fuel oil stocks fell by 0.7 mb and 0.2 mb, m-o-m, in March to stand at 8.9 mb and 5.7 mb, respectively. Gasoline remained 2.9 mb, or 24.6%, below last year's level, while fuel oil stocks were 0.7 mb, or 10.9%, below the same time last year.

In contrast, **gasoil and jet fuel stocks** rose by 2.4 mb and 0.9 mb, m-o-m, respectively, in March, ending the month at 20.3 mb and 5.7 mb, respectively. Gasoil stocks stood at 0.4 mb, or 2.0%, above last year at the same time, while jet fuel stocks stood at 1.1 mb, or 23.9%, above a year ago at the same time.

Naphtha stocks rose by 0.5 mb m-o-m in March to stand at 2.4 mb, which was 0.8 mb, or 25%, below last year's level at the same time.

Balance of Supply and Demand

Demand for OPEC crude in 2018 stood at 31.6 mb/d, 1.6 mb/d lower than the 2017 level and around 0.2 mb/d higher than the last monthly report. In comparison, according to secondary sources, in 2018, OPEC production averaged 31.9 mb/d, which is around 0.3 mb/d higher than the demand for OPEC crude. On a quarterly basis, OPEC crude production averaged 31.8 mb/d in 1Q18, which is 0.2 mb/d lower than the demand for OPEC crude. OPEC crude production averaged 31.6 mb/d in 2Q18, in line with the demand for OPEC crude. In contrast, OPEC crude production stood at 32.0 mb/d and 32.1 mb/d in 3Q18 and 4Q18, respectively, which is around 0.1 mb/d and 1.2 mb/d higher than the demand for OPEC crude.

Demand for OPEC crude in 2019 is forecast to decline by 1.0 mb/d to average 30.6 mb/d, which is 0.3 mb/d higher than the last assessment. In 1Q19, OPEC crude production averaged 30.5 mb/d, which almost in line with the demand for OPEC crude.

Balance of supply and demand in 2018

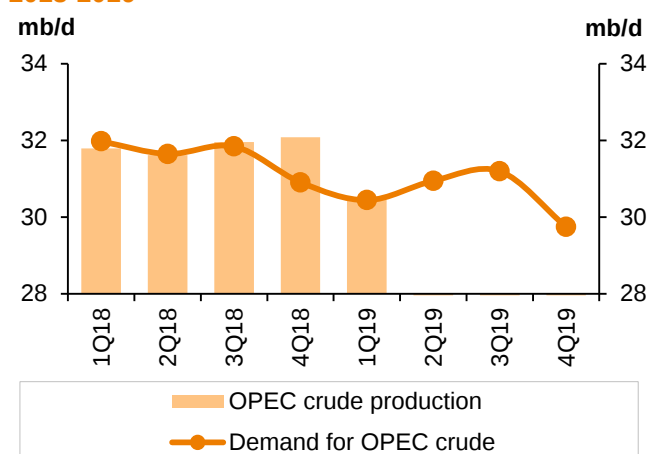
Demand for OPEC crude for 2018 was revised up by 0.2 mb/d from the previous report to stand at 31.6 mb/d, which is 1.6 mb/d lower than the 2017 level.

Compared with the last monthly report, both 1Q18 and 4Q18 were revised up by 0.3 mb/d, while 2Q18 and 3Q18 were revised up by 0.2 mb/d each.

When compared to the same quarter in 2017, 1Q18 was at the same level, while the second and third quarters were 1.3 mb/d and 2.3 mb/d lower. The fourth quarter fell by 2.8 mb/d.

In comparison, according to secondary sources, in 2018, OPEC production averaged 31.9 mb/d, which is around 0.3 mb/d higher than the demand for OPEC crude.

Graph 10 - 1: Balance of supply and demand, 2018-2019*



Note: * 2019 = Forecast.
Source: OPEC Secretariat.

On a quarterly basis, OPEC crude production averaged 31.8 mb/d in 1Q18, which is 0.2 mb/d lower than the demand for OPEC crude. OPEC crude production averaged 31.6 mb/d in 2Q18, in line with the demand for OPEC crude. In contrast, OPEC crude production stood at 32.0 mb/d and 32.1 mb/d in 3Q18 and 4Q18, respectively, which is around 0.1 mb/d and 1.2 mb/d higher than the demand for OPEC crude.

