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Outlook for International Oil Market

The Institute of Energy Economics, Japan

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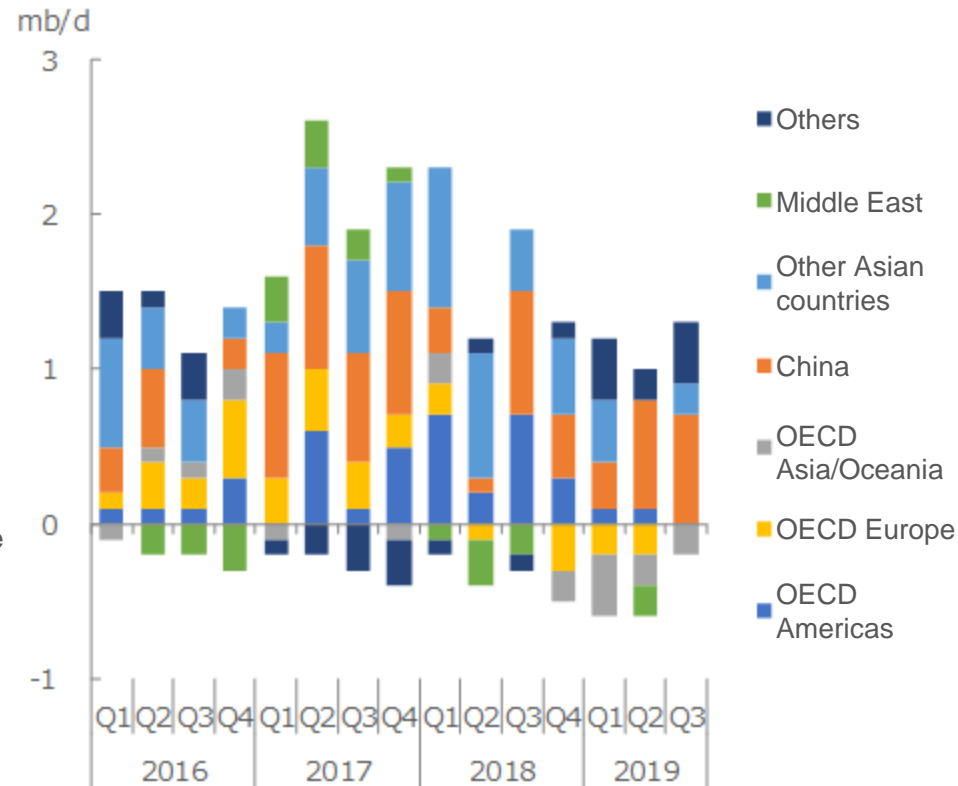
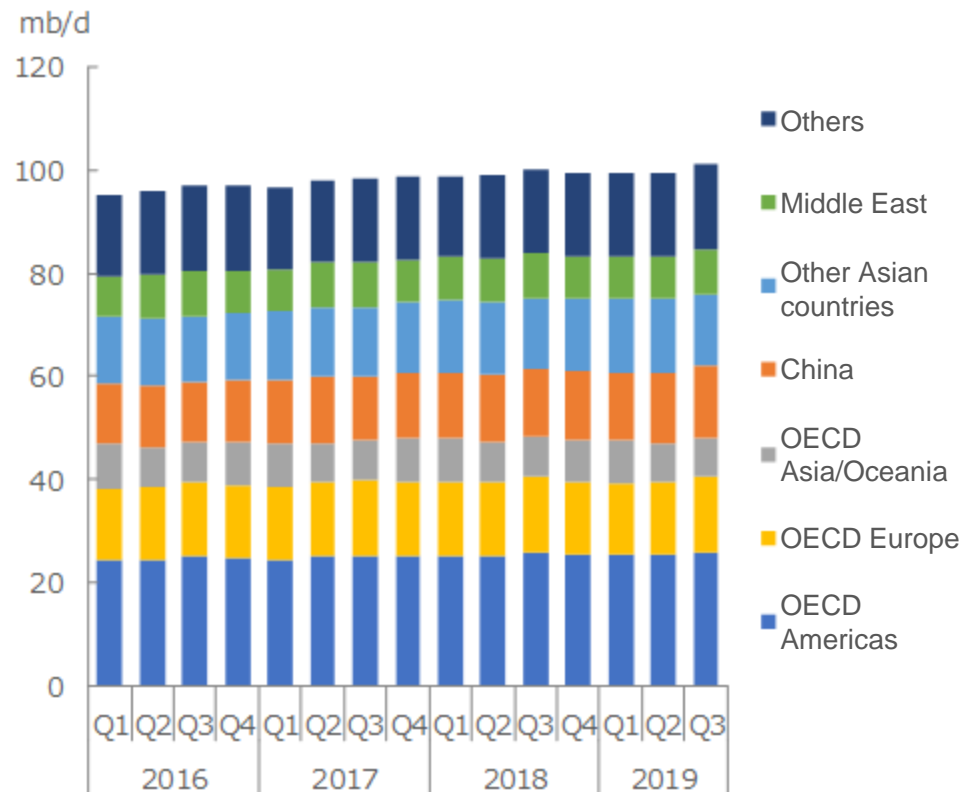
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- ✓ Global oil demand in 2020 will increase by 1.2 million barrels per day from the previous year to 101.5 mb/d and supply by 1.0 mb/d to 101.3 mb/d, meaning that demand will be 0.2 mb/d more than supply or that inventories will decrease accordingly.
- ✓ The average international (Brent) crude oil price will stand at \$65/bbl in 2020. Uncertainties exist about a price hike through geopolitical risks such as growing Middle East tensions or through supply disruptions in oil-producing countries and about a price drop through the OPEC-plus's easing of joint oil production cuts or economic growth deceleration for instance on a breakdown in U.S.-China trade talks.
- ✓ As the International Maritime Organization toughens a regulation on the sulfur content in bunker fuel, HSFO's price gaps with its replacements such as MGO and VLSFO could widen further. Demand will increase for low-sulfur (light) crude oil. Attention may be paid to how the price gap between heavy and light crude oil would change. Japanese oil refiners are ready to supply low-sulfur bunker fuel, but will be required to hold down HSFO production and optimize crude oil procurement.

