

OPEC

Monthly Oil Market Report

11 March 2020

***Feature article:**
Assessment of the global economy in 2020*

| | |
|------------------------------------------------|------------|
| <i>Oil market highlights</i> | <i>I</i> |
| <i>Feature article</i> | <i>III</i> |
| <i>Crude oil price movements</i> | <i>1</i> |
| <i>Commodity markets</i> | <i>9</i> |
| <i>World economy</i> | <i>12</i> |
| <i>World oil demand</i> | <i>29</i> |
| <i>World oil supply</i> | <i>40</i> |
| <i>Product markets and refinery operations</i> | <i>55</i> |
| <i>Tanker market</i> | <i>62</i> |
| <i>Oil trade</i> | <i>66</i> |
| <i>Stock movements</i> | <i>72</i> |
| <i>Balance of supply and demand</i> | <i>78</i> |



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

Disclaimer

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

Full reproduction, copying or transmission of the MOMR is not permitted in any form or by any means by third parties without the OPEC Secretariat's written permission, however, the information contained therein may be used and/or reproduced for educational and other non-commercial purposes without the OPEC Secretariat's prior written permission, provided that it is fully acknowledged as the copyright holder. The MOMR may contain references to material(s) from third parties, whose copyright must be acknowledged by obtaining necessary authorization from the copyright owner(s). The OPEC Secretariat or its governing bodies shall not be liable or responsible for any unauthorized use of any third party material(s). All rights of the MOMR shall be reserved to the OPEC Secretariat, as applicable, including every exclusive economic right, in full or per excerpts, with special reference but without limitation, to the right to publish it by press and/or by any communications medium whatsoever; translate, include in a data base, make changes, transform and process for any kind of use, including radio, television or cinema adaptations, as well as a sound-video recording, audio-visual screenplays and electronic processing of any kind and nature whatsoever.

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

Imad Al-Khayyat
email: ial-khayyat(at)opec.org

Asmaa Yaseen
email: ayaseen(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

Douglas Linton
email: dlinton(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

Ms. Bosrah Alseiari, Head, Data Services Department (bAlseiari(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 (Product Markets and Refinery Operations), Justinas Pelenis (World Economy)

Editing, production, design and circulation

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

Oil Market Highlights

Crude Oil Price Movements

The OPEC Reference Basket (ORB) value fell sharply in February, tumbling by about \$10, or 15%, month-on-month (m-o-m), to settle at an average of \$55.49/b, its lowest since September 2017. The ORB dropped further in March, to close at \$34.71/b on 9 March. Similarly, ICE Brent fell in February by \$8.20, or 12.9%, to average \$55.48/b, while NYMEX WTI declined by \$6.99, or 12.1%, to average \$50.54/b. In March, futures prices tumbled about 25% in one trading session on 9 March, recording their biggest daily decline in nearly 30 years, with ICE Brent and NYMEX WTI settling respectively at \$34.36/b and \$31.13/b. Year-to-date (y-t-d), ICE Brent price was down \$2.47, or 4.0%, at \$59.77/b, while NYMEX WTI was higher by \$1.03, or 1.9%, at \$54.21/b, compared to a year earlier. The backwardation market structure of both ICE Brent and DME Oman flattened in February, before the M1/M3 spread flipped on 9 March to a deep contango of \$1.42/b and \$1.48/b, respectively. Meanwhile, NYMEX WTI moved deeper into contango, to stand at 81¢/b on 9 March. Hedge funds and other money managers continued to reduce their net long positions in February in response to the significant decline of more than 12% in crude oil prices over the month.

World Economy

Following a considerably weaker economic growth for 2H19 in Japan, Euro-zone and in India, the Covid-19 related developments necessitated a further downward revision of the 2020 GDP growth forecast to 2.4% from 3.0% forecast in the previous month. This compares to a 2019 GDP growth estimate of 2.9%. US growth remains at 2.3% for 2019 but is revised down to 1.6% for 2020 due to an anticipated slowdown in consumption amid rising uncertainties, triggered by declining asset markets. Euro-zone growth remains at 1.2% for 2019, but is lowered to 0.6% for 2020, mainly due to the expectation of reduced exports, slowing consumption in select Euro-zone economies and the drastic development seen in Italy. Japan's 2019 GDP growth is revised down to 0.7% on the back of much lower-than-estimated 4Q19 growth, which, in combination with Covid-19 related effects also led to a downward revision for 2020 GDP growth to -0.2%. Following growth of 6.1% in 2019, the 2020 economic growth forecast for China is revised down to 5.0%, considering the latest Covid-19 impacts. India's 2019 growth is revised up to 5.3%, based on India's latest actual GDP growth numbers, but is revised down to 5.2% for 2020, mainly due to ongoing domestic challenges, as well as a deteriorating external environment. Brazil's growth remains unchanged at 1.0% for 2019, but is revised down to 1.6% for 2020, impacted by slowing external trade. Russia's growth remains unchanged at 1.1% for 2019 and is revised down to 0.8% for 2020, impacted by the decline in commodity export markets. Further downside risks to the world economy remains given the uncertainty regarding the magnitude of Covid-19 related impacts.

World Oil Demand

World oil demand growth in 2019 is revised down by 0.08 mb/d to 0.83 mb/d from the previous month's assessment. The downward adjustment mainly reflects weaker-than-expected data from OECD Americas. World oil demand growth in 2020 is also adjusted lower by 0.92 mb/d to 0.06 mb/d, reflecting slower global economic growth associated with a wider spread of Covid-19 beyond China. The impact of the Covid-19 outbreak in China and its adverse impacts on transportation and industrial fuels were the main causes of this downward revision. In addition, the outbreak is also assumed to severely affect oil demand growth in various other countries and regions outside China, such as Japan, South Korea, OECD Europe and the Middle East, which has led to a downward revision in those regions as well. Total global oil demand is now assumed at 99.73 mb/d in 2020, with 2H20 forecast to see higher consumption than 1H20. Considering the latest developments, downward risks currently outweigh any positive indicators and suggest further likely downward revisions in oil demand growth, should the current status persist.

World Oil Supply

Non-OPEC oil supply growth for 2019 is revised up by 0.09 mb/d to 1.99 mb/d from the previous month's assessment. It should be noted that Ecuador is included in this group as of this month's MOMR issue. For 2020, the non-OPEC oil supply growth forecast is revised down by 0.49 mb/d to 1.76 mb/d. Production is revised up mainly for Russia, Thailand, Indonesia and Oman, while the US, China, Mexico, Colombia, Norway, Azerbaijan and Malaysia are revised lower. US liquids production growth in 2020 is revised down by 0.36 mb/d to 0.90 mb/d, y-o-y. However, the US is forecast to drive growth throughout the year, along with Brazil, Norway, Canada, Guyana and Australia, while Mexico, Colombia, Egypt and China are forecast to see the largest

Oil Market Highlights

declines. OPEC NGL production in 2019 is estimated to have grown by 0.04 mb/d to average 4.80 mb/d and for 2020 will grow by 0.03 mb/d to average 4.83 mb/d. In February, OPEC crude oil production dropped by 546 tb/d m-o-m to average 27.77 mb/d, according to secondary sources.

Product Markets and Refining Operations

Product markets in February lost ground in the Atlantic Basin. In the US and in Europe, the middle of the barrel weakened, in particular the jet fuel segment, caused by aviation transportation disruptions as Covid-19 spread beyond China. In Asia, hefty refinery intake cuts and robust product exports provided support, offsetting demand-side pressure as Covid-19 strongly affected fuel consumption. High sulphur fuel oil crack spreads jumped in Europe and Asia, and increased to reach positive levels in the US, after remaining in negative territory in the previous four consecutive months.

Tanker Market

Dirty tanker spot freight rates were negatively impacted by the unexpected developments in February, undermining the optimistic outlook that began the year. Disruptions caused by measures to stem the outbreak of Covid-19 in China led to a sharp drop in economic activities, including refinery runs, which weighed on crude import demand and freight rates. At the same time, tanker availability was further increased by the unexpected lifting of sanctions on a subsidiary of China's Cosco at the end of January, which dampened dirty tanker spot rates, particularly for VLCCs. The market appeared to be looking for a bottom by the end of February, but considerable uncertainties remain for March, given the widening disruptions brought about by the ongoing spread of Covid-19.

Stock Movements

Preliminary data for January showed that total OECD commercial oil stocks rose by 37.8 mb m-o-m to stand at 2,940 mb. This was 56.9 mb higher than the same time one year ago and 12.9 mb above the latest five-year average. Within the components, crude stocks fell slightly by 0.8 mb, while products stocks rose by 38.6 mb m-o-m. OECD crude stocks stood at 9.1 mb below the latest five-year average, while product stocks exhibited a surplus of 21.9 mb. In terms of days of forward cover, OECD commercial stocks rose m-o-m by 0.8 days to stand at 62.2 days, which was 1.6 days above the same month in 2018, and 0.4 days above the latest five-year average. Given the expected growing imbalance in the coming months, oil stocks, including floating storage, are likely to increase.

Balance of Supply and Demand

Demand for OPEC crude in 2019 stood at 29.9 mb/d, 1.2 mb/d lower than the 2018 level. Demand for OPEC crude in 2020 is expected at 28.2 mb/d, around 1.7 mb/d lower than the 2019 level.

Feature Article

Assessment of the global economy in 2020

Despite tender signs of improvement at the beginning of the year, current expectations for global economic growth is being dragged down by the carry-over of weak 4Q19 data in several key economies, along with the strong impact of the rapidly spreading outbreak of Covid-19. Previously forecast growth of 3.0% for 2020 global GDP is now therefore revised down to 2.4% (**Graph 1**). Furthermore, the impact of Covid-19 is exacerbated by high global debt levels, the ongoing general slowdown in world trade as well as challenges in manufacturing, impacted by slowing capital expenditure in various key economies and by a globally decelerating automotive industry. The underlying key-assumption for the forecast is that while China will see a sharp deceleration in 1Q20 and to a lesser extent in 2Q20, a recovery in the country is projected to take hold in 2H20, supported by government-led stimulus measures. However, the impact of Covid-19 related developments outside China will continue well into 2Q20, especially in Asia, the Euro-zone, US and Middle East. Therefore, all these regions are forecast to see a slowdown through 2Q20, recovering only towards the second half of 3Q20. By 4Q20 global activity is assumed to have normalized. Depending on future developments, further downside risk remains.

While the Covid-19 related news dominates markets, additional challenges such as Brexit, geopolitical tensions, and significant fiscal challenges in selective economies continue. On the other hand, economic performance in the US, improving global trade relations in combination with fiscal stimulus measures in China, Japan, Italy and other economies, as well as ongoing accommodative monetary policies, may offset some of the current downside.

While most **OECD economies** were revised down over the past weeks to now show growth of 1.2% for the region in 2020, the US economy is still holding up better at a forecast 1.6%. Monetary policies by major OECD central banks are also expected to remain accommodative to counterbalance some of the downside-momentum. Nevertheless, Euro-zone growth levels will come down more significantly to 0.6%. This assumes that Italy will face a recession in 2020, after drastic measures to fight Covid-19 were implemented most recently. Japan's 2020 growth was revised down to -0.2%, following weak 4Q19 growth and Covid-19 contagion.

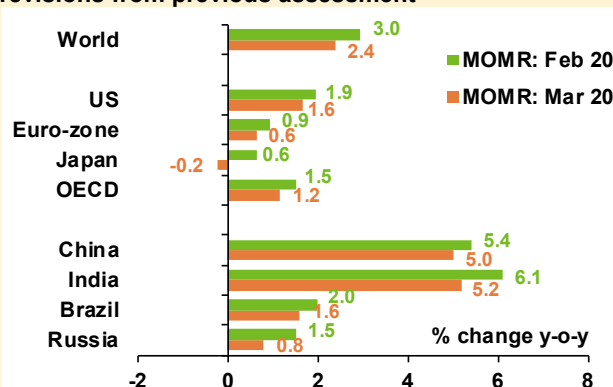
In the **emerging economies**, China is forecast to be further impacted by the ongoing Covid-19-related developments in 1H20, leading to 5.0% growth for the year. India's 2020 GDP growth was revised down to 5.2%, compared to forecasts of more than 6% in the previous months, mainly due to ongoing domestic challenges and a worsening external environment. Brazil's 2020 GDP growth is forecast at 1.6%, impacted by expected slowing external trade. Russia's 2020 growth is forecast at 0.8% for 2020, due to the decline in commodity export markets.

The tremendous impact that the Covid-19 outbreak had so far on economic growth has significantly impacted oil demand growth in 1Q20 and therefore led to a downward revision to show less than

0.1 mb/d growth for the entire year 2020. Non-OPEC supply is now forecast to grow by 1.8 mb/d in 2020, a downward revision of 0.5 mb/d, mainly reflecting a further slowdown in US tight oil.

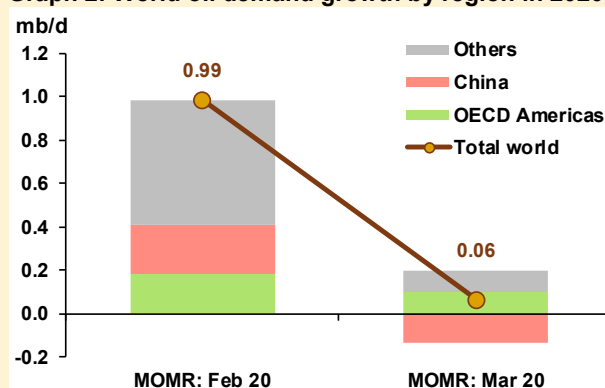
The impact of the Covid-19 related developments on an already fragile global economic situation is quite challenging and requires coordinated global policy action of all market participants.

Graph 1: GDP growth forecast for 2020*, revisions from previous assessment



Note: * 2020 = Forecast. Source: OPEC.

Graph 2: World oil demand growth by region in 2020*



Note: * 2020 = Forecast. Source: OPEC.

Table of Contents

| | |
|---------------------------------------------------------------|------------|
| Contributors to the OPEC Monthly Oil Market Report | i |
| Oil Market Highlights | iii |
| Feature Article | v |
| <i>Assessment of the global economy in 2020</i> | v |
| Crude Oil Price Movements | 1 |
| OPEC Reference Basket | 1 |
| The oil futures market | 3 |
| The futures market structure | 5 |
| The light sweet/medium sour crude spread | 7 |
| The impact of the US dollar (USD) and inflation on oil prices | 7 |
| Commodity Markets | 9 |
| Trends in selected commodity markets | 9 |
| Investment flows into commodities | 11 |
| World Economy | 12 |
| OECD | 13 |
| Non-OECD | 19 |
| World Oil Demand | 29 |
| World oil demand in 2019 and 2020 | 29 |
| OECD | 30 |
| Non-OECD | 34 |
| World Oil Supply | 40 |
| Main monthly revisions | 41 |
| Key drivers of growth and decline | 41 |
| Non-OPEC liquids production in 2019 and 2020 | 42 |
| OECD | 43 |
| OECD Americas | 43 |
| OECD Europe | 47 |
| Developing Countries | 48 |
| OPEC NGL and non-conventional oils | 52 |
| OPEC crude oil production | 53 |
| World oil supply | 54 |
| Product Markets and Refinery Operations | 55 |
| Refinery margins | 55 |
| Refinery operations | 56 |
| Product markets | 57 |

Table of Contents

| | |
|-----------------------------------------------------------|-----------|
| Tanker Market | 62 |
| Spot fixtures | 62 |
| Sailings and arrivals | 63 |
| Dirty tanker freight rates | 63 |
| Clean tanker freight rates | 65 |
| Oil Trade | 66 |
| US | 66 |
| China | 68 |
| India | 68 |
| Japan | 69 |
| OECD Europe | 70 |
| FSU | 71 |
| Stock Movements | 72 |
| OECD | 72 |
| US | 73 |
| Japan | 75 |
| EU plus Norway | 76 |
| Singapore, Amsterdam-Rotterdam-Antwerp (ARA) and Fujairah | 77 |
| Balance of Supply and Demand | 78 |
| Balance of supply and demand in 2019 | 78 |
| Balance of supply and demand in 2020 | 79 |
| Appendix | 80 |
| Glossary of Terms | 85 |
| Abbreviations | 85 |
| Acronyms | 86 |

Crude Oil Price Movements

The **OPEC Reference Basket (ORB)** value fell sharply lower in February, tumbling by about \$10, or 15%, m-o-m, to settle at an average of \$55.49/b, its lowest point since September 2017, as all ORB component values dropped significantly alongside their perspective crude oil benchmarks amid softening oil demand, weak refining margins and significant refinery run cuts due to the rapid spread of Covid-19 in China and in several other countries. The ORB value declined further in the first ten days of March, to reach \$34.71/b on Monday, 9 March, its lowest level since April 2016.

Crude oil futures prices ended February significantly lower with both ICE Brent and NYMEX WTI showing monthly declines of more than 12% to reach their lowest monthly values in almost two-and-a-half years, as the fast spread of Covid-19 in China and several other countries raised investors' concerns about the impacts on the global economy and oil demand. Market sentiment shifted its focus to concerns about the oil supply overhang amid uncertainties on the extent of the demand destruction and expectations of higher global oil supply in coming months, which triggered sharp sell-offs in the market, leading to oil futures prices plunging by more than 33% in the first ten days of March with ICE Brent settling at \$34.36/b and NYMEX WTI at 31.13/b on Monday, 9 March. ICE Brent in February fell by \$8.20, or 12.9%, to average \$55.48/b, while NYMEX WTI declined by \$6.99, or 12.1%, to average \$50.54/b. Year-to-date, ICE Brent was down \$2.47, or 4.0%, at \$59.77/b, while NYMEX WTI was higher by \$1.03, or 1.9%, at \$54.21/b, compared to a year earlier. DME Oman crude oil futures prices fell m-o-m in February by \$10.10, or 15.7%, to settle at \$54.30/b. Year-to-date, DME Oman was lower by \$2.40, or 3.9%, at \$59.61/b, from the same period a year earlier.

Hedge funds and other money managers continued to reduce their net long positions in February as crude prices slipped by more than 12% over the month. Speculators liquidated their bullish bets and remained extremely concerned about slowing oil demand, particularly in Asia, and uncertainty about the extent of demand destruction due to Covid-19, while most forecasters lowered their oil demand projections for this year. The backwardation **price structure** of both ICE Brent and DME Oman flattened in February on the sharp decline in oil prices and concerns about market oversupply amid softening global oil demand. Moreover, the forward structures moved into deep contango in the end of the first ten days of March. At the same time, the NYMEX WTI forward price moved deeper into contango.

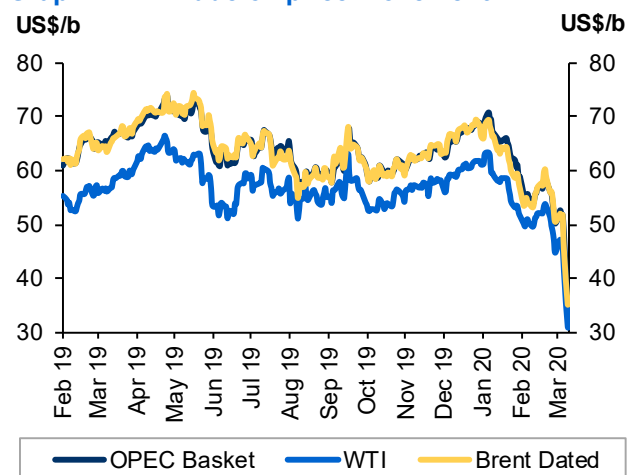
Sweet/sour crude differentials widened in Asia on weakening East Suez sour crude markets, while the differential narrowed slightly in Europe and the USGC on higher availability of light sweet crude in the Atlantic Basin.

OPEC Reference Basket

The **ORB value** declined significantly in February, falling by about \$10, or 15%, m-o-m, to settle at an average of \$55.49/b, its lowest point since September 2017. The sharp fall in the Basket value took place amid a deteriorating global economic and oil demand outlook due to the rapid spread of Covid-19 in China and several other countries, along with market concerns over crude oversupply.

Contraction in oil demand and weakening refining margins led refiners to cut their run rates, specifically in China, to deal with rising oil product stocks. As a result, Asia's refiners lowered their crude purchases for March and April loadings, which put spot crude oil prices under pressure.

Graph 1 - 1: Crude oil price movement



Sources: Argus, OPEC and Platts.

Crude Oil Price Movements

Furthermore, the extension of the Lunar New Year festivities in China and the imposition of travel restrictions in several countries to limit the spread of Covid-19 have heavily affected jet fuel and gasoline margins.

The ORB value continued to decline sharply in the first ten days of March to settle at \$34.71/b on 9 March, the lowest level since April 2016, on worries about higher global crude oil supply in coming months, while oil demand weakened.

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

| Basket | Jan 20 | Feb 20 | Change | | Year-to-date | |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | | Feb/Jan | % | 2019 | 2020 |
| Basket | 65.09 | 55.49 | -9.60 | -14.7 | 61.16 | 60.52 |
| Arab Light | 66.56 | 56.84 | -9.72 | -14.6 | 62.11 | 61.93 |
| Basrah Light | 64.06 | 54.75 | -9.31 | -14.5 | 60.60 | 59.63 |
| Bonny Light | 65.89 | 57.77 | -8.12 | -12.3 | 62.74 | 62.03 |
| Djeno | 62.95 | 54.37 | -8.58 | -13.6 | 58.98 | 58.86 |
| Es Sider | 63.63 | 54.65 | -8.98 | -14.1 | 60.59 | 59.36 |
| Girassol | 65.41 | 57.25 | -8.16 | -12.5 | 62.51 | 61.52 |
| Iran Heavy | 62.61 | 52.87 | -9.74 | -15.6 | 58.72 | 57.97 |
| Kuwait Export | 65.37 | 55.90 | -9.47 | -14.5 | 61.16 | 60.86 |
| Merey | 55.89 | 35.99 | -19.90 | -35.6 | 53.26 | 46.41 |
| Murban | 66.09 | 57.06 | -9.03 | -13.7 | 63.11 | 61.79 |
| Rabi Light | 60.80 | 53.27 | -7.53 | -12.4 | 60.83 | 57.22 |
| Sahara Blend | 65.28 | 57.91 | -7.37 | -11.3 | 61.67 | 61.77 |
| Zafiro | 65.31 | 56.65 | -8.66 | -13.3 | 62.39 | 61.19 |
| Other Crudes | | | | | | |
| Dated Brent | 63.38 | 55.45 | -7.93 | -12.5 | 61.58 | 59.61 |
| Dubai | 64.10 | 54.25 | -9.85 | -15.4 | 61.62 | 59.41 |
| Isthmus | 55.93 | 47.50 | -8.43 | -15.1 | 60.83 | 51.92 |
| LLS | 61.45 | 53.97 | -7.48 | -12.2 | 60.75 | 57.89 |
| Mars | 58.95 | 51.52 | -7.43 | -12.6 | 59.17 | 55.42 |
| Minas | 62.10 | 53.39 | -8.71 | -14.0 | 54.21 | 57.95 |
| Urals | 62.86 | 55.11 | -7.75 | -12.3 | 62.09 | 59.17 |
| WTI | 57.56 | 50.60 | -6.96 | -12.1 | 53.23 | 54.25 |
| Differentials | | | | | | |
| Brent/WTI | 5.82 | 4.85 | -0.97 | - | 8.35 | 5.36 |
| Brent/LLS | 1.93 | 1.48 | -0.45 | - | 0.82 | 1.72 |
| Brent/Dubai | -0.72 | 1.20 | 1.92 | - | -0.04 | 0.20 |

Sources: Argus, Direct Communication, OPEC and Platts.

All **ORB component values** declined sharply in February, in line with their respective crude benchmarks, in addition to lower crude differentials and official selling prices due to lower crude demand from refiners, particularly in China. Lower refinery runs and weak refining margins weighed on spot prices. Crude oil physical benchmarks fell dramatically in February, but at different paces. While North Sea Dated and Dubai spot prices decreased m-o-m by \$7.93/b and \$9.85/b, respectively, to stand at \$55.45 /b and \$54.25/b, WTI fell by \$6.96/b to average \$50.60/b.

Brent-related light sweet crudes in the Atlantic Basin remained bearish in February despite the sharp decline in Libyan production and cheaper freight rates. Low demand from Asian refiners amid weak refining margins and run cuts pressured West African and Mediterranean crudes. Light sweet crude **ORB components from West and North Africa** – including Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend and Zafiro – fell by \$8.20 on average, or 12.8% m-o-m, to \$55.98/b.

In terms of **Latin American ORB components**, Venezuela's Merey fell around \$19.90, or 35.6% m-o-m, to \$35.99/b. Ecuador's Oriente fell in February to \$49.76/b, a decrease of \$14.64, or 22.7%. The sour crude market was weak last month in Latin America due to lower demand from refiners, particularly in the USGC, amid heavy maintenance on fluid catalytic crackers, in addition to run cuts in China due to lower oil demand. Sanctions on Rosneft Trading S.A also contributed to the weakening sour crude market in Latin America amid potential crude flow changes.

The **values of multiple-region destination grades**, including Arab Light, Basrah Light, Iran Heavy and Kuwait Export, fell by \$9.56 in February, or 14.8%, to stand at \$55.09/b. In February, the sour crude market weakened due to declines in crude demand from Asian refiners and low refining margins in the wake of the Covid-19 outbreak in China, and as Chinese refiners significantly reduced their crude runs. High availability of sour crude in the East of Suez markets and low demand from Asia have pushed most spot crude differentials toward deep discounts to their official selling prices (OSP) or to their respective benchmarks. Furthermore, the cash Dubai's differential to swaps fell to a discount of 45¢/b in late February, while the Dubai first-to-third month spread slipped into contango in the second part of the month, reflecting the overhang in the market. The front-month Brent/Dubai Exchange for Swaps (EFS Dubai) fell again m-o-m in January by 87¢, to average \$1.35/b, hence limiting arbitrage opportunities from Europe to Asian markets. Middle Eastern spot component Murban fell by \$9.03 m-o-m, or 13.7%, to \$57.06/b in February.

On 10 March, the ORB stood at \$35.71/b, \$19.78 below the February average.

The oil futures market

Crude oil futures prices ended February sharply lower with both ICE Brent and NYMEX WTI showing monthly declines of more than 12% to reach their lowest monthly values in almost two-and-a-half years as the rapid spread of Covid-19 in China and several other countries raised investors' concerns about the impacts on the global economy and oil demand, and triggered a sharp sell-off in markets amid uncertainties on the extent of demand destruction and worries that this health crisis might evolve into a pandemic.

Oil prices continued to fall in the first ten days of February in response to the significant decline in crude oil demand from China as state-owned and independent oil refineries were dramatically reducing their runs to multi-year lows amid rising oil product stocks and lower domestic demand. In mid-February, oil prices stabilized and recovered slightly after reports showed a slowing in the number of new Covid-19 cases in mainland China, with expectations that the negative impact on the economy and oil demand would peak soon. Prices also found support from a positive weekly EIA report on US crude stocks, as well as concerns about oil supply and flow disruptions after the US administration imposed sanctions on Rosneft Trading S.A.

However, oil prices reversed their upward trend and declined sharply during the last week of the month, dropping by about \$9 in one week amid a sharp sell-off in global equity and oil markets amid renewed concerns about oil demand as the spread of Covid-19 accelerated outside China. The number of new Covid-19 confirmed cases increased sharply in several countries in Asia, Europe and the Middle East.

Crude oil futures prices fell dramatically in the first ten days of March on rising concerns about global oil market oversupply, amid forecasts of a major slowdown in global oil demand growth due to the fast spread of Covid-19 outside China and increasing new contamination cases, along with expectations of higher global oil supply in coming months. Therefore, oil futures prices plunged by more than 33% over the first ten days of March, amid extended sell-offs in the market. On 9 March, futures prices tumbled about 25% in one trading session, recording their biggest daily decline in nearly 30 years, with ICE Brent and NYMEX WTI settling respectively at \$34.36/b and \$31.13/b.

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

| | Jan 20 | Feb 20 | Change | | Year-to-date | |
|-------------------------------------------------------|-------------|-------------|--------------|--------------|--------------|-------------|
| | | | Feb/Jan | % | 2019 | 2020 |
| NYMEX WTI | 57.53 | 50.54 | -6.99 | -12.1 | 53.18 | 54.21 |
| ICE Brent | 63.67 | 55.48 | -8.20 | -12.9 | 62.24 | 59.77 |
| DME Oman | 64.41 | 54.30 | -10.10 | -15.7 | 62.01 | 59.61 |
| Transatlantic spread (ICE Brent-NYMEX WTI) | 6.14 | 4.94 | -1.21 | -19.7 | 9.06 | 5.56 |

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

Sources: CME, DME, ICE and OPEC.

ICE Brent in February fell by \$8.20, or 12.9%, to average \$55.48/b, and NYMEX WTI declined by \$6.99, or 12.1%, to average \$50.54/b. Year-to-date, ICE Brent was down \$2.47, or 4.0%, at \$59.77/b, while NYMEX WTI was higher by \$1.03, or 1.9%, at \$54.21/b, compared to a year earlier. DME Oman crude oil futures prices fell m-o-m in February by \$10.10, or 15.7%, to settle at \$54.30/b. Year-to-date, DME Oman was lower by \$2.40, or 3.9%, at \$59.61/b, compared to a year earlier.

Crude Oil Price Movements

On 10 March, ICE Brent stood at \$37.22/b and NYMEX WTI at \$34.36/b.

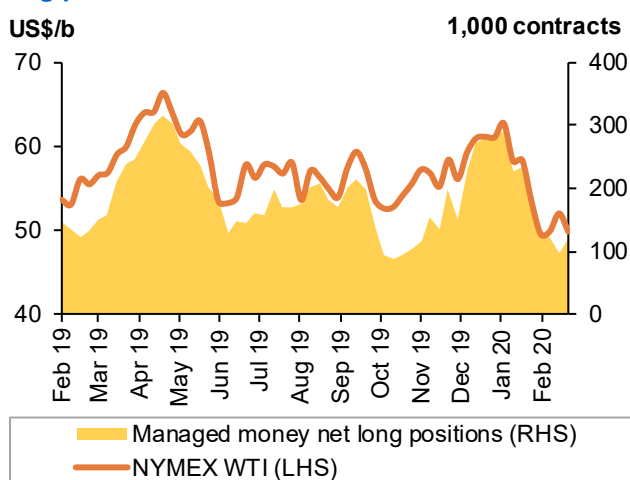
Hedge funds and other money managers continued to reduce their net long positions in February as crude prices slipped by more than 12% over the month. Speculators liquidated their net long positions and remained extremely concerned about slowing oil demand, particularly in Asia, due to Covid-19, while most forecasters lowered their oil demand projections for this year.

The decline in net long positions was more pronounced in NYMEX WTI compared to ICE Brent as speculators liquidated about 37% of their net long positions since early January to reach the lowest level in four months in February. Money managers continued to be concerned about the US oil market, mainly due to increasing US crude oil supply and rising US crude oil stocks, which continued to increase in February, in addition to concerns about slowing oil demand after the spread of Covid-19 in several countries.

In February, **hedge funds and other money managers** reduced their net long positions in **NYMEX WTI** by 19.1%, or 48,241 contracts, to stand at 122,979 lots for the week of 25 February. This is due to a decline of 48,241 lots in long positions and an increase of 4,480 contracts in short positions, according to the US Commodity Futures Trading Commission (CFTC).

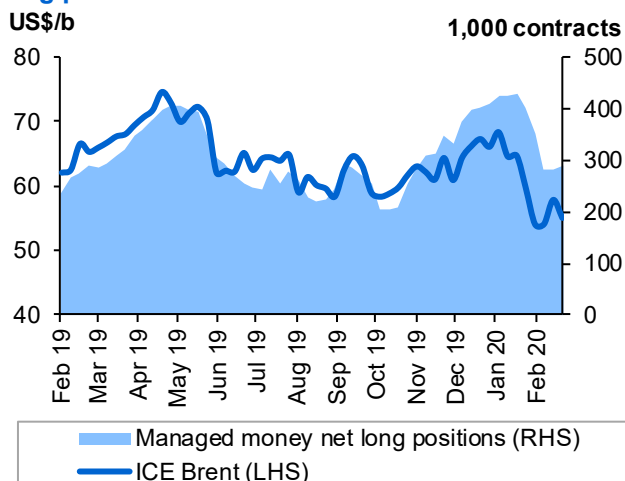
Hedge funds and other money managers continued to close bullish positions in **ICE Brent** amid mounting concerns about the spread of Covid-19 and its impact on the global economy and oil demand. Money managers slightly increased their long positions in the week of 25 February on reports showing a slowing spread of Covid-19 in China and hopes that the impact on the global economy would be lower than expected. However, over the month, net long positions fell by about 114,282 contracts, or 28.4%, to reach 288,075 contracts in the week ending 25 February. Long speculative positions in ICE Brent fell by 89,646 lots, or 18.7%, during the four weeks of February, while short positions increased by 24,636 lots, or 31.5%, according to the Intercontinental Exchange.

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



Sources: CFTC, CME and OPEC.

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



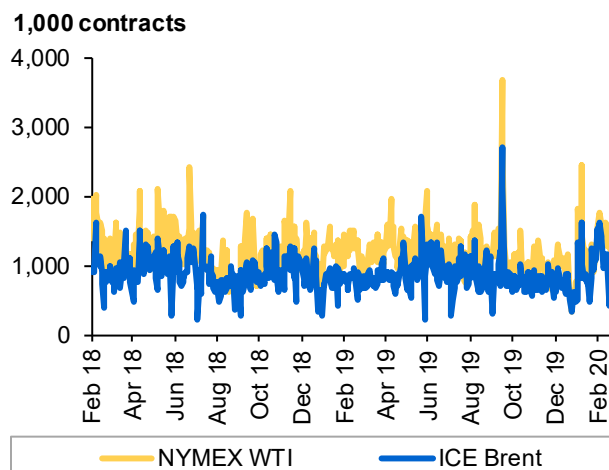
Sources: ICE and OPEC.

The **long-to-short ratio** in both ICE Brent and NYMEX WTI contract speculative positions fell in February to its lowest in about four months. The long-to-short ratio in ICE Brent fell to 4:1 in February, on average, compared to around 7:1 in January. The NYMEX WTI long-to-short ratio fell further to 2:1 for the week ending 18 February from around 9:1 in early January.

Total futures and options open interest volume on the two exchanges rose by 43,170 contracts from late January to stand at 5.9 million contracts in the week ending 25 February.

The **daily average traded volume** for NYMEX WTI contracts rose further in January by 248,152 lots, or 20.3%, to 1,469,962 contracts. The daily average traded volume for ICE Brent increased by 181,656 contracts, or 18.1%, to 1,184,334 lots.

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



Sources: CME, ICE and OPEC.

The **daily aggregate traded volume** for both crude oil futures markets rose by 429,808 contracts m-o-m to stand at 2.7 million futures contracts, or about 2.7 billion b/d of crude oil.

The **total traded volume** for NYMEX WTI was higher in January at 29.4 million contracts, an increase of 9.4%, while ICE Brent was 7.4% higher at 23.7 million contracts.

The futures market structure

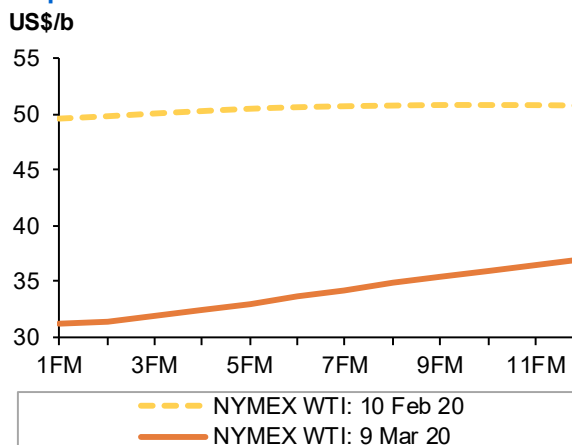
The **backwardation structure** of both ICE Brent and DME Oman flattened in February on the sharp decline in oil prices and concerns about market oversupply amid softening global oil demand. However, the forward structures moved into deep contango in the end of the first ten days of March. At the same time, the NYMEX WTI forward price also moved deeper into contango.

The **NYMEX WTI** forward curve moved deeper into contango in February, particularly in the front of the curve, reflecting weak US market fundamentals. Prompt oil prices declined more than forward months on rising US crude oil stocks, weak refining margins, as well as low US refinery runs. The forward curve of the NYMEX WTI futures contracts steepened further on a sharp decline in oil demand due to the Covid-19 outbreak and expectations of lower crude demand from Asian refiners amid run cuts.

The NYMEX WTI M1/M3 time spread flipped m-o-m from a backwardation of 15¢/b in January to a contango of 39¢/b in February.

On 9 March, NYMEX WTI M1/M3 time spread widened to a contango of 81¢/b.

Graph 1 - 5: NYMEX WTI forward curves

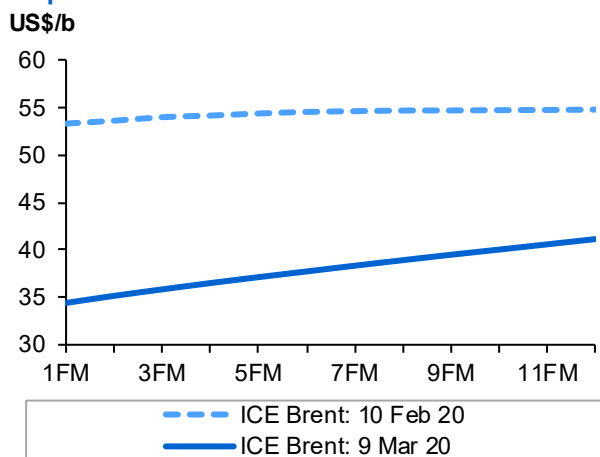


Note: FM = future month.
Sources: CME and OPEC.

The **ICE Brent** crude futures structure slipped into contango during the first half of February, with the M1/M3 month spread falling into a contango of around 38¢/b, on average, as the sharp decline of crude oil prices for several consecutive sessions put downward pressure on prompt prices. Forward prices were in contango across the forward six months as traders' perception of the market changed to an oversupplied market due to worries about more demand destruction amid the spread of Covid-19. In the second part of the month, the front of the ICE Brent forward curve slipped again into backwardation, but the back of the curve remained in contango. The ICE Brent price structure moved deeper into contango on expectations of an oversupplied oil market and the M1/M3 month spread was at a contango of \$1.42/b on 9 March, the widest since late 2016.

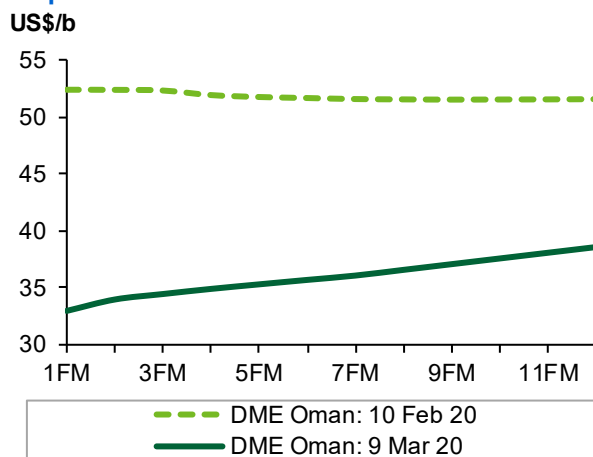
Crude Oil Price Movements

Graph 1 - 6: ICE Brent forward curves



Note: FM = future month.
Sources: ICE and OPEC.

Graph 1 - 7: DME Oman forward curves



Note: FM = future month.
Sources: DME and OPEC.

The backwardation structure of **DME Oman** flattened in February and even moved into contango in late February on sharp declines in prompt oil prices and weakening demand as Asian refiners, specifically China, cut refinery runs and reduced crude purchases. Dubai forward prices moved deeper into contango in the second half of February on sharp declines in physical crude demand, pushing crude values sharply lower. The premium of M1/M3 narrowed by \$2, m-o-m, to stand at 2¢/b. Moreover, the DME Oman price structure also slipped into deep contango in the end of the first ten days of March, and the M1/M3 spread stood at a contango of \$1.48/b.

Regarding the **M1/M3 structure**, the North Sea Brent M1/M3 backwardation narrowed to 50¢/b in February, a decline of \$1.05. The Dubai M1 premium to M3 decreased to plus 2¢/b in February, down by \$2.02 on a monthly average. In the US, WTI slipped into contango, with the M1/M3 spread decreasing from 12¢ to minus 40¢/b.

The **spread between the ICE Brent and NYMEX WTI** benchmarks narrowed in February to below \$5/b, on a monthly average, as the ICE Brent value declined more than NYMEX WTI. Lower crude demand from China and increasing availability in the Atlantic Basin weighed more on the value of Brent-related crudes. On the other hand, demand of US crude for exports remained solid as softening freight rates to Europe offset the impact of the narrowing Brent-WTI spread. Also, WTI found support on rising inland crude values as EPIC Midstream Holdings LP announced completion of its new crude oil pipeline from the Permian Basin to Corpus Christi, TX, in the USGC. The first-month ICE Brent/NYMEX WTI spread narrowed by \$1.21 to average \$4.94/b.

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

| | | 1FM | 2FM | 3FM | 6FM | 12FM | 12FM-1FM |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
| NYMEX WTI | 10 Feb 20 | 49.57 | 49.78 | 50.03 | 50.60 | 50.75 | 1.18 |
| | 9 Mar 20 | 31.13 | 31.47 | 31.94 | 33.66 | 37.00 | 5.87 |
| | Change | -18.44 | -18.31 | -18.09 | -16.94 | -13.75 | 4.69 |
| ICE Brent | 10 Feb 20 | 53.27 | 53.57 | 53.95 | 54.51 | 54.76 | 1.49 |
| | 9 Mar 20 | 34.36 | 35.10 | 35.78 | 37.66 | 41.05 | 6.69 |
| | Change | -18.91 | -18.47 | -18.17 | -16.85 | -13.71 | 5.20 |
| DME Oman | 10 Feb 20 | 52.50 | 52.49 | 52.43 | 51.77 | 51.67 | -0.83 |
| | 9 Mar 20 | 33.05 | 34.05 | 34.53 | 35.77 | 38.65 | 5.60 |
| | Change | -19.45 | -18.44 | -17.90 | -16.00 | -13.02 | 6.43 |

Note: FM = future month.
Sources: CME, DME, ICE and OPEC.

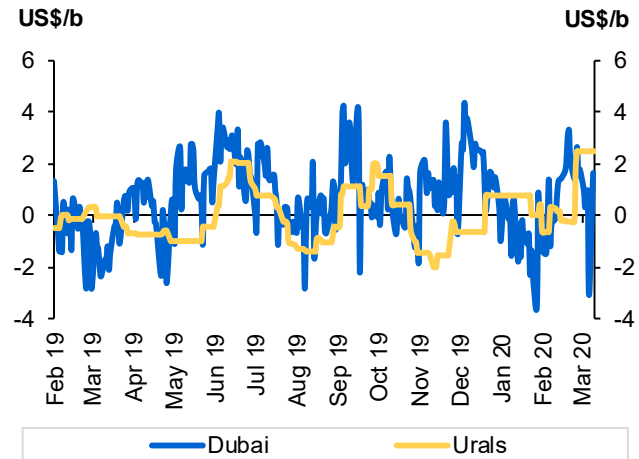
The light sweet/medium sour crude spread

Sweet/sour crude differentials widened in Asia on weakening East of Suez sour crude markets, while narrowing slightly in Europe and the USGC on higher availability of light sweet crude in the Atlantic Basin.