Table 10 - 1: Supply/demand balance for 2018, mb/d

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17
(a) World oil demand	97.32	97.83	98.05	99.38	99.63	98.73	1.41
Non-OPEC supply	59.47	61.20	61.59	62.71	63.97	62.37	2.91
OPEC NGLs and non-conventionals	4.64	4.66	4.81	4.82	4.76	4.76	0.13
(b) Total non-OPEC supply and OPEC NGLs	64.10	65.85	66.40	67.53	68.72	67.14	3.03
Difference (a-b)	33.21	31.98	31.65	31.84	30.91	31.59	-1.62
OPEC crude oil production	32.01	31.79	31.61	31.96	32.08	31.86	-0.15
Balance	-1.20	-0.18	-0.04	0.12	1.17	0.27	1.47

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

Balance of supply and demand in 2019

Demand for OPEC crude in 2019 was revised up by 0.3 mb/d from the previous report to stand at 30.6 mb/d, which is 1.0 mb/d lower than the 2018 level.

Compared with the last monthly report, 1Q19 and 2Q19 were revised up by 0.4 mb/d and 0.2 mb/d, respectively, from the last month. Both 3Q19 and 4Q19 were revised up by 0.3 mb/d each.

When compared to the same quarters in 2018, the first and fourth quarters are expected to fall by 1.5 mb/d and 1.2 mb/d, respectively. The second and third quarters are forecast to decrease by 0.7 mb/d and 0.6 mb/d, respectively.

According to secondary sources, in 1Q19, OPEC crude production averaged 30.5 mb/d, which almost in line with the demand for OPEC crude.

Table 10 - 2: Supply/demand balance for 2019*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18
(a) World oil demand	98.73	99.05	99.20	100.61	100.86	99.94	1.21
Non-OPEC supply	62.37	63.81	63.43	64.55	66.25	64.52	2.14
OPEC NGLs and non-conventionals	4.76	4.80	4.83	4.87	4.86	4.84	0.08
(b) Total non-OPEC supply and OPEC NGLs	67.14	68.61	68.26	69.42	71.11	69.35	2.22
Difference (a-b)	31.59	30.44	30.95	31.20	29.74	30.58	-1.01
OPEC crude oil production	31.86	30.46					
Balance	0.27	0.02					