Oil demand

Changes (year on year)

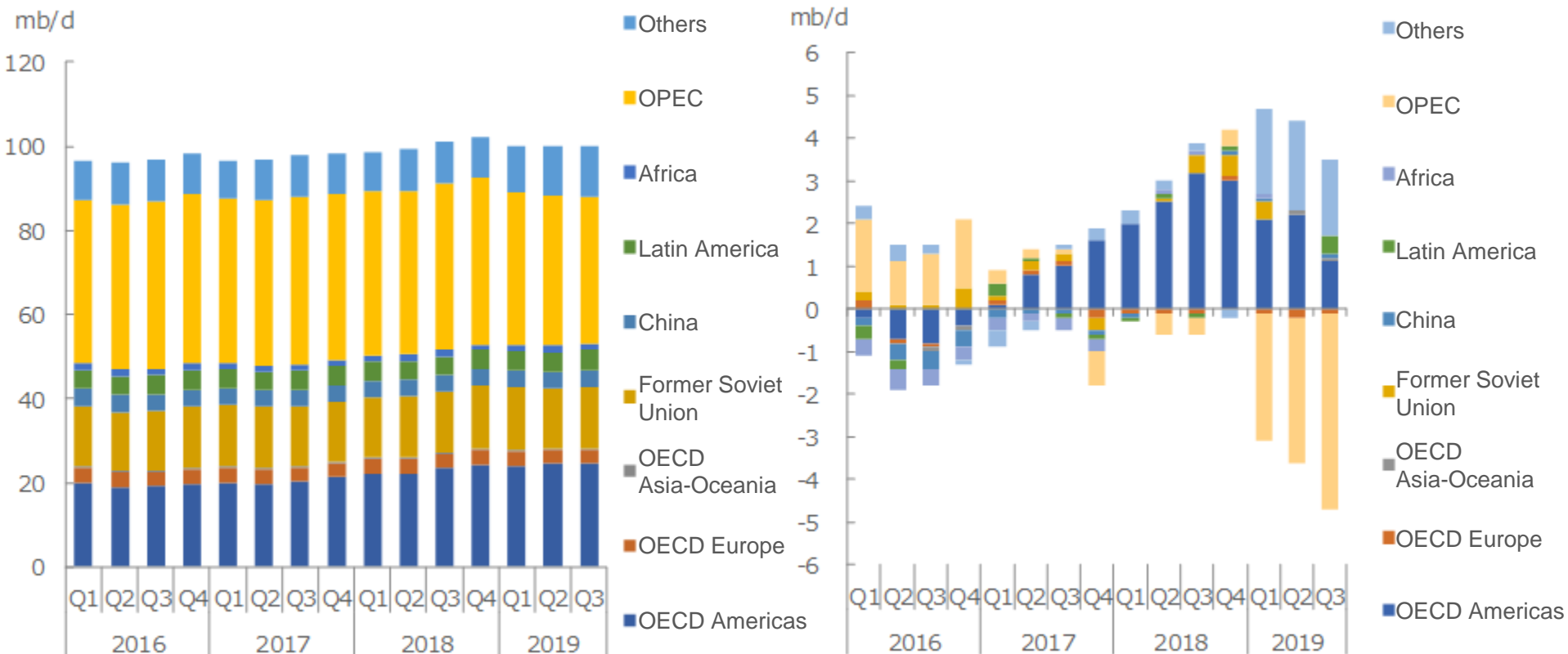


Source: IEA "Oil Market Report"

- Global oil demand in 3Q 2019 totaled 100.9 mb/d, up 0.9 mb/d or 0.9% from the same quarter of 2018.
- Demand weakened as an OECD demand fall countered a non-OECD demand rise.

Oil supply

Changes (year on year)

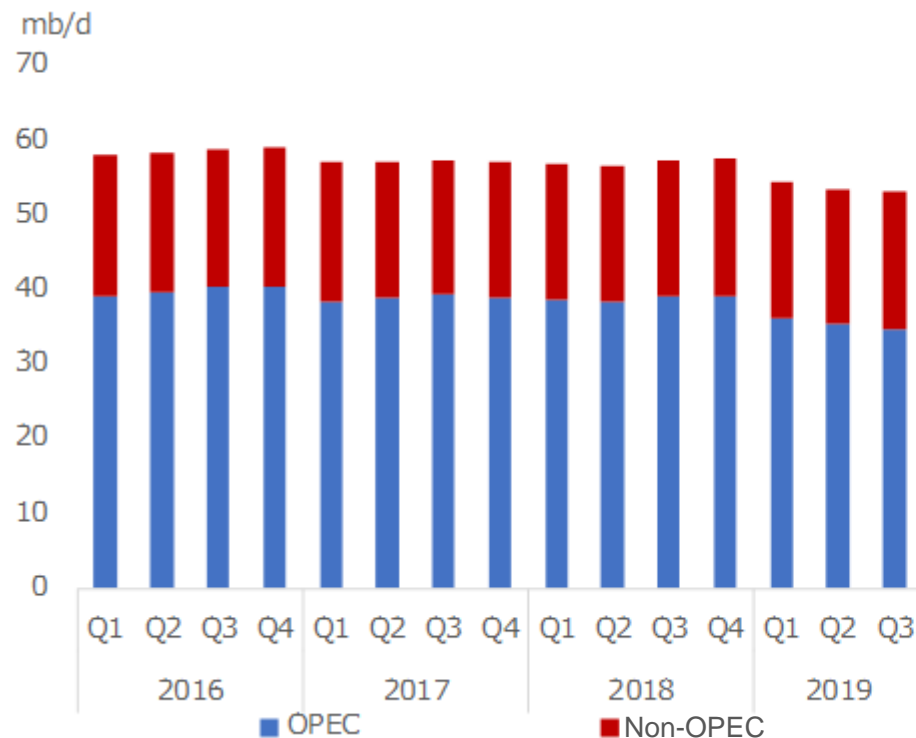


Source: IEA "Oil Market Report"

- Production in 3Q 2019 decreased by 1.2 mb/d or 1.2% year on year to 100 mb/d.
- OPEC production decreased, with OECD Americas production decelerating growth.

OPEC-plus joint production cuts

Changes (year on year)

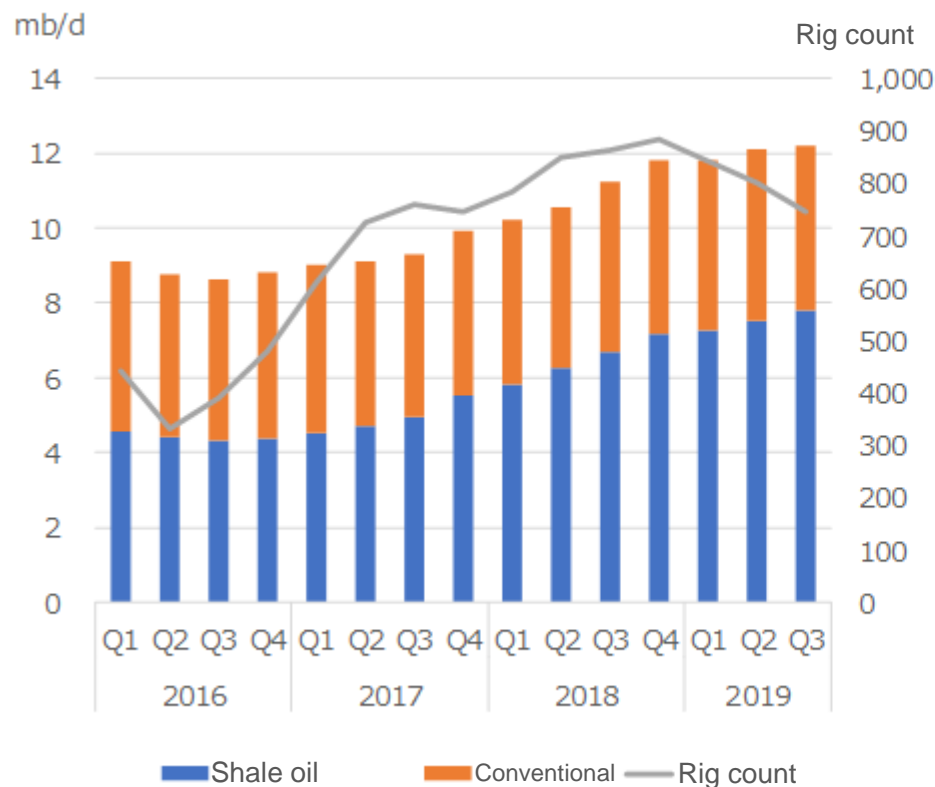


Sources: IEA “Oil Market Report,” OPEC “Monthly Oil Market Report”