In **Europe**, the spread of light sweet North Sea Dated to Urals narrowed slightly in February as the Urals value rose in the first half of the month on recovering refining margins of the grade for European refiners. Earlier in the month, Urals was also supported by a preliminary export schedule showing a lower loading programme for the first five days of March, as well as continued shipment of the grade to Asia despite run cuts. The North Sea Dated spread to Urals fell from a premium of 52¢/b, on average, to 23¢/b.

In the **USGC**, the premium of Light Louisiana Sweet (LLS) over medium sour Mars remained narrow in February, averaging \$2.45/b, or a decline of 5¢/b, on weak LLS crude values. LLS was under pressure due to outages at the large ExxonMobil refinery in Baton Rouge, Louisiana, in February, limiting demand for the grade. Furthermore, refining margins of LLS also weakened compared to Mars.

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



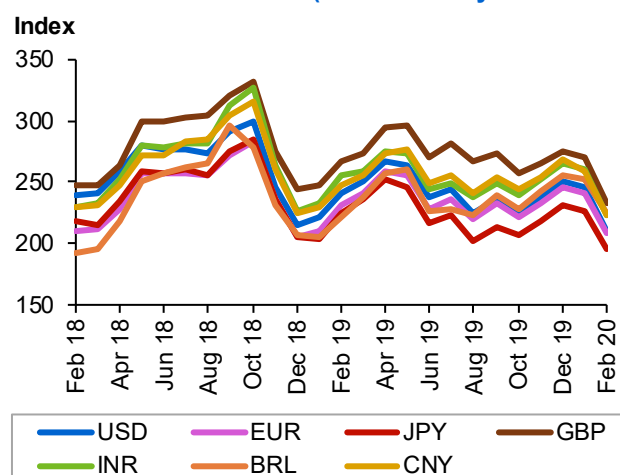
Sources: Argus, OPEC and Platts.

However, in **Asia**, the premium of light sweet Tapis over sour Dubai rose by 99¢/b to average \$8.47/b in February, as the values of the Middle East medium and heavy sour grades sold in Asia fell sharply lower. The sour market was under high pressure on lower demand from Asian refiners, specifically China, amid low refining margins and run cuts. The crude differential values of most medium and heavy sour grades in the Middle East for March and April loading fell deeply into discounts.

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

The **USD** generally increased against major currencies in the first three weeks of the month, nonetheless, it reversed course sharply at the end of the month, as the uncertainties regarding the spreading of Covid-19 resulted in a sharp drop in global equity markets, and increasing expectation for the US Federal Reserve to reduce interest rates. Against the euro, on average m-o-m the dollar increased by 1.8%, however, at the beginning of March those gains were reversed. Against the pound sterling, the dollar increased on average m-o-m by 0.9%, also to return back most of the gain at the beginning of March. Against the Japanese yen and the Swiss franc, currencies considered safe haven, the dollar increased by 0.6% in both cases m-o-m. This was also reversed in the last few days as safe haven demand has soared amid increasing volatility in financial markets.

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



Sources: IMF and OPEC.

Against currencies of the largest **emerging market economies**, the dollar also advanced in February. On average, the dollar increased by 1.1% against the yuan m-o-m, as the Peoples Bank of China guided the yuan lower amid the uncertainties surrounding the economic impact of the response Covid-19 outbreak, however, that appreciation has been reversed as economic activity in China started to normalize, and the Fed was expected to reduce interest rates. Against the rupee, the dollar increased by 0.2%, as global financial

Crude Oil Price Movements

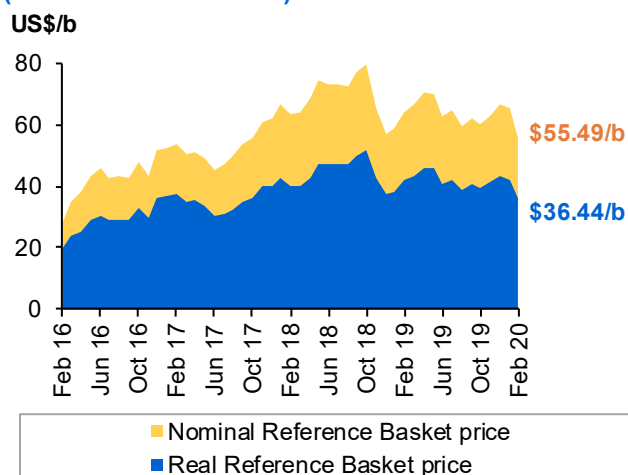
market sentiment weakened at the end of February. This trend persisted as the first cases of Covid-19 were detected in the country. Against large commodity exporters, the dollar increased by 4.6% m-o-m against the Brazilian real. This trend persisted in March, forcing the central bank to intervene in the spot market. Against the ruble, the USD advanced on average by 3.3%, however, at the beginning of March the dollar advanced by around 8%, after oil prices plunged.

In **nominal terms**, the price of the ORB decreased by \$9.6, or 14.7%, from \$65.09/b in January to \$55.49/b in February.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB decreased to \$36.44/b in February from a revised \$36.44/b (base June 2001=100) in the previous month.

Over the same period, the **USD** advanced by 1.1% against the import-weighted modified Geneva I + USD basket, while inflation was flat m-o-m.

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



Source: OPEC.

Commodity Markets

Energy commodities prices declined amid the increasing uncertainties surrounding the potential impact of Covid-19. This has added to the persistent weakness in energy commodities given the very warm winter temperatures that has limited demand for heating fuels. Indeed, natural gas hub-based prices have hit record lows in both the US and Europe, amid more than comfortable inventory levels. Coal prices declined, albeit to a lesser extent as lower demand for power generation in China was met by a drop in coal mining output in the country.

Among **base metals**, monthly average prices dropped by around 5% compared to the previous month. This mainly reflected the large drops observed at the end January and beginning of February on the back of the impact of the measures undertaken by the Chinese government to control the Covid-19 outbreak that limited industrial production activities. **Precious metals** gained, with gold prices rising by 2.3%, on the expectation that the ongoing virus outbreak will result in lower US interest rates, which in fact materialized at the beginning of March.

On 6 and 9 March 2020, industrial metals fell around 2%, joining the decline in oil prices and global equities amid mounting concerns about the impact of the spread of Covid-19 outside China. However, gold prices remained supported on the back of safe-haven demand.

Trends in selected commodity markets

The **energy price index** decreased by around 12.7% m-o-m in February. It was down by 7.8% in the January–February period compared to the same timeframe in 2019. Oil, natural gas and coal prices were all significantly lower.

The **non-energy index** was down 3.7% m-o-m, with both metals and agricultural commodities retreating. Compared to January-February 2019, the non-energy index fell by 1.2% over the same months in 2020.

Table 2 - 1: Commodity prices

| Commodity | Unit | Monthly averages | | | % Change | Year-to-date | |
|-------------------------|------------|------------------|--------------|--------------|---------------|--------------|--------------|
| | | Dec 19 | Jan 20 | Feb 20 | Feb 20/Jan 20 | 2019 | 2020 |
| Energy* | | 76.9 | 74.5 | 65.0 | -12.7 | 75.6 | 69.7 |
| Coal, Australia | US\$/mt | 66.2 | 69.7 | 67.6 | -2.9 | 97.0 | 68.7 |
| Crude oil, average | US\$/b | 63.4 | 61.6 | 53.3 | -13.4 | 58.9 | 57.5 |
| Natural gas, US | US\$/mmbtu | 2.2 | 2.0 | 1.9 | -5.6 | 2.9 | 2.0 |
| Natural gas, Europe | US\$/mmbtu | 4.6 | 3.6 | 2.9 | -20.0 | 6.6 | 3.3 |
| Non-energy* | | 83.7 | 84.5 | 81.4 | -3.7 | 81.9 | 82.9 |
| Base metal* | | 80.7 | 80.5 | 76.0 | -5.6 | 83.0 | 78.3 |
| Precious metals* | | 111.9 | 118.0 | 120.2 | 1.8 | 99.4 | 119.1 |

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

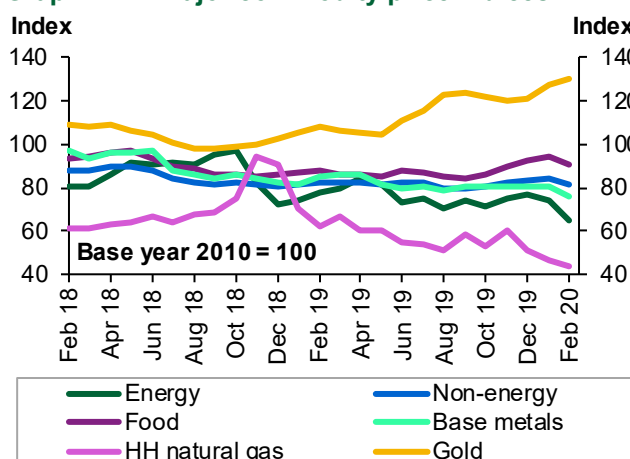
Sources: World Bank, Commodity price data; OPEC Secretariat.

In February, the **Henry Hub natural gas index** fell on average by 5.6% to \$1.92/mmbtu. Prices continued to weaken given the comfortable inventory levels, amid persistently high temperatures. According to the US Energy Information Administration's (EIA) storage report, utilities withdrew 109 bcf from working gas underground storage during the week ending 28 February. The withdrawal left total working gas in underground storage at 2,091 bcf, which was 9.2% above the five-year average. At the end of January, inventories were 8.3% above the five-year average. As mentioned in the previous MOMR, plummeting LNG prices in Europe and Asia complicate the economics of US LNG exports going forward this year.

Natural gas prices in Europe dropped sharply with the **Title Transfer Facility price** down by 20% to \$2.9/mmbtu in February. Prices were down around 50% y-o-y in the January-February period. The warmest winter on record – relative to the 1981-2010 period – according to the European Earth Observation Programme, resulted in lower heating demand. Hence, inventories for EU members states were at 60% at the end of February according Gas Infrastructure Europe, compared to around 42% at the end of February 2019. Prices have been trading slightly below \$3/mmbtu and, as mentioned last month, considering the very high inventory levels, as well as LNG Asian spot prices of around \$3/mmbtu, this would likely result in more spot LNG cargoes to Europe.

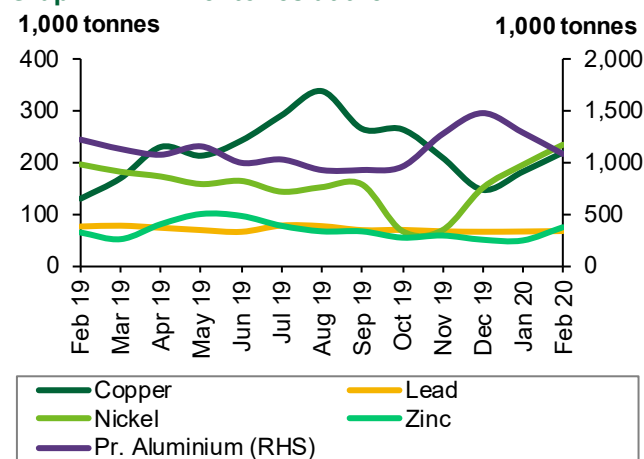
Australian thermal coal prices declined in February by 2.9% m-o-m to average \$67.6/mt., amid the impact of the Covid-19 outbreak in China. According to Bloomberg Research, thermal coal demand and supply may drop by 24% and 22% respectively, in 1Q20. Meanwhile, the most recent customs data for the January-February period shows imports rising by 33% y-o-y to 68.06 million tonnes.

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** fell on average by 5.6% m-o-m in February. Metals declined mainly at the end of January after isolation measures to contain the spread of Covid-19 in China delayed the resumption of industrial and construction activities in several Chinese regions after the Lunar New Year holiday. This resulted in rising inventories.

Copper monthly average prices declined on average by 5.7% to 5,687.8/mt during the month, mainly reflecting the fall since the end of January on the above mentioned measures to contain Covid-19. Inventories on the London Metal Exchange (LME)-designated warehouses rose during the month to 218,175 tonnes, up 37,500 tonnes from the previous month. However, as mentioned in previous MOMRs, estimations of the physical market at the end of the previous year showed a tight market. According to the International Copper Study Group, the refined copper balance estimates (adjusted for unreported Chinese inventories) point to a deficit of around 570,000 tonnes in the first eleven months of 2019. Indeed, prices recovered some ground in the middle of the month, but those gains dissipated since the end of February with financial markets witnessing increased volatility.

Nickel prices declined on average in February by 5.9% m-o-m. This mainly reflected the drop at the end of January, amid the delayed restart of smelting operations in China. At the same time, nickel inventories increased by a third in LME warehouses to reach 235,428 tonnes, up around 39,000 tonnes from the previous month. **Iron ore prices** decreased on average by 8.4% in February to around \$87.7/mt, amid disruption to steel-making activity given the measures to contain the Covid-19 outbreak. However, imports were solid, up by 1.5% y-o-y in the January-February period, to reach 176.8 million tonnes.

In the group of **precious metals**, gold was up by 2.5%, supported by the expectation of lower interest rates in the US to support the economy given the uncertainties related to the Covid-19 outbreak. Indeed, a cut materialized at an extraordinary Federal Reserve meeting at the beginning of March where interest rates were cut by 50 basis points.

Investment flows into commodities

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

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

| | Open interest | | Net length | | | |
|-----------------|---------------|--------------|------------|-----------|------------|----------|
| | Jan 20 | Feb 20 | Jan 20 | % OI | Feb 20 | % OI |
| Crude oil | 2,195 | 2,201 | 242 | 11 | 120 | 5 |
| Natural gas | 1,447 | 1,465 | -279 | -19 | -313 | -21 |
| Precious metals | 1,007 | 921 | 281 | 28 | 271 | 29 |
| Copper | 271 | 267 | -2 | -1 | -55 | -21 |
| Total | 4,919 | 4,855 | 559 | 35 | 197 | 1 |

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

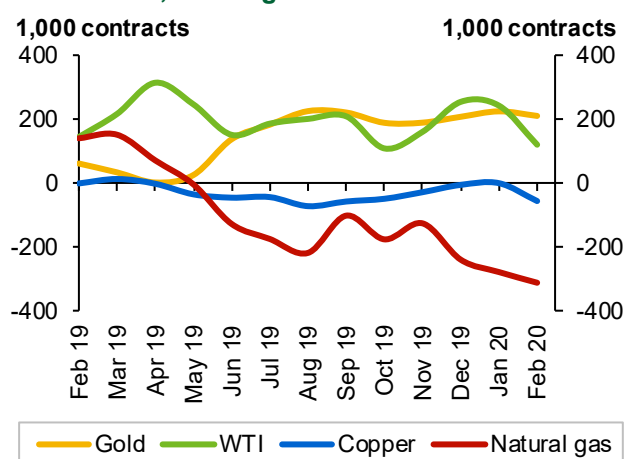
Sources: CFTC and OPEC Secretariat.

Henry Hub's natural gas OI rose by 1.3% m-o-m in February as money managers increased their net short positions by around 12% to reach a record average of 312,992 contracts, up from 279,262 contracts in January. This reflects investor sentiment amid comfortable inventory levels and a challenging environment for exports, with prices likely to remain subdued.

Copper's OI decreased by 1.3% in February, while money managers increased their net short position more than 20 times to 54,838 contracts, from around 2,500 contracts in January. Money managers went deeper into a bearish stance on the expectation of lower copper demand as a result of delays to the restart of industrial activities amid the Covid-19 outbreak in main consumer China.

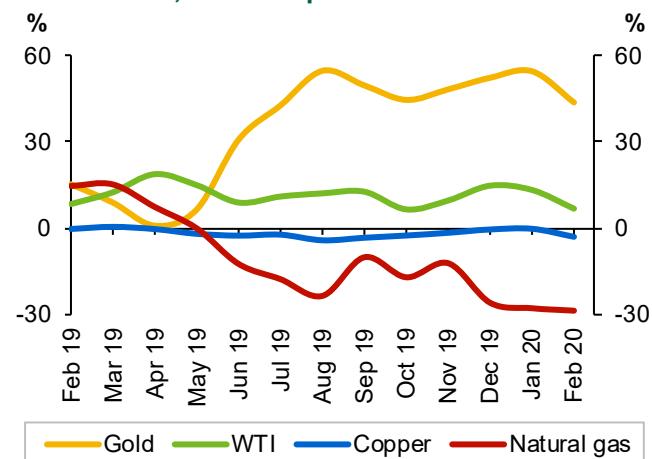
Precious metals' OI fell by 8.5%. Money managers' net long positions decreased by 3.4% to 271,060 contracts, from 280,676 contracts in January. Money managers remained bullish for gold, on the outlook for lower US interest rates.

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

As the global spread of Covid-19 continues, the situation remains fluid and uncertainties are high. The situation in China appears to have improved even as other economies are being affected. Initially a temporary demand and supply shock was assumed, mainly affecting 1Q20 GDP growth. However, the global impact is forecast to last until 3Q20, at least. In addition to the demand and supply situation, the disruption in global asset markets provides another dimension. The most recent developments in asset markets are fuelling a slowdown by lifting financial market stress with consequent negative spill-overs into the wider economy. After the underlying momentum had already weakened considerably in 2H19 in Japan, in the Euro-zone and in India, Covid-19-related developments triggered a further downward revision of the global GDP growth forecast in 2020 to 2.4%, compared to 3.0% in the previous month. This compares to a 2019 GDP growth estimate of 2.9%. While the full magnitude of the Covid-19 impact is still to be seen, further downside risks remain. In the meantime, the performance of the US economy, improving global trade relations, fiscal stimulus measures in China, Japan, Italy and other economies, and ongoing accommodative monetary policies may help counterbalancing at least some of the current downside pressure.

Monetary policies by major OECD central banks are expected to remain accommodative to counterbalance some of the downside momentum. Estimated growth for 2019 remains at 1.6%, while 2020 OECD growth was revised down to 1.2%, compared to 1.5% in the previous month. The 2019 US economic growth estimate remains at 2.3%, while the ongoing developments led to the expectation that 2020 US GDP growth will slow further, to 1.6% compared to 1.9% in the previous month. Euro-zone growth remains at 1.2% for 2019. However, the Covid-19 related impact causes a downward revision of 2020 GDP growth to 0.6%, compared to 0.9% in the previous month. This includes the assumption of Italy facing a recession this year, after the drastic measures that were implemented very recently. The UK's 2019 estimate was lifted to 1.4%, while the forecast for 2020 was revised down to 1.0%, both yearly growth numbers comparing to the previous month's 1.2%. After much weaker-than-expected 4Q19 growth, Japan's 2019 growth estimate was revised down to 0.7%, compared to 1.1% in the previous month. With this weakening 4Q19 growth trend carrying over into 1Q20 amid the worsening Covid-19 situation, the 2020 economic growth forecast was revised down to -0.2% from 0.6%.

In the emerging economies, China's 2019 growth estimate remains at 6.1%. Growth in 1H20 is now forecast to be further impacted by Covid-19 related developments and while it may recover in the coming quarter, 2020 growth has been lowered to 5.0%, compared to last month's forecast of 5.4%. India's 2019 GDP growth estimate was revised up by 0.1 pp, to stand at 5.3%. However, India's 2020 GDP growth forecast was revised down to 5.2%, compared to 6.1% in the previous month, mainly due to ongoing domestic challenges, but also the worsening external environment. Brazil's growth remains unchanged at 1.0% for 2019, but was revised down to 1.6% for 2020, impacted mainly by expectations of slower external trade. Russia's growth remains unchanged at 1.1% for 2019 and was revised down to 0.8% for 2020, affected mainly by the decline in commodity export markets.

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

| | World | OECD | US | Japan | Euro-zone | UK | China | India | Brazil | Russia |
|----------------------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|
| 2019 | 2.9 | 1.6 | 2.3 | 0.7 | 1.2 | 1.4 | 6.1 | 5.3 | 1.0 | 1.1 |
| Change from previous month | 0.0 | 0.0 | 0.0 | -0.4 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 |
| 2020 | 2.4 | 1.2 | 1.6 | -0.2 | 0.6 | 1.0 | 5.0 | 5.2 | 1.6 | 0.8 |
| Change from previous month | -0.6 | 0.3 | -0.3 | -0.8 | -0.3 | -0.2 | -0.4 | -0.9 | -0.4 | -0.7 |

Note: * 2019 = Estimate and 2020 = Forecast.

Source: OPEC Secretariat.

OECD

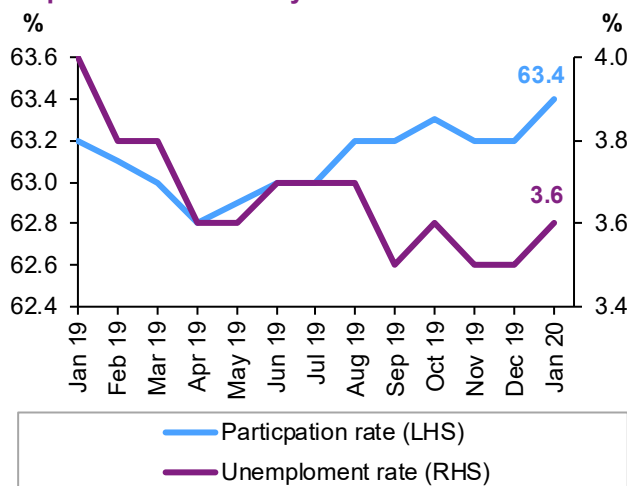
OECD Americas

US

Underlying growth trends in the US economy were supportive until the widening risk of Covid-19 caused US asset markets to slump by more than 10% in only a matter of days after it became clear that supply chains of US companies could be disrupted. Because of the many uncertainties, the Fed decided to lower its key policy rate by 50 basis points in an emergency rate cut. Asset markets continued to decline as Covid-19 cases grew. It remains to be seen at what point this will impact the spending behaviour of US consumers. If the downward trend continues, consumption, accounting for around two-thirds of the US economy, could decelerate considerably in at least 1H20. The Fed is now expected to further lower interest rates this year, already at its upcoming March meeting. In the current environment, however, it seems that monetary easing may be less effective than fiscal stimulus measures. Although **4Q19 GDP growth** stood at a seasonally adjusted rate (SAAR) of 2.1%, some data confirmed a weakening in the last quarter. Consumer spending was less buoyant than in previous quarters, growing at only 1.7% q-o-q SAAR, compared to 3.2% q-o-q SAAR in 3Q19 and 4.6% q-o-q SAAR in 2Q19. Imports dropped considerably, by 9.6% q-o-q SAAR, reflecting the volatile pattern of trade-related developments. This helped net exports to contribute significantly to 4Q19 GDP growth. The economic situation remains fluid and will mainly be affected by Covid-19 developments, domestically and globally, in the coming months.

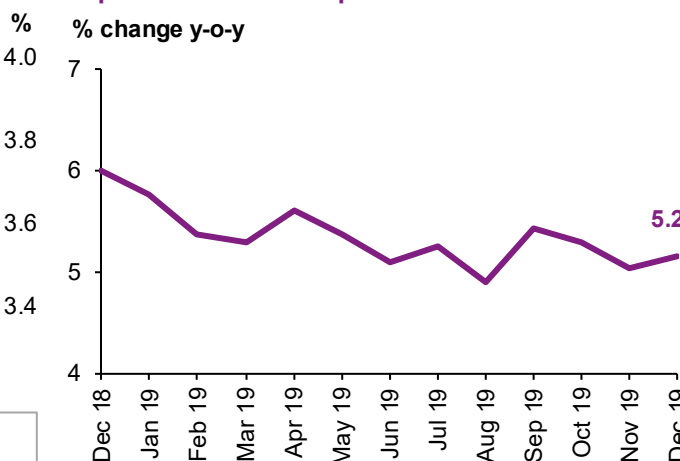
In the meantime, the **labour market remained** solid in February and for the time being provides a good base for the economy. The unemployment rate stood at 3.5% in February, compared to 3.6% in January. **Non-farm payrolls** in February increased by 273,000 after job additions of the same level in January. Also, average hourly earnings for the private sector rose by 3.0% y-o-y in February, compared to 3.1% y-o-y in January. Long-term unemployment declined again as well, reaching a new 8-month low at a level of 19.2% in February.

Graph 3 - 1: US monthly labour market



Sources: Bureau of Labor Statistics and Haver Analytics.

Graph 3 - 2: US house prices

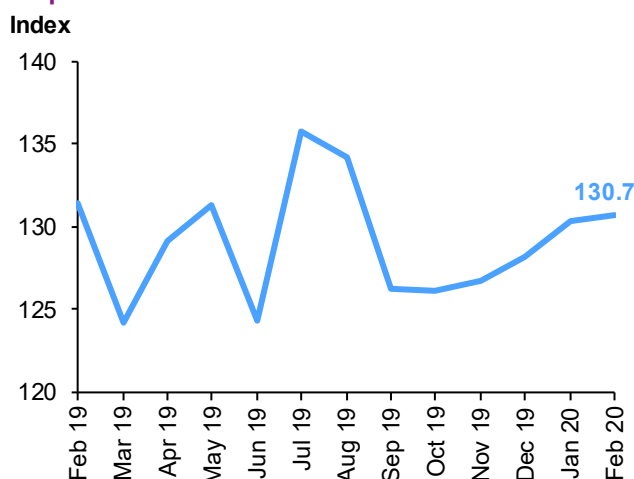


Sources: Federal Housing Finance Agency and Haver Analytics.

The critically important **housing sector** remained well supported, both in price development and in home sales. The yearly change in the **house pricing index** of the Federal Housing Finance Agency (FHFA) stood at 5.2% y-o-y in December compared to 5.0% y-o-y in November, still an encouraging level.

Consumer sentiment remained stable in February, reflecting ongoing solid spending behaviour in the underlying economy. However, it is clear that this will be affected by Covid-19 and seems to be also a lagging indicator in this respect. The lead indicator, published by the Conference Board, stood at 130.7 in February, compared to 130.4 in January and 128.2 in December.

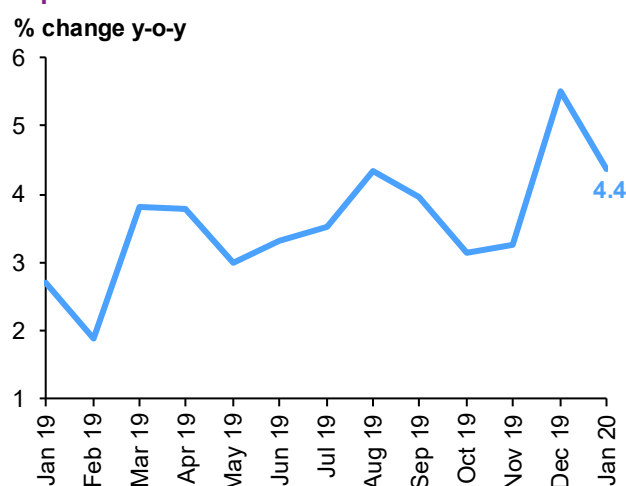
Graph 3 - 3: US consumer confidence index



Sources: The Conference Board and Haver Analytics.

Retail sales growth also reflected ongoing solid momentum into the beginning of the year. Sales increased by 4.4% y-o-y in January, compared to 5.8% y-o-y in December, which constituted the largest rise since August 2018 compared to 3.3% y-o-y in November. Up to the end of February, when Covid-19 fears impacted asset markets and probably business and consumer sentiment, this solid underlying trend was a reflection of positive consumer behaviour in the US economy.

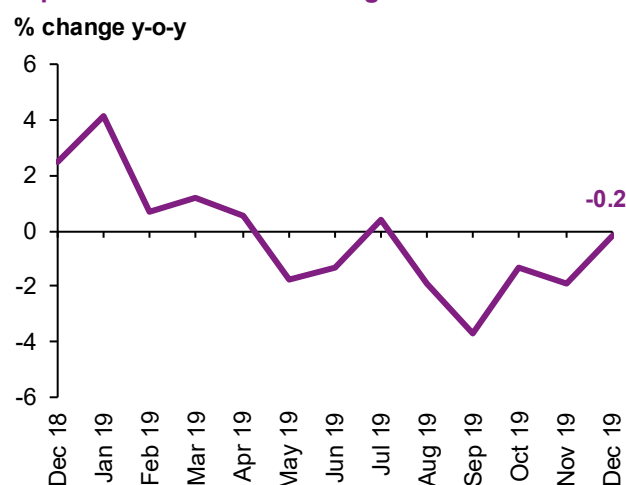
Graph 3 - 4: US retail sales



Sources: Census Bureau and Haver Analytics.

Manufacturing orders, a good lead indicator of future manufacturing activity, pointed to continued weakness in the industrial sector, albeit at an improving pace over the past months. The latest number from January showed a decline of only 0.8% y-o-y, after -3.7% y-o-y in September, an October decline of 1.3% y-o-y, -1.9% y-o-y in November and -0.2% y-o-y in December. The backward looking **industrial production (IP)** number remained weak, declining by -0.8% y-o-y in January, after a decline of 0.9% y-o-y in December and a decline of 0.5% y-o-y in November.

Graph 3 - 5: US manufacturing orders

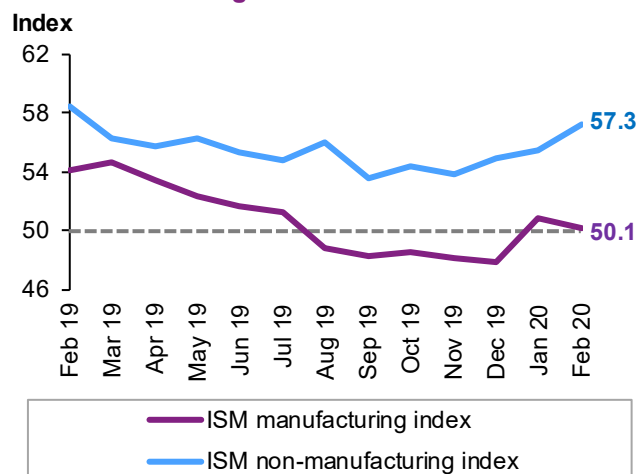


Sources: Census Bureau and Haver Analytics.

February's **Purchasing Managers' Index (PMI)**, as provided by the Institute for Supply Management (ISM), indicated an ongoing recovery in the manufacturing sector, while the services sector performed better. The manufacturing PMI remained above the growth indicating 50-level, as it stood at 50.1 in February, compared to 50.9 in January, 47.8 in December and 48.1 in November. The services sector index rose to 57.3 in February, compared to 55.5 in January and 54.9 in December.

Given the assumption that the Covid-19 impact will accelerate in 2Q20 and has also impacted 1Q20, but at a lower magnitude, the **GDP growth** estimate for 2020 was revised down to 1.6%, compared to 1.9% the previous month. 2019 GDP growth stood at 2.3%. The forecast assumes that the Covid-19 hit will be the largest in 2Q20 and that later in 3Q20, the US economy will recover. It will be mainly affected by a slowdown in domestic consumption, but also by decelerating external demand. The Fed is forecast to continue an accommodative monetary policy and to lower interest rates by a further 50 bp, and potentially further, depending on future developments. However, a continuation of the current imbalances in energy markets may also impact the US economy. Hence, there is significant downside risk to the current forecast level. Supply disruptions are considered to be limited, but this remains to be seen.

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



Sources: Institute for Supply Management and Haver Analytics.

Canada

Covid-19-related concerns have also reached Canada's economy. This has led the central bank to lower its key interest rate by 50 basis points, whereas towards the end of the previous year, the Canadian economy seemed to have stabilised. However, the ongoing impact that Covid-19 has on the global economy, in combination with the exposure of Canada's the oil-sector, may lift the potential negative near-term impact into the 2Q20 and force further monetary supply measures by the central bank.

A tender recovery was reflected in the December **industrial production** number, as it declined by 1.2% y-o-y, compared to -1.8% y-o-y in November. Moreover, **retail trade growth** increased to stand at 2.4% y-o-y in December, compared to an already solid number of 2.2% y-o-y in November. The latest **PMI** index for manufacturing saw a significant jump, rising to 51.8 in February, compared to 50.6 in January and 50.4 in December.

While the underlying growth trend continued improving with even a carryover into January, the negative impact of Covid-19 on Canada's economy has caused a downward revision of the GDP growth estimate for 2020 to 1.3%, compared to 1.5% in the previous month. This compares to estimated growth of 1.5% in 2019.

OECD Asia Pacific

Japan

In **Japan** the growth momentum weakened significantly in 4Q19, when GDP growth declined by 6.3% q-o-q SAAR, according to the latest numbers released by the Cabinet Office. This decline is at a much larger-than-expected scale and highlights the severity that the sales tax cut had on the Japanese economy. Some spillover of this weakening underlying growth trend should be expected into 1Q20. In addition to the already fragile state of the Japanese economy, the recent announcement that schools will close schools up to April because of Covid-19, combined with some supply disruptions, a worsening external environment and the decline in the asset market, the Japanese economy will face steep challenges in the near future. It also remains to be seen if and how the summer Olympics in Tokyo will take place if Covid-19 remains a risk, and this may have a negative impact on the real economy and on sentiment. Some of the downward trend may be counterbalanced by ongoing monetary stimulus and also by further fiscal measures. The government announced a 13.2-trillion-yen fiscal stimulus package before the Covid-19 outbreak and further announcements may follow.

After some months of relatively anaemic inflation, total **inflation** retracted only slightly from the relatively solid level of 0.8% y-o-y in December, to stand at 0.7% y-o-y in January. Core inflation decelerated to 0.4% y-o-y in January, compared to 0.6% y-o-y in both December. This, however, is expected to slow considerably, given the expected impact that the decline in energy-prices, and other commodities, may have in the coming months.

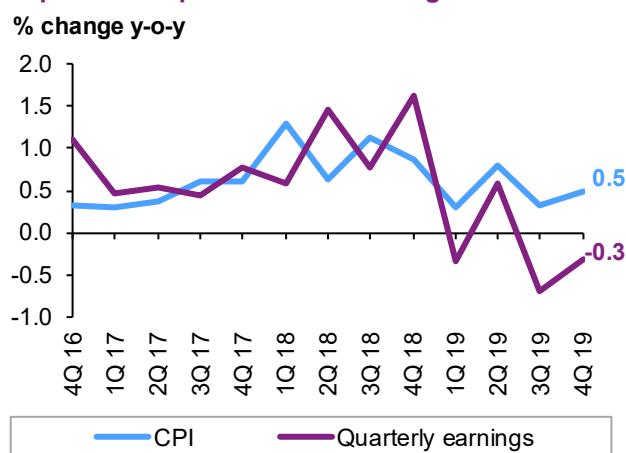
While the economy is dealing with the significant Covid-19 impact, the tightness in the **labour market** continues, with the unemployment rate rising to 2.4% in January, still a very low level. The positive development in employment translated into an average monthly earnings rise of 1.5% y-o-y in January. This compares with no growth in November and a decline of 0.5% y-o-y in December.

The trade disputes at the end of last year had a continued impact on Japanese **export** growth, which slowed again in January, declining by 2.6% y-o-y on a non-seasonally adjusted rate. This is however much better when compared to a decline of 7.9% y-o-y in November and 6.3% y-o-y in December.

Industrial production was very much affected by the weakness in exports and the sales tax increase. Industrial production declined significantly in January, falling by 2.7% y-o-y, after a decline of 5.6% y-o-y in December. Machinery orders fell by 13.1% y-o-y in December, after a decline of 9.7% y-o-y in November and 14.3% y-o-y in October. Considering the additional Covid-19-related impacts, this points to a further slowdown in the manufacturing sector.

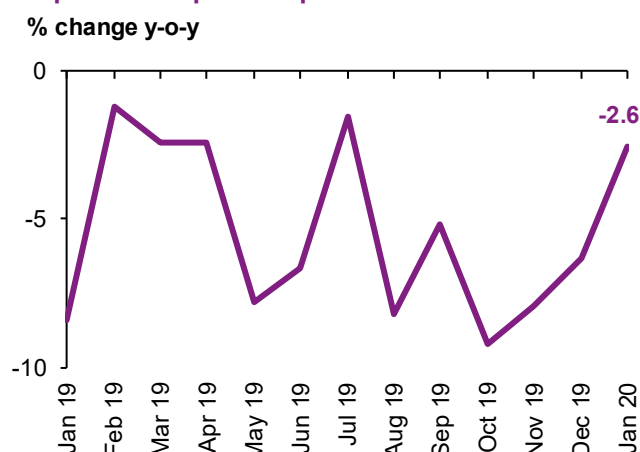
Domestic retail demand continued falling in January, albeit at a much lower rate, when compared to previous months. January retail trade declined by 0.3% y-o-y, compared to 2.7% y-o-y in December, obviously impacted by the October sales tax increase. While initially this was forecast to recover in the consecutive months, the Covid-19 impact, including the closure of schools and related measures by the government, will likely keep domestic demand growth at very low level. This has been reflected in **consumer confidence** which fell to 38.3 in February, compared to 38.7 in January, based on the index published by the Cabinet Office.

Graph 3 - 7: Japan's CPI vs earnings



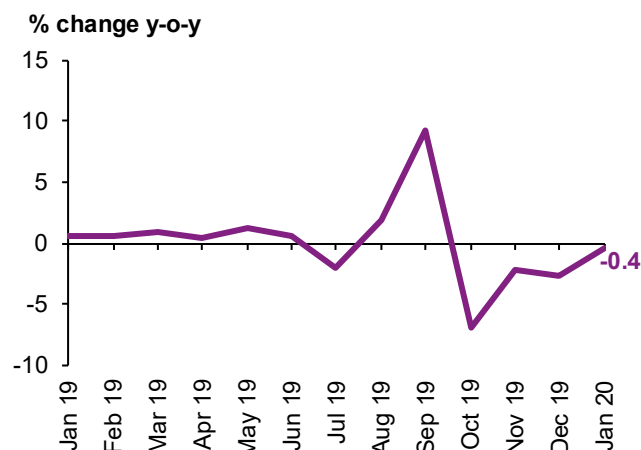
Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Haver Analytics.

Graph 3 - 8: Japan's exports



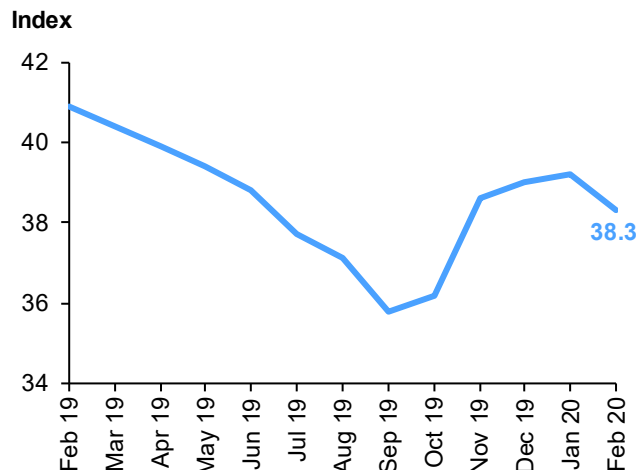
Sources: Ministry of Finance, Japan Tariff Association and Haver Analytics.

Graph 3 - 9: Japan's retail trade



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

Graph 3 - 10: Japan's consumer confidence index

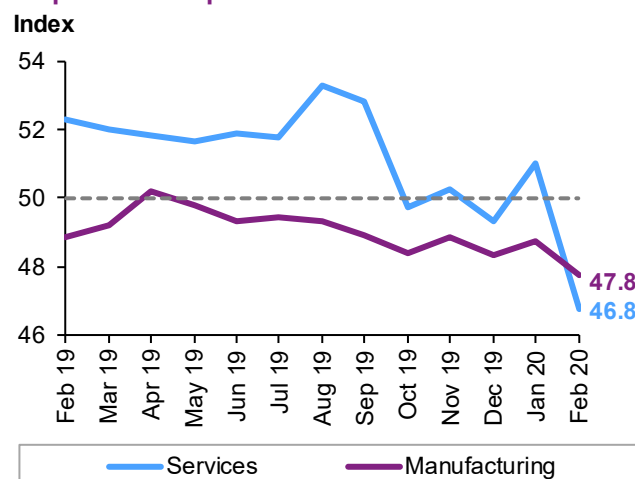


Sources: Cabinet Office of Japan and Haver Analytics.

The softening trend of the Japanese economy was also reflected in the **February PMI numbers**. The manufacturing PMI was 47.8, compared to 48.8 in January and 48.4 in December. The PMI for the services sector – which constitutes around two-thirds of the Japanese economy – fell sharply, standing at 47.8, compared to 51.0 in January and 49.4 in December.

Given the rising uncertainty globally and particularly in the Asian economy, Japan's economy will likely be impacted by Covid-19-related developments and the effect on tourism, exports to China, and supply chains from China. This in combination with the rising slowdown carryover from last year will lead Japan's **2020 GDP growth forecast** to decline by 0.2% compared to a forecast of 0.6% in the previous month. Given the strong decline in 4Q19, 2019 growth was lowered to 0.7% from 1.1% in previous month's estimate, based on Cabinet Office numbers.

Graph 3 - 11: Japan's PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

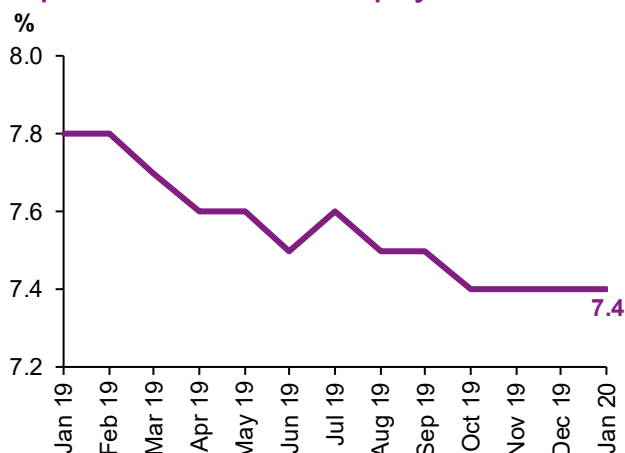
OECD Europe

Euro-zone

Latest output numbers in the **Euro-zone have confirmed an ongoing downward slope in 2H19**, a trend that is likely to have carried over into 1Q20. Currently – amid the latest Covid-19 related developments – the global trade environment is worsening and consumer spending is being negatively impacted, especially in Italy. The near-term growth path will be very challenging. Additionally, the expectation of a recovery in industrial production will now very likely not to materialise in the near-term. The combination of a global deceleration of road transportation and the supply chain disruptions of the car industry are likely to affect the German economy, given the large weight that the automobile sector has on the Euro-zone's largest economy. France is also forecast to be impacted. Covid-19 has spread widely in Italy, leading to the latest very drastic emergency measures to place the whole country under health restrictions and the prohibition of all non-necessary movement. The economy will very likely move into a recession. The ECB has not explicitly, to date, announced any further stimulus measures, but it is forecast that monetary policies will remain accommodative. Italy has in the meantime announced to increase the fiscal support to €10 billion, including tax credits for companies and tax cuts and support measures for the health system. The fiscal stimulus package now accounts for more than 0.5% of GDP. German exports and output continued their downward trend. While France has performed relatively better, industrial production also declined sharply in both December and January.

In the **labour market**, the Euro-zone's unemployment rate was unchanged in January to stand at 7.4%. Unemployment in Germany remained very low at an unchanged 3.2%. France's unemployment rate remained also unchanged at 8.2%. Spain's jobless rate stayed at 13.7% in January. Unemployment in Italy remained at 9.8% for a second consecutive month.