Notes: * 2019 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Appendix

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

	2015	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
World demand													
OECD	46.52	46.97	47.42	47.69	47.24	48.16	48.14	47.81	47.94	47.41	48.40	48.35	48.03
Americas	24.59	24.87	25.06	25.20	25.40	25.78	25.74	25.53	25.43	25.65	26.07	26.01	25.79
Europe	13.83	13.99	14.30	13.95	14.19	14.68	14.32	14.29	13.97	14.15	14.66	14.29	14.27
Asia Pacific	8.10	8.11	8.06	8.54	7.65	7.70	8.08	7.99	8.53	7.61	7.67	8.05	7.96
DCs	30.89	31.53	32.16	32.46	32.62	32.89	32.59	32.64	32.98	33.16	33.43	33.13	33.18
FSU	4.58	4.63	4.70	4.66	4.65	4.94	5.01	4.82	4.75	4.74	5.03	5.11	4.91
Other Europe	0.67	0.70	0.72	0.73	0.69	0.73	0.82	0.74	0.75	0.71	0.75	0.84	0.76
China	11.49	11.80	12.32	12.28	12.84	12.65	13.07	12.71	12.63	13.19	13.00	13.43	13.06
(a) Total world demand	94.16	95.63	97.32	97.83	98.05	99.38	99.63	98.73	99.05	99.20	100.61	100.86	99.94
Non-OPEC supply													
OECD	25.36	24.85	25.71	27.27	27.53	28.65	29.47	28.24	29.33	29.08	30.13	31.25	29.95
Americas	21.08	20.58	21.49	22.93	23.37	24.52	25.15	24.00	25.06	24.96	25.91	26.76	25.68
Europe	3.82	3.85	3.82	3.94	3.79	3.70	3.89	3.83	3.84	3.66	3.75	3.98	3.81
Asia Pacific	0.46	0.42	0.39	0.40	0.38	0.42	0.44	0.41	0.44	0.46	0.48	0.51	0.47
DCs	13.78	13.53	13.39	13.45	13.52	13.40	13.50	13.47	13.42	13.66	13.88	14.04	13.75
FSU	13.69	13.85	14.05	14.10	14.14	14.33	14.57	14.29	14.55	14.23	14.19	14.58	14.39
Other Europe	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
China	4.40	4.09	3.98	4.01	4.03	3.97	4.05	4.01	4.11	4.06	3.96	3.98	4.03
Processing gains	2.17	2.19	2.21	2.25	2.25	2.25	2.25	2.25	2.28	2.28	2.28	2.28	2.28
Total non-OPEC supply	59.54	58.66	59.47	61.20	61.59	62.71	63.97	62.37	63.81	63.43	64.55	66.25	64.52
OPEC NGLs + non-conventional oils	4.44	4.58	4.64	4.66	4.81	4.82	4.76	4.76	4.80	4.83	4.87	4.86	4.84
(b) Total non-OPEC supply and OPEC NGLs	63.98	63.24	64.10	65.85	66.40	67.53	68.72	67.14	68.61	68.26	69.42	71.11	69.35
OPEC crude oil production (secondary sources)	31.24	32.21	32.01	31.79	31.61	31.96	32.08	31.86	30.46	0.00	0.00	0.00	0.00
Total supply	95.22	95.45	96.12	97.65	98.01	99.49	100.81	99.00	99.07	68.26	69.42	71.11	69.35
Balance (stock change and miscellaneous)	1.06	-0.18	-1.20	-0.18	-0.04	0.12	1.18	0.27	0.02	-30.95	-31.20	-29.74	-30.58
OECD closing stock levels, mb													
Commercial	2,989	3,002	2,853	2,816	2,816	2,866	2,870	2,870	2,875				
SPR	1,588	1,600	1,568	1,575	1,570	1,565	1,547	1,547	1,551				
Total	4,577	4,602	4,421	4,391	4,386	4,432	4,418	4,418	4,425				
Oil-on-water	1,017	1,102	1,025	1,036	1,014	1,041	1,058	1,058	1,013				
Days of forward consumption in OECD, days													
Commercial onland stocks	64	63	60	60	58	60	60	60	61				
SPR	34	34	33	33	33	33	32	32	33				
Total	97	97	92	93	91	92	92	92	93				
Memo items													
(a) - (b)	30.18	32.39	33.21	31.98	31.65	31.84	30.91	31.59	30.44	30.95	31.20	29.74	30.58

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

Source: OPEC Secretariat.

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

	2015	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
World demand													
OECD	-	-	-	-	-	-	-	-	-	0.01	0.01	0.01	-
Americas	-	-	-	-	-	-	-	-	-	0.02	0.01	0.02	0.01
Europe	-	-	-	-	-	-	-	-	-	-0.01	-0.01	-0.01	-0.01
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.02	0.01	0.01	0.01	0.01
(a) Total world demand	-	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
Non-OPEC supply													
OECD	-	-	-	-0.01	-	-	0.01	-	-0.14	-0.01	-0.01	-0.01	-0.04
Americas	-	-	-	-	-	-	0.01	-	-0.09	-	-	-	-0.02
Europe	-	-	-	-	-	-	-	-	-0.04	-0.01	-0.01	-0.01	-0.02
Asia Pacific	-	-	-	-0.01	-	-	-	-	-0.01	-	-	-	-
DCs	-	-	-	-	-0.01	0.01	-	-	-0.06	-	-	-	-0.02
FSU	-	-	-	-	-	-	-	-	-0.01	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	0.02	-	-	-	-	0.06	0.09	-	-	0.04
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	0.01	-0.01	0.01	0.01	0.01	-0.16	0.08	-0.01	-0.01	-0.03
OPEC NGLs + non-conventionals	-0.25	-0.23	-0.30	-0.26	-0.15	-0.16	-0.30	-0.22	-0.23	-0.23	-0.21	-0.25	-0.23
(b) Total non-OPEC supply and OPEC NGLs	-0.25	-0.23	-0.30	-0.24	-0.16	-0.15	-0.29	-0.21	-0.40	-0.14	-0.23	-0.26	-0.26
OPEC crude oil production (secondary sources)	-	-	-	-	-	-	-	-	0.01				
Total supply	-0.25	-0.23	-0.30	-0.24	-0.16	-0.15	-0.29	-0.21	-0.39				
Balance (stock change and miscellaneous)	-0.25	-0.25	-0.33	-0.27	-0.19	-0.17	-0.32	-0.24	-0.42				
OECD closing stock levels (mb)													
Commercial	-	-	-	-	-	-	-2	-2	-				
SPR	-	-	-	-	-	-	-	-	-				
Total	-	-	-	-	-	-	-3	-3	-				
Oil-on-water	-	-	-	-	-	-	-	-	-				
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	-	-	-	-	-	-				
SPR	-	-	-	-	-	-	-	-	-				
Total	-	-	-	-	-	-	-	-	-				
Memo items													
(a) - (b)	0.25	0.25	0.33	0.27	0.19	0.17	0.32	0.24	0.42	0.17	0.25	0.28	0.28

Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the April 2019 issue.

This table shows only where changes have occurred.

Source: OPEC Secretariat.

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

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>1Q19</u>
Closing stock levels, mb												
OECD onland commercial	3,002	2,853	2,870	3,031	3,019	2,969	2,853	2,816	2,816	2,866	2,870	2,875
Americas	1,598	1,498	1,542	1,606	1,596	1,571	1,498	1,468	1,471	1,541	1,542	1,495
Europe	989	943	929	1,022	999	965	943	970	958	936	929	993
Asia Pacific	415	412	399	404	424	433	412	378	388	390	399	387
OECD SPR	1,600	1,568	1,547	1,600	1,588	1,578	1,568	1,575	1,570	1,565	1,547	1,551
Americas	697	665	651	694	681	676	665	667	662	662	651	651
Europe	481	480	476	484	484	479	480	485	486	481	476	480
Asia Pacific	421	423	420	422	423	423	423	422	422	422	420	419
OECD total	4,602	4,421	4,418	4,630	4,608	4,547	4,421	4,391	4,386	4,432	4,418	4,425
Oil-on-water	1,102	1,025	1,058	1,043	1,052	998	1,025	1,036	1,014	1,041	1,058	1,013
Days of forward consumption in OECD, days												
OECD onland commercial	63	60	60	64	63	62	60	60	58	60	60	61
Americas	64	59	60	64	63	62	59	58	57	60	61	58
Europe	69	66	65	72	68	67	68	68	65	65	66	70
Asia Pacific	51	52	50	53	54	52	48	49	50	48	47	51
OECD SPR	34	33	33	34	33	33	33	33	33	33	32	33
Americas	28	26	26	28	27	27	26	26	26	26	26	25
Europe	34	34	34	34	33	33	34	34	33	34	34	34
Asia Pacific	52	53	53	55	54	51	50	55	55	52	49	55
OECD total	97	92	93	98	97	95	93	93	91	92	92	93