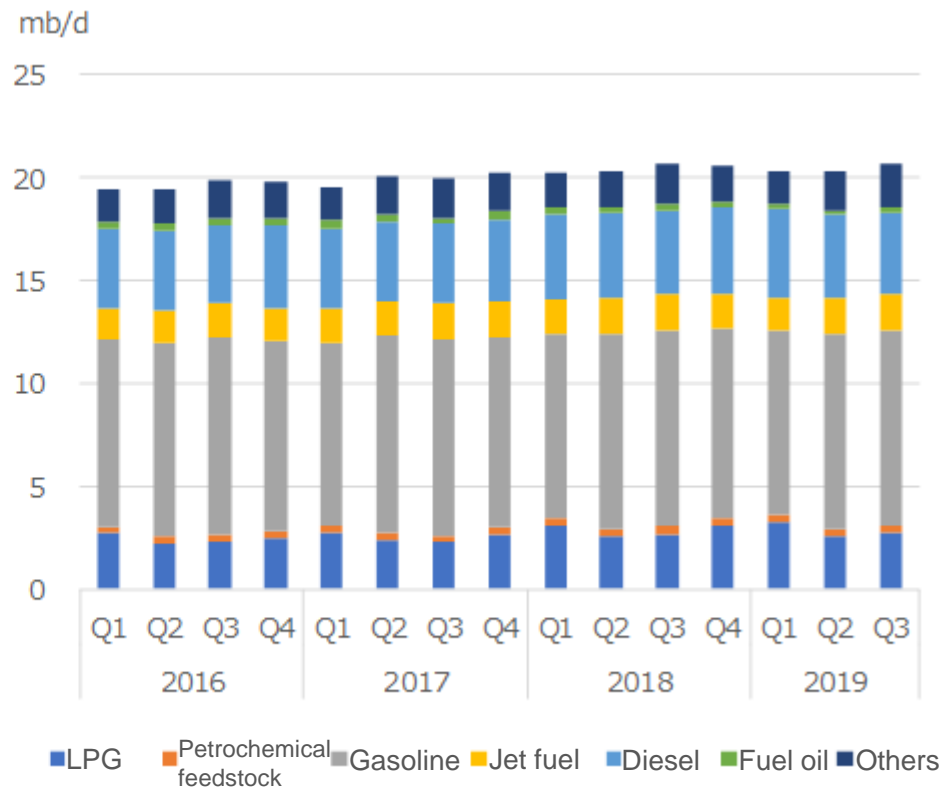
- OPEC-plus production in 3Q 2019 declined by 4.15 mb/d or 7.2% year on year to 53.17 mb/d due to Qatar’s exit from OPEC, enhanced joint production cuts, production falls in Iran and Venezuela and a temporary production suspension in Saudi Arabia. (Excluding the impact of Qatar, the year-on-year drop came to 2 mb/d.)
- OPEC-plus will expand its joint production cuts to more than 2.1 mb/d. We predict the group to maintain the joint production cuts at the level until the end of 2020 to support prices.