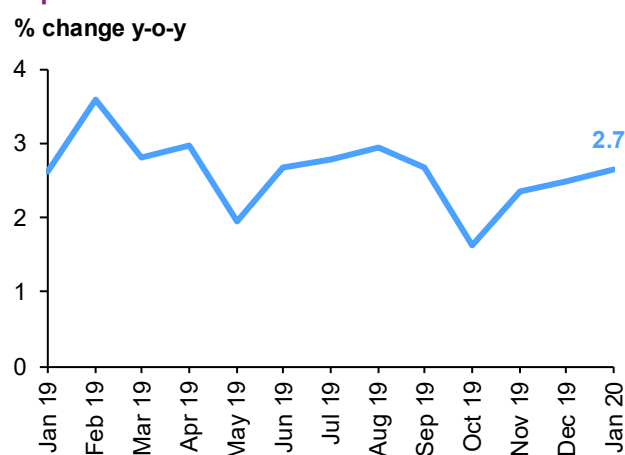
Graph 3 - 12: Euro-zone unemployment rate



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

The trend in **retail trade** picked up slightly in January. In value terms it rose by 2.7% y-o-y, compared to 2.5% y-o-y in December. This was a sound level and an important support factor for the Euro-zone economy. However, it is forecast to come down considerably in the coming months, probably turning negative.

Graph 3 - 13: Euro-zone retail sales

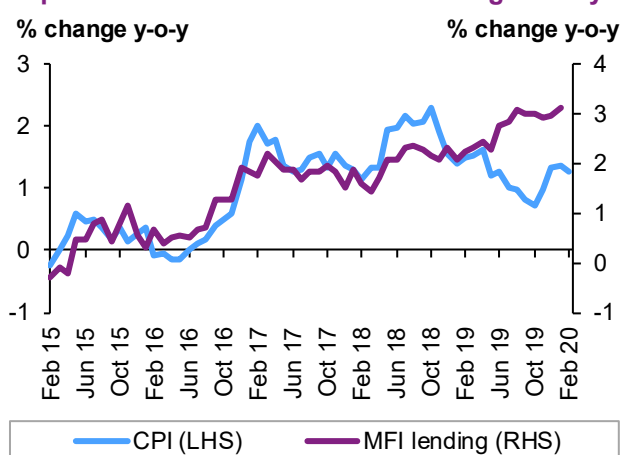


Sources: Statistical Office of the European Communities and Haver Analytics.

Industrial production declined by 3% y-o-y in Germany, 2.8% y-o-y in France and 0.4% y-o-y in Italy. For the Euro-zone only the December aggregation is available so far, which has declined by 3.6% y-o-y and given the downward trend of the major economies in January, this momentum is likely to continue.

Inflation fell in February, standing at 1.3% y-o-y, compared to January's level of 1.4%, which constituted the highest level in nine months. The important core inflation rate – the core CPI, excluding energy and food – increased slightly. It stood at 1.4% y-o-y in February, compared to 1.3% y-o-y in January and 1.4% y-o-y in December. Given the decline in energy prices and the expected slow-down in consumer spending, this is forecast to decelerate.

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



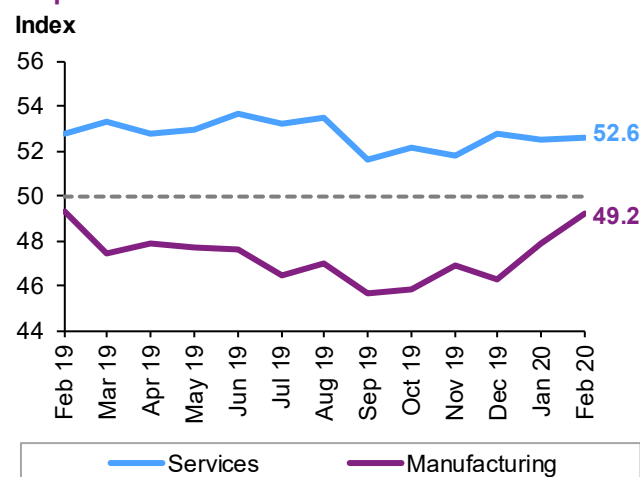
Sources: Statistical Office of the European Communities, European Central Bank and Haver Analytics.

Lending activity – a motor for investment and a signal for the health of the ECB's transmission channel – continued to grow and moved above 3%, to stand at 3.1% y-o-y in January, compared to an already strong level of 3.0% in December.

The Euro-zone's latest January **PMI indicators** reflected a slight improvement in January. However, this was prior to the outbreak of Covid-19 in Europe. The manufacturing PMI stood at 49.2 in February, compared to 47.9 in January. The important PMI for services, the largest sector in the Euro-zone, remained almost unchanged to stand at 52.6 in February, compared to 52.5 in January.

Given the weakness in the 4Q19 and the likelihood of a continuation of this trend into the current year in combination with the likely impact of Covid-19 related developments, the 2020 **GDP growth forecast** was revised down to 0.6%, compared to 0.9% in the previous month. The 2019 GDP growth estimate remains unchanged at 1.2%.

Graph 3 - 15: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

Non-OECD

BRICs

Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2019-2020*

| | 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 | |
|---------------|--------------------|------|--------------------------------------|------|----------------------------------|-------|-------------------------------------|------|---------------------------|------|
| | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 |
| Brazil | 1.0 | 1.6 | 3.7 | 4.3 | -41.6 | -50.4 | -5.7 | -4.7 | 78.4 | 78.8 |
| Russia | 1.1 | 0.8 | 4.5 | 4.2 | 79.5 | 96.5 | 1.8 | 1.5 | 10.2 | 10.0 |
| India | 5.3 | 5.2 | 3.6 | 4.7 | -53.9 | -58.7 | -3.9 | -3.6 | 44.3 | 44.0 |
| China | 6.1 | 5.0 | 2.9 | 5.2 | 210.7 | 302.2 | -4.3 | -5.0 | 18.4 | 22.1 |

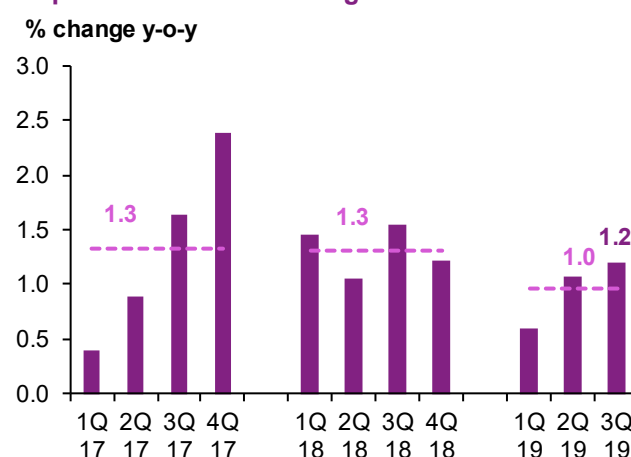
Note: * 2019 = Estimate and 2020 = Forecast.

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

Brazil

Brazil's trade balance switched into deficit in January 2020 for the first time since February 2015. The trade balance fell from a surplus of \$5.9 billion in December 2019 to a deficit of \$1.7 billion in January 2020. Exports fell by nearly 20% y-o-y in January 2020, whereas imports fell by 1.3% y-o-y. Exports of manufactured products contracted by 27.5% y-o-y, semi-manufactured products dropped by 25.1%, and primary products by 11.2%. On the imports side, primary products fell by 29.2% y-o-y in January 2020, and semi-manufactured products decreased by 11.6%. Imports of manufactured products increased by 2.4% y-o-y. Brazil's **GDP** grew by 1.2% y-o-y in 3Q19, from 1.1% in the previous quarter.

Graph 3 - 16: Brazil's GDP growth

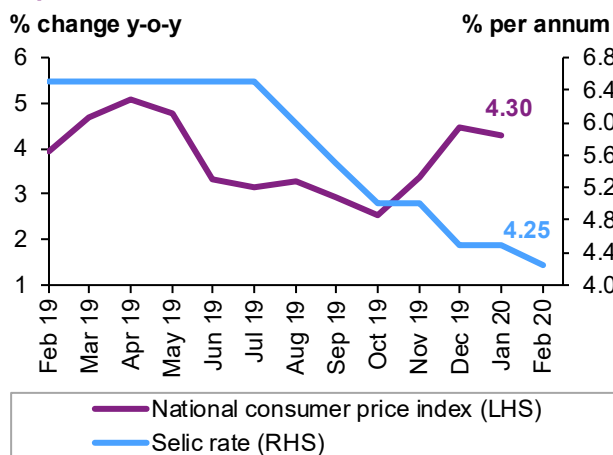


Sources: Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

World Economy

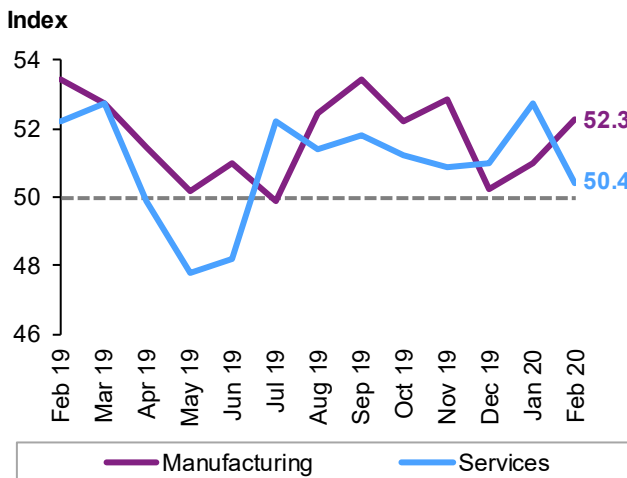
In February 2020, the **real** depreciated by 4.6% m-o-m, following a 1.0% m-o-m depreciation in January. On a y-o-y comparison, the real was lower by 16.5% vs the dollar in February 2020. The real depreciated by 18% and 6.1% in 2018 and 2019, respectively. **Inflation** was 4.3% y-o-y in January 2020 compared to 4.5% in December 2019. Inflation increased from 2.9% in 2018 to 3.8% in 2019. The central bank lowered its benchmark **interest rate** in February to 4.25% from 4.50% in response to sluggish GDP growth. The **unemployment rate** increased from 11.0% in December 2019 to 11.2% in January 2020. The **consumer confidence index** fell in February to 90.5 from January's 93.8.

Graph 3 - 17: Brazil's inflation vs. interest rate



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

Graph 3 - 18: Brazil's PMIs



Sources: IHS Markit and Haver Analytics.

Conditions in the **manufacturing sector** improved in February 2020, according to the IHS Markit Brazil manufacturing PMI. The index rose from 51.0 in January to 52.3 in February. The index survey showed that “faster expansions in the consumer and intermediate goods categories compared with the steepest downturn for over three years at capital goods makers. Aggregate production rose at the fastest pace in three months, with many companies noting better demand, improved economic conditions and stock-building initiatives.”

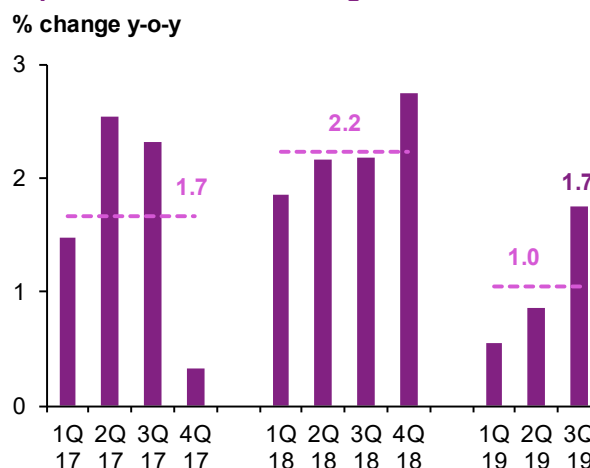
Brazil's **GDP** is expected to grow by 1.0% y-o-y in 2019 and 1.6% in 2020.

Russia

The **balance of trade** in goods posted a surplus of \$15.5 billion in December 2019, compared to \$12.3 billion in November 2019 and \$13.0 billion in October 2019. Exports registered a drop of 3.0% y-o-y in December 2019, to \$39.6 billion, whereas imports of goods went up by 7.7% y-o-y, reaching \$24.1 billion. The country's **GDP** expanded by 1.8% y-o-y in 3Q19, up from 0.9% in the previous quarter, according to the Federal State Statistics Service.

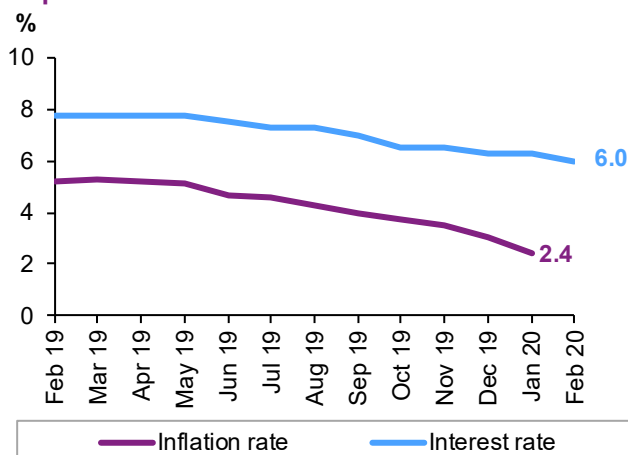
The **ruble** depreciated by 3.3% m-o-m in February, following a 1.8% appreciation in the previous month. On a y-o-y comparison, the ruble was 3.1% higher in February 2020 from its level a year earlier. Consumer price **inflation** posted 2.4% in January 2020, down from 3.1% y-o-y in December 2019. This marks the lowest rate of inflation since June 2018. The central bank reduced its benchmark **one-week repo rate** from 6.25% in January 2020, to 6.00% in February.

Graph 3 - 19: Russia's GDP growth



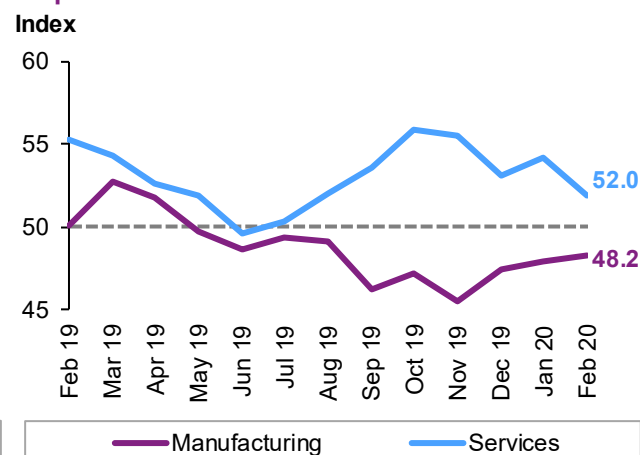
Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 20: Russia's inflation vs. interest rate



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

Graph 3 - 21: Russia's PMIs



Sources: IHS Markit and Haver Analytics.

February data continued to signal a deterioration in operating conditions. Nevertheless, the IHS Markit Russia **manufacturing PMI** rose from 47.9 in January to 48.2 in February. The survey report showed that “Russian manufacturers continued to register a contraction in production amid weak demand conditions. The rate of decrease was similar to that seen in January as firms reported reduced purchasing power among clients.” **Industrial production** increased by 1.1% y-o-y in January 2020 compared to 1.7% a month earlier. **Retail trade** increased by 2.7% y-o-y in January 2020, from 1.9% a month earlier, the highest rate of growth since December 2018. Russia's **GDP growth** estimate remains at 1.1% y-o-y in 2019 and is revised down to a forecast of 0.8% in 2020.

Impact of oil price decline on the Russian ruble

On 9 March 2020, the value of the ruble plunged to stand at RUB75/USD and RUB85/EUR. Meanwhile, the Russian equity market had lost almost 6% on Friday, 6 March. The rapid depreciation of the ruble was caused mainly by the sharp decline in oil prices, which is likely to impact the country's federal budget. This may, in turn, require the Russian government to spend some of its accumulated reserves. Indeed, if oil prices remain at the current level, the depreciation of the ruble may continue, as well as the decline in Russian equities. The ruble's current situation is quite similar to the 2014 and 2016 oil-driven declines in Russian equity markets. At that time, the ruble depreciated by 3%, for every 10% decrease in oil prices, as indicated in the below table.

Table 3 - 3: Impact of oil price decline on ruble depreciation

| Oil prices crisis cycle | Oil price decline | Ruble depreciation vs. US dollar | Ruble depreciation vs. Euro |
|-------------------------|-------------------|----------------------------------|-----------------------------|
| 2008–2009 | 70% | 35% | 19% |
| 2014–2016 | 60% | 54% | 44% |
| 2019–2020 | 48% | 14%* | 15%* |

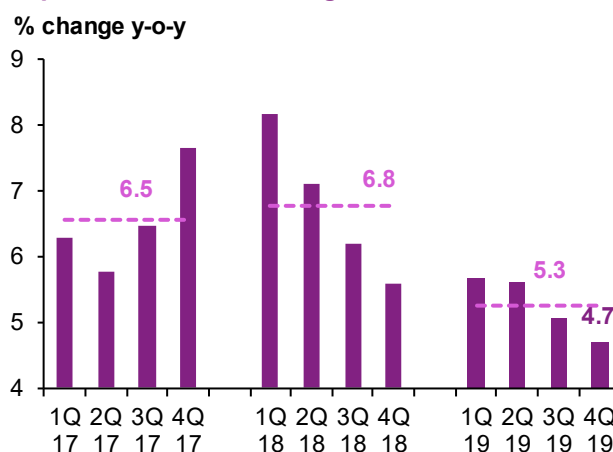
* Note: The calculation for the ruble depreciation vs. US dollar and euro in 2019–2020 covers the period between 20 January 2020–10 March 2020.

Russia's current national reserves, and relatively low inflation levels as well as lower dependency on imports, may help mitigate some of the effects implicated by lower oil prices. However, ongoing declining oil prices may negatively and directly affect per capita real income. The government might be forced to postpone the large investments it has been planning for the massive national projects requested by the government. It is estimated that a continued decline in crude oil prices may lead to a drop in Russia's economic growth of as much as 0.5 pp in 2020.

India

India's GDP growth expanded 4.7% y-o-y in 4Q19 which followed the revised 5.1% expansion in 3Q19. This was the weakest growth rate since 1Q13, driven mainly by slowing consumption and investment. The announced fiscal year 2021 (FY21) budget may not offer much support amid plans to limit government spending to reduce fiscal slippage in FY20, raising concerns about India's economic performance in 2H FY20. On top of that, the fiscal stimulus through tax cuts is unlikely to produce higher consumer and business spending. Most recently, there was a major disruption to e-commerce and major bank services in India, as the RBI (Reserve Bank of India) suspended and supersede the Yes Bank, a private bank that fails to raise new funding to cover its non-performing assets. In addition, signs of political tension may raise investor concerns and further temper expectations for the third largest economy in Asia.

Graph 3 - 22: India's GDP growth

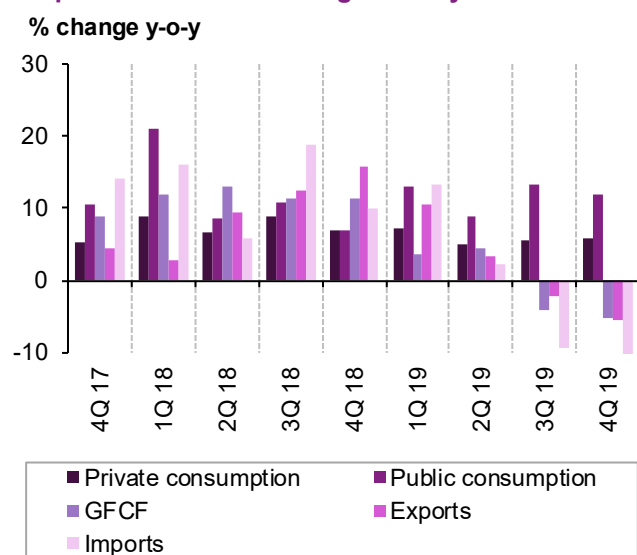


Sources: National Informatics Centre (NIC) and Haver Analytics.

On the **demand side**, faster declines were seen for gross fixed capital formation (-5.2% in 4Q19 vs -4.1% in 3Q19), exports (-5.5% vs -2.1%) and imports (-11.2% vs -9.3%), while private consumption growth accelerated (5.9% vs 5.6%).

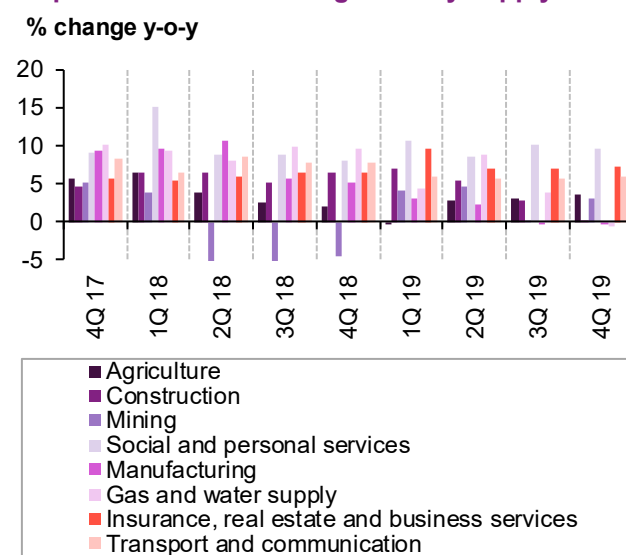
On the **supply side**, gross value added expanded 4.5% in 4Q19, compared to 4.8% in 3Q19. Output for utilities declined (-0.7% in 4Q19 vs 3.9% in 3Q19), manufacturing contracted (-0.2% vs -0.4%) and construction slowed sharply (0.3% vs 2.9%). On the other hand, increases were seen for finance and real estate (7.3% vs 7.1%); the farm sector (3.5% vs 3.1%); trade, hotels, transport and communication (5.9% vs 5.8%); and mining and quarrying (3.2% vs 0.2%).

Graph 3 - 23: India's GDP growth by demand side



Sources: Central Statistics Office and Haver Analytics.

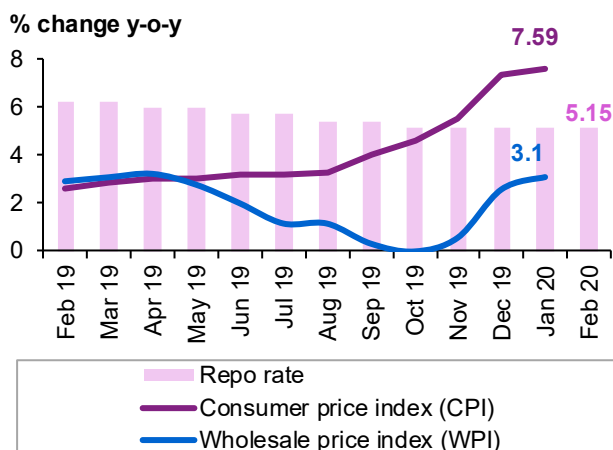
Graph 3 - 24: India's GDP growth by supply side



Sources: Central Statistics Office and Haver Analytics.

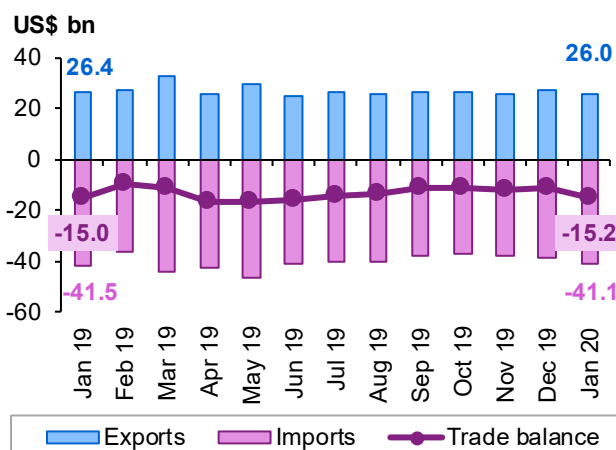
India's **CPI inflation** increased to its highest rate since July 2016, reaching 7.6% y-o-y in January 2020 compared to 7.4% in the previous month – 1.6 pp above the RBI's upper bound target of 6%. The inflationary surge, prompted by higher food prices, restrained monetary policy easing in the short run. As a result, the Monetary Policy Committee voted in favour of maintaining the status quo on the key interest rate for the short run. Meanwhile, India's **wholesale price index (WPI)** rose 3.1 % y-o-y in January 2020, following a 2.6% gain in the previous month. It was the highest wholesale inflation rate since April 2019, driven by a rebound in the cost of both manufacturing and fuel.

Graph 3 - 25: Repo rate and inflation in India



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

Graph 3 - 26: India's trade balance

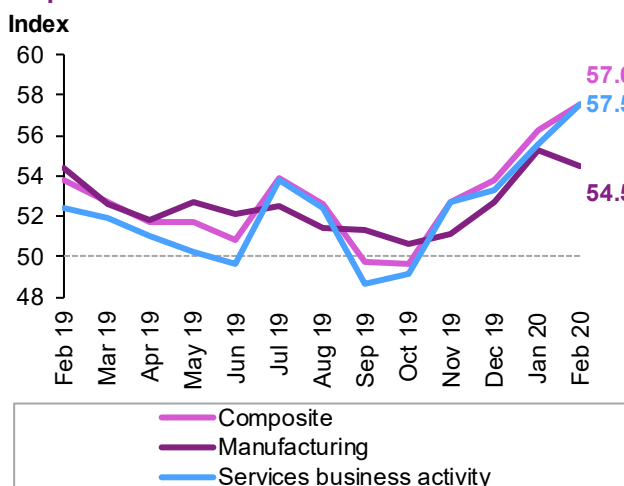


Sources: Ministry of Commerce and Industry and Haver Analytics.

India's **trade deficit** widened to \$15.17 billion in January 2020 from \$15.05 billion in the same month a year earlier. Exports fell by 1.7% y-o-y to \$25.97 billion, the sixth straight annual fall despite increases in sales of electronic goods, drugs and pharmaceuticals, petroleum products, chemicals (2.5%). Imports fell 0.7% y-o-y to \$41.14 billion, the eighth straight drop, mainly due to the increase in gold prices, which neared record highs in January prompted buyers to curtail purchases fiscal year.

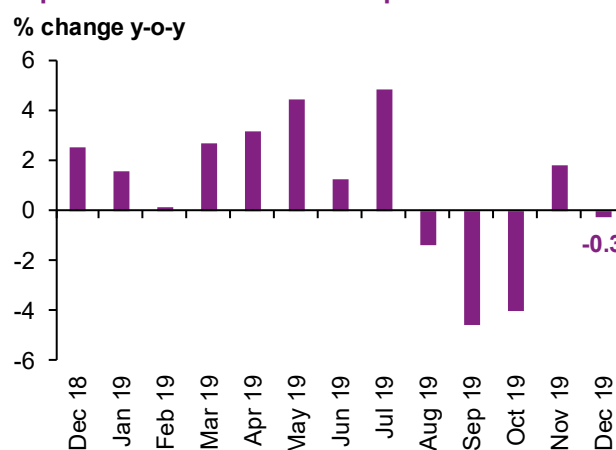
India's **IHS Markit Manufacturing PMI** dropped slightly to 54.5 in February 2020 from its eight-year high of 55.3 in January 2020, mainly due to input cost inflation and concerns about the impact of the Covid-19 outbreak. Although India has so far been less affected by Covid-19 than other economies, the supply-side disruption, especially to global trade and manufacturing, may negatively impact growth in the near term. India's Service PMI rose to 57.5 in February 2020 from 55.5 in the previous month.

Graph 3 - 27: India's PMIs



Sources: Nikkei, IHS Markit and Haver Analytics.

Graph 3 - 28: India's industrial production



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

India's **industrial production** fell 0.3% in December 2019 compared to a year earlier, following 1.8% growth in the previous month. Manufacturing production dropped 1.2% (vs 2.7% in November), led by computer, electronic and optical products; machinery and equipment; and printing and reproduction of recorded media; Electricity supply edged down 0.1% (vs -5% in November). Meanwhile, mining output grew 5.4% (vs 1.8% in November).

In accordance with the release of India's statistical offices, 4Q19 **GDP growth** estimate for 2019 was revised up to 5.3% from 5.2% in the previous month based on the newly released official data. The 2020 GDP forecast was lowered to 5.2% from 6.1% in the previous month.

China

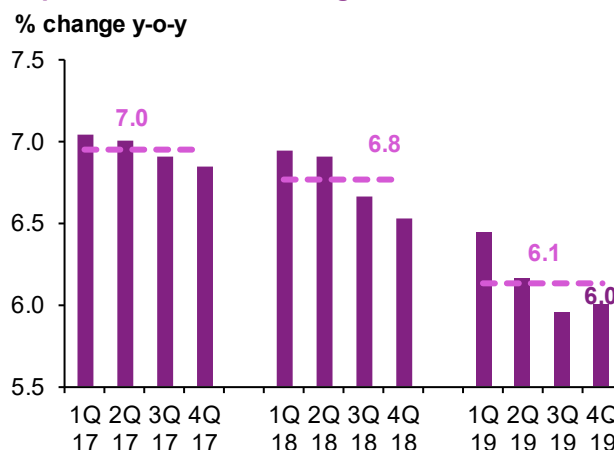
The economic impact of the Covid-19 outbreak has exceeded the Severe Acute Respiratory Syndrome (SARS) epidemic of 2002-2003 and the effect is expected to further drag down economic growth in 1Q20 before possibly rebounding slightly in 2Q20.

China's annual **GDP growth** for 2019 was 6.1%, the slowest pace in 29 years, yet it achieved the government's target of 6.0–6.5%. Although the phase one trade deal with the US eased trade tensions and increased business optimism, this support was not long-lived as Covid-19 has completely overshadowed the short-term economic outlook. Private consumption growth is under extreme pressure due to people staying home to avoid infection, reduced work hours and the lockdown of affected regions. Furthermore, it appears that supply chain-related disruptions might increase the negative impact on China's economy and trade partners compared to SARS. A more serious and long-lasting impact cannot be ruled out.

That said, the policymakers announced a shift in the balance of policymaking from containing the outbreak to resuming economic activity. This indicates more fiscal and monetary measures may be implemented to facilitate a recovery, on top of the rate cut and the injection of CNY1.7 trillion into the economy that were announced earlier. China was widely expected to announce a GDP growth target for 2020 of around 6.0% following 6.1% growth in 2019, but most probably it will revise down its annual economic growth target for 2020 in response to the impact of the Covid-19 outbreak.

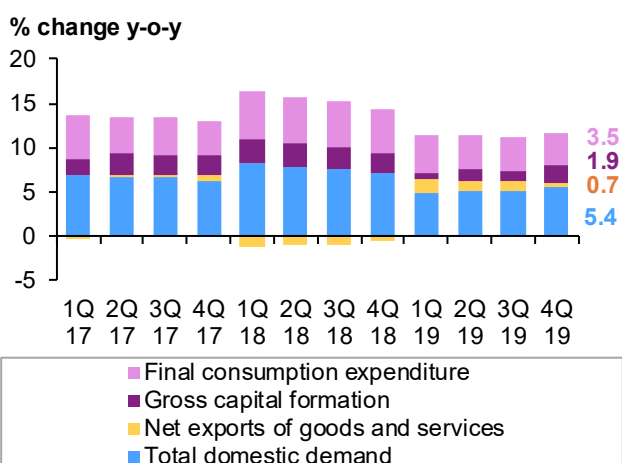
China's **external demand** remains challenging as well, yet the US-China phase one trade deal is a positive and the Chinese announcement to halve retaliatory tariffs on hundreds of US goods, worth about \$75 billion, helped avert a further escalation of the trade war. Nevertheless, Covid-19 is expected to have a sizable impact on China's exports and imports. On the positive side, the speed of infection in China had slowed at the time of writing.

Graph 3 - 29: China's GDP growth



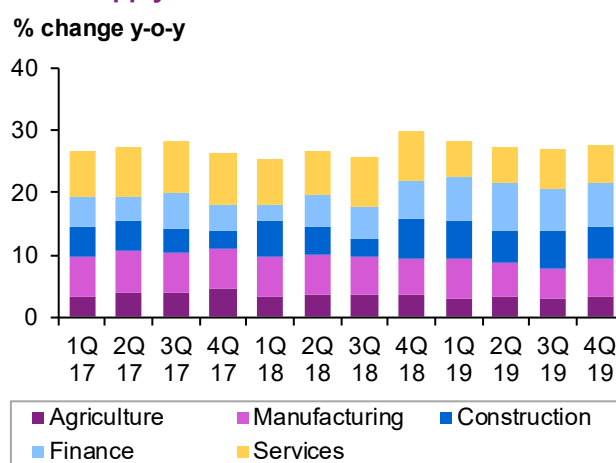
Sources: China's National Bureau of Statistics and Haver Analytics.

Graph 3 - 30: Contribution to China's GDP growth on the demand side



Sources: China National Bureau of Statistics, Haver Analytics and OPEC Secretariat.

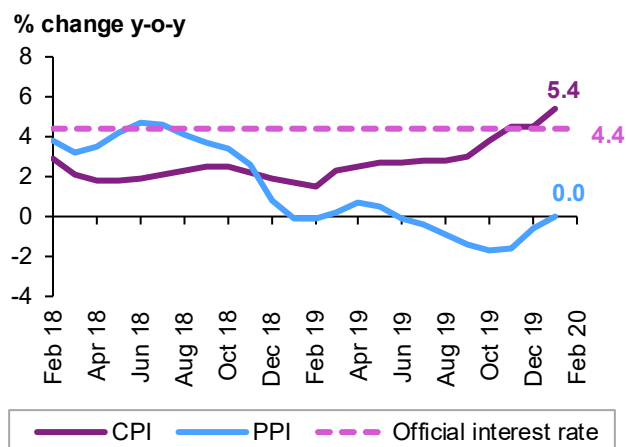
Graph 3 - 31: Contribution to China's GDP growth on the supply side



Sources: China National Bureau of Statistics, Haver Analytics and OPEC Secretariat.

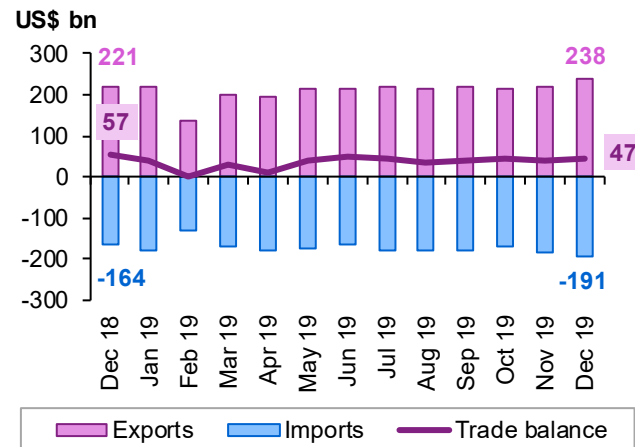
China's **CPI inflation** increased to 5.4% in January 2020 from 1.7 in January 2019. This was the highest inflation rate since October 2011. The **producer prices index (PPI)** rose by 0.1 pp y-o-y in January 2020, after a 0.6 pp fall in the previous month and in line with market estimates.

Graph 3 - 32: China's CPI and PPI



Sources: China Index Academy, China National Bureau of Statistics, Soufan and Haver Analytics.

Graph 3 - 33: China's trade balance



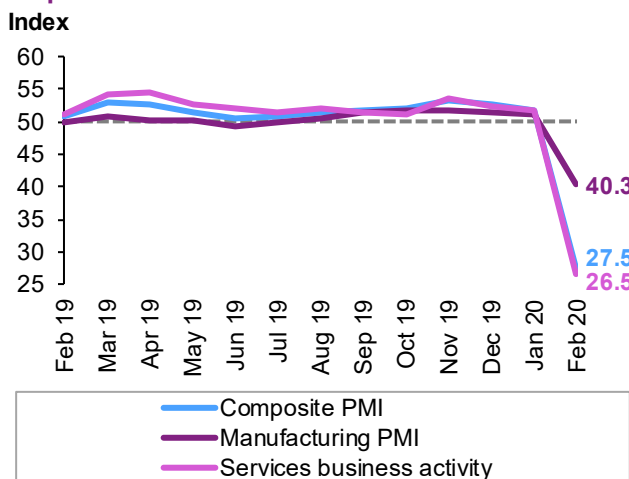
Sources: General Administration of Customs of China and Haver Analytics.

China's **trade surplus** narrowed to \$47.21 billion y-o-y in December 2019 from \$56.80 billion the same month a year ago. Exports increased by 7.9%, the first increase in five months, amid strengthening global demand and trade talks with the US. Moreover, imports climbed 16.5%, the most since October 2018, boosted in part by higher commodity prices. China's **trade surplus with the US** decreased to \$23.18 billion in December from \$24.6 billion in November. For 2019, China posted a \$295.8 billion surplus with the US, down from \$323.3 billion in 2018, with exports dropping 12.5% and imports slipping 20.9%.

The **official NBS Manufacturing PMI** dropped from 51.1 in January 2020 to 40.3 in February 2020 as companies extended their usual Lunar New Year shutdowns to prevent the spread of the Covid-19. The Caixin China Services PMI fell sharply, to 26.5 in February 2020 from 51.8 in the previous month.

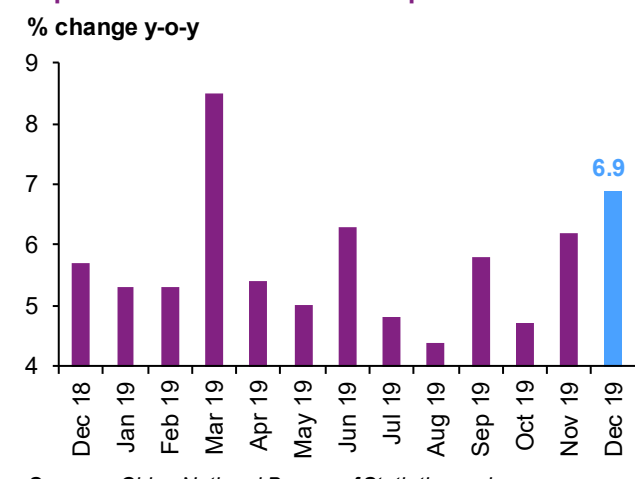
China's **industrial production** rose 6.9% y-o-y in December 2019, accelerating from a 6.2% increase in the previous month. This was the highest yearly growth in industrial output since March 2019, amid government support to prop up demand.

Graph 3 - 34: China's PMI



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3 - 35: China's industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

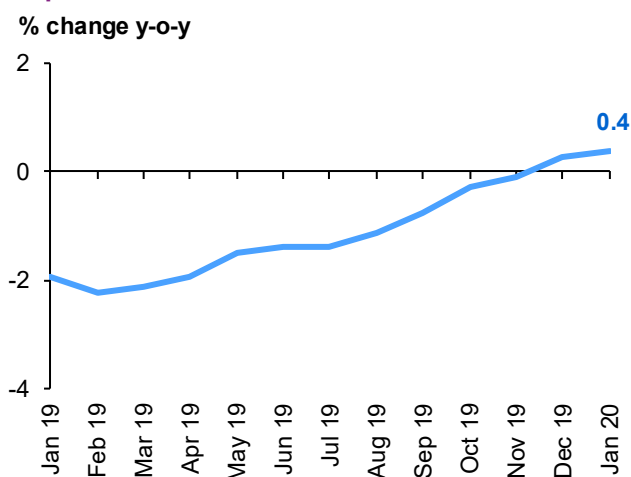
In light of the negative impact of Covid-19, for March we downgrade our expectation for Chinese **GDP growth** in 2020 to 5.0%, compared to 5.4% in the previous month. In our base-case scenario, we expect growth to start to rebound towards the end of 2Q20 as the virus comes under control in most parts of the country and government policy stimulus kicks in.

OPEC Member Countries

Saudi Arabia

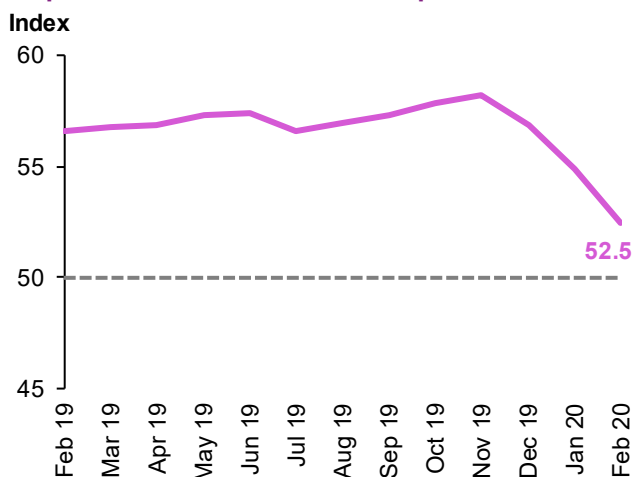
In **Saudi Arabia**, the General Authority for Statistics reported that GDP growth contracted by 0.3% y-o-y in 4Q19, compared to 3Q19's deceleration of 0.5% y-o-y. The government's final consumption expenditure expanded by 9.9% y-o-y in 4Q19, private consumption rose by 5.0%, and gross capital formation surged by 29.1%. Exports declined by 18.2% y-o-y in 4Q19 and imports dropped by 3.7% over the same period. The non-oil and gas sector registered an increase in the added value by 3.8% in 4Q19, whereas the value added in the oil and gas sector went down by 5.8%. GDP growth in 2019 stood at 0.3% y-o-y. The non-oil private sector continued posting improvements in business conditions in February, albeit at a slower pace. The IHS Markit Saudi Arabia PMI stood at 52.5 in February, down from 54.9 in January and the lowest since April 2018.

Graph 3 - 36: Saudi Arabia's inflation



Sources: General Authority for Statistics and Haver Analytics.

Graph 3 - 37: Saudi Arabia's composite PMI

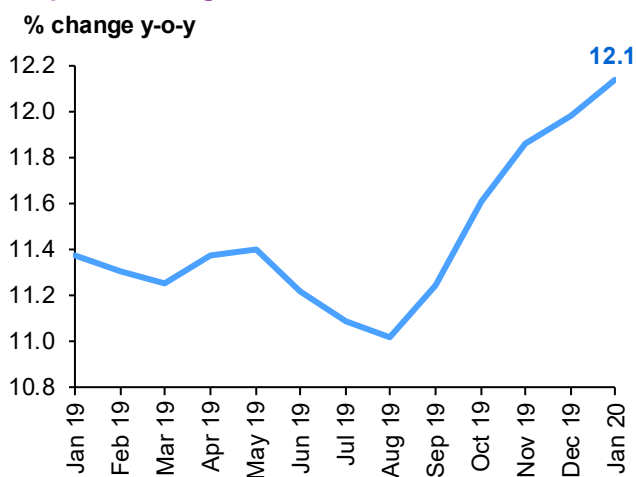


Sources: Emirates NBD, IHS Markit and Haver Analytics.

Nigeria

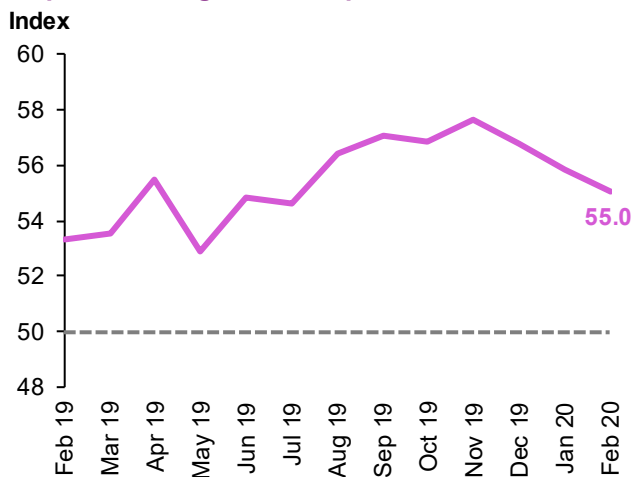
In **Nigeria**, GDP grew by 2.5% y-o-y in 4Q19, according to the National Bureau of Statistics, up from 2.1% in the previous quarter. This brings the 2019 growth to 2.2% y-o-y, compared to 1.9% in 2018. The Stanbic IBTC Bank Nigeria PMI showed that “the Nigerian private sector remained in solid growth territory in February, although there were some signs of moderation as rates of expansion in output and new orders softened. Companies continued to expand their purchasing activity and employment in line with higher new orders. The index went from 55.9 in January 2020 to 55.0 in February.”