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

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

	2015	2016	2017	3Q18	4Q18	2018	Change 18/17	1Q19	2Q19	3Q19	4Q19	2019	Change 19/18
US	14.1	13.6	14.4	17.2	17.7	16.7	2.3	17.8	18.1	18.6	19.5	18.5	1.8
Canada	4.4	4.5	4.9	5.3	5.5	5.3	0.4	5.3	4.9	5.3	5.4	5.2	0.0
Mexico	2.6	2.5	2.2	2.1	2.0	2.1	-0.2	1.9	1.9	1.9	1.9	1.9	-0.1
OECD Americas	21.1	20.6	21.5	24.5	25.1	24.0	2.5	25.1	25.0	25.9	26.8	25.7	1.7
Norway	1.9	2.0	2.0	1.8	1.9	1.8	-0.1	1.8	1.7	1.8	1.9	1.8	-0.1
UK	1.0	1.0	1.0	1.1	1.2	1.1	0.1	1.2	1.2	1.1	1.2	1.2	0.0
Denmark	0.2	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	0.1	0.7	0.7	0.7	0.7	0.7	0.0
OECD Europe	3.8	3.8	3.8	3.7	3.9	3.8	0.0	3.8	3.7	3.7	4.0	3.8	0.0
Australia	0.4	0.3	0.3	0.3	0.4	0.3	0.0	0.4	0.4	0.4	0.4	0.4	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	0.5	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.5	0.5	0.5	0.5	0.1
Total OECD	25.4	24.9	25.7	28.6	29.5	28.2	2.5	29.3	29.1	30.1	31.2	30.0	1.7
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	0.9	0.0	0.8	0.8	0.8	0.8	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	0.8	0.0
Malaysia	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
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	0.3	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Asia others	0.3	0.3	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	3.7	3.6	3.5	3.5	3.6	-0.1	3.5	3.4	3.5	3.5	3.5	-0.1
Argentina	0.7	0.7	0.6	0.6	0.7	0.6	0.0	0.6	0.6	0.6	0.6	0.6	0.0
Brazil	3.1	3.1	3.3	3.2	3.3	3.3	0.0	3.3	3.6	3.7	3.8	3.6	0.3
Colombia	1.0	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Trinidad & Tobago	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
Latin America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Latin America	5.2	5.1	5.2	5.1	5.3	5.2	0.0	5.2	5.4	5.6	5.7	5.5	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	1.0	1.0	1.0	1.0	0.0
Qatar	2.0	2.0	1.9	2.0	2.0	2.0	0.1	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	0.0	0.0	0.0	0.0	0.0
Middle East	3.3	3.3	3.1	3.2	3.2	3.2	0.1	3.2	3.2	3.2	3.2	3.2	0.0
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	0.7	0.7	0.7	0.0	0.7	0.6	0.7	0.7	0.7	0.0
Ghana	0.1	0.1	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	0.3	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.3	0.2	0.0
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	1.6	1.5	1.5	1.5	1.5	1.5	0.0	1.5	1.6	1.6	1.6	1.6	0.1
Total DCs	13.8	13.5	13.4	13.4	13.5	13.5	0.1	13.4	13.7	13.9	14.0	13.8	0.3
FSU	13.7	13.9	14.1	14.3	14.6	14.3	0.2	14.5	14.2	14.2	14.6	14.4	0.1
Russia	10.8	11.1	11.2	11.4	11.6	11.3	0.2	11.5	11.4	11.6	11.6	11.5	0.2
Kazakhstan	1.6	1.6	1.7	1.8	1.8	1.8	0.1	1.9	1.7	1.5	1.9	1.7	-0.1
Azerbaijan	0.9	0.8	0.8	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.8	0.0
FSU others	0.4	0.4	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	4.4	4.1	4.0	4.0	4.1	4.0	0.0	4.1	4.1	4.0	4.0	4.0	0.0
Non-OPEC production	57.4	56.5	57.3	60.5	61.7	60.1	2.9	61.5	61.2	62.3	64.0	62.2	2.1
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	0.0	2.3	2.3	2.3	2.3	2.3	0.0
Non-OPEC supply	59.5	58.7	59.5	62.7	64.0	62.4	2.9	63.8	63.4	64.5	66.3	64.5	2.1
OPEC NGL	4.3	4.5	4.5	4.7	4.7	4.7	0.1	4.7	4.7	4.8	4.8	4.7	0.1
OPEC Non-conventional	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)	4.4	4.6	4.6	4.8	4.8	4.8	0.1	4.8	4.8	4.9	4.9	4.8	0.1
Non-OPEC & OPEC (NGL+NCF)	64.0	63.2	64.1	67.5	68.7	67.1	3.0	68.6	68.3	69.4	71.1	69.4	2.2

Note: OECD Americas includes Chile.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 11 - 5: World rig count, units