U.S. supply and demand

Production and rig count



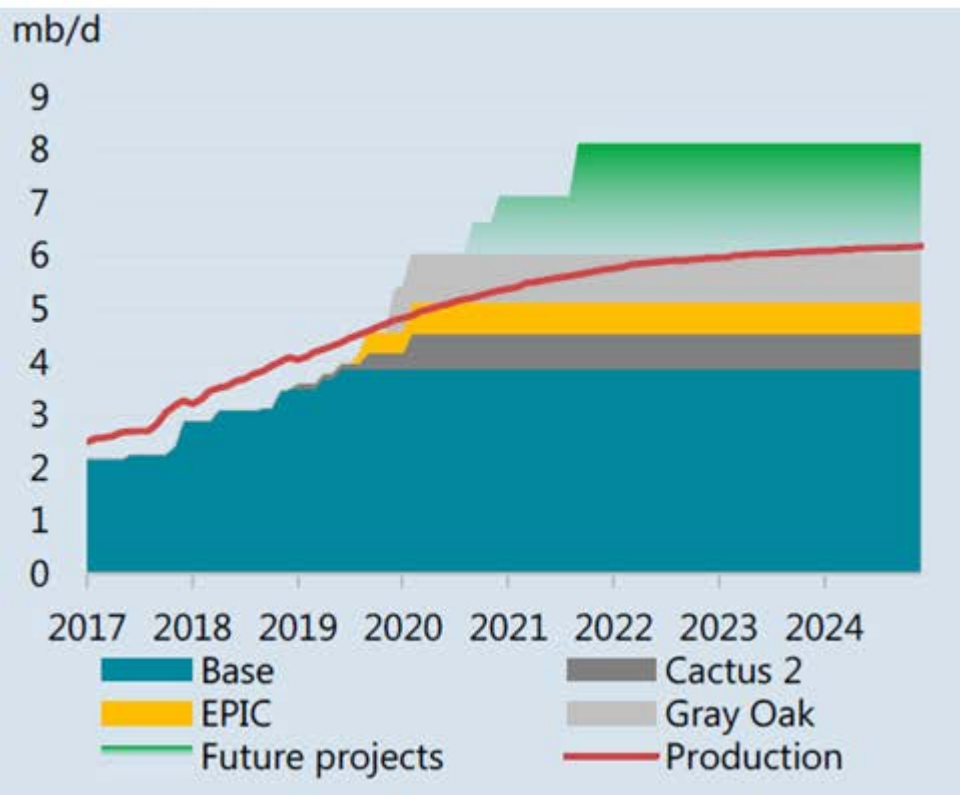
Demand by product



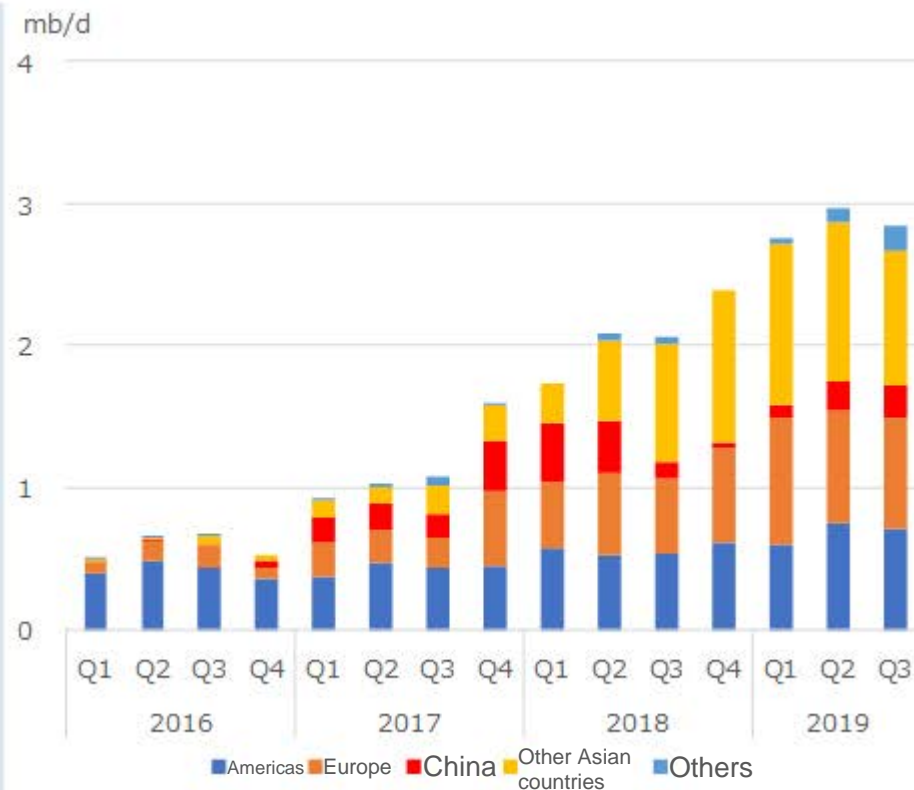
- U.S. oil production in 3Q 2019 increased by 1.0 mb/d or 8.5% year on year to 12.2 mb/d. Demand rose by 0.1 mb/d or 0.5% to 20.7 mb/d.
- Production will be maintained thanks to productivity improvement despite a rig count downtrend.

U.S. production and exports

Permian production and transportation capacity outlook



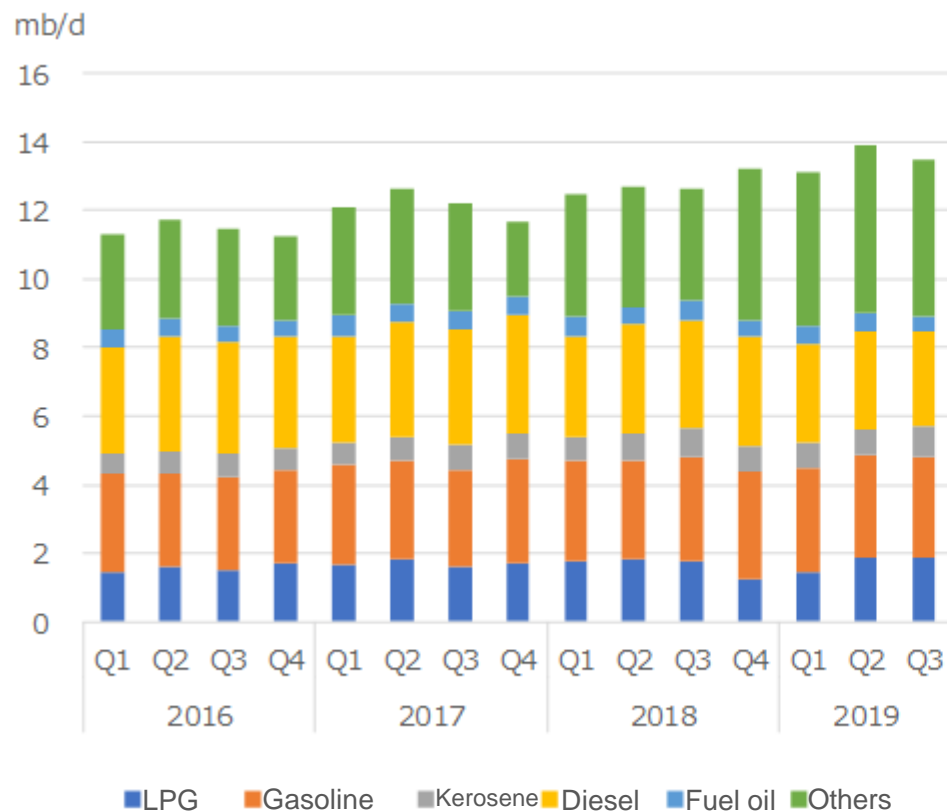
Crude oil exports



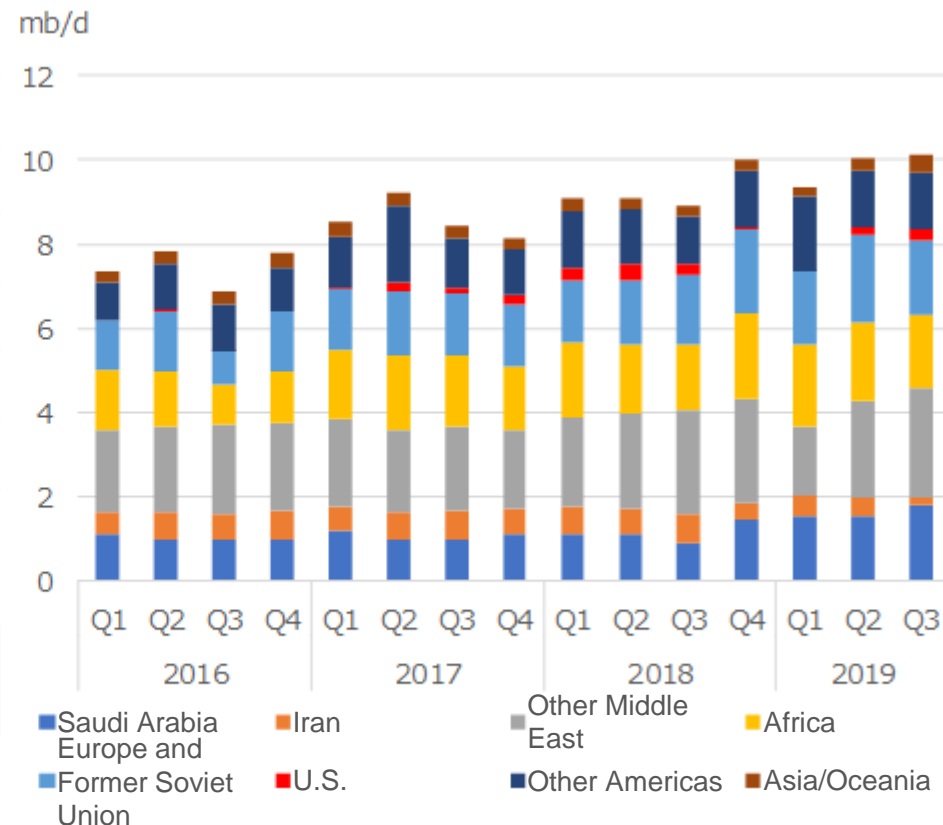
- Crude oil exports have firmly increased since the lifting of a ban on exports at the end of 2015, standing at 2.84 mb/d in 3Q 2019, up 0.78 mb/d or 37.7% year on year. Crude oil and petroleum products exports surpassed imports in September 2019.
- The elimination of constraints on pipeline capacity from Permian is contributing to expanding production and exports.