Graph 3 - 38: Nigeria's inflation



Sources: National Bureau of Statistics and Haver Analytics.

Graph 3 - 39: Nigeria's composite PMI

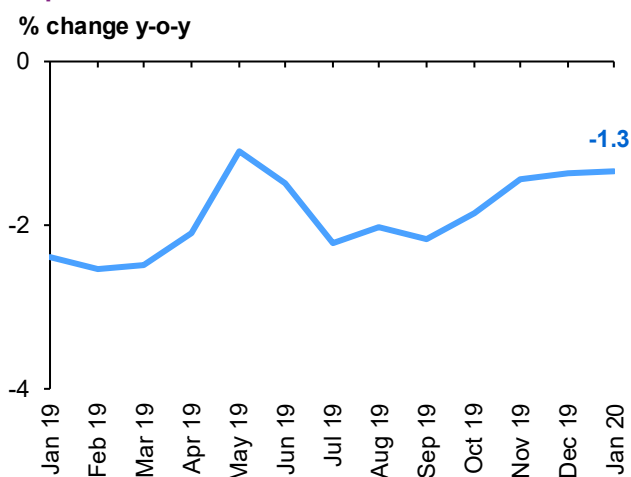


Sources: IHS Markit, Stanbic IBTC Bank and Haver Analytics.

The United Arab Emirates (UAE)

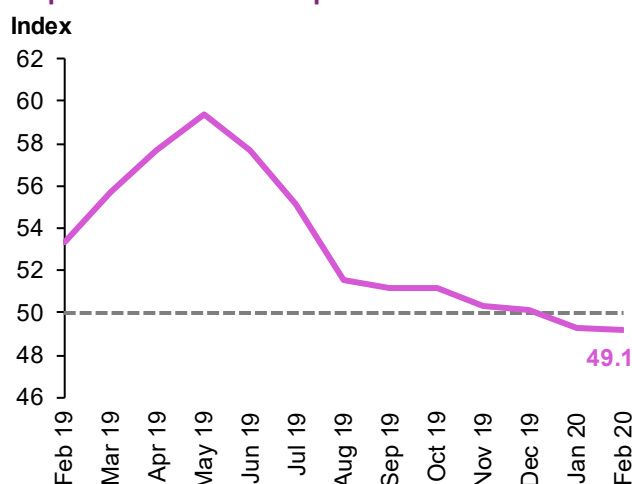
In the **UAE**, consumer price inflation dropped by 1.4% y-o-y in December 2019, similar to the previous month. In 2019, prices fell by an average 1.9% y-o-y. Prices of housing, water, and electricity fell by 4.9% y-o-y in December 2019, transportation fell by 0.8%, food by 1.1%, and medical care by 0.1%. Business conditions in the non-oil private sector showed some deceleration, according to the IHS Markit UAE PMI. The index went from 49.3 in January 2020 to 49.1 in February. The survey report said that “supplier performance was meanwhile hit by the Covid-19 outbreak in China, with PMI surveys globally noting significant delays to freight deliveries, as well as weaker export demand.”

Graph 3 - 40: UAE's inflation



Sources: National Bureau of Statistics and Haver Analytics.

Graph 3 - 41: UAE's composite PMI



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Other Asia

Indonesia

In **Indonesia**, GDP registered growth of 5.0% y-o-y in 4Q19, similar to the previous quarter and bringing the full year growth to 5.0%. Private consumption growth was slower at 4.9% during 4Q19, compared to 5.0% in 3Q19. In 4Q19, general government consumption growth slowed to 0.5% y-o-y, down from 1.0% in 3Q19. Gross capital formation increased by only 1.0% in 4Q19, down from 3.0% in the previous quarter. Exports of goods and services fell by 0.4% y-o-y in 4Q19, from a 0.1% rise in 3Q19. In 4Q19, imports went down by 8.1% y-o-y, compared with a 8.3% decline in 3Q19. The IHS Markit Indonesia manufacturing PMI signalled the first improvement in business conditions in eight months. The index improved from 49.3 in January to 51.9 in February. The index report said that “driving the headline index higher was a renewed upturn in new business and a faster expansion in output. Consequently, firms raised both employment and purchasing activity while business confidence remained positive. However, input costs rose at a notably faster pace amid supply chain disruptions.”

Africa

South Africa

In **South Africa**, GDP contracted by 0.1% y-o-y in 4Q19, bringing the full year growth to only 0.1% y-o-y, down from 0.7% registered in 2018. In 4Q19, private consumption expanded by 0.9% y-o-y, down from 1.3% in the previous quarter. Public consumption grew by 1.6% y-o-y in 4Q19, from 1.7% in 3Q19. Gross fixed capital formation contracted by 1.3% y-o-y in 4Q19, after growing by 0.9% in the previous quarter. In 4Q19, exports dropped by 6.1% y-o-y. This marks the third consecutive contraction in exports, which fell by 0.5% y-o-y and 4.3% in 2Q19 and 3Q19, respectively. Imports declined by 2.0% y-o-y in 4Q19, compared to a 2.7% contraction in 3Q19. The IHS Markit South Africa PMI went from 48.3 in January to 48.4 in February as “ongoing demand weakness and rising input cost inflation intensified efforts to reduce payrolls. Business activity fell at a sharper

rate, although the decline in new orders softened since the start of the year. Meanwhile, delivery times lengthened considerably as the outbreak of Covid-19 stalled both export and import trade with China.”

Latin America

Colombia

In **Colombia**, GDP posted growth of 3.4% y-o-y in 4Q19, from 3.5% in the previous quarter. Growth in household consumption during 4Q19 registered 4.4% y-o-y, down from 4.9% in 3Q19. Government consumption growth also slowed from 4.7% y-o-y in 3Q19 to 4.3% in 4Q19. Expansion in gross capital formation dropped sharply from 6.7% y-o-y in 3Q19 to 3.9% in 4Q19. Both exports and imports showed a lower rate of growth in 4Q19, up by 0.3% y-o-y and 5.6%, from 2.0% and 11.5%, respectively. The country’s manufacturing sector remained well into expansion territory, as suggested by the Davivienda Colombia manufacturing PMI, which registered 52.5 in February compared to 53.4 a month earlier. The index reports said that “the PMI moderation in February suggests that the manufacturing sector continues with a good performance, although with a softening in the levels of personnel hiring and a lower rate of growth in orders. It is very satisfactory to record the good behaviour of production, which continues to recover at its highest rate in eighteen months.”

Oil price decline impact on oil producing countries

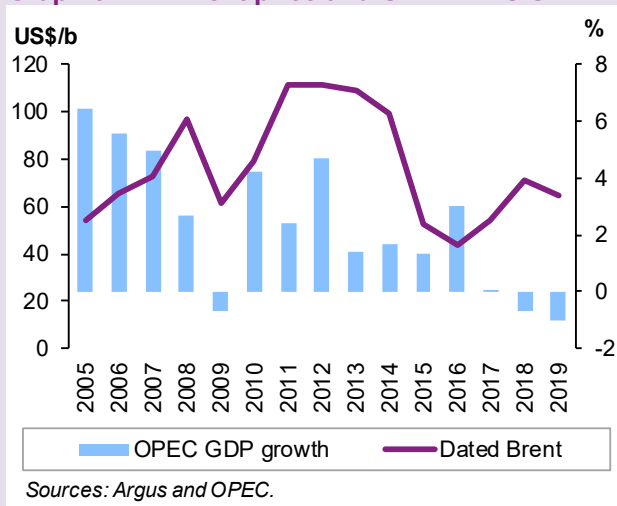
With the exception of a few countries including the US, Canada and Norway, the macroeconomic performance of many oil producing countries has been closely linked to the oil sector. As a result, their economic performance can be easily impacted by downturns in oil prices. Indeed, GDP and government revenues in most oil producers in the Middle-East, Latin America and Africa are linked to oil price evolution, with the elasticity of government revenues to the oil price being close to 1 for many of these countries.

Basically, oil price shocks transmit to the oil exporting economy through the export channel as well as the fiscal or government budget channels. Recently, the negative impacts of low oil prices are no longer limited to the above-mentioned regions, as the boom in unconventional tight oil production has radically changed the US oil industry landscape.

The recent decline in oil price could not have happened at a worse time, as the Covid-19 outbreak has wiped out global oil demand growth for 2020 and caused a strong negative global economic impact, which is expected to continue and worsen if the virus is not controlled. At the same time, several oil producing countries are now faced with lower oil price levels, which will affect government revenue of these countries.

Most oil exporters from the Middle-East and Africa have production costs, that are much lower than the current oil price level and therefore, their production level could be largely maintained. However, this is not the case for other producers, especially those with large quantities of unconventional oil (e.g. the US or Canada), which may see their production levels being reduced in the future.

Graph 3 - 42: Brent price and OPEC MCs GDP



World Oil Demand

World oil demand in 2019 is estimated to have increased by 0.83 mb/d, adjusted lower by 0.08 mb/d from last month's MOMR. The downward adjustment is in line with lower-than-expected data from OECD Americas. Oil demand growth in the **OECD** region was adjusted lower by 0.06 mb/d in 2019, mainly in 2H19. Most of the downward revisions were in OECD Americas amid lower industrial fuels demand, lower-than-expected gasoline demand and warmer weather conditions in 4Q19. OECD Asia Pacific was also revised lower in 2H19 to reflect weaker-than-expected demand from Japan. Oil demand growth in the **non-OECD** regions was revised down by 0.02 mb/d in 2019, mainly accounting for the weaker-than-expected demand in the Other Asia region during 2H19.

World oil demand growth in 2020 was revised lower by 0.92 mb/d to 0.06 mb/d. The impact of the Covid-19 outbreak in China and its downward impact on transportation and industrial fuels in China was the major cause of this revision. Additionally, the outbreak is assumed to affect oil demand growth in various other countries and regions, such as Japan, South Korea, OECD Europe and some Middle Eastern countries, as well as in the US. The downward adjustment of global economic outlook was also considered in the current oil demand projection for 2020. Total global oil demand is now assumed at 99.73 mb/d in 2020 with higher consumption expected in 2H20 than in 1H20. In the **OECD**, oil demand was revised lower by 0.32 mb/d mainly due the effect of Covid-19 on various countries in OECD Europe and OECD Asia Pacific. Most of that downward revision is concentrated in 1H20. Additionally, a warmer-than-expected winter in the Northern Hemisphere has capped heating fuel requirements. In **non-OECD**, the 2020 oil demand projection was adjusted sharply lower, mainly in China and Other Asia, amid the outbreak of Covid-19 and its subsequent impact on transportation and industrial fuels. Other countries in Other Asia, such as Singapore, Thailand, Malaysia and the Philippines, have been revised lower reflecting the limitation in industrial and transportation fuels. Non-OECD oil demand was revised lower by 0.60 mb/d in 2020 with most of the downward revisions appearing in 1H20. Considering the latest developments, downward risks currently outweigh any positive indicators and suggest further likely downward revisions in oil demand growth, should the current status persist.

World oil demand in 2019 and 2020

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

| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Change 2019/18 | |
|------------------------------|--------------|--------------|--------------|---------------|---------------|--------------|----------------|--------------|
| | | | | | | | Growth | % |
| Americas | 25.60 | 25.14 | 25.29 | 26.03 | 25.99 | 25.62 | 0.01 | 0.05 |
| of which US | 20.82 | 20.65 | 20.66 | 21.05 | 21.02 | 20.85 | 0.03 | 0.12 |
| Europe | 14.33 | 14.09 | 14.25 | 14.75 | 14.25 | 14.34 | 0.01 | 0.06 |
| Asia Pacific | 8.08 | 8.50 | 7.61 | 7.68 | 8.05 | 7.96 | -0.12 | -1.49 |
| Total OECD | 48.01 | 47.72 | 47.15 | 48.46 | 48.29 | 47.91 | -0.10 | -0.21 |
| Other Asia | 13.64 | 13.91 | 13.96 | 13.51 | 14.08 | 13.86 | 0.23 | 1.66 |
| of which India | 4.73 | 5.03 | 4.75 | 4.49 | 5.10 | 4.84 | 0.11 | 2.36 |
| Latin America | 6.53 | 6.35 | 6.58 | 6.87 | 6.53 | 6.58 | 0.06 | 0.87 |
| Middle East | 8.12 | 8.25 | 7.87 | 8.67 | 8.00 | 8.20 | 0.08 | 0.93 |
| Africa | 4.33 | 4.45 | 4.42 | 4.36 | 4.50 | 4.43 | 0.10 | 2.31 |
| Total DCs | 32.62 | 32.96 | 32.84 | 33.41 | 33.10 | 33.08 | 0.46 | 1.41 |
| FSU | 4.76 | 4.70 | 4.68 | 4.96 | 5.04 | 4.84 | 0.09 | 1.84 |
| Other Europe | 0.74 | 0.75 | 0.71 | 0.75 | 0.84 | 0.76 | 0.02 | 2.69 |
| China | 12.71 | 12.63 | 13.19 | 12.95 | 13.52 | 13.07 | 0.36 | 2.85 |
| Total "Other regions" | 18.21 | 18.08 | 18.58 | 18.66 | 19.40 | 18.68 | 0.47 | 2.58 |
| Total world | 98.84 | 98.75 | 98.56 | 100.53 | 100.79 | 99.67 | 0.83 | 0.84 |
| Previous estimate | 98.84 | 98.75 | 98.56 | 100.55 | 101.07 | 99.74 | 0.91 | 0.92 |
| Revision | 0.00 | 0.00 | 0.00 | -0.02 | -0.28 | -0.08 | -0.08 | -0.08 |

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

Source: OPEC.

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

| | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 2020/19 | |
|------------------------------|--------------|--------------|--------------|---------------|---------------|--------------|----------------|--------------|
| | | | | | | | Growth | % |
| Americas | 25.62 | 25.24 | 25.37 | 26.14 | 26.11 | 25.72 | 0.10 | 0.39 |
| of which US | 20.85 | 20.74 | 20.72 | 21.14 | 21.14 | 20.94 | 0.09 | 0.43 |
| Europe | 14.34 | 13.89 | 13.90 | 14.72 | 14.22 | 14.18 | -0.15 | -1.06 |
| Asia Pacific | 7.96 | 8.14 | 7.13 | 7.55 | 7.96 | 7.70 | -0.26 | -3.28 |
| Total OECD | 47.91 | 47.27 | 46.39 | 48.41 | 48.29 | 47.59 | -0.31 | -0.65 |
| Other Asia | 13.86 | 13.98 | 14.04 | 13.75 | 14.38 | 14.04 | 0.17 | 1.23 |
| of which India | 4.84 | 5.09 | 4.80 | 4.59 | 5.23 | 4.93 | 0.09 | 1.80 |
| Latin America | 6.58 | 6.44 | 6.65 | 6.96 | 6.63 | 6.67 | 0.09 | 1.33 |
| Middle East | 8.20 | 8.24 | 7.91 | 8.75 | 8.11 | 8.25 | 0.06 | 0.70 |
| Africa | 4.43 | 4.52 | 4.51 | 4.45 | 4.58 | 4.51 | 0.08 | 1.77 |
| Total DCs | 33.08 | 33.18 | 33.10 | 33.91 | 33.71 | 33.47 | 0.39 | 1.19 |
| FSU | 4.84 | 4.80 | 4.77 | 5.06 | 5.15 | 4.95 | 0.10 | 2.11 |
| Other Europe | 0.76 | 0.76 | 0.72 | 0.76 | 0.85 | 0.77 | 0.01 | 1.54 |
| China | 13.07 | 11.57 | 13.22 | 13.11 | 13.85 | 12.94 | -0.13 | -1.01 |
| Total "Other regions" | 18.68 | 17.13 | 18.71 | 18.93 | 19.85 | 18.66 | -0.02 | -0.10 |
| Total world | 99.67 | 97.58 | 98.20 | 101.25 | 101.85 | 99.73 | 0.06 | 0.06 |
| Previous estimate | 99.74 | 99.51 | 99.36 | 101.62 | 102.38 | 100.73 | 0.99 | 0.99 |
| Revision | -0.08 | -1.93 | -1.16 | -0.37 | -0.53 | -1.00 | -0.92 | -0.92 |

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

Source: OPEC.

OECD

OECD Americas

US

Based on the latest available monthly data, December 2019 **US oil demand growth** remained in negative territory, y-o-y, for the second consecutive month, despite positive developments in the main oil demand indicators and economic performance. US oil demand in December 2019 fell by approximately 0.01 mb/d, y-o-y. As in previous months, the bulk of oil demand growth originated from lighter hydrocarbons, in particular petroleum products utilized as feedstock for the petrochemical sector. Warmer weather during December 2019 capped diesel oil demand, while efficiencies and reduced travel affected gasoline and jet kerosene demand, which marked y-o-y declines. In 2019 US oil demand fell by approximately 0.03 mb/d y-o-y, lower than estimated in last month's report and for the first time since 2012, in line with major oil demand indicators in the country.

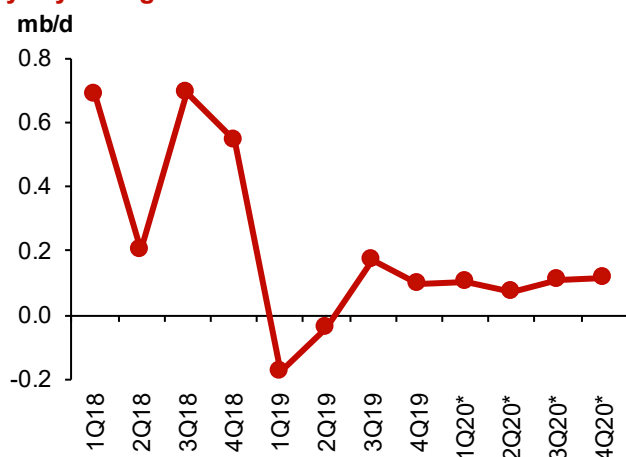
Table 4 - 3: US oil demand, tb/d

| | Dec 19 | Dec 18 | Change 2019/18 | |
|----------------|---------------|---------------|----------------|-------------|
| | | | tb/d | % |
| LPG | 3,266 | 3,164 | 102 | 3.2 |
| Naphtha | 240 | 235 | 5 | 2.1 |
| Gasoline | 8,945 | 9,179 | -234 | -2.5 |
| Jet/kerosene | 1,796 | 1,677 | 119 | 7.1 |
| Diesel oil | 3,901 | 4,019 | -118 | -2.9 |
| Fuel oil | 269 | 367 | -98 | -26.7 |
| Other products | 2,164 | 1,953 | 211 | 10.8 |
| Total | 20,581 | 20,594 | -13 | -0.1 |

Sources: EIA and OPEC.

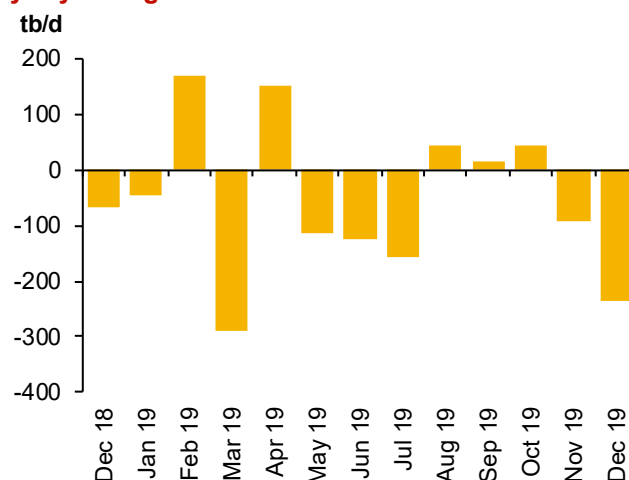
As with all other regions of the world, the outlook for 2020 US oil demand will be affected by the Covid-19 outbreak. The rising number of cases in countries outside of China poses substantial downside risks for 2020 world and US oil demand growth. Risks would point furthermore to the downside should the Covid-19 evolve into a pandemic. Consequently, the US 2020 forecast risks are also skewed to the downside, as the Covid-19 outbreak appears to be spreading in major states, with number of states declaring state of emergency.

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



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

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



Sources: EIA and OPEC.

Mexico

The last available monthly data shows **Mexican oil demand** declining in January 2020, y-o-y. Diesel usage implied gains, but has been more than offset by shrinking demand for gasoline and residual fuel oil, while LPG and naphtha requirements remained flat, y-o-y.

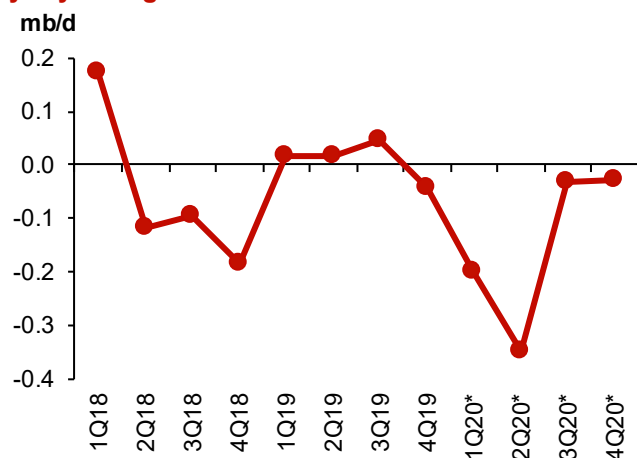
The 2020 forecast for Mexican oil demand is unchanged from last month's projections and suggests that Mexican oil demand will grow slightly in 2020, with risks being further skewed to the downside compared to last month's projections. Lower anticipated economic growth, as well as the oil price environment, are the major underlying factors that may influence oil demand growth further to the downside.

In 2019, **OECD Americas oil demand** grew by 0.01 mb/d compared to 2018. 2020 OECD Americas' oil demand is projected to grow by 0.10 mb/d compared to 2019.

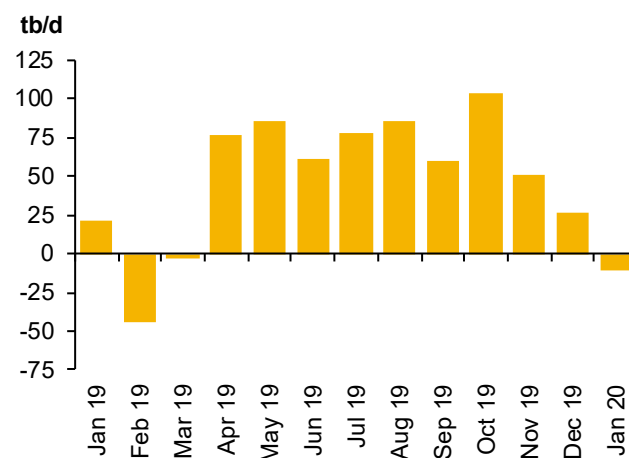
OECD Europe

European oil demand fell for the second consecutive month in December 2019, down by 0.16 mb/d y-o-y. Declines originated in weaker LPG, naphtha, gasoline and diesel demand, in line with warmer weather across the region.

The latest data for the region's automobile fleet implies a decrease in new car registrations in January 2020, with strong declines in some of the region's largest auto markets, including Germany, France and Italy. December 2019 oil demand fell y-o-y for the majority of countries in the region, particularly in the **European Big 4 oil consumers** – Germany, France, Italy and the UK.

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

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

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

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

The outlook for the region's oil demand in 2020 has been further lowered from last month's projections, mainly because of the Covid-19 outbreak in Italy and other European countries. Furthermore, significant challenges remain in relation to Brexit. The high historical baseline, as well as efficiencies, fuel substitution and the oil price environment are additional factors influencing oil demand.

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

| | Dec 19 | Dec 18 | Change 2019/18 | |
|----------------|---------------|---------------|-----------------------|-------------|
| | | | tb/d | % |
| LPG | 447 | 474 | -27 | -5.8 |
| Naphtha | 498 | 530 | -32 | -6.0 |
| Gasoline | 1,088 | 1,123 | -35 | -3.1 |
| Jet/kerosene | 812 | 791 | 21 | 2.7 |
| Diesel oil | 3,065 | 3,057 | 8 | 0.3 |
| Fuel oil | 130 | 212 | -82 | -38.9 |
| Other products | 495 | 582 | -87 | -15.0 |
| Total | 6,534 | 6,769 | -235 | -3.5 |

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

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

2019 OECD Europe oil demand stands almost at 2018 levels; in 2020 European oil demand is projected to fall by 0.15 mb/d.

OECD Asia Pacific

Japan

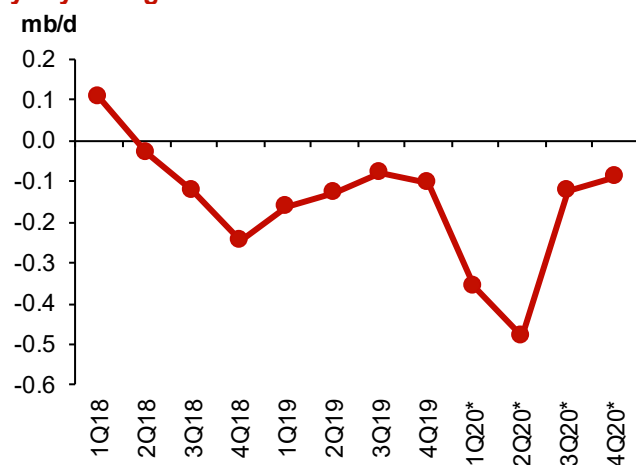
January 2020 data from the Japanese Ministry of Economy Trade, and Industry (METI), the most recent figures available, suggest that oil demand in **Japan** fell by 0.42 mb/d. This marks the largest monthly decline since 2016. The decrease is a result of lower requirements for all main petroleum product categories and is in line with downward adjustments to the country's economy and warmer weather conditions.

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

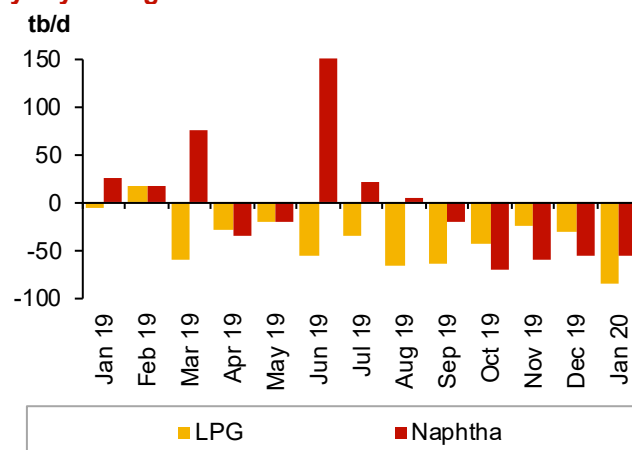
| | Jan 20 | Jan 19 | Change 2020/19 tb/d | % |
|----------------|--------------|--------------|------------------------|-------------|
| LPG | 377 | 461 | -84 | -18.3 |
| Naphtha | 757 | 812 | -55 | -6.8 |
| Gasoline | 757 | 793 | -36 | -4.5 |
| Jet/kerosene | 653 | 751 | -98 | -13.0 |
| Diesel oil | 717 | 787 | -70 | -8.9 |
| Fuel oil | 192 | 239 | -47 | -19.6 |
| Other products | 363 | 388 | -25 | -6.3 |
| Total | 3,816 | 4,231 | -415 | -9.8 |

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

Regional spillover effects from the Covid-19 outbreak in China have substantially lowered the 2020 forecast oil demand growth in the region, particularly for the large oil consuming countries. Consequently, Japanese oil demand is projected to further decline in the current year, with risk expectations further skewed to the downside.

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

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

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.

South Korea

In **South Korea**, the latest available December 2019 data shows solid y-o-y oil demand growth. Most of the petroleum product category requirements increased, notably LPG and naphtha, as well as diesel. In Australia, oil demand returned to growth during December 2019 y-o-y, mainly as a result of stronger diesel and jet kerosene requirements.

The outlook for South Korean oil demand during 2020 has been lowered, while the downside risks are predominantly influenced by Covid-19 developments, some upside risks also continue to relate the country's industrial sector, as well as the low historical baseline of oil usage for the petrochemical sector during 2019.

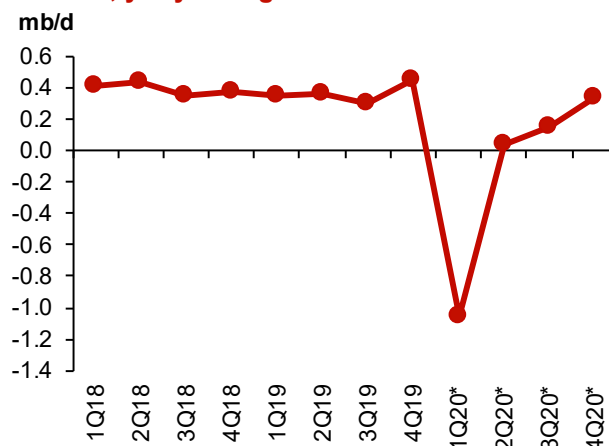
OECD Asia Pacific oil demand in 2019 shrank by 0.12 mb/d. In 2020, oil demand is forecast to contract further, by 0.26 mb/d.

Non-OECD

China

Based on preliminary and partly estimated data, **China's oil demand** started the year at modest growth levels. Oil demand growth in January 2020 posted an increase of 0.16 mb/d compared to January 2019, though this was far below the average monthly growth level in 2019 of 0.36 mb/d y-o-y. In absolute terms, total oil demand for China was estimated at 12.3 mb/d in January 2020. Demand for light distillate products, LPG and naphtha was offset by declines in gasoline and middle distillates. The onset of Covid-19 played a big factor in reducing demand for transportation fuels, particularly jet fuel and gasoline. LPG demand reached a total of 1.96 mb/d, increasing by around 0.08 mb/d, very much supported by rising propane dehydrogenation capacity (PDH) prior to the Lunar New Year holidays. Additionally, naphtha demand strengthened compared to January 2019, rising by 0.02 mb/d on the back of new cracking margins.

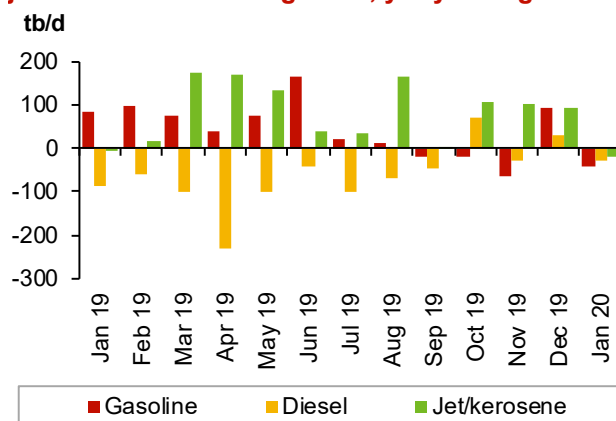
Graph 4 - 7: Changes in China's apparent oil demand, y-o-y change



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

Gasoline growth flipped to the negative in January 2020, dropping by 0.04 mb/d to reach total consumption of 2.92 mb/d. Demand was very much impacted by less distance driven towards the end of the month, particularly in central China, where Covid-19 was first discovered. Transportation fuels usually peak around the Lunar New Year holidays when many Chinese families travel across the country to meet family and friends.

Graph 4 - 8: China's gasoline, diesel and jet/kerosene 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.

Jet/kerosene total consumption is estimated at 0.82 mb/d, down by 0.02 mb/d mainly as a result of reduced flight operations to mainland China due to the spread of Covid-19 towards the end of January 2020.

For 2020, the oil demand outlook is currently skewed to the downside in light of Covid-19. Jet fuel requirements will remain very weak throughout 1Q20 because of reduced air travel, while gasoline will be impacted by a decline in kilometres driven, due to the lockdown policy. Industrial fuel, as well as petrochemical feedstock, will also face serious challenges going forward and their growth will be very much dependent on the extent of the rebound during 2H20. With information about the Covid-19 being updated on daily basis, a further reduction to China's oil demand growth is expected compared with last month's MOMR. Data suggests transportation and industrial fuels took a significant hit in February 2020, eliminating any growth during 1Q20 and shifting oil demand into the negative. 2Q20 was also adjusted lower, as some slowdown in overall economic activities is anticipated compared with the previous month's assessment.

For 2019, Chinese oil demand grew by 0.36 mb/d, while oil demand in 2020 is projected to decrease by 0.13 mb/d.

Other Asia

India

India's oil demand dropped for the second month in a row in January 2020, primarily as a result of a strong historical baseline during the same month in 2019. January 2020 data indicates a decrease of 0.03 mb/d y-o-y, highlighting a slow start to the year. This softness in oil demand growth numbers can primarily be attributed to a reduction in middle and heavy distillate consumption, while light distillate products recorded decent gains. LPG requirements in the residential sector continued their positive momentum in January 2020. Additionally, good cracking margins supported demand for naphtha. Both products increased by around 0.05 mb/d y-o-y. Gasoline demand also increased in January 2020, adding around 0.02 mb/d y-o-y, in line with increasing distances driven. On the other hand, vehicle sales dropped as domestic passenger vehicle sales weakened by more than 6% y-o-y in January 2020. Diesel demand declined in January 2020, dropping by 0.04 mb/d, despite an improving manufacturing PMI, which stood at 55.3 in January, the highest in eight months. Fuel oil consumption dropped by 0.05 mb/d y-o-y, largely due to the implementation of IMO 2020.

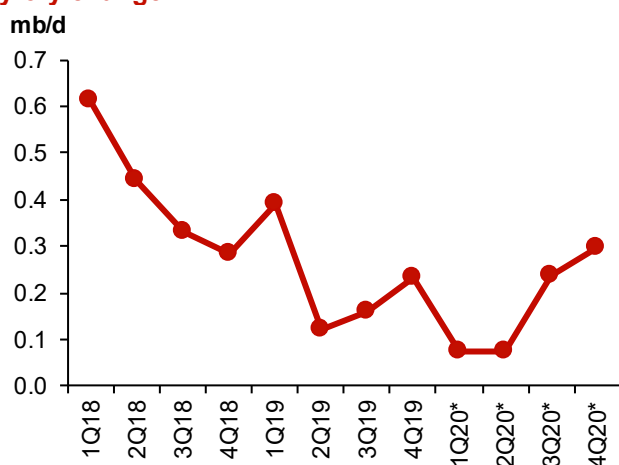
Table 4 - 6: India's oil demand, tb/d

| | Jan 20 | Jan 19 | Change 2020/19 tb/d | % |
|----------------|--------------|--------------|------------------------|-------------|
| LPG | 866 | 816 | 50 | 6.1 |
| Naphtha | 328 | 280 | 47 | 16.9 |
| Gasoline | 684 | 661 | 23 | 3.5 |
| Jet/kerosene | 220 | 240 | -20 | -8.4 |
| Diesel oil | 1,885 | 1,923 | -38 | -2.0 |
| Fuel oil | 403 | 452 | -49 | -10.9 |
| Other products | 680 | 721 | -42 | -5.8 |
| Total | 5,064 | 5,094 | -29 | -0.6 |

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

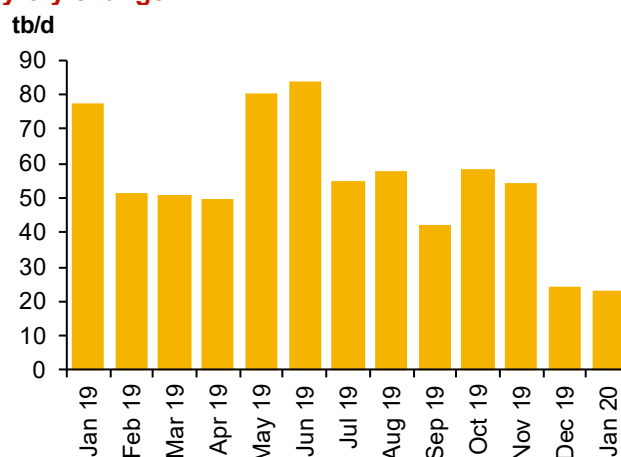
Looking forward, Indian oil demand growth in 2020 is very much dependent on domestic economic activity which, at the time of writing, appears to be skewed to the downside as signs of Covid-19 impact started to emerge in the country. Nevertheless, government spending on infrastructure developments projects, particularly road construction, is expected to continue at steady pace for 2020. LPG for residential use and gasoline for the transportation sector are anticipated to be the sources of petroleum products growth.

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



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

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



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

Indonesia

Indonesian oil demand inched up in December 2019. Products demand registered an increase of 0.01 mb/d which equates to around 2% y-o-y, with total consumption for the country currently standing at 1.64 mb/d. The growth in oil demand mainly can be attributed to better-than-expected demand in the transportation sector, with gasoline increasing by 0.01 mb/d. Similarly, for 2019, oil demand was 0.03 mb/d higher, 2.0% y-o-y, stimulated by decent gasoline demand growth.

Thailand

In **Thailand, oil demand** fell in December by 0.03 mb/d, or 2% y-o-y, led by declines in light distillates and fuel oil requirements. For 2019, oil demand was higher by 0.01 tb/d or around 1% y-o-y, led by higher demand for diesel and gasoline.

Other Asia's oil demand in 1Q20 will be largely affected by Covid-19. Economic activity in countries such as Thailand, Singapore, Malaysia and Philippines is expected to slow because of the outbreak. However, it is assumed that the region will bounce back to normal levels of growth during the 2H20 as the impact of Covid-19 recedes.

Other Asia's oil demand grew by 0.23 mb/d in 2019. As for 2020, oil demand is forecast to increase by 0.17 mb/d.

Latin America

Brazil

In January 2020, product demand in **Brazil** grew by 0.02 mb/d y-o-y, largely a reflection of steady improvement in economic activity. All products showed increases, with the exception of jet/kerosene.

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

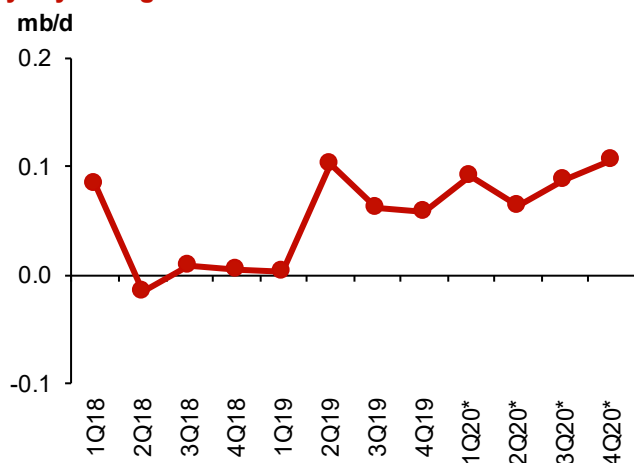
| | Jan 20 | Jan 19 | Change 2020/19 | |
|----------------|---------------|---------------|-----------------------|------------|
| | | | tb/d | % |
| LPG | 210 | 207 | 2 | 1.1 |
| Naphtha | 148 | 147 | 1 | 0.7 |
| Gasoline | 643 | 635 | 8 | 1.3 |
| Jet/kerosene | 131 | 136 | -5 | -3.5 |
| Diesel oil | 899 | 891 | 8 | 0.9 |
| Fuel oil | 61 | 61 | 0 | -0.2 |
| Other products | 614 | 605 | 8 | 1.4 |
| Total | 2,706 | 2,683 | 23 | 0.9 |

Note: * = Inland deliveries.

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

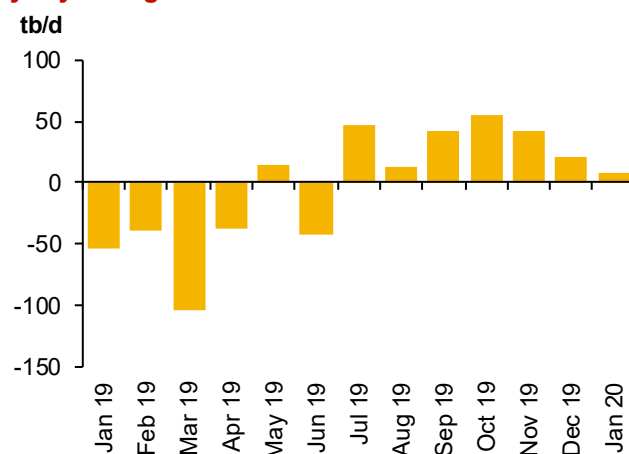
In January 2020, gasoline demand grew by 1.3% y-o-y, leading total demand to reach 0.64 mb/d. Similarly, ethanol demand was higher y-o-y, growing by more than 1% compared to the same month in 2019 despite the price advantage to gasoline. However, the baseline effect appears to support growth for gasoline, as consumption was low during January 2019. Retail prices for gasoline and ethanol hovered around 4.58 Reais/litre and 3.22 Reais/litre, respectively.

Diesel oil demand also inched up by a similar rate with total consumption at 0.90 mb/d as the main macroeconomic indicators improved. The Manufacturing Purchasing Managers Index (PMI) stood at 51.00, up from 50.24 in December 2019, and further increased to 52.28 in February 2020 according to IHS Markit and Haver Analytics.

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

Note: * 1Q20-4Q20 = Forecast.

Source: OPEC.

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.

Argentina

In **Argentina**, latest available data for December 2019 showed flat oil demand growth. Transportation fuel gains were counterbalanced by declines in petrochemical jet/kerosene and the other products category.

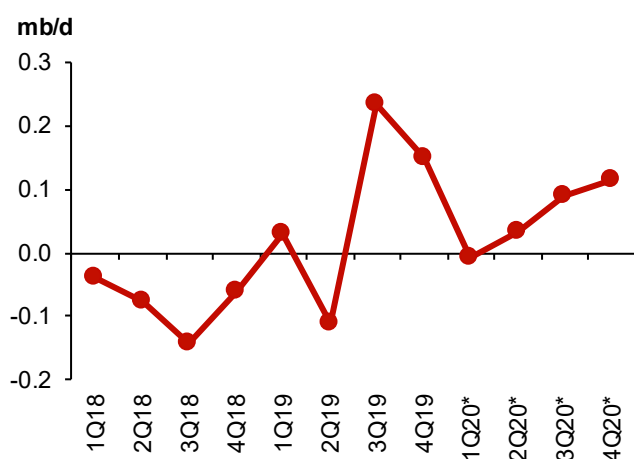
The outlook for **Latin America** in 2020 has been adjusted lower compared to last month's report, mainly the result of possible slower economic momentum in the region's major consuming countries compared to 2019.

Latin American oil demand edged up by 0.06 mb/d in 2019. During 2020, oil demand growth is forecast to rise by 0.09 tb/d from the levels seen in 2019.