	2016	2017	2018	Change 2018/17	2Q18	3Q18	4Q18	1Q19	Mar 19	Apr 19	Change Apr/Mar
US	509	875	1,031	157	1,037	1,051	1,073	1,045	1,023	1,013	-10
Canada	131	207	191	-15	106	208	177	185	151	66	-85
Mexico	26	17	27	9	25	30	32	26	30	35	5
OECD Americas	665	1,099	1,249	150	1,168	1,289	1,282	1,257	1,204	1,114	-90
Norway	17	15	15	0	14	14	17	15	17	18	1
UK	9	9	7	-2	6	8	8	13	14	15	1
OECD Europe	96	92	85	-7	82	84	90	92	95	98	3
OECD Asia Pacific	7	15	21	5	21	22	23	24	22	27	5
Total OECD	768	1,206	1,355	149	1,271	1,395	1,396	1,372	1,321	1,239	-82
Other Asia*	204	208	222	14	216	228	224	232	233	233	0
Latin America	111	112	123	11	120	126	123	128	129	126	-3
Middle East	75	68	65	-4	67	64	62	66	67	70	3
Africa	43	38	45	7	45	50	50	54	56	53	-3
Total DCs	432	426	454	28	447	468	460	481	485	482	-3
Non-OPEC rig count	1,200	1,632	1,809	177	1,718	1,863	1,855	1,853	1,806	1,721	-85
Algeria	54	54	50	-4	52	48	47	47	52	52	0
Angola	6	3	4	1	3	4	5	5	5	5	0
Congo	2	2	3	1	3	3	4	4	4	4	0
Ecuador	4	6	8	2	6	9	11	9	7	7	0
Equatorial Guinea**	1	1	1	0	1	1	1	1	1	1	0
Gabon	1	1	3	3	4	3	4	7	7	7	0
Iran**	143	156	157	2	157	157	157	157	157	157	0
Iraq	43	49	59	10	60	58	61	65	67	73	6
Kuwait	44	54	51	-3	54	50	45	44	41	43	2
Libya	1	1	5	4	1	7	9	11	15	15	0
Nigeria	6	9	13	5	13	15	12	14	14	14	0
Saudi Arabia	125	118	117	-1	112	119	123	118	115	120	5
UAE	51	52	55	4	54	56	57	58	57	57	0
Venezuela	58	49	32	-17	30	27	26	25	22	22	0
OPEC rig count	537	553	558	5	550	557	563	565	564	577	13
World rig count***	1,737	2,185	2,368	183	2,268	2,419	2,418	2,418	2,370	2,298	-72
of which:											
Oil	1,313	1,678	1,886	209	1,803	1,945	1,934	1,936	1,899	1,837	-62
Gas	370	466	448	-17	432	440	453	455	443	432	-11
Others	54	42	33	-9	34	34	31	26	28	29	1

Note: * Other Asia includes Indonesia.

** Estimated data when Baker Hughes Incorporated did not reported the data.

*** Data excludes China and FSU.

Totals may not add up due to independent rounding.

Sources: Baker Hughes Incorporated and OPEC Secretariat's estimates.

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

Glossary of Terms

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



up 4.41 in April

April 2019	70.78
March 2019	66.37
Year-to-date	64.87

April OPEC crude production

mb/d, according to secondary sources



unchanged in April

April 2019	30.03
March 2019	30.03

Economic growth rate

per cent

	World	OECD	US	Japan	Euro-zone	China	India
2018	3.6	2.3	2.9	0.8	1.8	6.6	7.3
2019	3.2	1.7	2.6	0.4	1.2	6.2	7.1

Supply and demand

mb/d

2018		18/17	2019		19/18
World demand	98.7	1.4	World demand	99.9	1.2
Non-OPEC supply	62.4	2.9	Non-OPEC supply	64.5	2.1
OPEC NGLs	4.8	0.1	OPEC NGLs	4.8	0.1
Difference	31.6	-1.6	Difference	30.6	-1.0

OECD commercial stocks

mb

	Jan 19	Feb 19	Mar 19	Mar 19/Feb 19	Mar 18
Crude oil	1,422	1,431	1,454	23.4	1,406
Products	1,471	1,440	1,420	-20.1	1,410
Total	2,893	2,871	2,875	3.3	2,816
Days of forward cover	60.4	60.6	60.6	0.1	59.6

Next report to be issued on 13 June 2019.