China's supply and demand

Demand by product

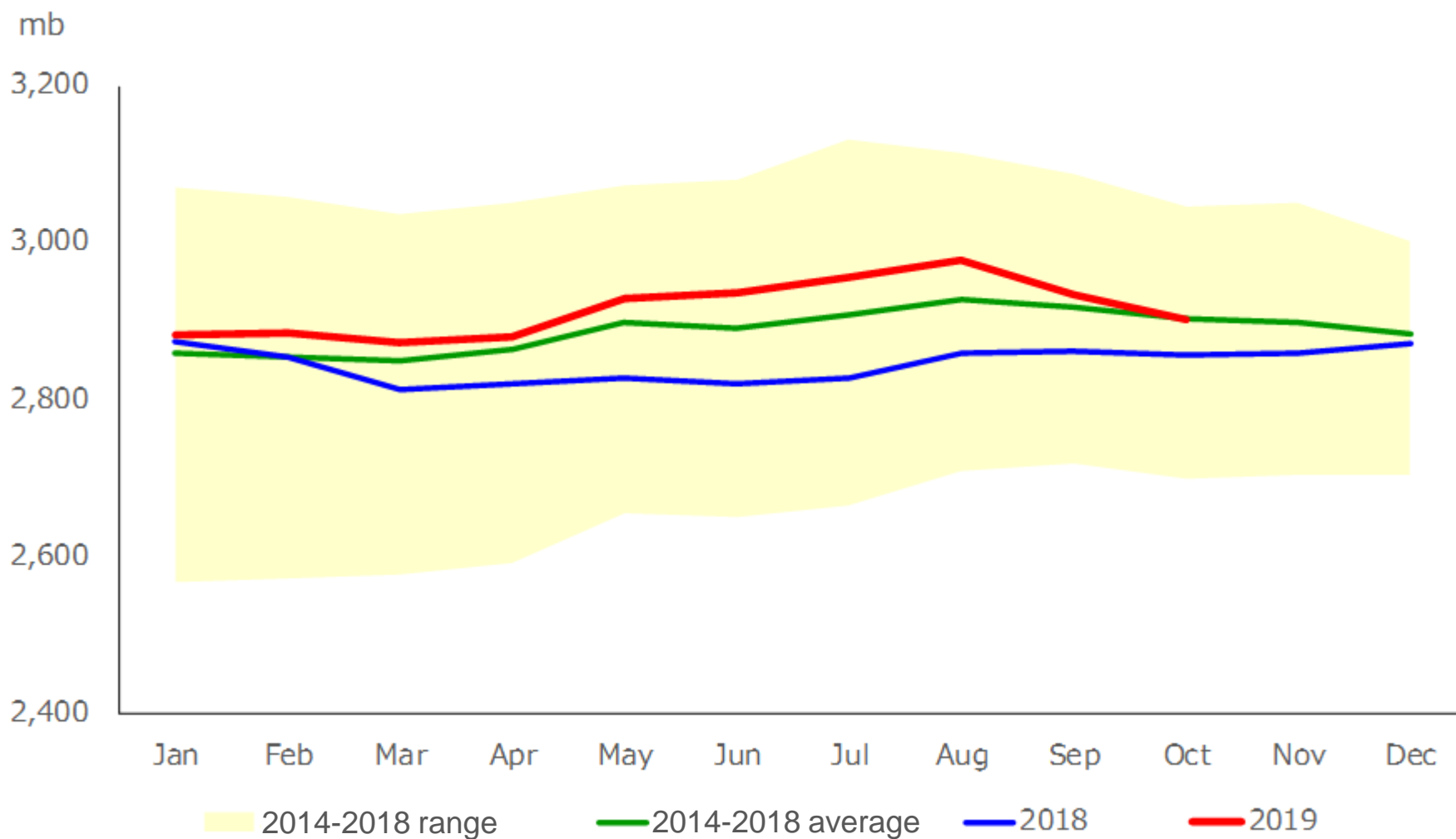


Crude oil imports



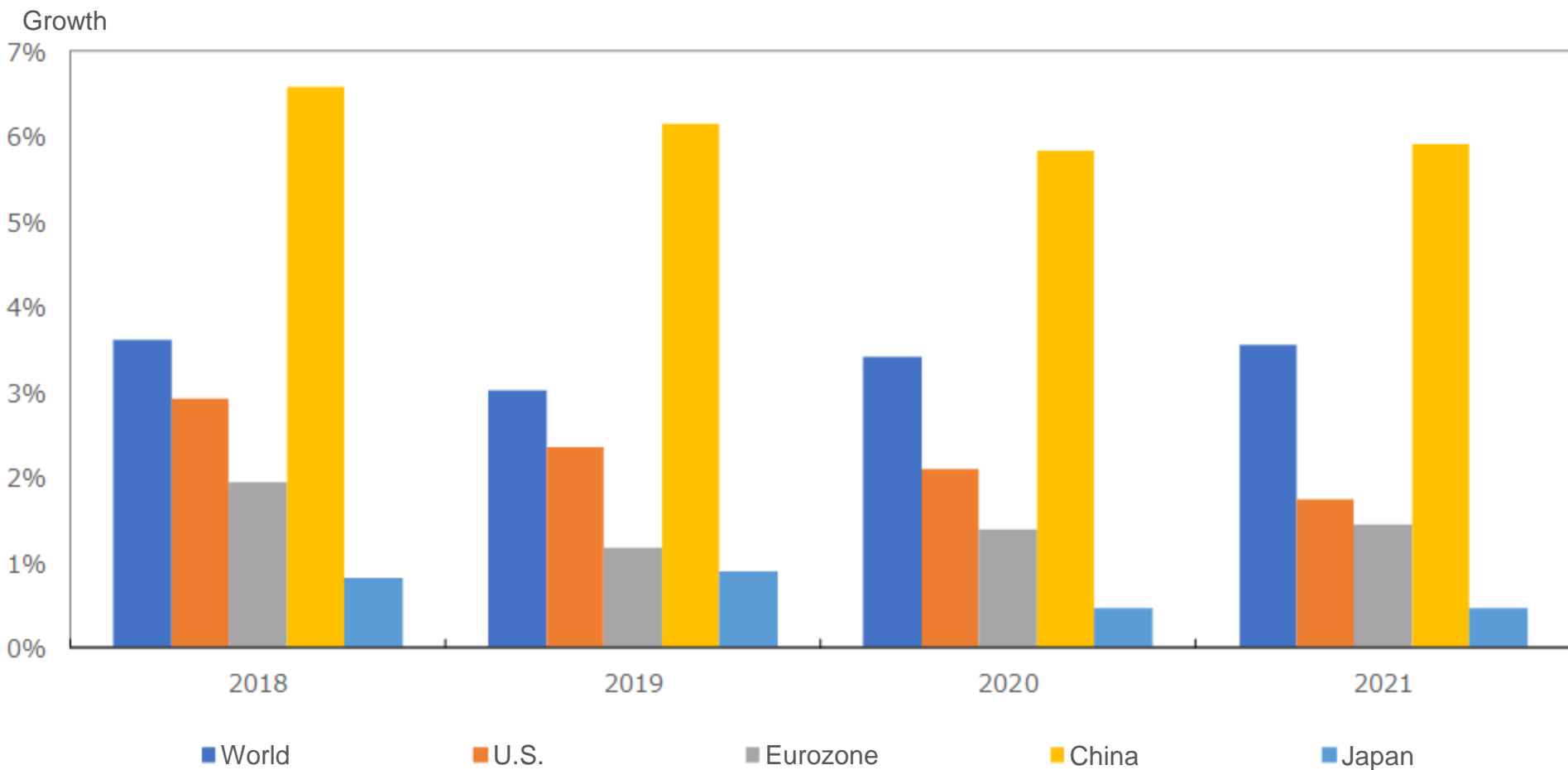
- Demand in 3Q 2019 increased by 0.82 mb/d or 6.5% year on year to 13.5 mb/d.
- As refining capacity has continued to expand, crude oil imports have risen robustly. Imports from the United States are picking up. Imports from Iran have continued, though having being limited, incurring U.S. sanctions.