Middle East

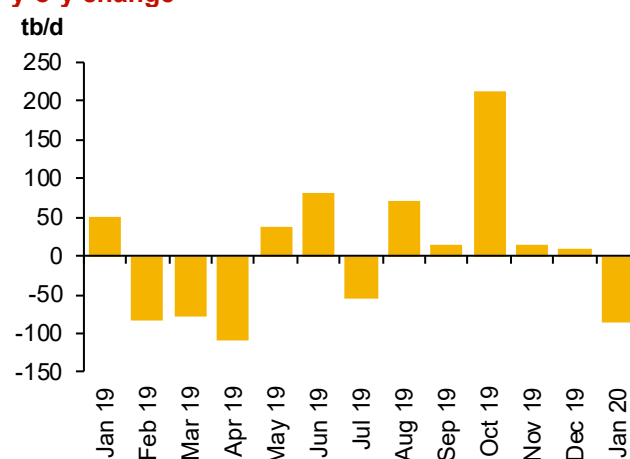
Saudi Arabia

Saudi Arabia's oil consumption continued to grow in January 2020, posting an increase of 0.14 mb/d compared to January 2019. This marks the seventh consecutive monthly increase in oil requirements in the country.

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

Note: * 1Q20-4Q20 = Forecast.

Source: OPEC.

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

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

World Oil Demand

Looking at the product mix, there has been a notable increase across the barrel, with crude oil for the purpose of burning and naphtha declining. Crude oil for power generation was weaker on a y-o-y basis by 0.09 mb/d as it is being replaced with fuel oil in the power generation sector. As such, fuel oil demand increased by a solid 0.16 mb/d y-o-y during the same period and despite the lower requirements for air conditioning during 1Q20. Gasoline demand picked up sharply during the month and added around 0.05 mb/d y-o-y. Diesel oil requirements also inched up during the month, with a 0.02 mb/d y-o-y increase in light of recent positive developments in construction activity.

Iraq

Iraq's oil demand for the month of January 2020 showed growth after two months of decline.

Petroleum products demand increased by 0.03 mb/d, or 5%, y-o-y.

All products have shown positive demand growth with the exception of residual fuel oil, which is being replaced by other fuels. The other products category, which include bitumen and other heavy distillates, led demand growth with 0.12 mb/d increase y-o-y.

Graph 4 - 15: Iraq's crude direct use, y-o-y change



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

Other countries in the Middle East

In **other countries in the Middle East**, the latest available data for oil demand from **Kuwait** and the **UAE** indicates an increase in oil demand growth in December 2019 of 0.11 mb/d and 0.01 mb/d y-o-y, respectively. On the other hand, data shows a decline in oil demand in **IR Iran** of 0.04 mb/d y-o-y during the same month.

In 2020, **oil demand growth in the Middle East** is expected to marginally moderate compared to the level seen in 2019. Saudi Arabia is projected to lead the growth as transportation fuels and petrochemical feedstock are expected to be the largest contributors to product growth. Conversely, subsidy reduction, substitution towards natural gas and Covid-19 concerns are expected to weigh on oil product demand going forward.

For 2019, Middle East oil demand is estimated to have grown by of 0.08 mb/d, while oil demand in 2020 is projected to increase by 0.06 mb/d.

A comparison of global oil demand growth 2009–2020

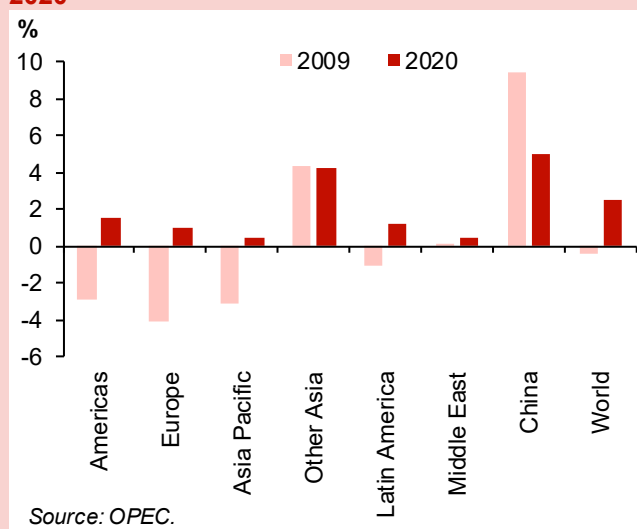
The latest annual decline in world oil demand was in 2009, following the onset of the global financial crisis. In 2009, the global economy contracted by 0.36%. Major OECD regions slipped into recession, while growth also decelerated noticeably in other major economies around the world. OECD Americas, including the US, showed a GDP contraction of 2.8%, OECD Europe declined by 4.0%, and Japan dropped by 3.16%. Developing Countries also saw their economic performance moderating. China's growth stood at 9.4% in 2009 as compared to 9.7% in 2008 while Other Asia region dropped to 4.3%.

With this, world oil demand in 2009 declined by 1.1 mb/d, marking the largest drop since 1982. Most of the declines were seen in the OECD region, which was down by nearly 2 mb/d. The largest drop was recorded in OECD Americas and the US, in particular. In the non-OECD, oil demand growth moderated substantially in that year, practically in all major oil demand regions, particularly in China and the Middle East.

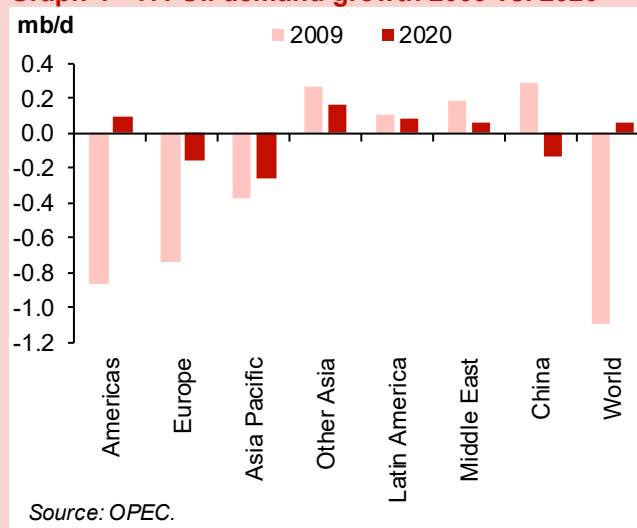
Looking at 2020, Covid-19 is having a substantial impact on economic growth initially in China and, more recently in South Korea, Italy, France, Germany and the Middle East. Economic activities have been drastically reduced. So far, and considering the severe impacts of the virus in 1Q20 and possible extension into 2Q20 and beyond, both economic and oil demand growth projections have been adjusted lower. These adjustments are not yet down to 2009 levels, but the extent of the measures undertaken to contain Covid-19 will determine 2020 forecast world oil demand growth. The global economic momentum is now estimated to reach 2.4%, 0.6 pp lower from the previous month's assessment, while oil demand growth was revised sharply lower to now show a mere 0.06 mb/d in 2020, compared to 0.99 mb/d in last month's assessment. Transportation and industrial fuels were hit the

worst by the economic downturn in China in 1Q20 with a similar spill-over anticipated elsewhere. The imposed travel restrictions resulted in a massive reduction in jet kerosene, gasoline, automotive diesel with an extended impact on industrial fuel requirements, including petrochemical feedstock. Considering the latest developments, downward risks currently outweigh any positive indicators and suggest further likely downward revisions in oil demand growth, should the current status persist.

Graph 4 - 16: Economic performance 2009 vs. 2020



Graph 4 - 17: Oil demand growth 2009 vs. 2020



World Oil Supply

Non-OPEC liquids production growth, including Ecuador, for 2019 (including processing gains) has been revised up by 0.09 mb/d from the previous MOMR and is now estimated at 1.99 mb/d. Upward revisions were made to oil production data from the US, Canada and Brazil, mainly in 4Q19, as well as upward revisions to biofuel production in several countries. US liquids output growth has been revised up by 11 tb/d to average 1.69 mb/d. The US, Brazil, Canada, Russia, China, Australia and the UK are estimated to have been the key drivers of growth in 2019, while Mexico and Norway have seen the largest declines.

Non-OPEC liquids production growth for 2020 (including processing gains) has been revised down by 0.49 mb/d from last month's assessment and is forecast at 1.76 mb/d. The production forecast has been revised up for Russia, Thailand, Indonesia and Oman, and revised down for the US, Mexico, Norway, Colombia, Azerbaijan and China. The US liquids production growth forecast for the current year has been revised down by 0.36 mb/d to 0.90 mb/d y-o-y. The US is expected to be the main growth driver in 2020 along with Norway, Brazil, Canada, Guyana and Australia, while Mexico, Colombia, Egypt and China are forecast to see the largest declines.

OPEC NGLs and non-conventional liquids production in 2019 is estimated to have grown by 0.04 mb/d to average 4.80 mb/d. In 2020, OPEC NGLs are forecast to grow by 0.03 mb/d y-o-y to average 4.83 mb/d.

In February, **OPEC-13 crude oil production** fell by 546 tb/d m-o-m to average 27.77 mb/d, according to secondary sources. As a result, preliminary data indicates that **global oil supply** decreased in February by 0.29 mb/d m-o-m to average 99.75 mb/d, and was up by 0.78 mb/d y-o-y. Non-OPEC liquids production in February including OPEC NGLs and non-conventional liquids increased by 0.25 mb/d m-o-m to average 71.98 mb/d (preliminary).

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

| Region | 2019 | Change 2019/18 | 2020 | Change 2020/19 |
|------------------------------------|--------------|-------------------|--------------|-------------------|
| OECD Americas | 25.75 | 1.68 | 26.66 | 0.90 |
| OECD Europe | 3.71 | -0.13 | 4.00 | 0.29 |
| OECD Asia Pacific | 0.48 | 0.08 | 0.56 | 0.07 |
| Total OECD | 29.95 | 1.62 | 31.21 | 1.27 |
| Other Asia | 3.48 | -0.09 | 3.46 | -0.02 |
| Latin America | 6.01 | 0.27 | 6.38 | 0.37 |
| Middle East | 3.21 | 0.00 | 3.28 | 0.07 |
| Africa | 1.50 | 0.00 | 1.51 | 0.01 |
| Total DCs | 14.20 | 0.18 | 14.63 | 0.42 |
| FSU | 14.37 | 0.08 | 14.44 | 0.07 |
| Other Europe | 0.12 | 0.00 | 0.12 | -0.01 |
| China | 4.05 | 0.07 | 4.01 | -0.05 |
| Non-OPEC production | 62.70 | 1.96 | 64.40 | 1.71 |
| Processing gains | 2.28 | 0.03 | 2.33 | 0.05 |
| Non-OPEC liquids production | 64.97 | 1.99 | 66.74 | 1.76 |

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

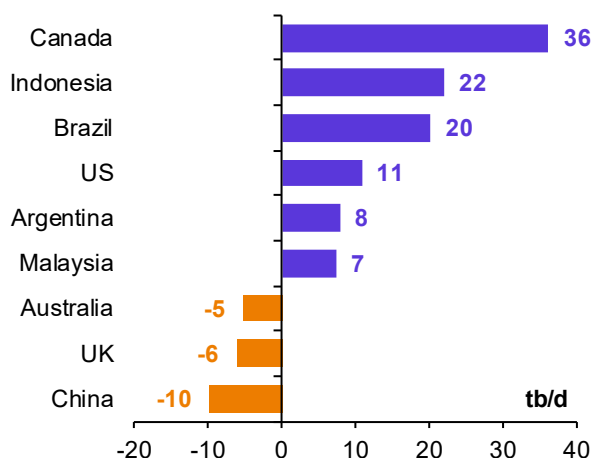
* 2019 = Estimate and 2020 = Forecast.

Source: OPEC Secretariat.

Main monthly revisions

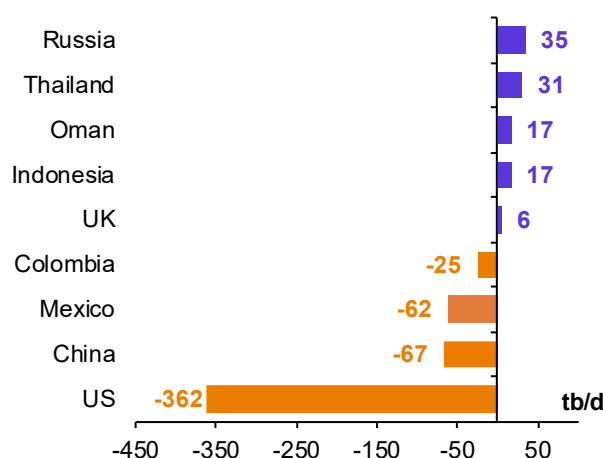
Non-OPEC liquids production growth in 2019 was revised up by 91 tb/d, mainly due to upward revisions in biofuels production estimates in Developing Countries (DCs) by 67 tb/d and upward revisions in oil production in the OECD by 32 tb/d mainly in 4Q19. These upward revisions were partially offset by downward revision in China's coal-to-liquid (CTL) output. Non-OPEC liquids production is now estimated to have grown by 1.99 mb/d to average 64.97 mb/d for the year (including Ecuador). The breakdown of the main revisions are shown in **Graph 5 – 1** below.

**Graph 5 - 1: Monthly oil market report
Mar 20/Feb 20 revisions in 2019*
annual liquids production changes**



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

**Graph 5 - 2: Monthly oil market report
Mar 20/Feb 20 revisions in 2020*
annual liquids production changes**

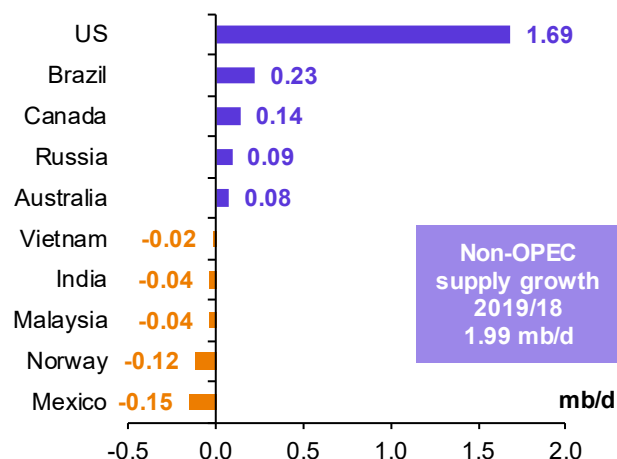


Note: * 2020 = Forecast.
Source: OPEC Secretariat.

Non-OPEC liquids production growth in 2020 was revised down by 0.49 mb/d and is now forecast at 1.76 mb/d (including processing gains), to average 66.74 mb/d of production. This was mainly due to a downward revision in the production forecast of the US, Mexico, Norway, Colombia, Azerbaijan and China. This downward revision was partially offset by upward revisions in Russia, Indonesia, Thailand and Oman. All of the main revisions for 2020 are shown in **Graph 5 – 2**, above.

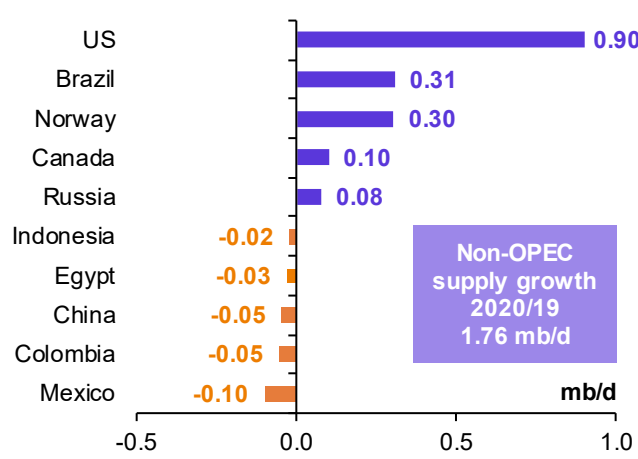
Key drivers of growth and decline

**Graph 5 - 3: Annual liquids production changes
for selected countries in 2019***



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

**Graph 5 - 4: Annual liquids production changes
for selected countries in 2020***



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

Non-OPEC liquids production in 2019 and 2020

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

| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Change 2019/18 | |
|------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|-------------|
| | | | | | | | Growth | % |
| Americas | 24.08 | 25.07 | 25.59 | 25.69 | 26.66 | 25.75 | 1.68 | 6.97 |
| of which US | 16.71 | 17.78 | 18.29 | 18.36 | 19.15 | 18.40 | 1.69 | 10.10 |
| Europe | 3.84 | 3.82 | 3.57 | 3.55 | 3.90 | 3.71 | -0.13 | -3.40 |
| Asia Pacific | 0.41 | 0.43 | 0.48 | 0.51 | 0.52 | 0.48 | 0.08 | 18.79 |
| Total OECD | 28.33 | 29.32 | 29.64 | 29.74 | 31.08 | 29.95 | 1.62 | 5.74 |
| Other Asia | 3.57 | 3.55 | 3.50 | 3.40 | 3.46 | 3.48 | -0.09 | -2.47 |
| Latin America | 5.74 | 5.77 | 5.84 | 6.13 | 6.29 | 6.01 | 0.27 | 4.70 |
| Middle East | 3.21 | 3.22 | 3.21 | 3.21 | 3.21 | 3.21 | 0.00 | 0.04 |
| Africa | 1.50 | 1.51 | 1.51 | 1.51 | 1.49 | 1.50 | 0.00 | 0.10 |
| Total DCs | 14.02 | 14.04 | 14.06 | 14.25 | 14.46 | 14.20 | 0.18 | 1.31 |
| FSU | 14.29 | 14.55 | 14.16 | 14.34 | 14.42 | 14.37 | 0.08 | 0.55 |
| of which Russia | 11.35 | 11.53 | 11.36 | 11.42 | 11.45 | 11.44 | 0.09 | 0.82 |
| Other Europe | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | -2.34 |
| China | 3.98 | 4.05 | 4.08 | 4.05 | 4.03 | 4.05 | 0.07 | 1.87 |
| Total "Other regions" | 18.39 | 18.72 | 18.36 | 18.51 | 18.58 | 18.54 | 0.15 | 0.81 |
| Total non-OPEC production | 60.74 | 62.08 | 62.06 | 62.51 | 64.11 | 62.70 | 1.96 | 3.22 |
| Processing gains | 2.25 | 2.28 | 2.28 | 2.28 | 2.28 | 2.28 | 0.03 | 1.24 |
| Total non-OPEC liquids production | 62.99 | 64.36 | 64.34 | 64.78 | 66.39 | 64.97 | 1.99 | 3.15 |

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

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

Source: OPEC Secretariat.

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

| | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 2020/19 | |
|------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|-------------|
| | | | | | | | Growth | % |
| Americas | 25.75 | 26.58 | 26.47 | 26.78 | 26.79 | 26.66 | 0.90 | 3.50 |
| of which US | 18.40 | 19.05 | 19.31 | 19.43 | 19.40 | 19.30 | 0.90 | 4.89 |
| Europe | 3.71 | 4.02 | 3.91 | 3.96 | 4.12 | 4.00 | 0.29 | 7.87 |
| Asia Pacific | 0.48 | 0.53 | 0.54 | 0.58 | 0.58 | 0.56 | 0.07 | 14.96 |
| Total OECD | 29.95 | 31.13 | 30.92 | 31.31 | 31.49 | 31.21 | 1.27 | 4.22 |
| Other Asia | 3.48 | 3.45 | 3.47 | 3.47 | 3.46 | 3.46 | -0.02 | -0.53 |
| Latin America | 6.01 | 6.43 | 6.35 | 6.33 | 6.40 | 6.38 | 0.37 | 6.11 |
| Middle East | 3.21 | 3.18 | 3.29 | 3.32 | 3.34 | 3.28 | 0.07 | 2.07 |
| Africa | 1.50 | 1.43 | 1.55 | 1.54 | 1.54 | 1.51 | 0.01 | 0.57 |
| Total DCs | 14.20 | 14.48 | 14.65 | 14.65 | 14.73 | 14.63 | 0.42 | 2.98 |
| FSU | 14.37 | 14.35 | 14.43 | 14.35 | 14.63 | 14.44 | 0.07 | 0.49 |
| of which Russia | 11.44 | 11.41 | 11.50 | 11.51 | 11.64 | 11.52 | 0.08 | 0.67 |
| Other Europe | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.12 | -0.01 | -4.32 |
| China | 4.05 | 4.02 | 4.00 | 3.99 | 4.01 | 4.01 | -0.05 | -1.12 |
| Total "Other regions" | 18.54 | 18.49 | 18.55 | 18.45 | 18.75 | 18.56 | 0.02 | 0.10 |
| Total non-OPEC production | 62.70 | 64.11 | 64.13 | 64.41 | 64.96 | 64.40 | 1.71 | 2.72 |
| Processing gains | 2.28 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 | 0.05 | 2.37 |
| Total non-OPEC liquids production | 64.97 | 66.44 | 66.46 | 66.74 | 67.30 | 66.74 | 1.76 | 2.71 |

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

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

Source: OPEC Secretariat.

OECD

OECD liquids production in 2019 is estimated to have grown by 1.62 mb/d y-o-y, revised up by 0.03 mb/d m-o-m, for an average of 29.95 mb/d. OECD Americas was revised up by 47 tb/d and is now estimated to have grown by 1.68 mb/d, while OECD Europe was revised down by 8 tb/d, which led to a deeper y-o-y decline of 0.13 mb/d. OECD Asia Pacific remained unchanged with growth of 0.08 mb/d y-o-y, despite a minor downward revision of 7 tb/d.

For **2020**, the OECD absolute supply forecast was revised down by 0.41 mb/d to average 31.21 mb/d. It is likely to grow by 1.27 mb/d y-o-y, thereby indicating a downward revision in growth by 0.44 mb/d, m-o-m. OECD Americas is expected to grow by 0.90 mb/d to average 26.66 mb/d, a downward revision of 0.42 mb/d. The oil production growth forecast in OECD Europe was also revised down by 19 tb/d m-o-m and is now expected to grow by 0.29 mb/d, with average supply at 4.00 mb/d. Oil production in OECD Asia Pacific is forecast to grow by 0.07 mb/d to average 0.56 mb/d.

OECD Americas

US

US liquids output in December (excluding processing gains) showed a decrease of 0.07 mb/d m-o-m to average 19.17 mb/d, up by 1.29 mb/d y-o-y. The EIA revised down November's crude production by 0.02 mb/d to average 12.86 mb/d. Crude oil output in all PADDs declined in December by 84 tb/d m-o-m to average 12.78 mb/d, higher by 0.74 mb/d y-o-y. This marked the lowest December-December growth in comparison with the same period a year earlier at 2.07 mb/d, and 1.18 mb/d in 2017. For 2020, the growth (December 2019–December 2020) is expected to decline to 0.59 mb/d. The drop in the US crude oil output in December was in line with our forecasts. Weekly production data for March was overestimated by around 70 tb/d compared with the monthly data.

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

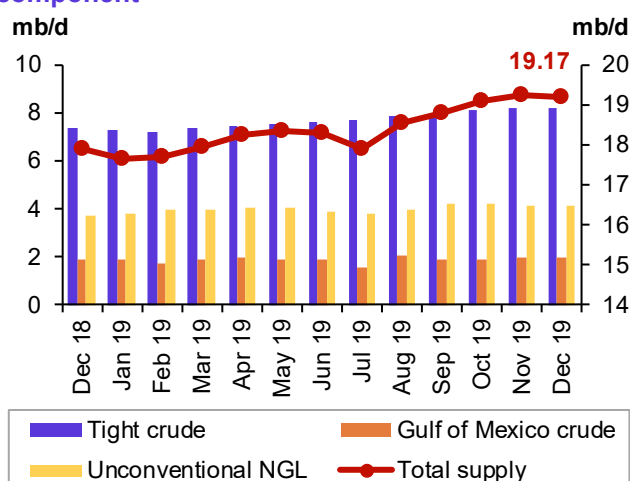
| State | Nov 19 | Dec 19 | Change Dec 19/Nov 19 |
|--------------------------------------------|---------------|---------------|-------------------------|
| Alaska | 484 | 481 | -3 |
| Colorado | 563 | 537 | -26 |
| Oklahoma | 586 | 570 | -16 |
| New Mexico | 1,059 | 1,059 | 0 |
| North Dakota | 1,477 | 1,437 | -40 |
| Federal Offshore - Gulf of Mexico (GoM) | 1,988 | 1,941 | -47 |
| Texas | 5,318 | 5,350 | 32 |
| Total US crude oil production | 12,863 | 12,779 | -84 |

Sources: US EIA and OPEC Secretariat.

For **January and February**, crude oil production is expected to drop by another 80 tb/d for each month, respectively. However, production is likely to recover as the post-winter output usually rises in March or April.

Production of **NGLs in December** was almost stagnant, at an average of 4.97 mb/d, higher by 0.49 mb/d y-o-y. Output of other non-conventional liquids, mainly ethanol, was up in November by 39 tb/d m-o-m to average 1.40 mb/d, and higher by 56 tb/d compared with a year ago. Preliminary production for December shows a higher output m-o-m at an average 1.42 mb/d.

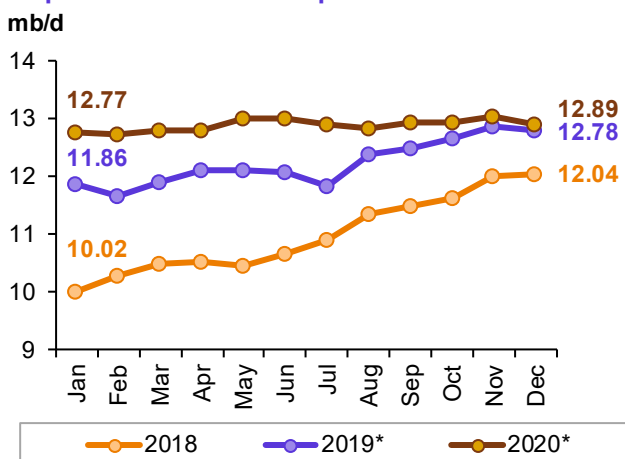
Graph 5 - 5: US monthly liquids supply by key component



Source: US EIA and OPEC Secretariat.

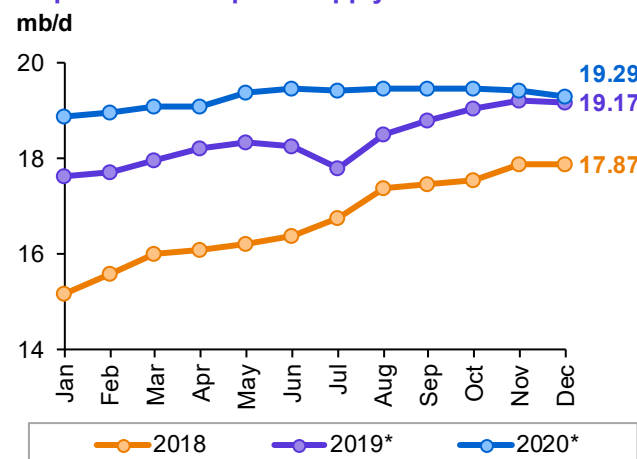
US liquids production growth in 2020 was revised down by 0.36 mb/d to average 0.90 mb/d representing total supply at 19.30 mb/d (excluding processing gains). This revision will be in onshore fields located in the Lower-48 states, of which around 64%, or 0.23 mb/d, will be in tight crude, while NGLs are revised lower by 0.13 mb/d. Therefore, US crude oil production is now forecast to grow by 0.66 mb/d y-o-y to average 12.89 mb/d. Production of NGLs is now expected to rise by 0.23 mb/d, y-o-y to average 5.04 mb/d and finally non-conventional liquids will grow by a minor 0.01 mb/d to average 1.37 mb/d in 2020.

Graph 5 - 6: US crude oil production forecast



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

Graph 5 - 7: US liquids supply forecast

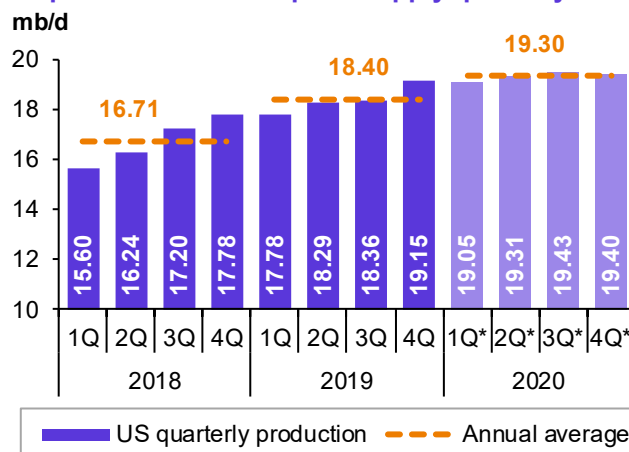


Note: * 2019 = Estimate and 2020 = Forecast.
Source: OPEC Secretariat.

Production is continuing to increase, despite the reduction in drilling, as companies are running through their inventories of drilled but uncompleted (DUC) wells.

US crude oil production in 2020 was revised down by 0.23 mb/d and is now forecast to average 12.89 mb/d, representing y-o-y growth of 0.66 mb/d. Tight crude oil production is forecast to grow by 0.62 mb/d, primarily in the Permian Basin to average 8.32 mb/d. Oil production from offshore fields in the GoM is expected to grow by 0.10 mb/d to average 1.99 mb/d. Lower 48 onshore non-tight crude oil production, including from Alaska, is forecast to decline by around 0.08 mb/d to average 2.58 mb/d.

Graph 5 - 8: US total liquids supply quarterly



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

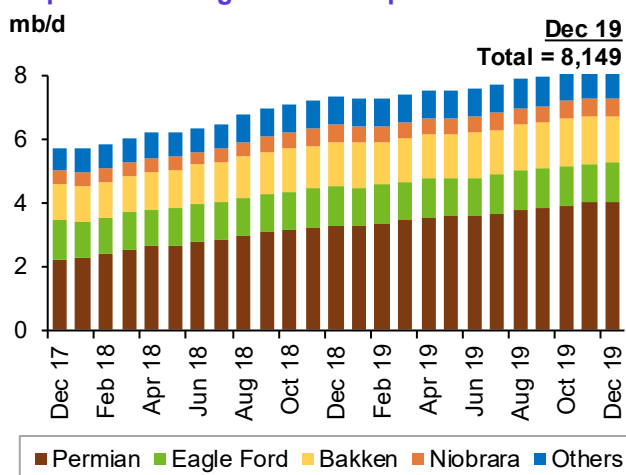
Table 5 - 5: US liquids production breakdown, mb/d

| | 2017 | 2018 | Change 2018/17 | 2019* | Change 2019/18 | 2020* | Change 2020/19 |
|---------------------------------|--------------|--------------|----------------|--------------|----------------|--------------|----------------|
| Tight crude | 4.96 | 6.52 | 1.55 | 7.70 | 1.19 | 8.32 | 0.62 |
| Gulf of Mexico crude | 1.68 | 1.76 | 0.08 | 1.88 | 0.13 | 1.99 | 0.11 |
| Conventional crude oil | 2.71 | 2.72 | 0.01 | 2.65 | -0.07 | 2.58 | -0.07 |
| Unconventional NGLs | 3.02 | 3.60 | 0.57 | 4.01 | 0.43 | 4.25 | 0.24 |
| Conventional NGLs | 0.76 | 0.77 | 0.01 | 0.80 | 0.01 | 0.79 | -0.01 |
| Biofuels + Other liquids | 1.27 | 1.35 | 0.08 | 1.36 | 0.01 | 1.37 | 0.01 |
| US total supply | 14.40 | 16.71 | 2.31 | 18.40 | 1.69 | 19.30 | 0.90 |

Note: * 2019 = Estimate and 2020 = Forecast.
Sources: US EIA, Rystad Energy and OPEC Secretariat.

US tight crude output in December decreased by an estimated 54 tb/d m-o-m to average 8.15 mb/d, an increase of 842 tb/d y-o-y. The main m-o-m growth in US tight crude output from shale and tight formations through horizontal wells came from the Permian Midland, as well as the Delaware Basin in Texas, adding a total of 29 tb/d to average 4.03 mb/d. Tight crude output in the Eagle Ford declined to 1.21 mb/d and output in the Bakken, Niobrara and other regions (total) fell m-o-m to average 1.44 mb/d, 0.56 mb/d and 0.91 mb/d, respectively.

Graph 5 - 9: US tight crude output breakdown



Sources: US EIA, Rystad Energy and OPEC Secretariat.

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

| Shale play tb/d | 2018 | | 2019* | | 2020* | |
|--------------------|-------------|--------------|-------------|--------------|-------------|--------------|
| | Production | Y-o-y change | Production | Y-o-y change | Production | Y-o-y change |
| Permian tight | 2.81 | 0.97 | 3.66 | 0.85 | 4.23 | 0.57 |
| Bakken shale | 1.25 | 0.20 | 1.41 | 0.16 | 1.46 | 0.05 |
| Eagle Ford shale | 1.18 | 0.09 | 1.22 | 0.04 | 1.20 | -0.02 |
| Niobrara shale | 0.46 | 0.12 | 0.53 | 0.07 | 0.55 | 0.02 |
| Other tight plays | 0.80 | 0.17 | 0.89 | 0.08 | 0.88 | -0.01 |
| Total | 6.51 | 1.55 | 7.70 | 1.19 | 8.32 | 0.62 |

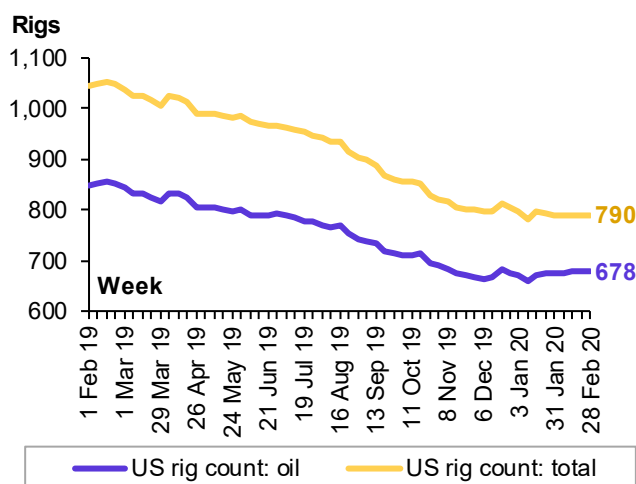
Note: * 2019 = Estimate and 2020 = Forecast.

Source: OPEC Secretariat.

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

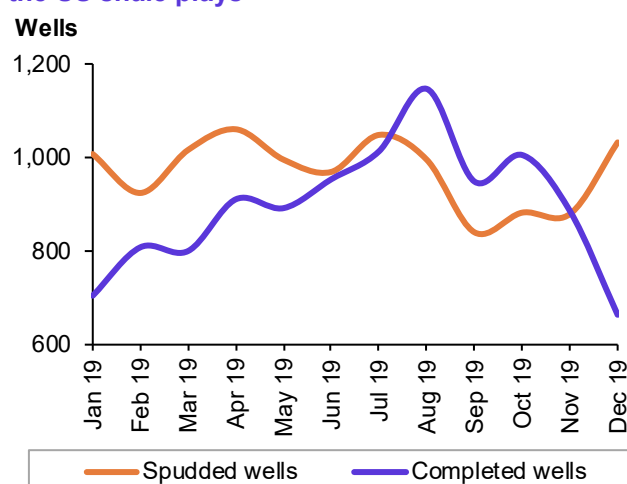
The overall **US rig count** declined by 248 units, or 24%, y-o-y to 790 rigs in the week ending 28 February. Out of 790 active rigs, 767 rigs were onshore and 22 rigs were offshore. US oil rigs dropped by 165 units, or 19.6% y-o-y to average 678 rigs (**Graph 5 - 10**).

Graph 5 - 10: US weekly rig count



Sources: Baker Hughes and OPEC Secretariat.

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



Sources: Rystad Energy and OPEC Secretariat.

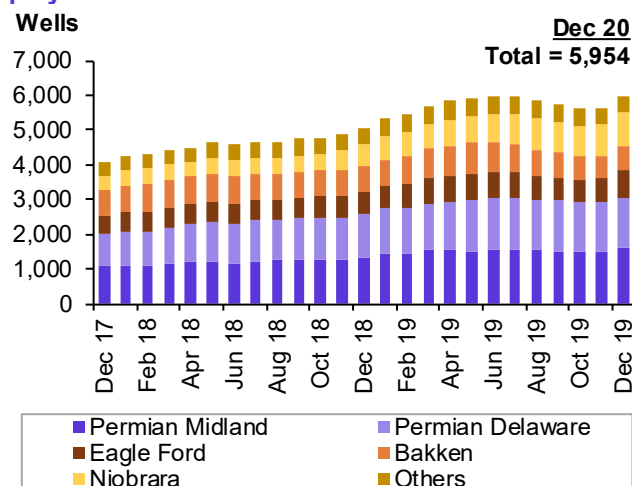
World Oil Supply

The vast majority of US rigs continue to be in the Permian, at 411 as of 28 February, lower by 67 rigs (-15%) y-o-y. US gas rigs dropped by 84 units, or 43%, y-o-y to 110 rigs. Total horizontal rigs (oil and gas) decreased by 196 units, or 21%, y-o-y to stand at 708 rigs.

With regard to **drilling and completion** in all US shale plays, 1,031 wells were spudded in December, up by 153 wells m-o-m. In the same month, 662 wells were completed, a drop of 223 wells m-o-m. However, preliminary spudded and completed horizontal wells in January show a rising trend, according to data by Rystad Energy (**Graph 5 - 11**).

The number of **DUC wells in December** increased by 356 wells m-o-m. DUCs increased by 98 in the Permian Midland, 34 in Delaware, 113 in Eagle Ford., In Bakken, Niobrara and other regions the number of DUCs increased m-o-m by 36, 59 and 16 wells, respectively, resulting in a total of 5,954 uncompleted wells at the end of 2019.

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



Sources: Rystad Energy and OPEC Secretariat.

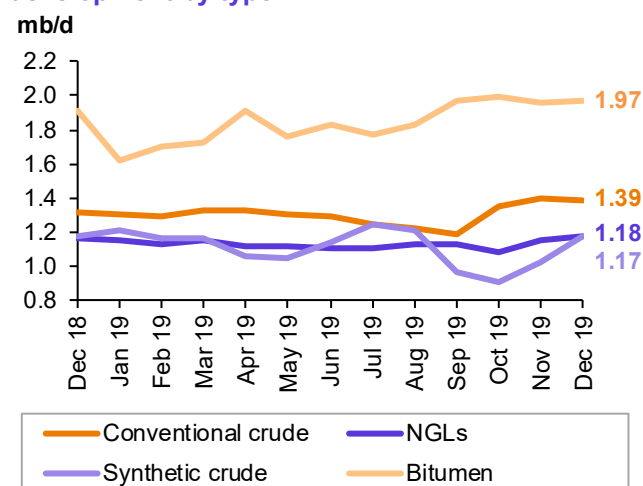
Canada

Canada's liquids production in November increased by 0.20 mb/d m-o-m, to average 5.57 mb/d, according to official data, which is 0.02 mb/d higher y-o-y. Total synthetic crude and bitumen production was up by 0.10 mb/d m-o-m to average 2.99 mb/d in November, down by 0.14 mb/d y-o-y. Conventional oil output increased by 0.04 mb/d m-o-m, to average 1.39 mb/d. This represented the highest level since February 2015, higher by 0.13 mb/d y-o-y, mainly due to higher output from offshore oil fields. NGL output rose by 0.01 mb/d m-o-m to average 1.15 mb/d.

In December, production of Canadian oil sands increased by 0.16 mb/d to average 3.15 mb/d. Synthetic crude from the state of Alberta showed an increase of 0.15 mb/d m-o-m to average 1.17 mb/d as upgraders returned from maintenance. At the same time, crude bitumen in December was up by a minor 0.01 mb/d m-o-m, average 1.97 mb/d.

The preliminary liquids output in December is estimated at 5.75 mb/d, indicating a higher output by 0.18 mb/d m-o-m and higher by 0.16 mb/d compared to December 2018. Canada's oil supply growth estimate for 2019 was revised up by 36 tb/d following higher-than-expected output in 4Q19, and is now forecast to represent 0.14 mb/d y-o-y for an average of 5.42 mb/d.

Graph 5 - 13: Canada monthly production development by type



Sources: National Energy Board and OPEC.

For 2020, despite higher than expected production in 2019 and oil increasingly being transferred by railroad, the liquids production remains at the same level of last assessment. It is expected to grow by 0.10 mb/d y-o-y to average 5.52 mb/d. Moreover, total oil output in 1H20 will be lower than the 2H20, as the period of maintenance for the mine and upgraders will shift from the second half to the first half of the year according to Suncor's plan.

Mexico

Mexico's liquids output in January was up by 0.02 mb/d m-o-m, to average 1.98 mb/d, an apparent rise of 0.12 mb/d y-o-y, its largest y-o-y growth since July 2006. This was due to low output in Jan 2019 as production shut in in some fields owing to bad weather. Crude oil production, mainly super light crude, increased by 12 tb/d m-o-m to average 1.72 mb/d. NGL output was also up by 6 tb/d m-o-m to average 230 tb/d. Heavy oil production added 69 tb/d y-o-y to average 1.07 mb/d, while light and superlight together increased by 34 tb/d y-o-y, to average 0.66 mb/d.

According to preliminary production data for February, output is likely to remain at the same level as January. Following production ramp ups from some small fields including Xanab, since July 2019, Mexico liquids production mainly crude despite having a large annual

decline of 7% in the mature fields particularly in large fields complex of KMZ, has increased by 77 tb/d up to January. This incremental production led to an increase of oil exports in Mexico by 0.19 mb/d y-o-y to average 1.26 mb/d. However, according to Pemex, production from the Xanab field which reached at 0.09 mb/d in January, is expected to start to decline in coming months. Furthermore, heavy declines at the KMZ fields and delays on the development of 20 priority fields are projected to cause declines in crude oil production in Mexico from 2Q20 onwards.

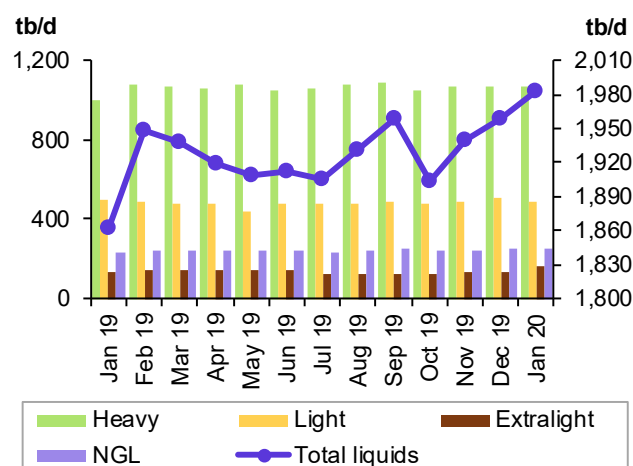
Oil output in 2018 and 2019 declined by 155 tb/d and 152 tb/d y-o-y (approximately a 7% decline p.a.), respectively. However, with start-ups of new fields such as Yaxche – Xanab and EK-Balam, the total production decline in 2020 is likely to slow down by 0.10 mb/d y-o-y, to average 1.82 mb/d, a downward revision of 0.04 mb/d m-o-m.

OECD Europe

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

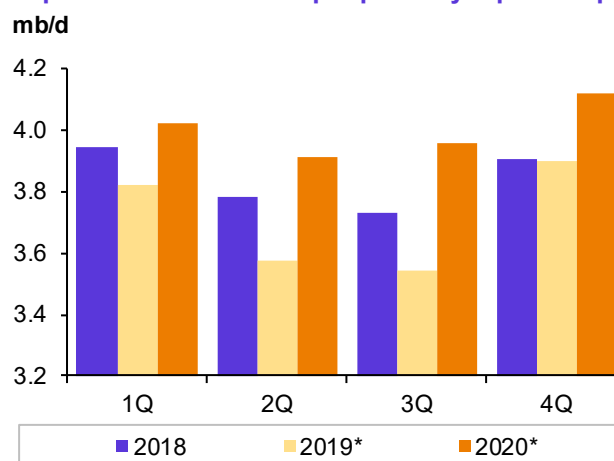
For 2020, production is expected to surge to 4.00 mb/d through the production ramp up in the giant Johan Sverdrup offshore field in Norway, representing y-o-y growth of 0.29 mb/d for the region. While oil production in the UK and Norway is expected to see a growth of 0.02 mb/d and 0.30 mb/d in the current year respectively, oil output in other countries of the region will remain unchanged or decline.