Inventories



- OECD commercial inventories in October fell to a five-year average level for the first time in 2019.

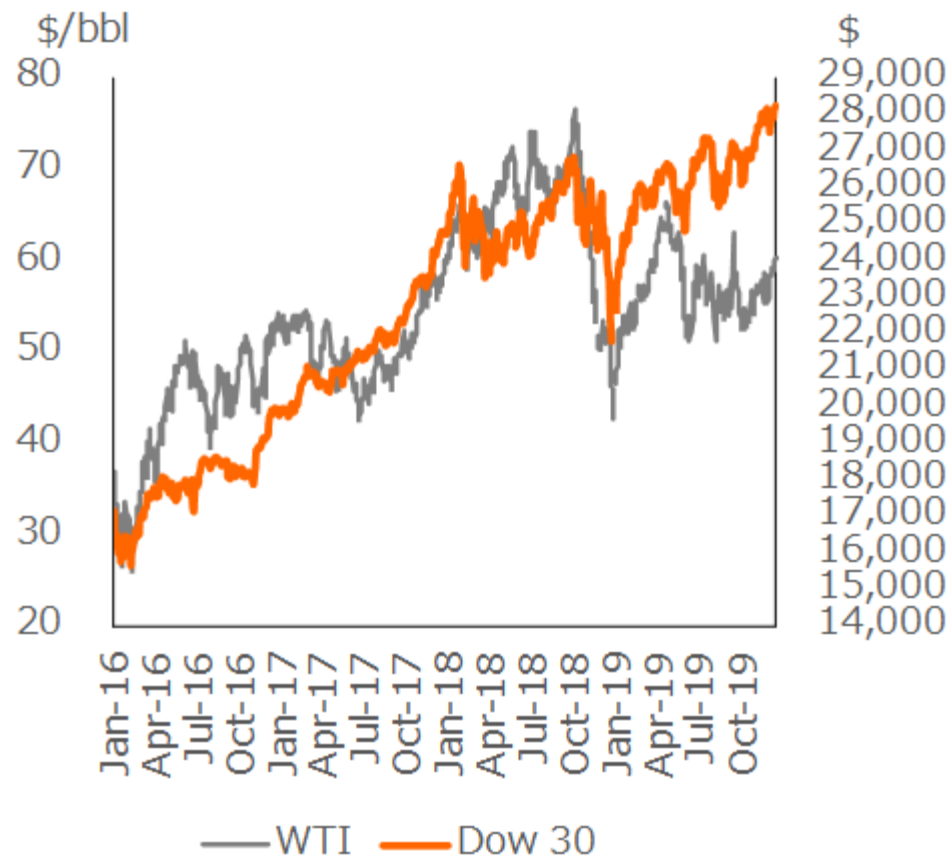
Macroeconomic conditions



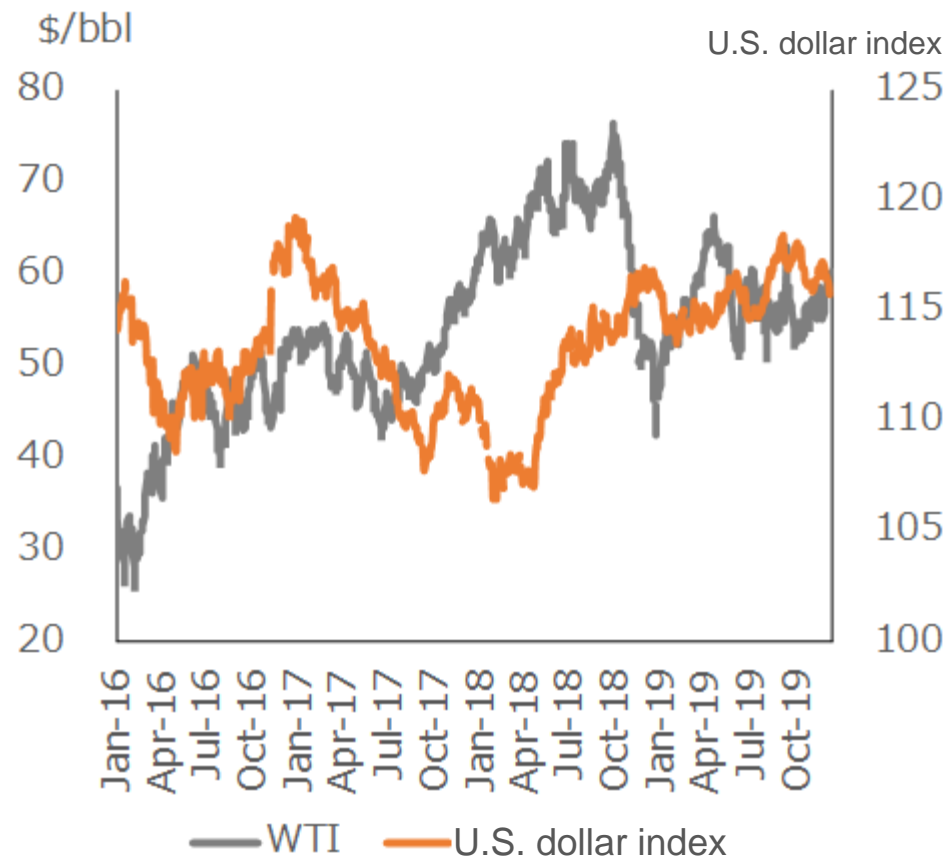
Source: IMF "World Economic Outlook"