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



Sources: PEMEX and OPEC Secretariat.

Graph 5 - 15: OECD Europe quarterly liquids supply



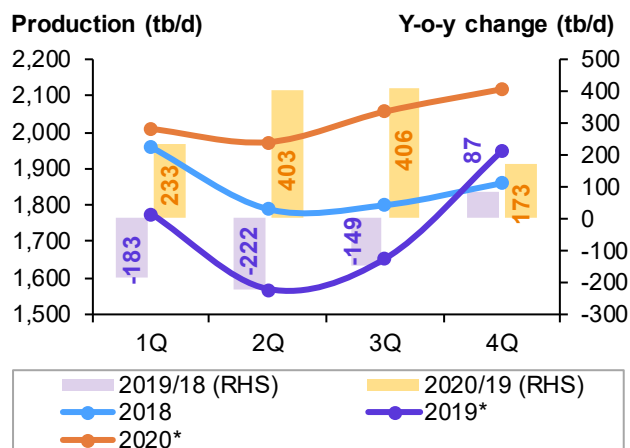
Note: * 2019 = Estimate and 2020 = Forecast.
Source: OPEC Secretariat.

Norway

Norway's liquids preliminary production in January fell by 0.11 mb/d m-o-m to average 1.96 mb/d, lower than the previous assessment at 2.06 mb/d as well as lower than the NPD's forecast at 2.10 mb/d. Indeed, crude oil output in January declined by 119 tb/d m-o-m to average 1.64 mb/d. NGLs and condensate output in January was pegged at 300 tb/d and 27 tb/d, respectively. This drop in production has been the first m-o-m decline since start-up of Johan Sverdrup – third largest oil field in Norway - in October 2019. Liquids production in December was 8.5% higher than the NPD's forecast, while it was 6.5% below their forecast for January.

Norway's liquids supply in 2020 is expected to grow by 0.30 mb/d to average 2.04 mb/d, revised down by 0.02 mb/d from last month's assessment. Johan Sverdrup is expected to increase production to 440 tb/d in Phase 1, at an unprecedented low cost and high quality, according to Equinor. The field with expected resources of 2.7 billion boe, is one of the most important industrial projects in Norway. Regardless of the incremental production from the Norwegian Johan Sverdrup, the Norwegian Petroleum Directorate granted consent for the start-up of the Skogul oil field in the North Sea in the last week of February. A higher output is expected to come on stream in Norway following start-ups of other small fields such as the Skarv gas-condensate field, (Aerfugl phase 1 and phase 2 by Aker BP) which is expected to start up in May. In 2H20, more gas-condensate fields will start their production, for example in Martin Linge (September), Njord (October), Snohvit-Askeladd phase-2(August), Dvalin (December) and YME-redevelop phase-2 and Tor II oil fields in November and December, respectively.

Graph 5 - 16: Norway's quarterly liquids supply



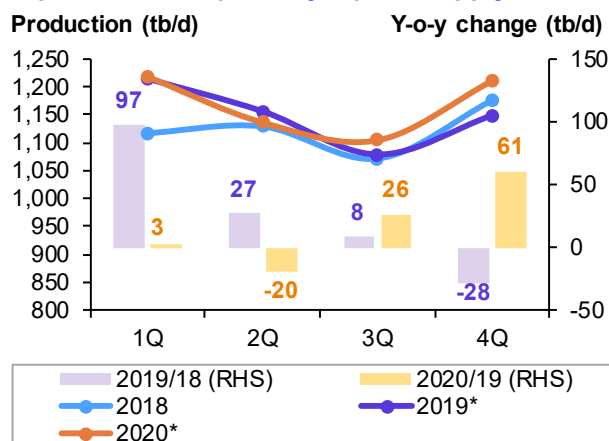
Note: * 2019 = Estimate and 2020 = Forecast.
Source: OPEC.

UK

UK liquids production in January was up by 0.07 mb/d m-o-m to average 1.21 mb/d, higher by 0.04 mb/d y-o-y. Crude oil output grew by 61 tb/d to average 1.07 mb/d, up y-o-y by 0.04 mb/d, while NGL output was up by 2 tb/d to average 89 tb/d. Non-conventional liquids were also pegged at 46 tb/d.

For **2020**, despite expected growth from new projects, the UK oil supply is forecast to see minor growth of 0.02 mb/d y-o-y, revised up by 6 tb/d due to the base change, to average 1.17 mb/d.

Graph 5 - 17: UK quarterly liquids supply



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

Developing Countries

Total developing countries' (DCs) liquids production for 2019 revised up by 67 tb/d, mainly due to an upward revision of biofuels production, which now is estimated to have grown by 0.18 mb/d y-o-y to average 14.20 mb/d (including Ecuador). Latin America recorded y-o-y growth of 0.27 mb/d, driven by new production ramp ups in Brazil. Meanwhile, oil supply is estimated to remain unchanged y-o-y in Africa and the Middle East, and to decline by 0.09 mb/d y-o-y in Other Asia.

For **2020**, DCs' liquids production is forecast to grow by 0.42 mb/d and average 14.63 mb/d, revised up by 105 tb/d for the absolute supply. The key driver remains Latin America with a y-o-y forecast growth of 0.37 mb/d. While production is forecast to increase in the Middle East and Africa by 0.07 mb/d and 0.01 mb/d to average 3.28 mb/d and 1.51 mb/d, respectively, production in Other Asia, despite projected growth in India and Malaysia, is forecast to decline by 0.02 mb/d to average 3.46 mb/d.

Latin America

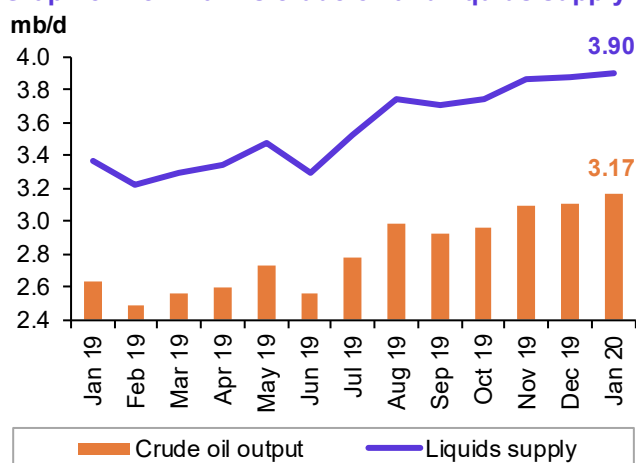
Brazil

Brazil's crude oil output in January rose by 61 tb/d m-o-m to average 3.17 mb/d — for a third consecutive monthly record of more than 3 mb/d — showing robust y-o-y growth of 0.54 mb/d, mainly coming from pre-salt fields, including the Lula and Bouzios. Nevertheless, robust growth from the pre-salt horizon in the Santos Basin was partially offset by heavy declines of 190 tb/d y-o-y (more than 17%) reported from fields located in post-salt reservoirs in the Campos Basin, particularly the Roncador field, according to the Agência Nacional do Petróleo (ANP). In January, Brazilian total liquids output including biofuels rose by 0.03 mb/d to average 3.90 mb/d, higher by 0.53 mb/d y-o-y.

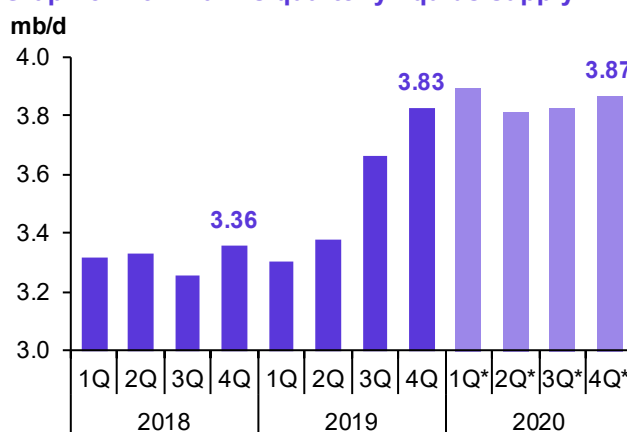
Brazil's liquids production in **2019** is estimated to have increased by 0.23 mb/d y-o-y, revised up by 0.02 mb/d, to average of 3.54 mb/d, mainly due to the upward revision in biofuel production.

The production forecast for **2020** shows y-o-y growth of 0.31 mb/d for an average of 3.85 mb/d, unchanged in the supply growth forecast from last month's assessment. Annual maintenance is expected to slow growth in 2Q20 and 3Q20. Brazil's oil industry labor federation (FUP) is vowing to maintain a strike in defiance of a 17 February labor court ruling in favor of state-controlled Petrobras that may affect oil production in month of February. Some 21,000 workers are participating in the strike, impacting operations at 11 refineries and 57 platforms, among other installations, according to the labor group.

Graph 5 - 18: Brazil's crude oil and liquids supply **Graph 5 - 19: Brazil's quarterly liquids supply**



Sources: National Agency of Petroleum, Natural Gas and Biofuels; and OPEC Secretariat.



Note: * 1Q20-4Q20 = Forecast.

Sources: National Agency of Petroleum, Natural Gas and Biofuels; and OPEC Secretariat.

FSU

FSU's oil supply in 2019 is estimated to have increased by 0.08 mb/d y-o-y to average 14.37 mb/d, unchanged from last month's assessment. In Russia, oil production is estimated to have increased by 0.09 mb/d to average 11.44 mb/d, while oil output in Azerbaijan is estimated to have declined by 0.02 mb/d y-o-y to average 0.79 mb/d. Oil output was revised up by a minor 5 tb/d in Kazakhstan, remaining unchanged at an average output of 1.82 mb/d in 2019. FSU Others recorded an average output of 0.32 mb/d.

For **2020**, the FSU oil supply forecast was revised up by 0.01 mb/d and is now expected to grow by 0.07 mb/d y-o-y to average 14.44 mb/d. This includes a downward adjustment in Azerbaijan crude oil production for the coming quarters, while Russia's forecast is revised up by 35 tb/d, due to higher-than-expected oil output in 1Q20. As a result, while oil production for 2020 in Russia and Kazakhstan is projected to grow by 0.08 mb/d

and 0.02 mb/d, respectively, oil production in Azerbaijan is forecast to decline by a minor 0.01 mb/d. FSU Others' supply is projected to decline by 0.01 mb/d y-o-y to average 0.31 mb/d.

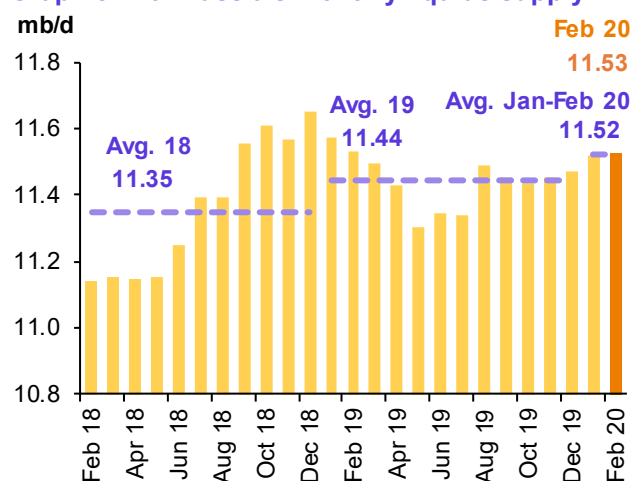
Russia

Preliminary data for **Russia's liquids production in February** shows slightly higher crude oil production by 0.01 mb/d, to average 11.53 mb/d. Crude oil production in January rose by 46 tb/d to average 10.66 mb/d and in February added by 10 tb/d to average 10.67 mb/d. In February, total condensate and NGL output from gas condensate fields was unchanged from both December and January at 0.86 mb/d. This marked an increase from 0.73 mb/d in July 2019 for several consecutive months, due to seasonal patterns in West Siberia from projects such as Yamal LNG, Rospan plant, North Russkoye and the Chayandinskoye gas field.

Annual liquids production in 2019 is estimated to have increased by 0.09 mb/d y-o-y to average 11.44 mb/d, the highest level since 1987.

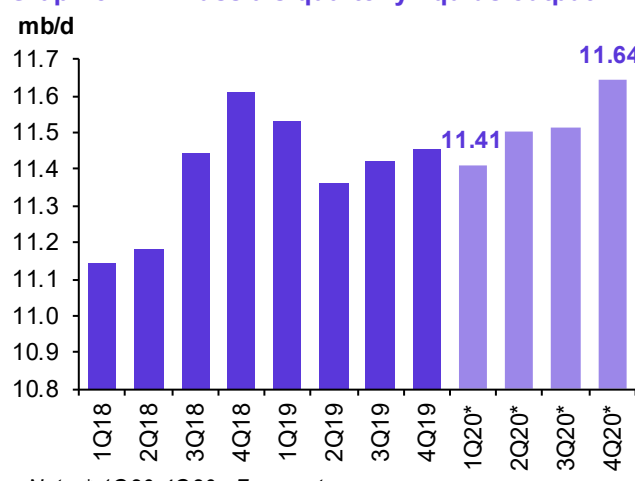
For 2020, Russian liquids supply is expected to grow by 0.08 mb/d y-o-y to average 11.52 mb/d, considering a downward adjustment for 1Q20. The average over the other three quarters is forecast at 11.55 mb/d.

Graph 5 - 20: Russia's monthly liquids supply



Sources: Nefte Compass and OPEC Secretariat.

Graph 5 - 21: Russia's quarterly liquids output



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

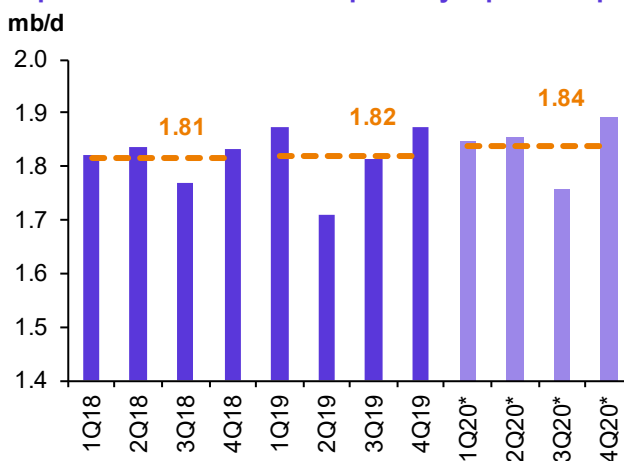
Caspian

Kazakhstan

Kazakhstan's liquids output in January was the same level as December, to average 1.89 mb/d, and also the same level compared to January 2019. While crude oil production in January decreased by 9 tb/d to average 1.62 mb/d, down by 11 tb/d compared with a year ago, NGL output remained flat m-o-m at 0.27 mb/d, and represents the same as a year ago.

Kazakhstan's oil production in **2019** is not estimated to have grown y-o-y due to heavy maintenance but for the current year total liquids production is forecast to grow by 0.02 mb/d to average 1.84 mb/d.

Graph 5 - 22: Kazakhstan's quarterly liquids output



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

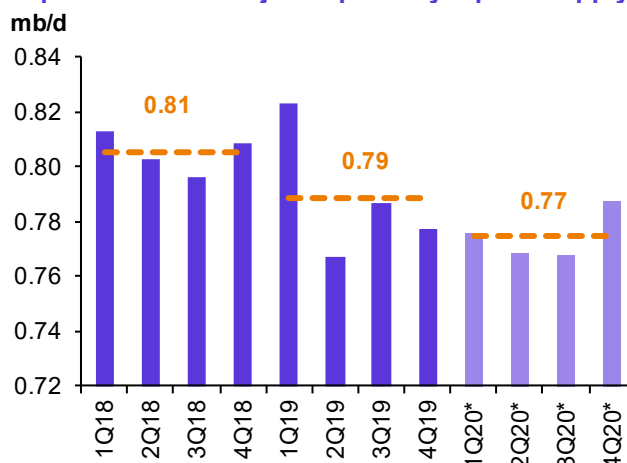
Azerbaijan

Azerbaijan's liquids output in January remained unchanged m-o-m, to average 0.79 mb/d, lower by 0.04 mb/d y-o-y. Crude oil production in January was pegged at 665 tb/d, lower by 2 tb/d m-o-m and 46 tb/d.

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

For **2020**, oil production is forecast to decline by 0.01 mb/d to average 0.77 mb/d.

Graph 5 - 23: Azerbaijan's quarterly liquids supply

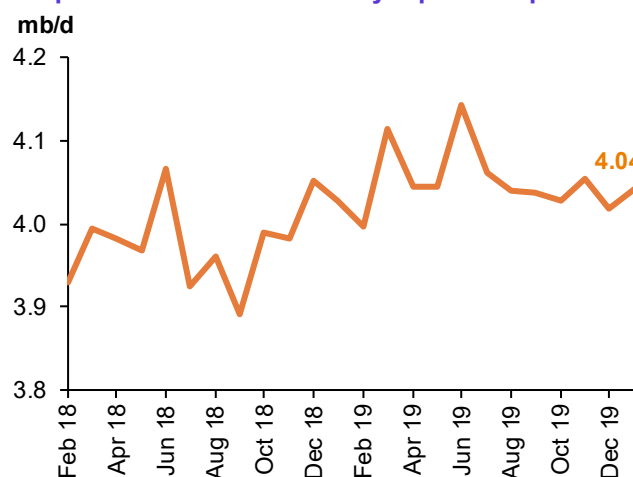


Note: * 1Q20-4Q20 = Forecast.
Sources: JODI and OPEC Secretariat.

China

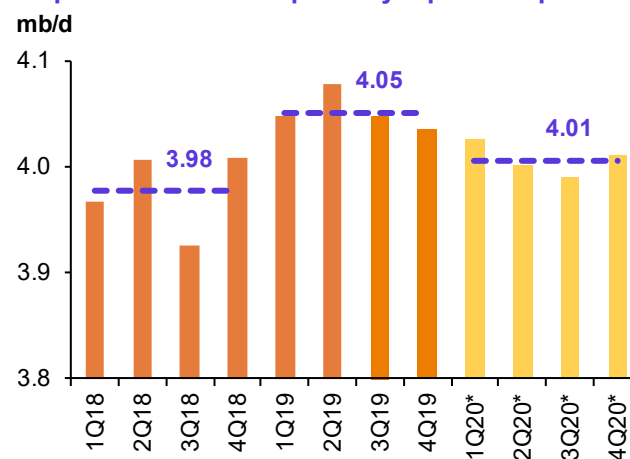
China's liquids production in January was up by 22 tb/d m-o-m to average 4.04 mb/d, higher by 14 tb/d y-o-y, according to official data. Crude oil output in January increased by 7 tb/d to average 3.79 mb/d, which was 23 tb/d lower y-o-y. According to China's statistics for 2019, domestic output of natural gas has increased more than crude has. While production from the major oil and gas fields resulted in a combined increase in natural gas of 118%, production of oil from the same fields was about 9%. Despite the Chinese President reiterating the importance of investment and increasing domestic oil production, the capex from CNOOC that is set to increase by about 18.5% this year. However, the allocation for domestic production is about the same as it was in 2019. Three major companies, China National Petroleum Corp., Sinopec and China National Offshore Oil Corp., have increased investment in domestic oil and gas E&P in 2019 by 22%, or around \$48 billion, compared with a year ago. Oil production in 2019 increased by 0.07 mb/d to average 4.05 mb/d.

Graph 5 - 24: China's monthly liquids output



Sources: China National Petroleum Corporation and OPEC.

Graph 5 - 25: China's quarterly liquids output



Note: * 1Q20-4Q20 = Forecast.
Sources: China National Petroleum Corporation and OPEC.

For **2020**, China's supply forecast was revised down by 67 tb/d, to average 4.01 mb/d, representing a contraction of 0.05 mb/d, y-o-y. This downward revision came despite the planned startup of ten new projects in the current year, which are the Penglai 19-3 oil field block 4 adjustment, Penglai 19-9 oil field Phase II, Bozhong 19-6 gas field, Luda 16-3/21-2 joint development, Qinhuangdao 33-1 South oil field Phase I, Jinzhou 25-1 oil field 6/11 area, Liuhua 29-1 gas field development, Nanbao 35-2 oil field S1 area, and Liuhua 16-2 oil field/20-2 oil field.

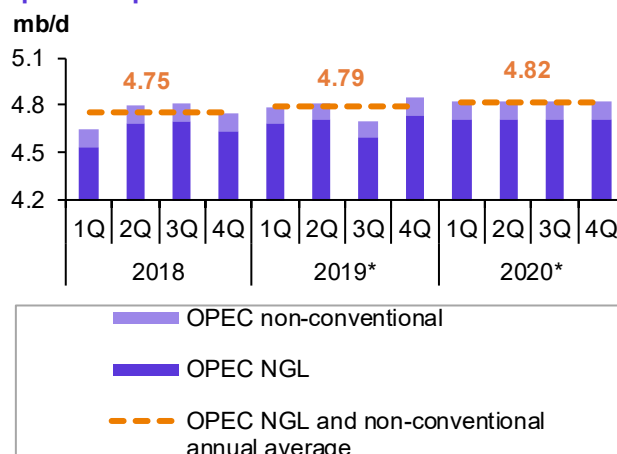
OPEC NGL and non-conventional oils

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

OPEC NGL output in January showed an increase of 0.01 mb/d m-o-m, to average 4.88 mb/d. Preliminary production in February also indicates the same level of January.

The preliminary 2020 forecast indicates growth of 0.03 mb/d, to average 4.82 mb/d.

Graph 5 - 26: OPEC NGL and non-conventional liquids output



Note: * 2019 = Estimate and 2020 = Forecast.
Sources: OPEC Secretariat.

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

| | 2018 | 2019 | Change 19/18 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 20/19 |
|-------------------|-------------|-------------|-----------------|------|------|------|------|-------------|-----------------|
| Total OPEC | 4.75 | 4.79 | 0.04 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 0.03 |

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

OPEC crude oil production

According to secondary sources, total **OPEC-13 preliminary crude oil production** averaged 27.77 mb/d in February, lower by 546 tb/d m-o-m. Crude oil output increased mainly in Iraq, Nigeria, Angola, Congo and UAE, while production decreased primarily in Libya and Saudi Arabia.

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

| | 2018 | 2019 | 2Q19 | 3Q19 | 4Q19 | Dec 19 | Jan 20 | Feb 20 | Feb/Jan |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
| Algeria | 1,042 | 1,022 | 1,019 | 1,021 | 1,022 | 1,019 | 1,012 | 1,007 | -5 |
| Angola | 1,505 | 1,401 | 1,420 | 1,390 | 1,350 | 1,408 | 1,375 | 1,390 | 15 |
| Congo | 317 | 325 | 332 | 325 | 315 | 319 | 294 | 308 | 14 |
| Equatorial Guinea | 125 | 118 | 114 | 119 | 122 | 122 | 125 | 123 | -2 |
| Gabon | 187 | 208 | 212 | 204 | 209 | 222 | 192 | 191 | -1 |
| Iran, I.R. | 3,553 | 2,356 | 2,403 | 2,189 | 2,113 | 2,093 | 2,082 | 2,080 | -2 |
| Iraq | 4,550 | 4,680 | 4,699 | 4,752 | 4,633 | 4,568 | 4,508 | 4,594 | 86 |
| Kuwait | 2,745 | 2,687 | 2,692 | 2,655 | 2,688 | 2,710 | 2,658 | 2,662 | 5 |
| Libya | 951 | 1,097 | 1,154 | 1,103 | 1,163 | 1,140 | 793 | 146 | -647 |
| Nigeria | 1,718 | 1,786 | 1,786 | 1,842 | 1,777 | 1,750 | 1,760 | 1,789 | 29 |
| Saudi Arabia | 10,311 | 9,770 | 9,769 | 9,452 | 9,846 | 9,671 | 9,739 | 9,683 | -56 |
| UAE | 2,986 | 3,094 | 3,076 | 3,096 | 3,135 | 3,117 | 3,027 | 3,040 | 13 |
| Venezuela | 1,354 | 793 | 776 | 714 | 714 | 735 | 756 | 760 | 4 |
| Total OPEC | 31,344 | 29,336 | 29,452 | 28,862 | 29,087 | 28,872 | 28,318 | 27,772 | -546 |

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

Source: OPEC Secretariat.

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

| | 2018 | 2019 | 2Q19 | 3Q19 | 4Q19 | Dec 19 | Jan 20 | Feb 20 | Feb/Jan |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Algeria | 1,040 | 1,023 | 1,017 | 1,025 | 1,023 | 1,021 | 1,011 | 1,009 | -2 |
| Angola | 1,473 | 1,377 | 1,424 | 1,318 | 1,345 | 1,369 | 1,414 | 1,387 | -27 |
| Congo | 323 | 332 | 340 | 333 | 309 | 301 | 312 | 300 | -12 |
| Equatorial Guinea | 120 | 110 | 114 | 109 | 110 | 121 | 130 | 126 | -4 |
| Gabon | 193 | 218 | 225 | 220 | 212 | 217 | 220 | 205 | -15 |
| Iran, I.R. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Iraq | 4,410 | 4,576 | 4,565 | 4,630 | 4,568 | 4,535 | 4,470 | 4,500 | 30 |
| Kuwait | 2,737 | 2,678 | 2,681 | 2,636 | 2,683 | 2,711 | 2,660 | 2,665 | 5 |
| Libya | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Nigeria | 1,602 | 1,727 | 1,721 | 1,794 | 1,702 | 1,659 | 1,739 | 1,742 | 4 |
| Saudi Arabia | 10,317 | 9,808 | 9,752 | 9,503 | 9,929 | 9,594 | 9,748 | 9,784 | 36 |
| UAE | 3,008 | 3,058 | 3,050 | 3,068 | 3,058 | 3,040 | 2,990 | 2,990 | 0 |
| Venezuela | 1,510 | 1,013 | 1,045 | 864 | 859 | 907 | 882 | 865 | -17 |
| Total OPEC | .. | .. | .. | .. | .. | .. | .. | .. | .. |

Notes: .. Not available.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

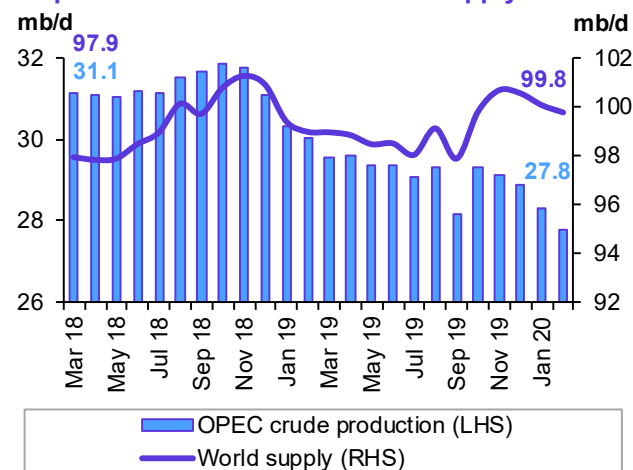
World oil supply

Preliminary data indicates that the **global liquids production** in **February** decreased by 0.29 mb/d to average 99.75 mb/d, compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) increased by 0.25 mb/d compared with the previous month to average 71.98 mb/d in February, higher by 3.05 mb/d y-o-y. Preliminary incremental production in February 2020 was mainly driven by the US, Norway, Guyana, Bahrain, Oman and the UK.

The **share of OPEC crude oil in total global production** decreased by 0.5 pp to 27.8% in February 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 - 27: OPEC and world oil supply



Source: OPEC Secretariat.

Product Markets and Refinery Operations

Product markets in February lost ground in the Atlantic Basin. In the US, and in Europe weaker fundamentals at the middle section of the barrel, and more pronouncedly in the jet fuel segment led to heavy pressure, caused by additional aviation service disruptions as the Covid-19 outbreak spread beyond Chinese borders.

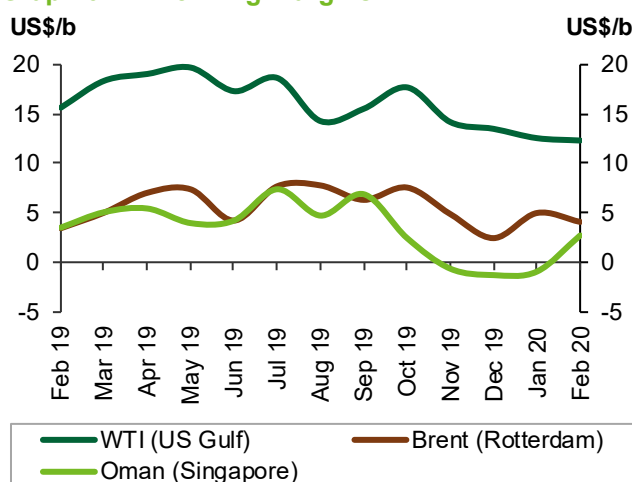
In Asia, refining margins rose sharply and entered positive territory with the support of hefty refinery intake cuts and robust product exports. As a result, the regional product surplus eased despite the negative market sentiment and the damage to fuel consumption attributed to Covid-19.

High sulphur fuel oil crack spreads showed notable positive performance as they jumped in Europe and Asia, and crossed over to reach positive levels in the US after remaining in negative territory in the previous four months.

Refinery margins

US product markets lost ground, pressured by demand fears due to the widening Covid-19 outbreak that added to the prevailing market weakness. The poor performance was more pronounced for complex configurations as high sulphur fuel oil crack spreads improved further over the month. Reports of major refinery outages led to a significant decline in US refinery intakes. This included ExxonMobil's 500 tb/d Baton Rouge refinery in Louisiana, the fifth largest fuel producing plant in the US, which shut down due to a fire. The reduction in refining capacity helped ease the gasoline glut in the US and prompted a tighter product balance in February, which supported the market and prevented further losses in margins. US refinery margins against WTI averaged \$12.23/b in February, down by 24¢ m-o-m and by \$3.33 y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus Media and OPEC Secretariat.

European refining margins edged lower as weakness from the middle section of the barrel weighed on product markets during the month. Gasoil consumption in the region remained modest, affected by weaker heating oil demand as scientists deemed this winter's average temperature higher than last year's, and possibly the hottest on record, according to some secondary sources. Moreover, European product markets were not exempt from the repercussions of Covid-19 as major European airlines reduced flights, placing regional jet fuel markets under pressure. Refinery margins for Brent in Europe averaged \$4.06/b in February, down by 90¢ compared to a month earlier but up by 64¢ y-o-y.

Asian product markets performed positively as margins reached positive values following three consecutive months in negative territory. This improvement is a result of sizeable refinery intake cuts which restricted product output and kept prices supported despite damage to fuel demand, particularly in China due to the Covid-19 outbreak. During the month, Chinese refinery intakes were estimated to have dropped considerably compared to the previous month in response to the declining fuel consumption due to transport, industrial and service disruptions implemented by the local authorities to contain the outbreak. While multisector production activities, including refining, were beginning to recover towards the end of the month in China, transportation, construction and manufacturing activity in South Korea came to a halt after President Moon Jae-in on 23 February raised the country's alert level to its highest for the first time in recent years. The Japanese government similarly approved its basic policy on 25 February for its response to the Covid-19, with measures including advising the public to avoid large gatherings to prevent further spread of the virus. In the midst of the

Product Markets and Refinery Operations

market uncertainty related to Covid-19, North Asian refiners could possibly follow suit in reducing refinery intakes in the near term. Refinery margins for Oman in Asia gained \$3.60 m-o-m to average \$2.72/b in February, but were lower by \$4.02 y-o-y.

In the first week of March, refinery margins in all regions rose strongly backed by steep decline in feedstock prices. The currently low crude prices could continue to spur oil buying interest from refiners that intend to maximize margins. Indian oil refiners are set to buy more cheap crude following reports of imports of diverted crude deliveries initially destined to hit China in light of the virus-led demand slump. However, the potential boost in crude buying is expected to be short live and unsustainable in the long run as long as demand side pressure prevails.

Continued intake reductions in China continue to take place as the country faces the ripple effects of Covid-19 of fuel demand despite stabilization of new Covid-19 cases in China. Although Covid-19, has proved to be detrimental to fuel demand, the sharp declines in feedstock prices and the proactive run cuts to mitigate losses and well as the upcoming peak refinery maintenance season, could keep the downside risk moderate on product markets.

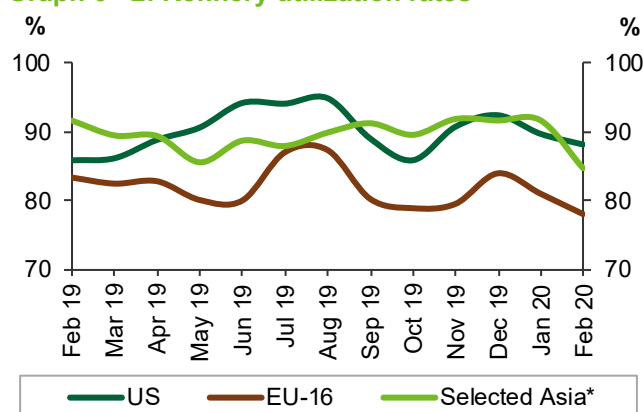
Refinery operations

US refinery utilization rates decreased, averaging 88.11%, which corresponds to a throughput of 16.57 mb/d. This represented a drop of 1.6 pp and 300 tb/d compared to the previous month. Y-o-y, the February refinery utilization rate was up by 2.31 pp, with throughputs up by 459 tb/d.

European refinery utilization averaged 78.18% in February, corresponding to a throughput of 9.69 mb/d. This is a m-o-m drop of 3.0 pp, or 370 tb/d. Y-o-y, utilization rates decreased by 5.30 pp and throughputs were down by 656 tb/d.

In **selected Asia** – comprising Japan, China, India, Singapore and South Korea – refinery utilization rates declined, averaging 84.82% in February, corresponding to a throughput of 24.03 mb/d. Compared to the previous month, throughputs were down by 7.0 pp and by 1.98 mb/d. Meanwhile, y-o-y they were down by 6.93 pp, which corresponded to a decline of by 1.59 mb/d.

Graph 6 - 2: Refinery utilization rates



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

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

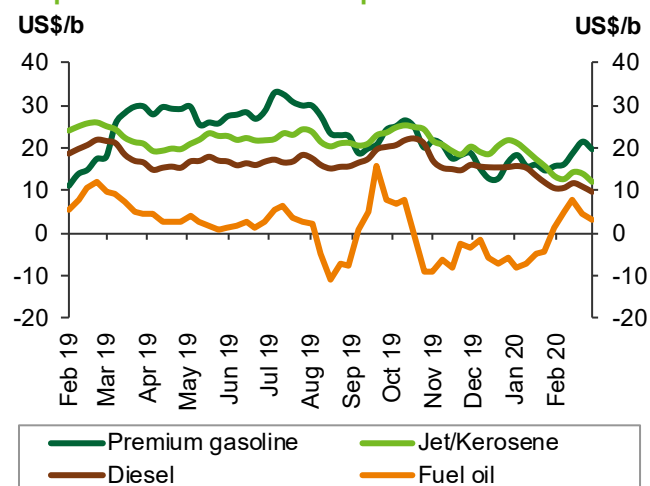
The dispersion of the virus outbreak outside China, could induce further downside on global refinery intakes in the near term, which could be exacerbated by the start of peak maintenance season. Korea's SK Energy announced it would reducing runs by 10-15% in March, while Japan has already undertaken measures further spread of the virus. Italy, one of the countries where cases of Covid-19 have manifested, ranks as the second largest European country pertaining refining capacity, 1.7 mb/d.

Product markets

US market

Reduction in **US** gasoline output due to FCC outages on the USEC and USGC in February, as well as lower transatlantic imports, have helped pull RBOB futures back into backwardation at the front of the market as stocks were drawn down sharply in the last two weeks. Some 0.56 mb/d of USGC FCC capacity was offline throughout February – the highest monthly average for the region since September 2017 – and the lengthy downtime at the 0.15 mb/d FCC at the Bayway refinery in New York Harbour only added to the prompt tightness. Moreover, FCC margins in the US have turned positive, backed by the upcoming switch to summer-grade fuels. The turnaround season should also provide some support to the market by temporarily restricting supplies, helping gasoline markets, but gasoline is now the strongest product for many refineries. In February, the gasoline crack spreads gained \$2.93 m-o-m to average \$18.77/b, and was up by \$3.45 y-o-y.

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



Sources: Argus Media and OPEC Secretariat.

The USGC **jet/kerosene crack spread** continued to weaken, affected by wider air travel service disruptions as Covid-19 spread to previously unaffected countries, including the US, and sparked concerns of a surge in supply. Market sentiment was already bearish because of slower jet fuel demand that is typical in the off-peak air travel season. Furthermore, for the first consecutive three weeks of the month, jet fuel stock levels in the US grew steadily, further contributing to the weakness seen in February. The US jet/kerosene crack spread against WTI averaged \$13.25/b, down by \$3.75 m-o-m and by \$12.06 y-o-y.

US **gasoil crack spreads** performed negatively, as support from a tighter US gasoil balance was outweighed by growing concerns of Covid-19 demand fears amid lower flow requirements from the East Coast due to warmer than normal winter weather. The US gasoil crack spread averaged \$10.60/b, down by \$2.58 m-o-m and by \$10.28 y-o-y.

US **fuel oil crack spreads** strengthened further in February and reached the highest level recorded since September 2019. The positive performance is attributed to continued reports indicating strong high-sulphur fuel oil consumption for crude blending amid a decline in freight rates, which provided some backing to global fuel oil demand. In February, the US fuel oil crack spread averaged minus \$5.12/b, up by \$9.32 m-o-m but lower by \$4.42 y-o-y.

European market

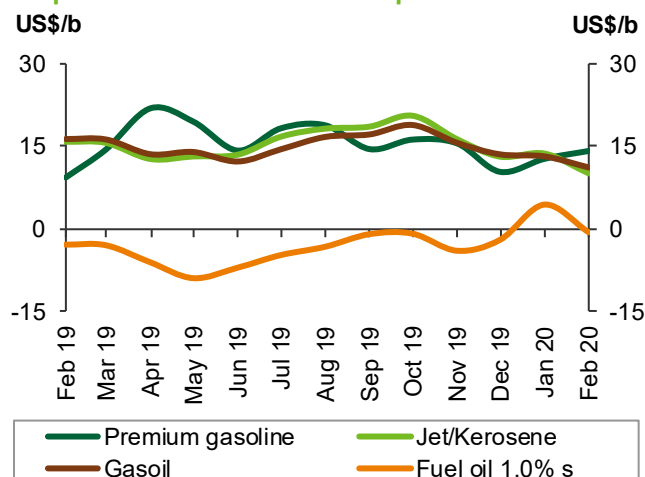
Gasoline crack spreads improved as FCC outages in the US provided an arbitrage opening for gasoline flows from Europe. At the same time, reports of lower gasoline outputs y-o-y point to partially diverted gasoline feedstock to very low-sulphur fuel oil. This may have contributed to a tighter gasoline balance and supported the market. The gasoline crack spread averaged \$14.20/b in February, up by \$1.39 m-o-m and by \$3.77 y-o-y.

The **jet/kerosene** crack spreads continued to decline during the month, pressured by strong demand concerns due to the impact of Covid-19 on airline transportation. The Rotterdam jet/kerosene crack spread averaged \$10.22/b, down \$3.33 m-o-m and by \$5.94 y-o-y.

Similarly, European **gasoil** crack spreads also lost ground in February, pressured by strong demand concerns due to the impact of Covid-19 on transport, while heating oil consumption remained subdued during the month. The gasoil crack spread averaged \$11.00/b, which was lower by \$1.69 m-o-m and by \$5.75 y-o-y.

At the bottom of the barrel, **fuel oil 3.5% crack spreads** in Rotterdam witnessed considerable gains as regional supplies into Singapore declined in line with reported refinery intake cuts within the region. However, lower sulphur fuel oil markets weakened as data pointed to rising outputs in the region as a result of operational adjustments, amid a positive production growth landscape for the same product in Asia, easing previous concerns over supply shortage. In Europe, fuel oil cracks averaged minus-\$17.24/b in February, gaining \$7.75 m-o-m but losing \$9.90 y-o-y.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus Media and OPEC Secretariat.

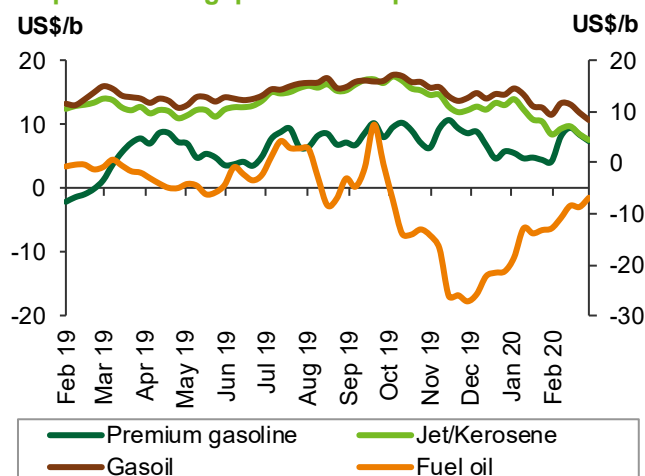
Asian market

The **Asian gasoline 92** crack spread against Dubai increased in February, supported by expectations of refinery run cuts in Northeast Asia, while the ongoing turnaround at Ruwais provided some support to the market. The refinery turnaround in the Middle East as well as expectations of gasoline stockpiling ahead of Ramadan could sustain gasoline markets in the near term. The Singapore gasoline crack spread against Oman averaged \$8.37/b in February, up by \$3.39 m-o-m and by \$8.43 y-o-y.

Singapore light distillate **naphtha crack spreads** performed positively as lower prices gave way to a competitive advantage over LPG, unlocking additional buying interest from steam cracker operators. The Singapore naphtha crack spread against Oman averaged minus \$1.69/b, up by \$1.35 m-o-m and by \$6.19 y-o-y.

In the middle of the barrel, the **jet/kerosene** crack spreads in Asia continued to fall as Covid-19 depressed air travel demand at a time when summer holiday bookings in the Atlantic Basin are usually at their peak. The plunge in global jet demand could lead to stronger inventory levels, which would further challenge refinery intakes in the region. The Singapore jet/kerosene crack spread against Oman averaged \$8.80/b, down by \$2.44 m-o-m and by \$4.71 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus Media and OPEC Secretariat.

The Singapore **gasoil crack spread** posted another monthly loss this month. The decline is attributed to the pessimistic outlook, despite lower ARA product inventory levels, as governments in the region to implement precautionary measures to mitigate the further spread of the Covid-19 that is affecting activity in various sectors and ultimately gasoil consumption. The Singapore gasoil crack spread against Oman averaged \$10.41/b, down by \$1.79 m-o-m and by \$3.61 y-o-y.