Financial markets

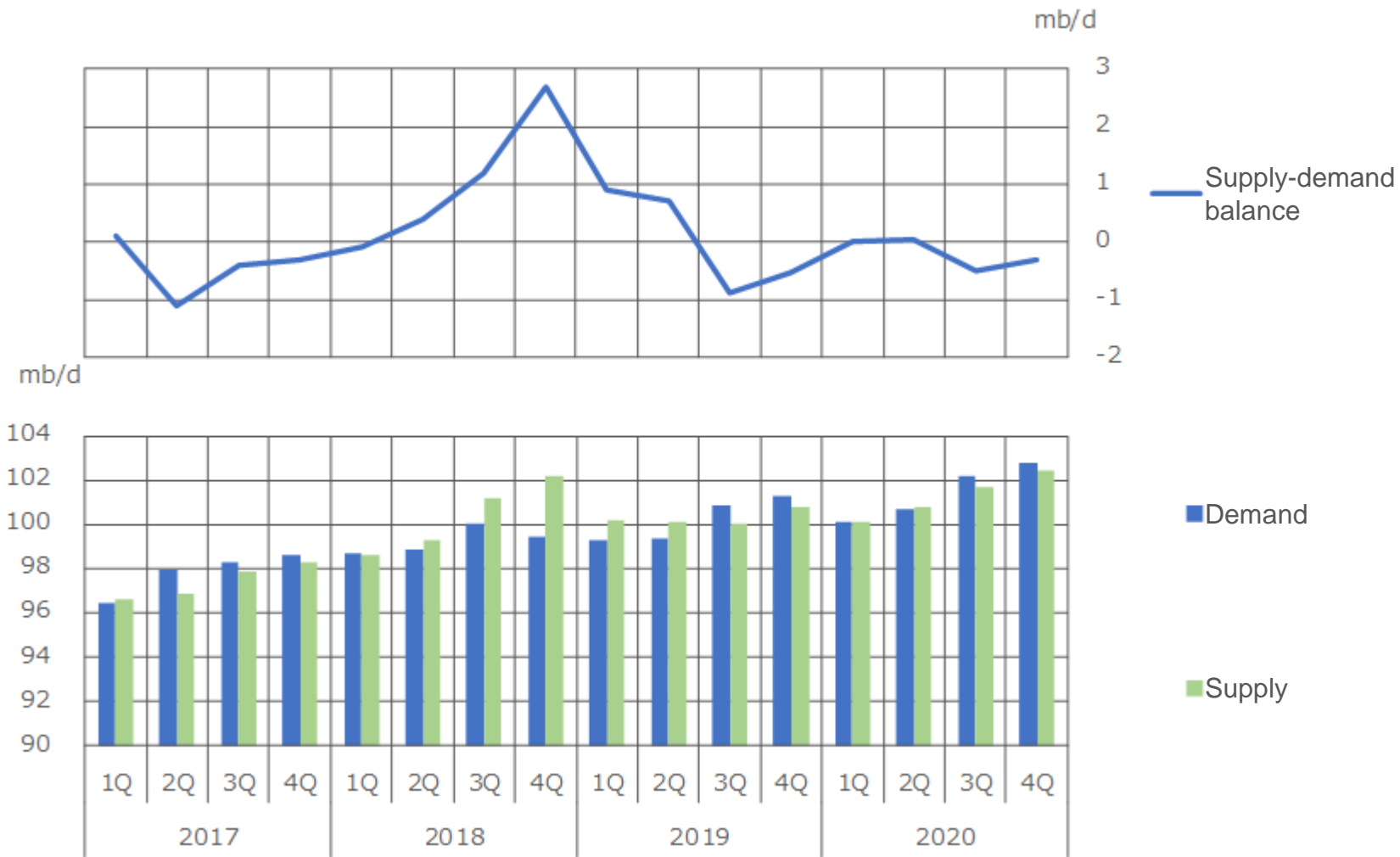
Oil and stock prices



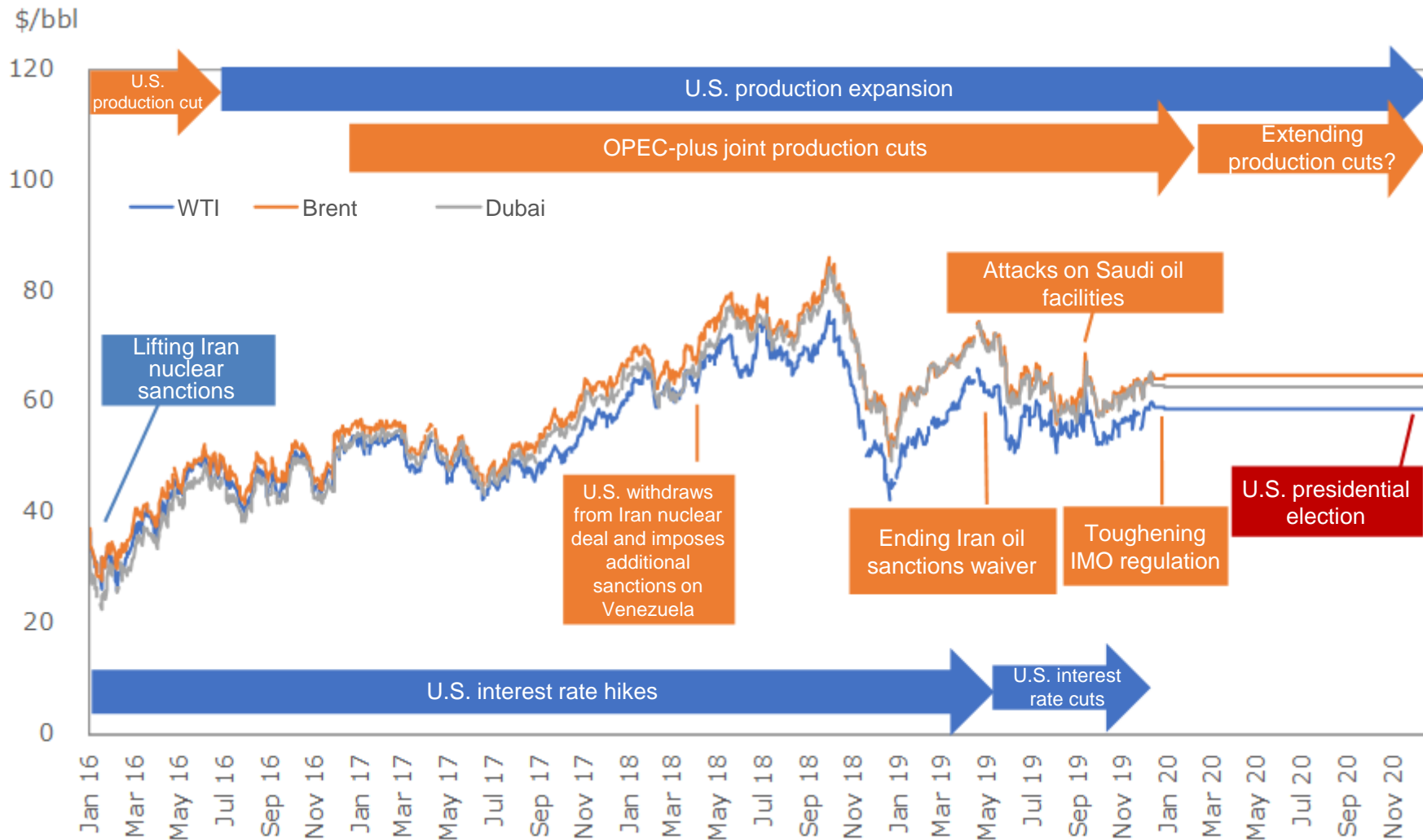
Oil price and exchange rate



- U.S. stock prices rose to record highs in December on the Phase 1 U.S.-China trade deal and brisk corporate earnings.
- The U.S. dollar index has been falling moderately since hitting the highest level in late August.