The Singapore **fuel oil 3.5% crack spread** soared, extending the upward trend witnessed in the previous month, although it remained in negative territory because of tight supplies. The spread between HSFO–VLSFO narrowed on VLSFO weakness. Signs of stabilization of the number of confirmed Covid-19 cases in China as expectations of a pick-up in cooling demand from the Middle East should boost demand for HSFO in the power generation sector in the coming months. This upside potential could receive further support as refiners continue to adapt to reduce their exposure to the HSFO market. Singapore fuel oil cracks against Oman averaged minus \$8.69, up by \$4.59 m-o-m but down by \$8.13 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> |
|-----------------------------------------|-------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Covid-19 spread outside China | Mar 20 | ↓ Negative impact on product markets | ↓ Negative impact on product markets | ↓ Negative impact on product markets | Could lead to additional losses globally in the demand side. Therefore refinery intakes may face further pressure to mitigate losses. This could further pressure oil markets in the near term. |
| Start of peak maintenance season | Mar 20 | ↑ Some positive impact on product markets | ↑ Some positive impact on product markets | ↑ Some positive impact on product markets | Should provide some support to product markets as product inventory levels decline, amid higher bunker fuel demand. |
| Tax rebate for VLSFO sale | 1Q20 | ↓ Some negative impact on product markets | - | - | This action incentivizes higher VLSFO production, which should place bunker fuel prices under pressure. |

Source: OPEC Secretariat.

Product Markets and Refinery Operations

Table 6 - 2: Refinery operations in selected OECD countries

| | Refinery throughput, mb/d | | | | Refinery utilization, % | | | |
|-----------------------|---------------------------|--------------|--------------|----------------|-------------------------|--------------|--------------|----------------|
| | Dec 19 | Jan 20 | Feb 20 | Change Feb/Jan | Dec 19 | Jan 20 | Feb 20 | Change Feb/Jan |
| US | 17.37 | 16.87 | 16.57 | -0.30 | 92.40 | 89.68 | 88.11 | -1.6 pp |
| Euro-16 | 10.42 | 10.06 | 9.69 | -0.37 | 84.09 | 81.14 | 78.18 | -3.0 pp |
| France | 0.83 | 0.73 | 0.87 | 0.14 | 66.62 | 58.31 | 69.54 | 11.2 pp |
| Germany | 1.84 | 1.84 | 1.72 | -0.11 | 83.96 | 83.96 | 78.78 | -5.2 pp |
| Italy | 1.30 | 1.39 | 1.15 | -0.24 | 63.34 | 67.89 | 56.00 | -11.9 pp |
| UK | 1.16 | 1.10 | 1.05 | -0.05 | 88.65 | 83.40 | 79.81 | -3.6 pp |
| Selected Asia* | 26.00 | 26.00 | 24.03 | -1.98 | 91.77 | 91.80 | 84.82 | -7.0 pp |

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

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

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

| | 2017 | 2018 | 2019 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 1Q20 |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Total OECD | 38.33 | 38.21 | 37.69 | 37.45 | 37.34 | 38.53 | 37.27 | 37.10 |
| OECD Americas | 19.10 | 19.31 | 18.96 | 18.36 | 19.07 | 19.55 | 18.85 | 18.55 |
| of which US | 16.88 | 17.32 | 16.97 | 16.46 | 17.14 | 17.43 | 16.86 | 16.61 |
| OECD Europe | 12.41 | 12.15 | 12.17 | 12.22 | 11.82 | 12.44 | 12.02 | 11.98 |
| of which: | | | | | | | | |
| France | 1.17 | 1.10 | 1.00 | 1.12 | 0.98 | 1.06 | 0.82 | 0.87 |
| Germany | 1.91 | 1.80 | 1.78 | 1.76 | 1.70 | 1.83 | 1.83 | 1.75 |
| Italy | 1.40 | 1.35 | 1.35 | 1.24 | 1.33 | 1.48 | 1.33 | 1.23 |
| UK | 1.10 | 1.06 | 1.08 | 1.08 | 1.03 | 1.07 | 1.14 | 1.04 |
| OECD Asia Pacific | 6.82 | 6.74 | 6.57 | 6.87 | 6.45 | 6.54 | 6.40 | 6.57 |
| of which Japan | 3.22 | 3.11 | 3.04 | 3.19 | 2.94 | 3.05 | 3.00 | 3.16 |
| Total Non-OECD | 42.12 | 43.41 | 44.11 | 43.77 | 43.25 | 44.51 | 44.89 | 43.25 |
| of which: | | | | | | | | |
| China | 11.35 | 12.03 | 12.98 | 12.62 | 12.66 | 12.95 | 13.68 | 12.12 |
| Middle East | 7.04 | 7.26 | 7.08 | 7.24 | 7.13 | 7.18 | 6.76 | 6.79 |
| Russia | 5.59 | 5.72 | 5.70 | 5.71 | 5.38 | 5.89 | 5.83 | 5.74 |
| Latin America | 4.49 | 4.22 | 4.04 | 4.01 | 4.01 | 4.12 | 4.02 | 4.04 |
| India | 4.79 | 4.89 | 5.03 | 5.11 | 4.97 | 4.96 | 5.08 | 5.23 |
| Africa | 2.24 | 2.24 | 2.23 | 2.14 | 2.21 | 2.32 | 2.27 | 2.24 |
| Total world | 80.45 | 81.62 | 81.80 | 81.22 | 80.59 | 83.03 | 82.17 | 80.35 |

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

| | Jan 20 | Feb 20 | Change Feb/Jan | Annual avg. 2019 | Year-to-date 2020 |
|-------------------------------------|--------|--------|-------------------|---------------------|----------------------|
| US Gulf (Cargoes FOB): | | | | | |
| Naphtha* | 55.99 | 50.25 | -5.74 | 56.86 | 53.12 |
| Premium gasoline (unleaded 93) | 73.40 | 69.37 | -4.03 | 79.66 | 71.39 |
| Regular gasoline (unleaded 87) | 67.35 | 64.13 | -3.22 | 72.70 | 65.74 |
| Jet/Kerosene | 74.56 | 63.85 | -10.71 | 79.32 | 69.21 |
| Gasoil (0.2% S) | 70.74 | 61.20 | -9.54 | 74.61 | 65.97 |
| Fuel oil (3.0% S) | 41.67 | 43.55 | 1.88 | 52.55 | 42.61 |
| Rotterdam (Barges FoB): | | | | | |
| Naphtha | 58.21 | 51.30 | -6.91 | 55.71 | 54.76 |
| Premium gasoline (unleaded 98) | 76.19 | 69.65 | -6.54 | 79.52 | 72.92 |
| Jet/Kerosene | 76.93 | 65.67 | -11.26 | 80.22 | 71.30 |
| Gasoil/Diesel (10 ppm) | 76.07 | 66.45 | -9.62 | 79.50 | 71.26 |
| Fuel oil (1.0% S) | 68.08 | 54.82 | -13.26 | 60.15 | 61.45 |
| Fuel oil (3.5% S) | 38.57 | 38.21 | -0.36 | 48.90 | 38.39 |
| Mediterranean (Cargoes FOB): | | | | | |
| Naphtha | 56.03 | 49.46 | -6.57 | 54.48 | 52.75 |
| Premium gasoline** | 69.05 | 63.15 | -5.90 | 71.36 | 66.10 |
| Jet/Kerosene | 73.68 | 63.27 | -10.41 | 77.77 | 68.48 |
| Diesel | 74.91 | 65.88 | -9.03 | 79.03 | 70.40 |
| Fuel oil (1.0% S) | 71.66 | 58.81 | -12.85 | 63.42 | 65.24 |
| Fuel oil (3.5% S) | 40.11 | 40.47 | 0.36 | 50.55 | 40.29 |
| Singapore (Cargoes FOB): | | | | | |
| Naphtha | 61.06 | 52.56 | -8.50 | 57.10 | 56.81 |
| Premium gasoline (unleaded 95) | 71.13 | 64.34 | -6.79 | 72.45 | 67.74 |
| Regular gasoline (unleaded 92) | 69.08 | 62.62 | -6.46 | 69.45 | 65.85 |
| Jet/Kerosene | 75.34 | 63.05 | -12.29 | 77.26 | 69.20 |
| Gasoil/Diesel (50 ppm) | 76.30 | 65.67 | -10.63 | 77.78 | 70.99 |
| Fuel oil (180 cst) | 50.82 | 45.56 | -5.26 | 57.29 | 48.19 |
| Fuel oil (380 cst 3.5% S) | 49.41 | 44.34 | -5.07 | 56.70 | 46.88 |

Note: * Barges.

** Cost, insurance and freight (CIF).

Sources: Argus Media and OPEC Secretariat.

Tanker Market

Dirty tanker spot freight rates were buffeted by unexpected developments in February, undermining the optimistic outlook that began the year. Disruptions caused by measures to stem the accelerating outbreak of the Covid-19 in China led to a sharp drop in economic activity, including refinery runs, which weighed on crude import demand and freight rates. At the same time, tanker availability further increased by the unexpected lifting of sanctions on a subsidiary of China's Cosco at the end of January, which dampened dirty tanker spot rates, particularly for VLCCs. The market appeared to be looking for a bottom by the end of February, but considerable uncertainties remain for March, given the widening disruption brought about by the ongoing spread of the Covid-19. At the same time, the announced increases in crude flows by major exporters is likely to support the tanker market in the near term. In the first ten days of March dirty tankers spot freight rates rose by 7%.

The **clean spot tanker market** saw a further monthly fall in February, down by 12%, with losses on all major routes. However, in the first ten days of March clean spot rates rose by 3%.

Spot fixtures

Global spot fixtures rebounded somewhat in February, up around 0.6 mb/d, or 3.4%, m-o-m. Spot fixtures were sharply lower than in the same month last year, representing a decline of 9.4 mb/d or 33%. This was due mainly to stellar performance last February, when fixtures were boosted by Chinese imports amid healthy demand around the Chinese Lunar New Year. Disruptions caused by the outbreak of Covid-19 weighed down fixtures this February.

Table 7 - 1: Spot fixtures, mb/d

| | Dec 19 | Jan 20 | Feb 20 | Change Feb 20/Jan 20 |
|---------------------|---------------|---------------|---------------|---------------------------------|
| All areas | 18.23 | 18.19 | 18.82 | 0.63 |
| OPEC | 12.40 | 12.57 | 12.87 | 0.31 |
| Middle East/East | 6.71 | 7.70 | 7.59 | -0.11 |
| Middle East/West | 1.46 | 1.13 | 1.24 | 0.11 |
| Outside Middle East | 4.24 | 3.73 | 4.04 | 0.31 |

Sources: Oil Movements and OPEC Secretariat.

OPEC spot fixtures averaged 12.87 mb/d in February, up 2.4%, or 310 tb/d, over the previous month, but still a considerable 31% or 5.84 mb/d lower y-o-y.

Fixtures from the **Middle East-to-East** edged 1.4% or 0.1 mb/d lower to average 7.59 mb/d in February and were almost 29% below last year's level.

Middle East-to-West fixtures saw improved performance, with a gain of 9.5%. However, compared with the same month last year, they were just under 1 mb/d, or 44%, lower. The y-o-y change was largely driven by lower US crude imports of Mideast grades, along with increasing exports amid debottlenecking in the Permian Basin.

Outside of the Middle East, fixtures averaged 4.04 mb/d in February, an increase of 0.3 mb/d, or over 8%, from the previous month. In annual terms, fixtures followed a similar trend, down by almost 31%, or 1.8 mb/d, compared with the same month last year.

Sailings and arrivals

OPEC sailings rose by 1.6% m-o-m in February to average 25.33 mb/d, remaining broadly in line with levels seen last year. Sailings from the **Middle East** were flat m-o-m at 18.38 mb/d, but down slightly, by less than 1% y-o-y.

Crude arrivals were largely negative m-o-m for all destinations in February, except West Asia. Arrivals in North America fell by almost 10% m-o-m to 8.0 mb/d. Y-o-y, arrivals were 22% lower, reflecting a decline in crude net imports in the US. In the Far East and Europe, arrivals were down by roughly 3% m-o-m. However, both destinations saw y-o-y gains, with arrivals in Europe up 2% and in the Far East up 4.5%, with the latter reflecting increased crude needs due to the steady expansion of refinery capacity in the region. West Asia was the only route showing gains this month, up 200 tb/d, or 5%, m-o-m and some 170 mb/d, or 4%, higher y-o-y. The positive showing was partly supported by improved demand in India at the start of the year, although arrivals in the region have generally fluctuated by similar amounts in recent months.

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

| | <u>Dec 19</u> | <u>Jan 20</u> | <u>Feb 20</u> | <u>Change Feb 20/Jan 20</u> |
|-----------------|---------------|---------------|---------------|---------------------------------|
| Sailings | | | | |
| OPEC | 25.10 | 24.93 | 25.33 | 0.40 |
| Middle East | 18.02 | 18.35 | 18.38 | 0.04 |
| Arrivals | | | | |
| North America | 9.12 | 8.93 | 8.06 | -0.87 |
| Europe | 11.73 | 11.86 | 11.50 | -0.36 |
| Far East | 8.45 | 8.72 | 8.41 | -0.31 |
| West Asia | 4.33 | 4.11 | 4.31 | 0.20 |

Sources: Oil Movements and OPEC Secretariat.

Dirty tanker freight rates

Very large crude carriers (VLCCs)

VLCC spot freight rates fell across the board in February, with rates suffering from the twin impact of the lifting of US sanctions on a Cosco subsidiary, which boosted availability, while disruptions caused by Covid-19 led to a sudden weakening in tonnage demand.

Rates on the **Middle East-to-East** route led losses in February, dropping by more than half to WS43. Rates on the route have been at healthy levels since October 2019, when sanctions on Cosco surprised a market that had already been tightening due to seasonal factors and preparations for IMO 2020. The decline leaves rates on the route 16% lower compared with the same month last year.

Freight rates registered for tankers operating on the **Middle East-to-West** route in February also fell sharply, down 43% m-o-m. At WS30, they still showed a gain of 17% compared with the same month last year.

The **West Africa-to-East** route declined 47% m-o-m in February to stand at WS48, representing a drop of just 9% compared with February 2019.

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

| | <u>Size 1,000 DWT</u> | <u>Dec 19</u> | <u>Jan 20</u> | <u>Feb 20</u> | <u>Change Feb 20/Jan 20</u> |
|------------------|---------------------------|---------------|---------------|---------------|---------------------------------|
| Middle East/East | 230-280 | 113 | 93 | 43 | -50 |
| Middle East/West | 270-285 | 63 | 53 | 30 | -23 |
| West Africa/East | 260 | 108 | 90 | 48 | -42 |

Sources: Argus Media and OPEC Secretariat.

Suezmax

Suezmax average spot freight rate declines mirrored those seen in the larger class, falling by more than 40% in February. However, rates managed a y-o-y improvement of 27% compared with the same month last year, when they averaged around WS71.

Rates for tankers operating on the West Africa-to-US Gulf Coast (USGC) route averaged WS77 in February, down sharply from WS130 the month before. Y-o-y, however, rates were still 22% higher than in February last year.

The Northwest Europe (NWE)-to-USGC route fell by 39% m-o-m to average WS66, which was still 31% higher than the same month last year.

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

| | Size 1,000 DWT | Dec 19 | Jan 20 | Feb 20 | Change Feb 20/Jan 20 |
|--------------------------------|-------------------|--------|--------|--------|-------------------------|
| West Africa/US Gulf Coast | 130-135 | 142 | 130 | 77 | -53 |
| Northwest Europe/US Gulf Coast | 130-135 | 104 | 108 | 66 | -42 |

Sources: Argus Media and OPEC Secretariat.

Aframax

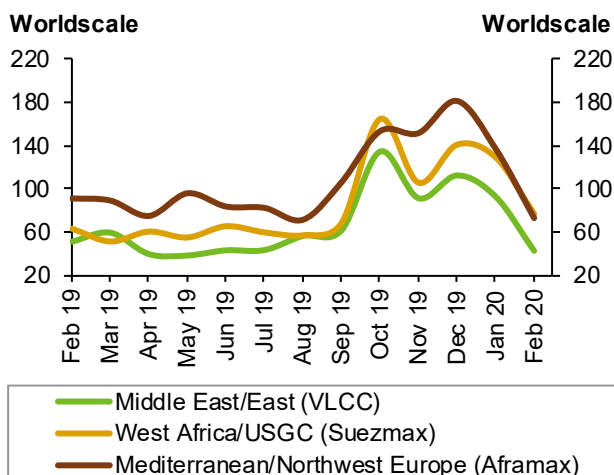
After a strong start to the year, **Aframax** rates lost around 44%, mirroring losses in all other classes. The Indonesia-to-East route fared better than the other routes, down 33% to average WS100 points, but still 8% higher than in February 2019. Both the intra-Mediterranean (Med) and the Med-to-NWE routes fell by 47% to average WS80 and WS73 points, respectively. Both routes were also lower y-o-y, with respective declines of 16% and 20%.

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

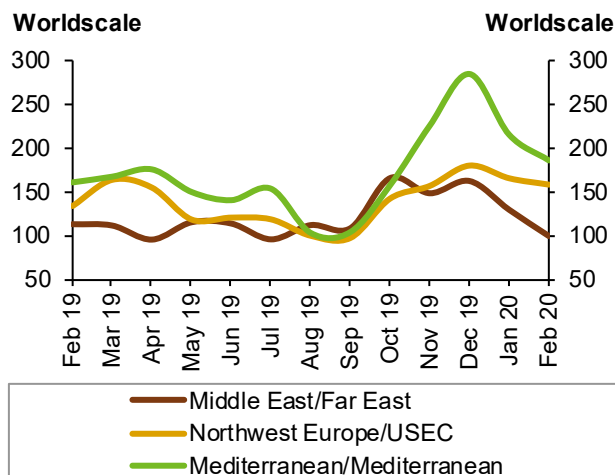
| | Size 1,000 DWT | Dec 19 | Jan 20 | Feb 20 | Change Feb 20/Jan 20 |
|--------------------------------|-------------------|--------|--------|--------|-------------------------|
| Indonesia/East | 80-85 | 185 | 151 | 100 | -51 |
| Caribbean/US East Coast | 80-85 | 249 | 320 | 170 | -151 |
| Mediterranean/Mediterranean | 80-85 | 199 | 151 | 80 | -71 |
| Mediterranean/Northwest Europe | 80-85 | 181 | 137 | 73 | -64 |

Sources: Argus Media and OPEC Secretariat.

The Caribbean to US East Coast (USEC) route also declined by 47% m-o-m to average WS170 – well below the WS181 seen at the end of 2019, but still 21% higher than the same month last year.

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

The **clean spot tanker** market saw a further monthly fall in February, down 12%, with losses on all major routes. Despite the decline, product tanker rates outperformed the same month last year by 6%.

Clean tanker spot freight rates for **West of Suez** were around 10% lower in February compared with the previous month, but showed a 16% gain over February 2019. The **Med-to-Med** and **Med-to-NWE** routes saw declines of around 13% to average WS185 and WS195, respectively. Meanwhile, rates on the **NWE-to-USEC** route fell just 4% to WS157.

On the **East of Suez** route, clean tanker spot freight rates fell by 15% m-o-m in February and were 11% lower compared with the same month last year. The **Singapore-to-East** route averaged WS140, representing a m-o-m decline of 8%. Meanwhile, the **Middle East-to-East** route declined by 23% m-o-m to average WS100.

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

| | Size 1,000 DWT | Dec 19 | Jan 20 | Feb 20 | Change Feb 20/Jan 20 |
|--------------------------------|-------------------|--------|--------|--------|-------------------------|
| East of Suez | | | | | |
| Middle East/East | 30-35 | 162 | 130 | 100 | -30 |
| Singapore/East | 30-35 | 177 | 152 | 140 | -13 |
| West of Suez | | | | | |
| Northwest Europe/US East Coast | 33-37 | 179 | 165 | 157 | -7 |
| Mediterranean/Mediterranean | 30-35 | 283 | 214 | 185 | -29 |
| Mediterranean/Northwest Europe | 30-35 | 292 | 224 | 195 | -29 |

Sources: Argus Media and OPEC Secretariat.

Oil Trade

*Preliminary data indicates that **US** crude oil imports were slightly lower in February, down just over 1% m-o-m to average 6.50 mb/d. So far in 2020, US crude oil imports have averaged 6.54 mb/d, representing a decline of 7% compared to 2019. The decline occurred as rising domestic production dampened demand for imports. US crude exports averaged 3.6 mb/d in February, hovering around the record set in December and up 5% compared to the previous month. US product imports fell 0.4 mb/d, or around 20%, in February to average 1.7 mb/d. Meanwhile, US product exports averaged 5.5 mb/d in February, representing a gain of 0.1 mb/d or 2% over the previous month. February was the sixth-consecutive month in which the US was a net crude and petroleum products exporter.*

***India's** crude imports averaged 4.7 mb/d in January, representing an increase of 6% or 0.3 mb/d m-o-m. Compared with the same month of the previous year, India's crude imports were broadly flat. India's product import increased for the second consecutive month in January, up 0.1 mb/d or 9%. Diesel and fuel oil imports surged m-o-m while LPG inflows also saw strong growth. The increase in diesel imports came amid strong diesel demand and ahead of a switch to low-sulphur transportation fuels in April. India's product exports declined in January, decreasing by 0.5 mb/d, or 28%, to average 1.1 mb/d. Declines were seen across all major products, as healthy domestic consumption ate into imports. As a result, India's net product trade was broadly balanced, with the country being a net importer in January, compared with net exports of 0.3 mb/d in January 2019 and 0.7 mb/d for the same month of 2018.*

***Japan's** crude oil imports in January fell by 275 tb/d, or around 9%, compared with the previous month to average 2.9 mb/d, as unseasonably warm winter weather weighed on domestic demand. Accordingly, product imports to Japan, including LPG, declined 6% or 224 tb/d in January compared to the previous month to average 1.0 mb/d. Declines were seen in LPG, gasoline and jet fuel. Product exports, including LPG, averaged 564 tb/d in January, representing a drop of 144 tb/d or 20% from the previous month, driven by lower refinery runs amid slowing activities in the region due to the Covid-19 outbreak. All major products saw declines, except LPG, which edged up slightly.*

*The latest available data shows **OECD Europe** crude imports averaged 11.4 mb/d in November, reflecting a decline of 103 tb/d m-o-m and broadly unchanged y-o-y. Crude exports averaged 2.6 mb/d in November, representing an increase of 663 tb/d or 34% m-o-m and an increase of 584 tb/d or 28% y-o-y. The jump in exports was driven by the start-up of crude flows from Norway's Johan Sverdrup field, which have been quickly adopted as an option by Chinese independent refiners.*

*No official data has been published for **China's** crude and product trade flows for December 2019 and January 2020.*

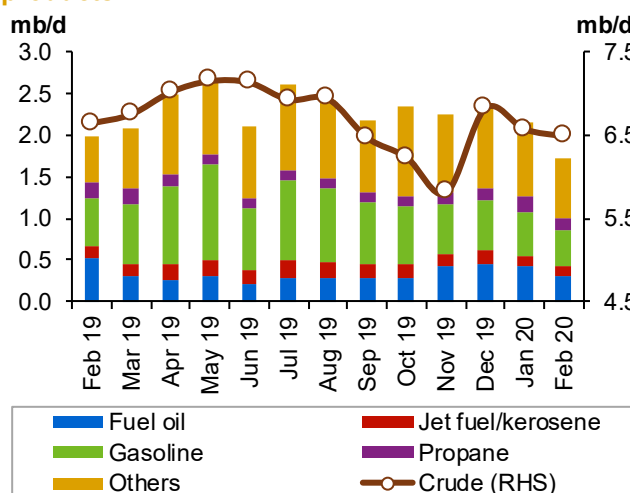
US

Preliminary data indicates that **US crude oil imports** were slightly lower in February, down just over 1% m-o-m, to average 6.50 mb/d. Y-o-y, imports were some 2% or 0.6 mb/d lower than the same period last year. So far in 2020, US crude oil imports have averaged 6.54 mb/d, representing a decline of 7% compared to 2019. The decline has come as rising domestic production had dampened demand for imports.

US crude exports averaged 3.6 mb/d in February, according to preliminary data, hovering around the record set in December and up 5% compared to the previous month. Y-o-y, crude exports were 0.6 mb/d or 20% higher than in the same month last year. So far this year, US crude exports have averaged 3.5 mb/d, an increase of 26% or 0.7 mb/d over the previous year. A resolution of the US trade dispute with China is expected to lead to a return to US crude exports to China; however, this is not expected to happen until sometime in April, as Chinese refiners have slashed runs amid disruptions due to the spread of Covid-19.

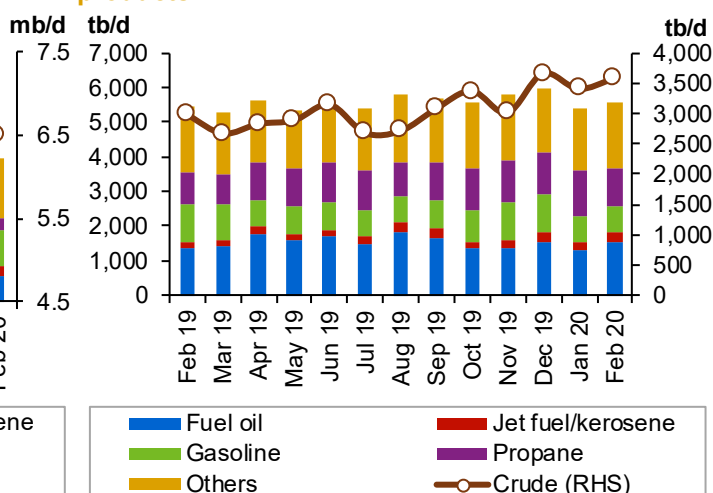
As a result, **US net crude imports** fell below 3.0 mb/d in February, averaging 2.9 mb/d, a decline of 0.3 mb/d, or 8%, m-o-m. Y-o-y, US net crude imports were down 36% or 0.7 mb/d compared with the same period last year.

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



Sources: US EIA and OPEC Secretariat.

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



Sources: US EIA and OPEC Secretariat.

On the product side, **US product imports** fell 0.4 mb/d, or around 20%, in February to average 1.7 mb/d. Compared to the same month last year, US product imports were 0.2 mb/d or more than 12% lower. Product imports into the US have averaged 1.9 mb/d so far in 2020, representing a drop of 0.1 almost 6% compared with 2019.

US product exports averaged 5.5 mb/d in February, representing a gain of 0.1 mb/d or 2% over the previous month and a slight 1.6% or 0.1 mb/d increase y-o-y. So far in 2020, product exports from the US averaged 5.5 mb/d, broadly consistent with the level achieved in 2019.

As a result, **US net product exports** averaged 3.8 mb/d in February, the highest since December 2018 and around 17% or 55 tb/d higher than in the previous month. Y-o-y, net product exports were more than 9% or 0.3 mb/d higher in February. Combined, **net crude and product exports** averaged 0.9 tb/d in February, according to preliminary data, outpacing the 0.7 mb/d seen in November 2019. It was the sixth-consecutive month in which the US was a net crude and petroleum products exporter.

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

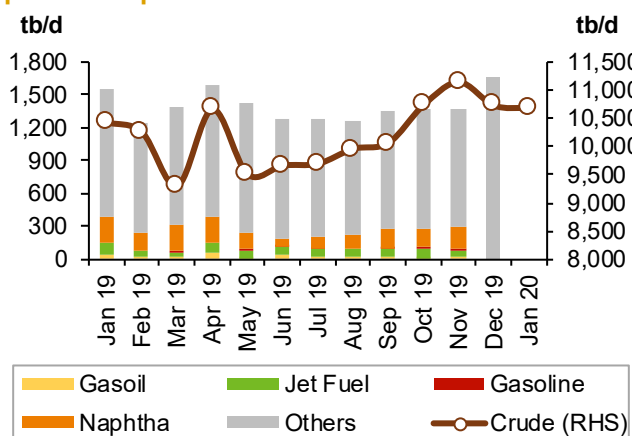
| | Dec 19 | Jan 20 | Feb 20 | Change Feb 20/Jan 20 |
|---------------------------------|-------------|-------------|-------------|-------------------------|
| Crude oil | 3,162 | 3,164 | 2,909 | -256 |
| Total products | -3,649 | -3,266 | -3,816 | -550 |
| Total crude and products | -487 | -102 | -907 | -805 |

Sources: US EIA and OPEC Secretariat.

China

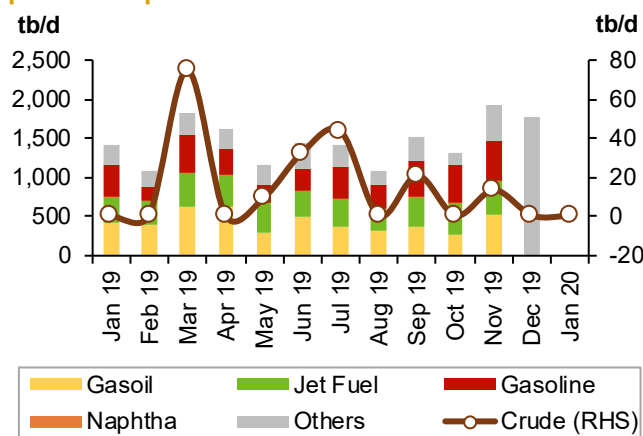
Official Chinese crude and product trade data has not been published for December 2019 or January 2020. The figures in the graphs below include estimates for these months.

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



Note: Others in December refer to "Total 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



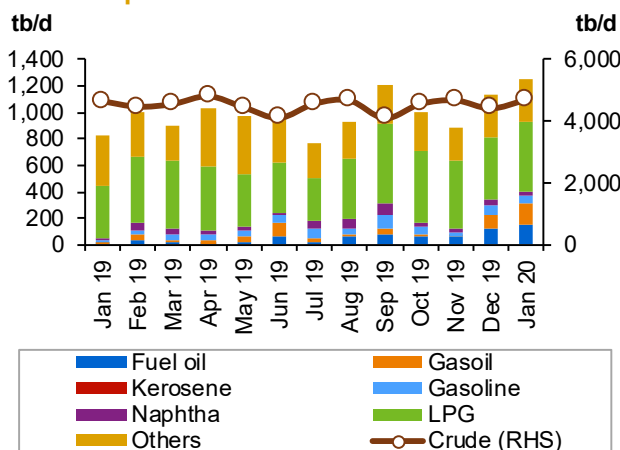
Note: Others in December refer to "Total products".
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

India

India's crude imports averaged 4.7 mb/d in January, representing an increase of 6% or 0.3 mb/d m-o-m. Compared with the same month of the previous year, India's crude imports were broadly flat. In 2019, India's crude oil imports averaged 4.5 mb/d in 2019, broadly in line with the previous year.

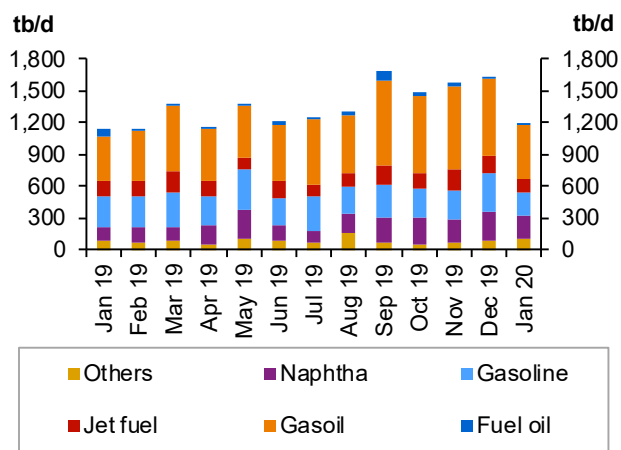
Meanwhile, India's **product import** increased for the second consecutive month in January, up 0.1 mb/d or 9%. Compared to the same month last year, product imports were 0.4 mb/d or almost 50% higher. Diesel and fuel oil imports surged m-o-m while LPG inflows also saw strong growth compared to the previous month. In 2019, India's product imports averaged 1.0 mb/d, an increase of 26% over the previous year.

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 petroleum products



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

India's **product exports** declined in January, decreasing by 0.5 mb/d or 28% to average 1.1 mb/d. Product exports were broadly consistent with the same month last year. In terms of major products, declines were seen across the board, with diesel and gasoline exports down more than 30%. In 2019, India's product exports averaged 1.4 mb/d, representing a gain of 1% over the 2018 average.

As a result, India's **net product trade** was broadly balanced, with the country being a net importer in January, compared with net exports of 0.3 mb/d in January 2019 and 0.7 mb/d for the same month of 2018.

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

| | Nov 19 | Dec 19 | Jan 20 | Change Jan 20/Dec 19 |
|---------------------------------|--------------|--------------|--------------|-------------------------|
| Crude oil | 4,678 | 4,419 | 4,689 | 270 |
| Total products | -681 | -484 | 75 | 559 |
| Total crude and products | 3,996 | 3,935 | 4,764 | 829 |

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.

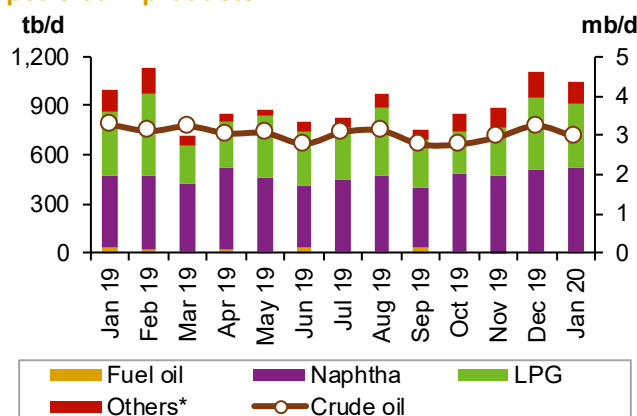
Japan

Japan's crude oil imports in January fell by 275 tb/d, or around 9%, compared with the previous month to average 2.9 mb/d. Crude oil imports declined 9% or 301 tb/d y-o-y. In 2019, Japan's crude imports averaged 3.0 mb/d, some 1% lower than in the year before.

Saudi Arabia was the **top supplier of crude** to Japan in January, averaging 1.1 mb/d, representing a share of 36%. The UAE held the second spot with around 32% followed by Kuwait with just under 11%.

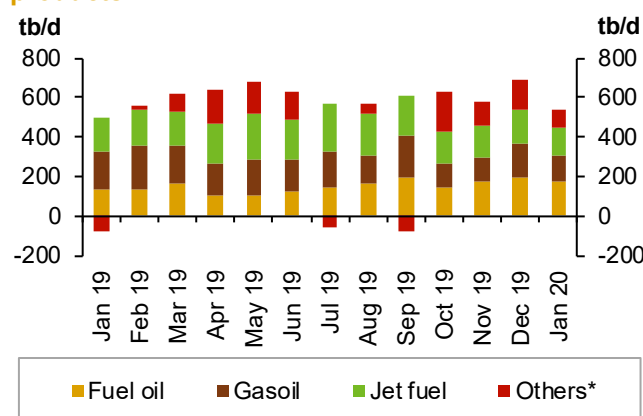
Product imports to Japan, including LPG, averaged 1.0 mb/d in January, representing a slight drop of 6% or 224 tb/d from the previous month. Declines were seen in LPG, gasoline and jet fuel, while naphtha and fuel oil increased. In 2019, total product imports averaged 896 tb/d, representing a decline of 80 tb/d or 8% compared with 2018.

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.

Meanwhile, **product exports**, including LPG, averaged 564 tb/d in January, representing a drop of 144 tb/d or 20% from the previous month. All major products saw declines, except LPG, which edged up slightly. Gasoline and gasoil led losses in volume terms, while jet fuel and kerosene were also lower. Japan's product exports in 2019 averaged 609 mb/d, an increase of just over 11% over 2018.

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

| | Nov 19 | Dec 19 | Jan 20 | Change Jan 20/Dec 19 |
|---------------------------------|--------------|--------------|--------------|-------------------------|
| Crude oil | 2,942 | 3,223 | 2,948 | -275 |
| Total products | 306 | 419 | 502 | 83 |
| Total crude and products | 3,248 | 3,642 | 3,450 | -192 |

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

As a consequence, Japan's **net product imports** averaged 477 tb/d in January, representing a decline of 128 tb/d or 37% compared to the previous year.

OECD Europe

The latest available data shows **OECD Europe crude imports** averaged 11.4 mb/d in November, reflecting a decline of 103 tb/d m-o-m and broadly unchanged y-o-y. In the first 11 months of 2019, OECD Europe crude imports averaged 11.5 mb/d, representing an increase of 1% compared with the same period in 2018.

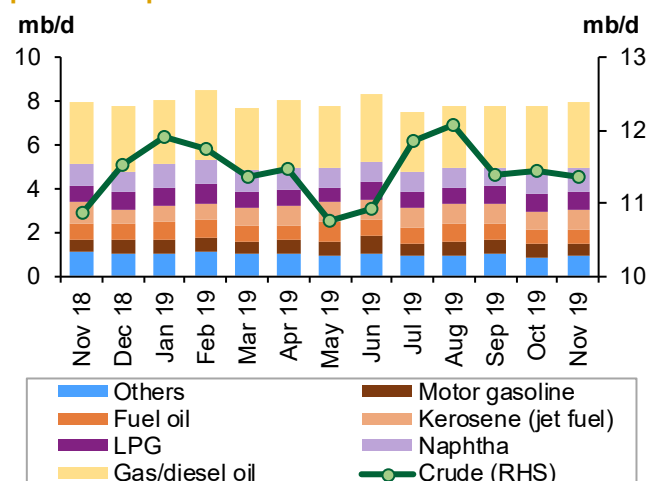
Crude exports averaged 2.6 mb/d in November, representing an increase of 663 tb/d or 34% m-o-m and an increase of 584 tb/d or 28% y-o-y. The jump in exports was driven by the start-up of Norway's Johan Sverdrup field. In the first 11 months of 2019, OECD Europe crude exports averaged 2.1 mb/d, marginally lower than in the same period in 2018.

As a result, OECD Europe **net crude imports** averaged 9.4 mb/d in the first 11 months of the year, an increase of 0.2 mb/d over the same period in the previous year.

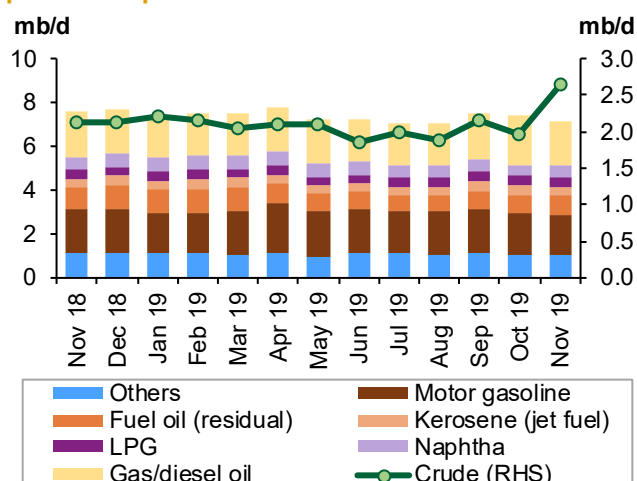
OECD Europe **product imports** averaged just under 8.0 mb/d in November, around 157 tb/d or 2% higher m-o-m and a 3% or 250 tb/d gain over the same month in the previous year. Among the major products, kerosene and naphtha led gains in volume terms, up 10% each, while motor gasoline experienced the biggest decline, down 10%. In the first ten months of the year, OECD Europe product imports averaged 7.9 mb/d, representing a decline of 188 tb/d or around 2% compared to the same period in 2018.

Product exports declined by 198 tb/d, or almost 3%, m-o-m to average 7.2 mb/d in November. Motor gasoline, diesel oil and kerosene led declines in volume terms, falling by between 7% and 18%. This was partially offset by increases in fuel oil, naphtha and LPG exports. In the first 11 months of 2019, product exports from OECD Europe have averaged 7.4 mb/d, representing a decline of 333 tb/d or 4% compared to the same period in 2018.

Consequently, OECD Europe **net product imports** averaged 583 tb/d in the first 11 months of 2019, compared to 438 mb/d in 2018.

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

Sources: IEA and OPEC Secretariat.

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

Sources: IEA and OPEC Secretariat.

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

| | Sep 19 | Oct 19 | Nov 19 | Change Nov 19/Oct 19 |
|---------------------------------|--------------|--------------|--------------|-------------------------|
| Crude oil | 9,243 | 9,480 | 8,714 | -766 |
| Total products | 341 | 433 | 788 | 356 |
| Total crude and products | 9,585 | 9,913 | 9,503 | -410 |

Sources: IEA and OPEC Secretariat.

FSU

Total crude oil exports from the Former Soviet Union (FSU) declined 6% m-o-m in January to average 6.5 mb/d, representing a decrease of 429 t/bd. Compared to the same month in the previous year, FSU crude exports were 8% or 558 tb/d lower. In 2019, total FSU crude oil exports averaged 7.0 mb/d, a gain of 3% or 187 tb/d over the average in 2018.

Crude exports through the **Transneft system** increased by 164 tb/d or 4% in January compared to the previous month to average 4.2 mb/d. In 2019, crude exports through the Transneft system averaged 4.2 mb/d in 2019, representing an increase of 4% over the previous year.

Total shipments from the Black Sea declined 45 tb/d m-o-m, or 9%, to average 461 tb/d in January. Total Baltic Sea exports increased 231 tb/d m-o-m or around 18%, with shipments from Ust-Luga increasing by 16% to 510 tb/d and Primorsk exports 20% or 162 tb/d higher. Meanwhile, shipments via the Druzhba pipeline rose 21 tb/d to average 957 tb/d. Kozmino shipments fell 44 tb/d m-o-m, or 6%, to average 659 tb/d. Exports to China via the ESPO pipeline averaged 637 tb/d in January, unchanged from December 2019.

In the **Lukoil system**, exports via the Barents Sea edged up 8 tb/d to 134 tb/d in January, while those from the Baltic Sea remained broadly unchanged at 6 tb/d.

Russia's Far East total exports were broadly unchanged m-o-m at 395 tb/d, but were some 2% higher than the same month last year.

Central Asia's total exports averaged 209 tb/d, roughly in line with the previous month, but down 8% y-o-y.

Black Sea total exports fell 38 tb/d m-o-m to average 1.5 mb/d, with Novorossiysk port terminal (CPC) driving the decline while the Supsa port terminal saw 33% increase m-o-m.

FSU total product exports dropped by 400 tb/d m-o-m in January to average just under 3 mb/d. Declines were seen in most major products, except for gasoil, which rose 2%. Fuel oil fell sharply while VGO, jet and gasoline also saw strong declines. In 2019, FSU product exports averaged 3.1 mb/d, an increase of 80 tb/d or 3% over 2018 average.

Stock Movements

Preliminary data for January showed that total **OECD commercial oil stocks** rose by 37.8 mb m-o-m to stand at 2,940 mb. This was 56.9 mb higher than the same time one year ago and 12.9 mb above the latest five-year average. Within components, crude stocks fell slightly by 0.8 mb, while product stocks rose by 38.6 mb m-o-m. OECD crude stocks stood at 9.1 mb below the latest five-year average, while product stocks exhibited a surplus of 21.9 mb. In terms of days of forward cover, OECD commercial stocks rose m-o-m by 0.8 days to stand at 62.2 days, which was 1.6 days above the same month in 2018, and 0.4 days above the latest five-year average.

Preliminary data for February showed that **US total commercial oil stocks** fell by 15.9 mb m-o-m to stand at 1,278.6 mb. This was 25.4 mb above the same period a year ago, and 18.4 mb higher than the latest five-year average. Within components, crude stocks rose by 9.1 mb, while product stocks fell by 25 mb.

OECD

Preliminary data for January showed that total **OECD commercial oil stocks** rose by 37.8 mb m-o-m to stand at 2,940 mb. This was 56.9 mb higher than the same time one year ago and 12.9 mb above the latest five-year average.

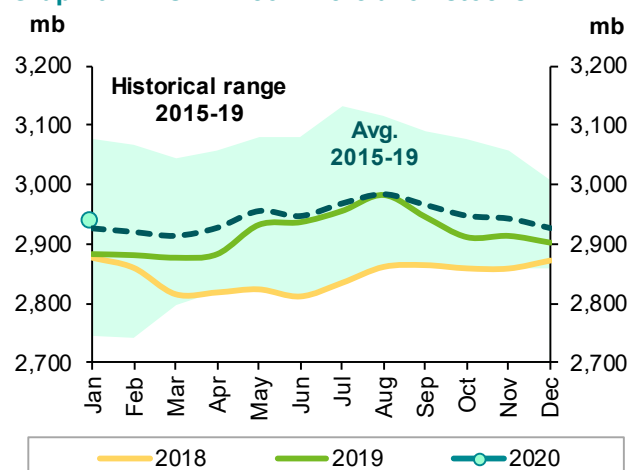
Within components, crude stocks fell slightly by 0.8 mb, while product stocks rose by 38.6 mb m-o-m. It should be noted that the overhang of total OECD commercial oil stocks has fallen by around 287 mb since the 'Declaration of Cooperation' started at the beginning of 2017. All three OECD regions witnessed stock builds.

OECD commercial crude stocks fell slightly by 0.8 mb m-o-m in January, ending the month at 1,432 mb. This was down by 2.3 mb compared with the same time a year ago and 9.1 mb below the latest five-year average. Compared with the previous month, OECD America stocks rose by 4.0 mb, while crude stocks in OECD Asia Pacific and OECD Europe fell by 2.9 mb and 1.9 mb, respectively.

In contrast, **OECD total product inventories** rose by 38.6 mb m-o-m in January to stand at 1,508 mb. This was 59.2 mb above the same time a year ago, and 21.9 mb higher than the latest five-year average. Within the OECD regions, product stocks in OECD America and OECD Europe rose by 13.5 mb and 20.9 mb, respectively, while those in OECD Asia Pacific were up by 4.2 mb.

In terms of **days of forward cover**, OECD commercial stocks rose by 0.8 days m-o-m in January to stand at 62.2 days. This was 1.6 days above the same period in 2019, and 0.4 days above the latest five-year average. Within the regions, OECD Americas was 0.2 days below the latest five-year average at 61.6 days. OECD Europe's stocks were 0.2 days higher than the latest five-year average, to finish the month at 70.2 days. OECD Asia Pacific's stocks were 1.5 days above the latest five-year average at 49.8 days.

Graph 9 - 1: OECD commercial oil stocks



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

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

| | Nov 19 | Dec 19 | Jan 20 | Change Jan 20/Dec 19 | Jan 19 |
|------------------------------|--------------|--------------|--------------|-------------------------|--------------|
| Crude oil | 1,465 | 1,432 | 1,432 | -0.8 | 1,434 |
| Products | 1,448 | 1,469 | 1,508 | 38.6 | 1,449 |
| Total | 2,913 | 2,902 | 2,940 | 37.8 | 2,883 |
| Days of forward cover | 61.0 | 61.4 | 62.2 | 0.8 | 60.6 |

Note: Totals may not add up due to independent rounding.
Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

OECD Americas

OECD Americas total commercial stocks rose by 17.5 mb m-o-m in January to settle at 1,556 mb. This was 12.2 mb above a year ago and 21.0 mb above the latest five-year average. Within components, crude and product stocks rose by 4.0 mb and 13.5 mb, respectively.

Commercial crude oil stocks in OECD Americas rose by 4.0 mb m-o-m in January to stand at 786 mb. This was 11.6 mb lower than the same time a year ago and 2.3 mb higher than the latest five-year average. The build was driven by lower refinery throughput, combined with higher crude imports.

Total product stocks in OECD Americas also rose by 13.5 mb m-o-m in January to stand at 769 mb. This was 23.8 mb higher than the same time one year ago and 18.8 mb above the latest five-year average. Lower regional consumption was behind the product stock build.

OECD Europe

OECD Europe's total commercial stocks rose by 19.1 mb m-o-m in January to end the month at 991 mb. This was 36.5 mb higher than the same time a year ago and 6.6 mb above the latest five-year average. Crude stocks fell by 1.9 mb, while product stocks rose by 20.9 mb, m-o-m.

OECD Europe's **commercial crude stocks** fell by 1.9 mb m-o-m in January to end the month at 430 mb. This was 8.8 mb above year-ago levels and 14.1 mb higher than the latest five-year average. The drop occurred despite lower refinery throughput in the EU-16 countries, which declined by 370 tb/d to 10.1 mb/d.

In contrast, OECD Europe's **commercial product stocks** rose by 20.9 mb m-o-m to end January at 561 mb. This was 27.7 mb higher than the same time a year ago, but 7.5 mb lower than the latest five-year average. The build came on the back of lower regional consumption.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks rose by 1.2 mb m-o-m in January to stand at 392 mb. This was 8.2 mb higher than a year ago, but 14.8 mb below the latest five-year average. Within components, crude stocks fell by 2.9 mb, while product stocks rose by 4.2 mb, m-o-m.

OECD Asia Pacific's **crude inventories** fell by 2.9 mb m-o-m to end January at 215 mb. This was 0.4 mb higher than one year ago and 25.5 mb below the latest five-year average.

In contrast, OECD Asia Pacific's **total product inventories** rose by 4.2 mb m-o-m to end January at 177 mb. This was 7.8 mb higher than the same time a year ago, and 10.7 mb above the latest five-year average.

US

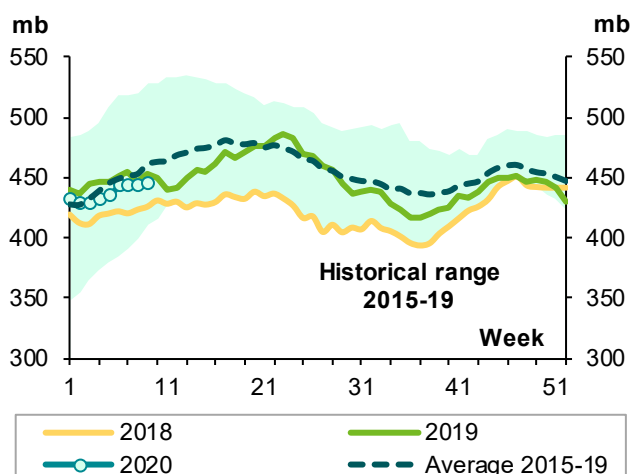
Preliminary data for February showed that **US total commercial oil stocks** fell by 15.9 mb m-o-m to stand at 1,278.6 mb. This was 25.4 mb, or 2.0%, above the same period a year ago, and 18.4 mb, or 1.5%, higher than the latest five-year average. Within components, crude stocks rose by 9.1 mb, while product stocks fell by 25 mb.

Stock Movements

US commercial crude stocks rose in February to stand at 444.1 mb. This was 7.6 mb, or 1.7%, below the same time last year, and 17.6 mb, or 3.8%, below the latest five-year average. The build was driven by lower refinery throughput, which dropped by around 300 tb/d m-o-m to average 16.6 mb/d. Lower crude imports limited the build in crude oil stocks. Inventories in Cushing, Oklahoma, rose by 0.5 mb to end February at 37.7 mb.

In contrast, total product stocks fell in February by 25.0 mb m-o-m to stand at 834.5 mb. This was 33.0 mb, or 4.1%, above February 2019 levels, and 36.0 mb, or 4.5%, above the latest five-year average. Within components, with the exception of other unfinished product stocks, all products registered stock draws.

Graph 9 - 2: US weekly commercial crude oil inventories



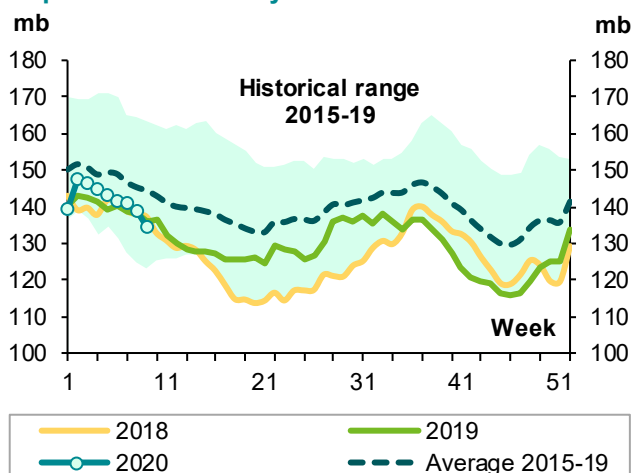
Sources: US EIA and OPEC Secretariat.

Gasoline stocks fell in February by 9.1 mb m-o-m to settle at 252.0 mb. This was 0.7 mb, or 0.3%, higher than levels seen in the same month last year, and 0.9 mb, or 0.4%, higher than the latest five-year average. This monthly decrease came mainly on the back of higher demand, which rose by more than 200 tb/d to average 8.96 mb/d.

Distillate stocks also fell by 8.8 mb m-o-m in February to end the month at 134.5 mb. This was 1.8 mb, or 1.3%, lower than the same period a year ago, and 10.4 mb, or 7.1%, below the latest five-year average. The fall in distillate stocks could be attributed to lower output, which declined by 230 tb/d to average 4.79 mb/d.

Residual fuel stocks and jet fuel oil stocks fell in February by 0.3 mb and 0.6 mb, respectively. At 30.6 mb, residual fuel oil stood at 2.8 mb, or 10%, higher than the same month a year ago, but 5.7 mb, or 15.8 mb, below the latest five-year average. Jet fuel stocks ended the month of February at 42 mb, which is in line with the latest five-year average.

Graph 9 - 3: US weekly distillate inventories



Sources: US EIA and OPEC Secretariat.

Table 9 - 2: US commercial petroleum stocks, mb

| | Dec 19 | Jan 20 | Feb 20 | Change Feb 20/Jan 20 | Feb 19 |
|-------------------|---------|---------|---------|-------------------------|---------|
| Crude oil | 432.9 | 435.0 | 444.1 | 9.1 | 451.7 |
| Gasoline | 253.8 | 261.1 | 252.0 | -9.1 | 251.4 |
| Distillate fuel | 140.0 | 143.2 | 134.5 | -8.8 | 136.3 |
| Residual fuel oil | 30.9 | 30.9 | 30.6 | -0.3 | 27.8 |
| Jet fuel | 40.5 | 42.6 | 42.0 | -0.6 | 42.0 |
| Total products | 856.1 | 859.5 | 834.5 | -25.0 | 801.5 |
| Total | 1,289.0 | 1,294.5 | 1,278.6 | -15.9 | 1,253.2 |
| SPR | 635.0 | 635.0 | 635.0 | 0.0 | 649.1 |

Sources: EIA and OPEC.

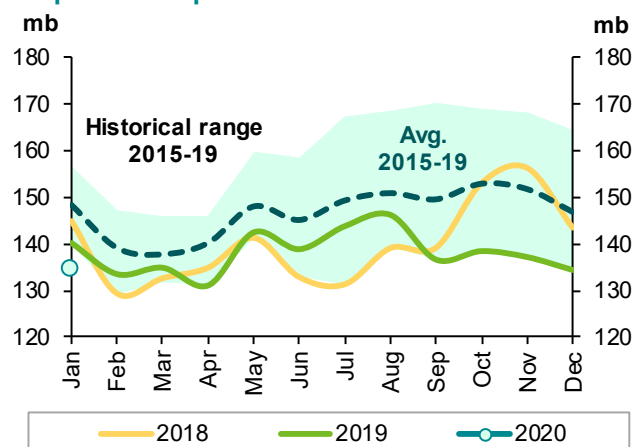
Japan

In Japan, **total commercial oil stocks** fell slightly by 0.1 mb m-o-m in January to settle at 134.4 mb. This was 5.8 mb, or 4.1%, lower than one year ago and 14.0 mb, or 9.4%, below the latest five-year average. Within components, crude stocks fell by 4.4 mb, while product stocks rose by 4.3 mb.

Japanese **commercial crude oil stocks** fell by 4.4 mb m-o-m in January to stand at 69.3 mb. This was 10.2 mb, or 12.8%, below the same period a year ago, and 16.8 mb, or 19.6%, below the latest five-year average. The drop was driven mainly by lower crude imports, which decreased by 275 tb/d, or 8.5%, m-o-m to average 2.9 mb/d. However, lower crude oil runs limited a further drop in crude oil stocks.

In contrast, Japan's **total product inventories** rose by 4.3 mb m-o-m to end January at 65.1 mb. This was 4.4 mb, or 7.3%, higher than the same month last year, and 2.9 mb, or 4.6%, above the latest five-year average. All products experienced stock builds.

Graph 9 - 4: Japan's commercial oil stocks



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

Gasoline stocks rose by 1.1 mb m-o-m to stand at 12.0 mb in January. This was 1.3 mb, or 11.8%, higher than a year ago, and 1.1 mb, or 9.7%, above the latest five-year average. The build was mainly driven by lower gasoline sales, which fell by 14.4% compared with December. However, gasoline output decreased by 12.4%, limiting a further build in gasoline stocks.

Distillate stocks also rose by 0.7 mb m-o-m to end January at 29.3 mb. This was 2.7 mb, or 10.3%, higher than the same time a year ago, and 1.7 mb, or 6.3%, above the latest five-year average. Within distillate components, jet fuel, and gasoil stocks rose m-o-m by 1.9% and 21.0%, respectively. The build was driven by lower domestic sales. In contrast, kerosene stocks fell by 8.2%, driven by lower output.

Total residual fuel oil stocks rose by 0.7 mb m-o-m in January to stand at 12.9 mb. This was 1.1 mb, or 7.7%, lower than the same month last year, and 0.8 mb, or 5.6%, below the latest five-year average. Within components, fuel oil A and fuel oil B.C stocks rose m-o-m by 7.5% and 4.9%, respectively on the back of higher output.

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

| | Nov 19 | Dec 19 | Jan 20 | Change Jan 20/Dec 19 | Jan 19 |
|---------------------------|--------------|--------------|--------------|-------------------------|--------------|
| Crude oil | 71.9 | 73.7 | 69.3 | -4.4 | 79.5 |
| Gasoline | 10.5 | 10.9 | 12.0 | 1.1 | 10.7 |
| Naphtha | 8.8 | 9.2 | 10.9 | 1.7 | 9.4 |
| Middle distillates | 32.5 | 28.6 | 29.3 | 0.7 | 26.6 |
| Residual fuel oil | 13.5 | 12.2 | 12.9 | 0.7 | 14.0 |
| Total products | 65.3 | 60.8 | 65.1 | 4.3 | 60.7 |
| Total** | 137.2 | 134.5 | 134.4 | -0.1 | 140.2 |

Note: * At the end of the month.

** Includes crude oil and main products only.

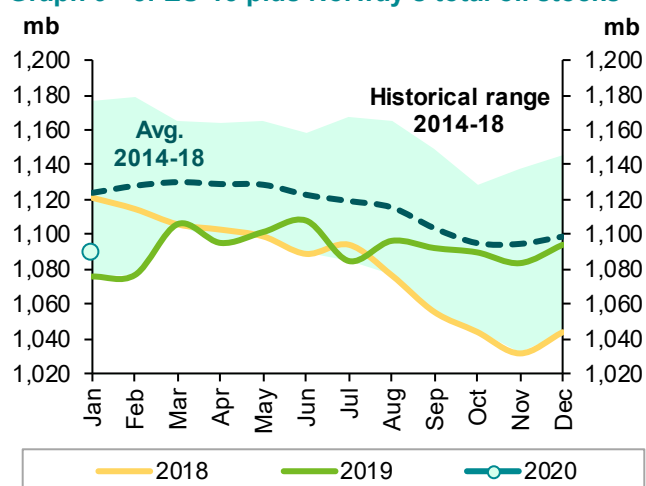
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC.

EU plus Norway

Preliminary data for January showed that **total European commercial oil stocks** fell by 6.5 mb m-o-m to stand at 1,088.4 mb. This was 12.6 mb, or 1.2%, above the same time a year ago, but 35.3 mb, or 3.1%, lower than the latest five-year average. Within components, crude stocks fell by 8.5 mb, while product stocks rose by 2.9 mb.

European **crude inventories** fell in January to stand at 473.5 mb. This was 7.2 mb, or 1.5%, higher than the same period a year ago, but 1.2 mb, or 0.2%, below the latest five-year average. The drop in crude oil inventories came despite lower refinery throughput in the EU-16 countries, which fell by 370 tb/d to stand at 10.06 mb/d.

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



Sources: Argus, Euroilstock and OPEC Secretariat.

In contrast, European **total product stocks** rose by 2.9 mb m-o-m to end January at 615.0 mb. This was 5.4 mb, or 0.9%, higher than the same month a year ago, but 34.1 mb, or 5.3%, lower than the latest five-year average. The build in product stocks could be attributed to relatively lower demand in the region. Within products, gasoline, distillates and naphtha experienced a stock build, while residual fuel oil stock remained unchanged versus the previous month.

Gasoline stocks rose by 0.8 mb m-o-m in January to stand at 111.1 mb. This was 15.5 mb, or 12.3%, lower than the same time a year ago, and 14.0 mb, or 11.2%, below the latest five-year average.

Distillate stocks also rose by 1.2 mb m-o-m in January, to stand at 416.0 mb. This was 25.0 mb, or 6.4%, higher than the same time last year, but 6.3 mb, or 1.5%, below the latest five-year average.

Naphtha stocks rose by 0.9 mb in January to end the month at 24.2 mb. This was 7.3 mb, or 23.2%, below last year's November level, and 6.1 mb, or 20%, lower than the latest five-year average.

In contrast, **residual fuel stocks** remained unchanged in January to end the month at 63.7 mb. This was 3.2 mb, or 5.2%, higher than the same time one year ago, but 7.8 mb, or 10.9%, below the latest five-year average.

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

| | <u>Nov 19</u> | <u>Dec 19</u> | <u>Jan 20</u> | <u>Change Jan 20/Dec 19</u> | <u>Jan 19</u> |
|-----------------------|----------------|----------------|----------------|---------------------------------|----------------|
| Crude oil | 483.3 | 482.0 | 473.5 | -8.5 | 466.3 |
| Gasoline | 107.5 | 110.3 | 111.1 | 0.8 | 126.6 |
| Naphtha | 22.9 | 23.3 | 24.2 | 0.9 | 31.5 |
| Middle distillates | 407.6 | 414.8 | 416.0 | 1.2 | 390.9 |
| Fuel oils | 62.2 | 63.7 | 63.7 | 0.0 | 60.6 |
| Total products | 600.3 | 612.0 | 615.0 | 2.9 | 609.6 |
| Total | 1,083.5 | 1,094.0 | 1,088.4 | -5.5 | 1,075.9 |

Sources: Argus, Euroilstock and OPEC.

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

Singapore

At the end of January, **total product stocks in Singapore** rose by 4.4 mb m-o-m, reversing the drop of the last two consecutive months, to stand at 47.3 mb. This was 0.4 mb, or 0.8%, lower than the same period a year ago. All products registered a stock build.

Light and middle distillate stocks rose m-o-m in January by 1.5 mb and 0.3 mb, respectively. At 13.2 mb, light distillates stood at 2.5 mb, or 15.9%, lower than the same time one year ago. Middle distillate stocks ended January at 11.1 mb, which was 0.7 mb, or 5.9%, lower than the January 2019 level.

Fuel oil stocks also rose by 2.6 mb m-o-m to end January at 23.0 mb. This was 2.8 mb, or 13.9%, higher than the same period a year ago. This build may have been driven by higher imports to the hub.

ARA

Total product stocks in ARA fell by 1.1 mb m-o-m in January, reversing a drop witnessed over the previous month to settle at 40.5 mb. This was 2.4 mb, or 5.6%, below the same period a year ago. Within products, gasoline, jet fuel and naphtha registered stock draws, while gasoil stocks saw a build. Fuel oil stocks remained unchanged in January compared with the previous month.

Gasoline and naphtha stocks fell in January by 0.6 mb and 1.0 mb m-o-m to stand at 8.8 mb and 12.4 mb, respectively. Gasoline stocks were 2.9 mb, or 24.8%, lower than last year's January level. Naphtha stocks were 0.2 mb, or 9.1%, higher than last year's level.

Jet oil stocks in January also fell by 0.8 mb m-o-m to stand at 3.9 mb. This was 1.3 mb, or 25%, lower than the same time a year ago.

In contrast, **gasoil stocks** in January rose by 0.4 mb m-o-m to stand at 18.9 mb. This was 1.2 mb, or 6.6%, higher than the same time a year ago.

Residual fuel stocks remained unchanged m-o-m to stand at 6.5 mb. At this level, they are 0.4 mb, or 6.6%, above last year's level.

Fujairah

During the week ending 2 March 2020, **total oil product stocks in Fujairah** fell by 2.84 mb w-o-w to stand at 23.14 mb, according to data from FEDCom and S&P Global Platts. At this level, total oil stocks were 1.59 mb higher than the same time a year ago. Light distillate stocks saw a build, while middle and heavy distillates witnessed a stock draw.

Light distillate stocks rose by 0.21 mb w-o-w to stand at 7.62 mb, which was 3.37 mb lower than a year ago.

Middle and heavy distillate stocks fell by 1.44 mb and 1.61 mb, respectively. At 1.96 mb, middle distillate stocks were 0.02 mb below the same week in 2019, while heavy distillate stocks stood at 13.56 mb, which is 4.98 mb above last year at the same time.

Balance of Supply and Demand

Demand for OPEC crude in 2019 stood at 29.9 mb/d, which is 1.2 mb/d lower than the 2018 level. According to secondary sources, OPEC crude production averaged 30.0 mb/d in 1Q19, about 0.4 mb/d higher than the demand for OPEC crude in the same period, while in 2Q19 OPEC crude production averaged 29.5 mb/d, in line with its demand. In 3Q19, OPEC crude production averaged 28.9 mb/d, around 2.2 mb/d lower than its demand. In 4Q19, OPEC crude oil production stood at 29.1 mb/d, around 0.5 mb/d below its demand. For 2019, OPEC crude oil production therefore averaged 29.3 mb/d, around 0.6 mb/d below its demand.

Demand for OPEC crude in 2020 is forecast at 28.2 mb/d, around 1.7 mb/d lower than in 2019.

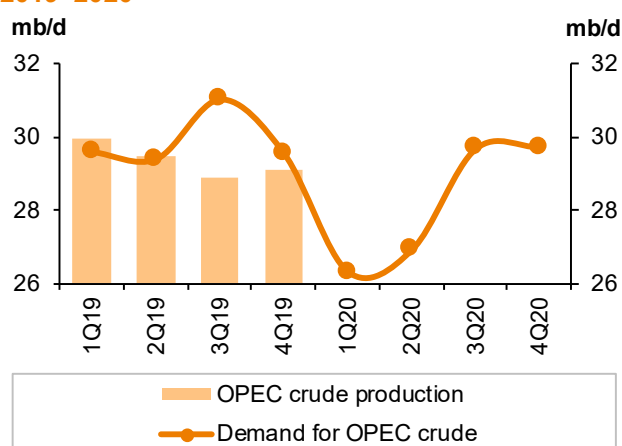
Balance of supply and demand in 2019

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

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

According to secondary sources, OPEC crude production averaged 30.0 mb/d in 1Q19, about 0.4 mb/d higher than the demand for OPEC crude in the same period, while in 2Q19 OPEC crude production averaged 29.5 mb/d, in line with its demand. In 3Q19, OPEC crude production averaged 28.9 mb/d, around 2.2 mb/d lower than its demand. In 4Q19, OPEC crude oil production stood at 29.1 mb/d, around 0.5 mb/d below its demand. For 2019, OPEC crude oil production therefore averaged 29.3 mb/d, around 0.6 mb/d below its demand for the year.

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



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

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

| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Change 2019/18 |
|------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|--------------|----------------|
| (a) World oil demand | 98.84 | 98.75 | 98.56 | 100.53 | 100.79 | 99.67 | 0.83 |
| Non-OPEC liquids production | 62.99 | 64.36 | 64.34 | 64.78 | 66.39 | 64.97 | 1.99 |
| OPEC NGL and non-conventionals | 4.75 | 4.79 | 4.81 | 4.70 | 4.85 | 4.79 | 0.04 |
| (b) Total non-OPEC liquids production and OPEC NGLs | 67.74 | 69.15 | 69.15 | 69.49 | 71.24 | 69.76 | 2.02 |
| Difference (a-b) | 31.10 | 29.60 | 29.41 | 31.04 | 29.55 | 29.90 | -1.19 |
| OPEC crude oil production | 31.34 | 29.96 | 29.45 | 28.86 | 29.09 | 29.34 | -2.01 |
| Balance | 0.25 | 0.36 | 0.04 | -2.18 | -0.47 | -0.57 | -0.82 |

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

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

Source: OPEC.

Balance of supply and demand in 2020

Demand for OPEC crude in 2020 is forecast at 28.2 mb/d, around 1.7 mb/d lower than in 2019.

When compared with the same quarters in 2019, demand for OPEC crude in 1Q20 and 2Q20 is expected to be 3.3 mb/d and 2.5 mb/d lower, respectively. 3Q20 shows a decline of 1.4 mb/d, while 4Q20 is expected to rise by 0.2 mb/d compared with 4Q19.

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

| | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 2020/19 |
|----------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|--------------|-------------------|
| (a) World oil demand | 99.67 | 97.58 | 98.20 | 101.25 | 101.85 | 99.73 | 0.06 |
| Non-OPEC liquids production | 64.97 | 66.44 | 66.46 | 66.74 | 67.30 | 66.74 | 1.76 |
| OPEC NGL and non-conventionals | 4.79 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 0.03 |
| (b) Total non-OPEC liquids production and OPEC NGLs | 69.76 | 71.26 | 71.28 | 71.56 | 72.11 | 71.56 | 1.79 |
| Difference (a-b) | 29.90 | 26.32 | 26.92 | 29.69 | 29.73 | 28.18 | -1.73 |

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

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

Source: OPEC.

Appendix

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

| | <u>2016</u> | <u>2017</u> | <u>2018</u> | <u>1Q19</u> | <u>2Q19</u> | <u>3Q19</u> | <u>4Q19</u> | <u>2019</u> | <u>1Q20</u> | <u>2Q20</u> | <u>3Q20</u> | <u>4Q20</u> | <u>2020</u> |
|------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|---------------|---------------|--------------|
| World demand | | | | | | | | | | | | | |
| OECD | 47.07 | 47.61 | 48.01 | 47.72 | 47.15 | 48.46 | 48.29 | 47.91 | 47.27 | 46.39 | 48.41 | 48.29 | 47.59 |
| Americas | 24.89 | 25.07 | 25.60 | 25.14 | 25.29 | 26.03 | 25.99 | 25.62 | 25.24 | 25.37 | 26.14 | 26.11 | 25.72 |
| Europe | 14.04 | 14.38 | 14.33 | 14.09 | 14.25 | 14.75 | 14.25 | 14.34 | 13.89 | 13.90 | 14.72 | 14.22 | 14.18 |
| Asia Pacific | 8.14 | 8.15 | 8.08 | 8.50 | 7.61 | 7.68 | 8.05 | 7.96 | 8.14 | 7.13 | 7.55 | 7.96 | 7.70 |
| DCs | 31.56 | 32.13 | 32.62 | 32.96 | 32.84 | 33.41 | 33.10 | 33.08 | 33.18 | 33.10 | 33.91 | 33.71 | 33.47 |
| FSU | 4.57 | 4.64 | 4.76 | 4.70 | 4.68 | 4.96 | 5.04 | 4.84 | 4.80 | 4.77 | 5.06 | 5.15 | 4.95 |
| Other Europe | 0.70 | 0.72 | 0.74 | 0.75 | 0.71 | 0.75 | 0.84 | 0.76 | 0.76 | 0.72 | 0.76 | 0.85 | 0.77 |
| China | 11.80 | 12.32 | 12.71 | 12.63 | 13.19 | 12.95 | 13.52 | 13.07 | 11.57 | 13.22 | 13.11 | 13.85 | 12.94 |
| (a) Total world demand | 95.70 | 97.42 | 98.84 | 98.75 | 98.56 | 100.53 | 100.79 | 99.67 | 97.58 | 98.20 | 101.25 | 101.85 | 99.73 |
| Non-OPEC liquids production | | | | | | | | | | | | | |
| OECD | 24.86 | 25.71 | 28.33 | 29.32 | 29.64 | 29.74 | 31.08 | 29.95 | 31.13 | 30.92 | 31.31 | 31.49 | 31.21 |
| Americas | 20.59 | 21.49 | 24.08 | 25.07 | 25.59 | 25.69 | 26.66 | 25.75 | 26.58 | 26.47 | 26.78 | 26.79 | 26.66 |
| Europe | 3.85 | 3.83 | 3.84 | 3.82 | 3.57 | 3.55 | 3.90 | 3.71 | 4.02 | 3.91 | 3.96 | 4.12 | 4.00 |
| Asia Pacific | 0.43 | 0.39 | 0.41 | 0.43 | 0.48 | 0.51 | 0.52 | 0.48 | 0.53 | 0.54 | 0.58 | 0.58 | 0.56 |
| DCs | 14.10 | 13.94 | 14.02 | 14.04 | 14.06 | 14.25 | 14.46 | 14.20 | 14.48 | 14.65 | 14.65 | 14.73 | 14.63 |
| FSU | 13.85 | 14.05 | 14.29 | 14.55 | 14.16 | 14.34 | 14.42 | 14.37 | 14.35 | 14.43 | 14.35 | 14.63 | 14.44 |
| Other Europe | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.12 |
| China | 4.09 | 3.97 | 3.98 | 4.05 | 4.08 | 4.05 | 4.03 | 4.05 | 4.02 | 4.00 | 3.99 | 4.01 | 4.01 |
| Processing gains | 2.19 | 2.22 | 2.25 | 2.28 | 2.28 | 2.28 | 2.28 | 2.28 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 |
| Total non-OPEC liquids production | 59.23 | 60.02 | 62.99 | 64.36 | 64.34 | 64.78 | 66.39 | 64.97 | 66.44 | 66.46 | 66.74 | 67.30 | 66.74 |
| OPEC NGLs + non-conventional oils | 4.57 | 4.63 | 4.75 | 4.79 | 4.81 | 4.70 | 4.85 | 4.79 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 |
| (b) Total non-OPEC liquids production and OPEC NGLs | 63.80 | 64.65 | 67.74 | 69.15 | 69.15 | 69.49 | 71.24 | 69.76 | 71.26 | 71.28 | 71.56 | 72.11 | 71.56 |
| OPEC crude oil production (secondary sources) | 31.66 | 31.48 | 31.34 | 29.96 | 29.45 | 28.86 | 29.09 | 29.34 | | | | | |
| Total liquids production | 95.47 | 96.13 | 99.08 | 99.11 | 98.60 | 98.35 | 100.33 | 99.10 | | | | | |
| Balance (stock change and miscellaneous) | -0.23 | -1.29 | 0.25 | 0.36 | 0.04 | -2.18 | -0.47 | -0.57 | | | | | |
| OECD closing stock levels, mb | | | | | | | | | | | | | |
| Commercial | 3,007 | 2,860 | 2,873 | 2,877 | 2,936 | 2,945 | 2,902 | 2,902 | | | | | |
| SPR | 1,601 | 1,569 | 1,552 | 1,557 | 1,549 | 1,544 | 1,535 | 1,535 | | | | | |
| Total | 4,608 | 4,428 | 4,425 | 4,434 | 4,485 | 4,489 | 4,437 | 4,437 | | | | | |
| Oil-on-water | 1,102 | 1,025 | 1,058 | 1,013 | 995 | 1,012 | 1,011 | 1,011 | | | | | |
| Days of forward consumption in OECD, days | | | | | | | | | | | | | |
| Commercial onland stocks | 63 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | | | | | |
| SPR | 34 | 33 | 32 | 33 | 32 | 32 | 32 | 32 | | | | | |
| Total | 97 | 92 | 92 | 94 | 93 | 93 | 94 | 93 | | | | | |
| Memo items | | | | | | | | | | | | | |
| (a) - (b) | 31.89 | 32.77 | 31.10 | 29.60 | 29.41 | 31.04 | 29.55 | 29.90 | 26.32 | 26.92 | 29.69 | 29.73 | 28.18 |

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

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 11 - 2: OECD oil stocks and oil on water at the end of period

| | 2017 | 2018 | 2019 | 4Q17 | 1Q18 | 2Q18 | 3Q18 | 4Q18 | 1Q19 | 2Q19 | 3Q19 | 4Q19 |
|--------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Closing stock levels, mb | | | | | | | | | | | | |
| OECD onland commercial | 2,860 | 2,873 | 2,902 | 2,860 | 2,816 | 2,812 | 2,865 | 2,873 | 2,877 | 2,936 | 2,945 | 2,902 |
| Americas | 1,498 | 1,544 | 1,538 | 1,498 | 1,471 | 1,473 | 1,543 | 1,544 | 1,508 | 1,565 | 1,559 | 1,538 |
| Europe | 948 | 930 | 972 | 948 | 968 | 952 | 933 | 930 | 989 | 982 | 987 | 972 |
| Asia Pacific | 413 | 400 | 391 | 413 | 378 | 388 | 390 | 400 | 379 | 389 | 399 | 391 |
| OECD SPR | 1,569 | 1,552 | 1,535 | 1,569 | 1,577 | 1,575 | 1,570 | 1,552 | 1,557 | 1,549 | 1,544 | 1,535 |
| Americas | 665 | 651 | 637 | 665 | 667 | 662 | 662 | 651 | 651 | 647 | 647 | 637 |
| Europe | 481 | 481 | 482 | 481 | 487 | 491 | 486 | 481 | 488 | 485 | 482 | 482 |
| Asia Pacific | 423 | 420 | 416 | 423 | 422 | 422 | 422 | 420 | 417 | 417 | 416 | 416 |
| OECD total | 4,428 | 4,425 | 4,437 | 4,428 | 4,393 | 4,387 | 4,435 | 4,425 | 4,434 | 4,485 | 4,489 | 4,437 |
| Oil-on-water | 1,025 | 1,058 | 1,011 | 1,025 | 1,036 | 1,014 | 1,041 | 1,058 | 1,013 | 995 | 1,012 | 1,011 |
| Days of forward consumption in OECD, days | | | | | | | | | | | | |
| OECD onland commercial | 60 | 60 | 61 | 60 | 60 | 58 | 59 | 60 | 61 | 61 | 61 | 61 |
| Americas | 59 | 60 | 60 | 59 | 58 | 57 | 60 | 61 | 60 | 60 | 60 | 61 |
| Europe | 66 | 65 | 69 | 67 | 68 | 65 | 65 | 66 | 69 | 67 | 69 | 70 |
| Asia Pacific | 51 | 50 | 51 | 48 | 49 | 50 | 48 | 47 | 50 | 51 | 49 | 48 |
| OECD SPR | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 33 | 33 | 32 | 32 | 32 |
| Americas | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 25 | 25 | 25 |
| Europe | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 | 33 | 34 | 35 |
| Asia Pacific | 52 | 53 | 55 | 49 | 55 | 54 | 52 | 49 | 55 | 54 | 52 | 51 |
| OECD total | 92 | 93 | 95 | 92 | 93 | 91 | 92 | 93 | 94 | 93 | 93 | 94 |

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

Table 11 - 4: World rig count, units

| | | | | Change | | | | Change | | | |
|---------------------------|--------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|
| | 2017 | 2018 | 2019 | 2019/18 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | Jan 20 | Feb 20 | Feb/Jan |
| US | 875 | 1,031 | 944 | -88 | 1,045 | 990 | 920 | 819 | 792 | 790 | -2 |
| Canada | 207 | 191 | 134 | -57 | 185 | 83 | 131 | 138 | 205 | 249 | 44 |
| Mexico | 17 | 27 | 37 | 10 | 26 | 34 | 38 | 48 | 46 | 49 | 3 |
| OECD Americas | 1,099 | 1,249 | 1,114 | -135 | 1,257 | 1,106 | 1,089 | 1,005 | 1,043 | 1,088 | 45 |
| Norway | 15 | 15 | 17 | 2 | 15 | 17 | 18 | 18 | 18 | 17 | -1 |
| UK | 9 | 7 | 15 | 7 | 13 | 16 | 16 | 13 | 10 | 7 | -3 |
| OECD Europe | 92 | 85 | 149 | 63 | 92 | 159 | 190 | 154 | 133 | 130 | -3 |
| OECD Asia Pacific | 15 | 21 | 29 | 8 | 24 | 29 | 31 | 30 | 28 | 29 | 1 |
| Total OECD | 1,206 | 1,355 | 1,292 | -64 | 1,372 | 1,295 | 1,310 | 1,189 | 1,204 | 1,247 | 43 |
| Other Asia* | 208 | 222 | 221 | -1 | 232 | 225 | 217 | 212 | 211 | 213 | 2 |
| Latin America | 112 | 123 | 121 | -2 | 128 | 122 | 123 | 113 | 102 | 105 | 3 |
| Middle East | 68 | 65 | 68 | 3 | 66 | 69 | 67 | 69 | 69 | 69 | 0 |
| Africa | 38 | 45 | 54 | 10 | 54 | 52 | 50 | 62 | 62 | 59 | -3 |
| Total DCs | 426 | 454 | 465 | 11 | 481 | 468 | 457 | 455 | 444 | 446 | 2 |
| Non-OPEC rig count | 1,632 | 1,809 | 1,757 | -53 | 1,853 | 1,763 | 1,767 | 1,644 | 1,648 | 1,693 | 45 |
| Algeria | 54 | 50 | 45 | -5 | 47 | 49 | 42 | 41 | 41 | 38 | -3 |
| Angola | 3 | 4 | 4 | 1 | 5 | 5 | 4 | 3 | 6 | 6 | 0 |
| Congo | 2 | 3 | 3 | 0 | 4 | 4 | 3 | 2 | 2 | 2 | 0 |
| Ecuador | 6 | 8 | 8 | 0 | 9 | 8 | 9 | 6 | 6 | 5 | -1 |
| Equatorial Guinea** | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Gabon | 1 | 3 | 7 | 4 | 7 | 6 | 7 | 9 | 9 | 9 | 0 |
| Iran** | 156 | 157 | 157 | 0 | 157 | 157 | 157 | 157 | 157 | 157 | 0 |
| Iraq | 49 | 59 | 74 | 14 | 65 | 75 | 77 | 77 | 77 | 72 | -5 |
| Kuwait | 54 | 51 | 46 | -5 | 44 | 44 | 46 | 48 | 53 | 55 | 2 |
| Libya | 1 | 5 | 14 | 10 | 11 | 15 | 16 | 16 | 16 | 16 | 0 |
| Nigeria | 9 | 13 | 16 | 2 | 14 | 14 | 16 | 18 | 14 | 23 | 9 |
| Saudi Arabia | 118 | 117 | 115 | -2 | 118 | 115 | 118 | 109 | 111 | 114 | 3 |
| UAE | 52 | 55 | 62 | 7 | 58 | 59 | 64 | 67 | 66 | 65 | -1 |
| Venezuela | 49 | 32 | 25 | -8 | 25 | 23 | 25 | 25 | 25 | 25 | 0 |
| OPEC rig count | 553 | 558 | 576 | 18 | 565 | 576 | 585 | 580 | 584 | 588 | 4 |
| World rig count*** | 2,185 | 2,368 | 2,333 | -35 | 2,418 | 2,338 | 2,352 | 2,224 | 2,232 | 2,281 | 49 |
| <i>of which:</i> | | | | | | | | | | | |
| Oil | 1,678 | 1,886 | 1,838 | -48 | 1,936 | 1,827 | 1,833 | 1,756 | 1,758 | 1,806 | 48 |
| Gas | 466 | 448 | 464 | 15 | 455 | 482 | 486 | 431 | 432 | 420 | -12 |
| Others | 42 | 33 | 31 | -2 | 26 | 29 | 32 | 38 | 42 | 55 | 13 |

Note: * Other Asia includes Indonesia.

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

*** Data excludes China and FSU.

Totals may not add up due to independent rounding.

Sources: Baker Hughes 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 |

| | |
|-------|--------------------------------------------------------|
| MCs | (OPEC) Member Countries |
| MED | Mediterranean |
| MENA | Middle East/North Africa |
| MOMR | (OPEC) Monthly Oil Market Report |
| MPV | multi-purpose vehicle |
| MR | medium-range or mid-range (vessel) |
| NBS | National Bureau of Statistics |
| NGLs | natural gas liquids |
| NPC | National People's Congress (China) |
| NWE | Northwest Europe |
| NYMEX | New York Mercantile Exchange |
| OECD | Organisation for Economic Co-operation and Development |
| OPEX | operational expenditures |
| OIV | total open interest volume |
| ORB | OPEC Reference Basket |
| OSP | Official Selling Price |
| PADD | Petroleum Administration for Defense Districts |
| PBoC | People's Bank of China |
| PMI | purchasing managers' index |
| PPI | producer price index |
| RBI | Reserve Bank of India |
| REER | real effective exchange rate |
| ROI | return on investment |
| SAAR | seasonally-adjusted annualized rate |
| SIAM | Society of Indian Automobile Manufacturers |
| SRFO | straight-run fuel oil |
| SUV | sports utility vehicle |
| ULCC | ultra-large crude carrier |
| ULSD | ultra-low sulphur diesel |
| USEC | US East Coast |
| USGC | US Gulf Coast |
| USWC | US West Coast |
| VGO | vacuum gasoil |
| VLCC | very large crude carriers |
| WPI | wholesale price index |
| WS | Worldscale |
| WTI | West Texas Intermediate |
| WTS | West Texas Sour |

OPEC Basket average price

US\$/b



down 9.60 in February

| | |
|---------------------|--------------|
| February 2020 | 55.49 |
| January 2020 | 65.09 |
| Year-to-date | 60.52 |

February OPEC crude production

mb/d, according to secondary sources



down 0.55 in February

| | |
|---------------|-------|
| February 2020 | 27.77 |
| January 2020 | 28.32 |

Economic growth rate

per cent

| | World | OECD | US | Japan | Euro-zone | China | India |
|-------------|-------|------|-----|-------|-----------|-------|-------|
| 2019 | 2.9 | 1.6 | 2.3 | 0.7 | 1.2 | 6.1 | 5.3 |
| 2020 | 2.4 | 1.2 | 1.6 | -0.2 | 0.6 | 5.0 | 5.2 |

Supply and demand

mb/d

| | 2019 | 19/18 | | 2020 | 20/19 |
|----------------------------|-------------|-------------|----------------------------|-------------|-------------|
| World demand | 99.7 | 0.8 | World demand | 99.7 | 0.1 |
| Non-OPEC liquid production | 65.0 | 2.0 | Non-OPEC liquid production | 66.7 | 1.8 |
| OPEC NGLs | 4.8 | 0.0 | OPEC NGLs | 4.8 | 0.0 |
| Difference | 29.9 | -1.2 | Difference | 28.2 | -1.7 |

OECD commercial stocks

mb

| | Nov 19 | Dec 19 | Jan 20 | Jan 20/Dec 19 | Jan 19 |
|-----------------------|--------------|--------------|--------------|---------------|--------------|
| Crude oil | 1,465 | 1,432 | 1,432 | -0.8 | 1,434 |
| Products | 1,448 | 1,469 | 1,508 | 38.6 | 1,449 |
| Total | 2,913 | 2,902 | 2,940 | 37.8 | 2,883 |
| Days of forward cover | 61.0 | 61.4 | 62.2 | 0.8 | 60.6 |

Next report to be issued on 16 April 2020.