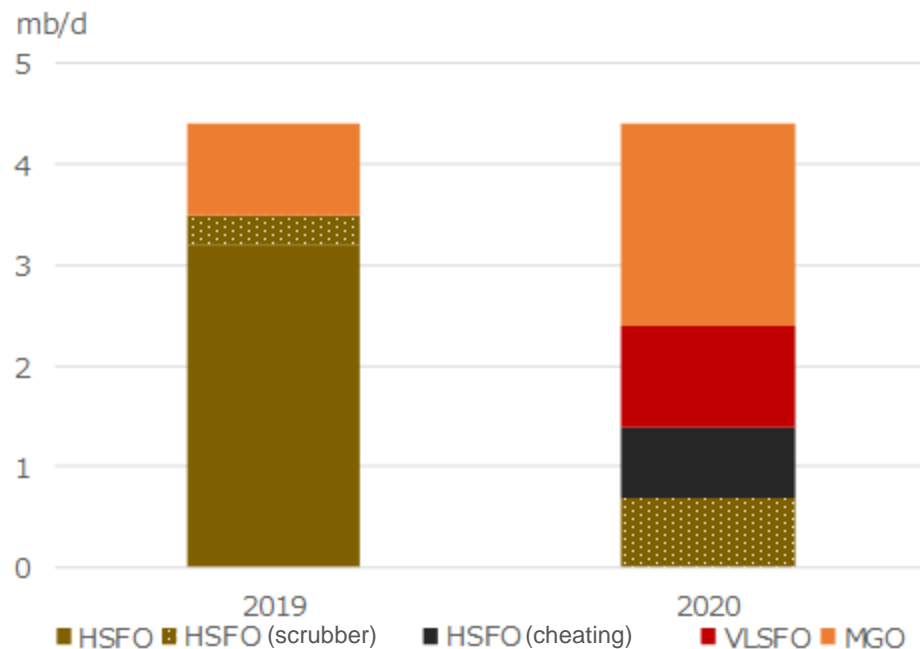


- Demand in 2020 will increase by 1.2 mb/d from the previous year to 101.5 mb/d on average and supply by 1.1 mb/d to 101.3 mb/d, resulting in a demand excess of 0.2 mb/d.

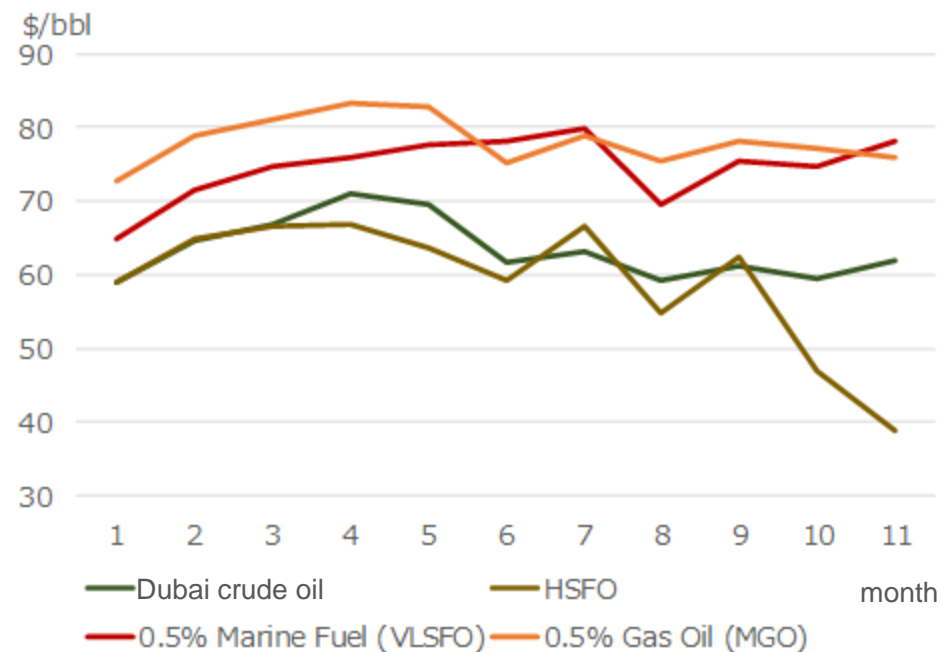


- The average international (Brent) crude oil price will stand at \$65/bbl in 2020.
- Uncertainties exist about the OPEC-plus group’s easing of joint oil production cuts, the effectiveness of the Phase 1 U.S.-China trade deal, a breakdown in U.S.-China trade talks, growing Middle East tensions and disruptions to supply.

Bunker fuel demand outlook



Dubai crude and Singapore bunker fuel prices (2019)



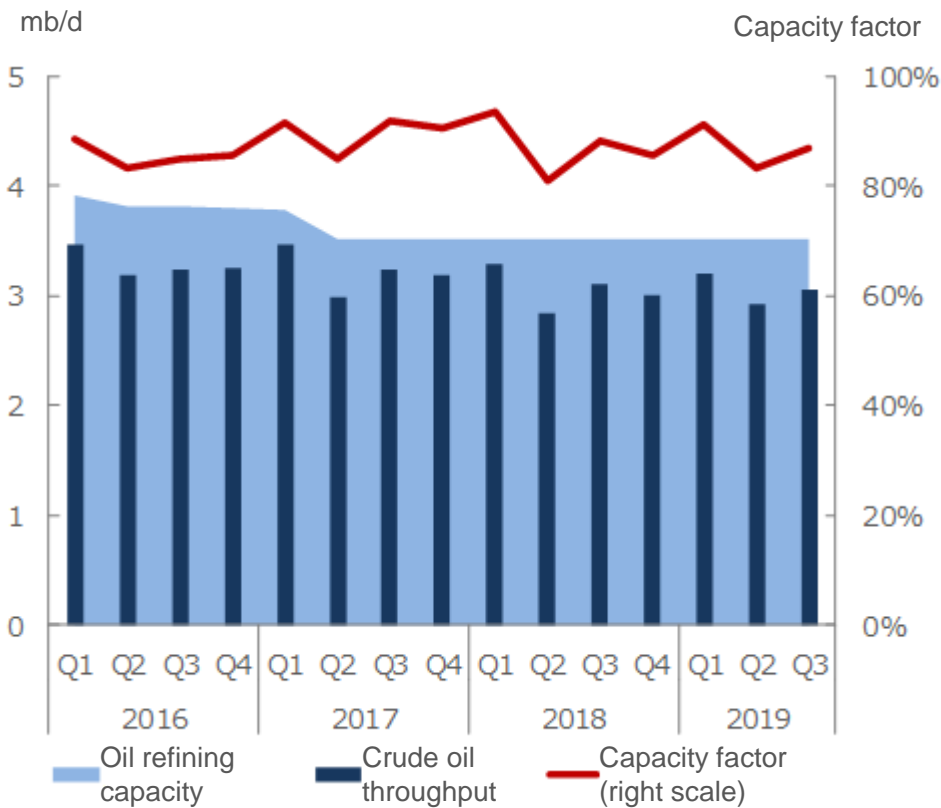
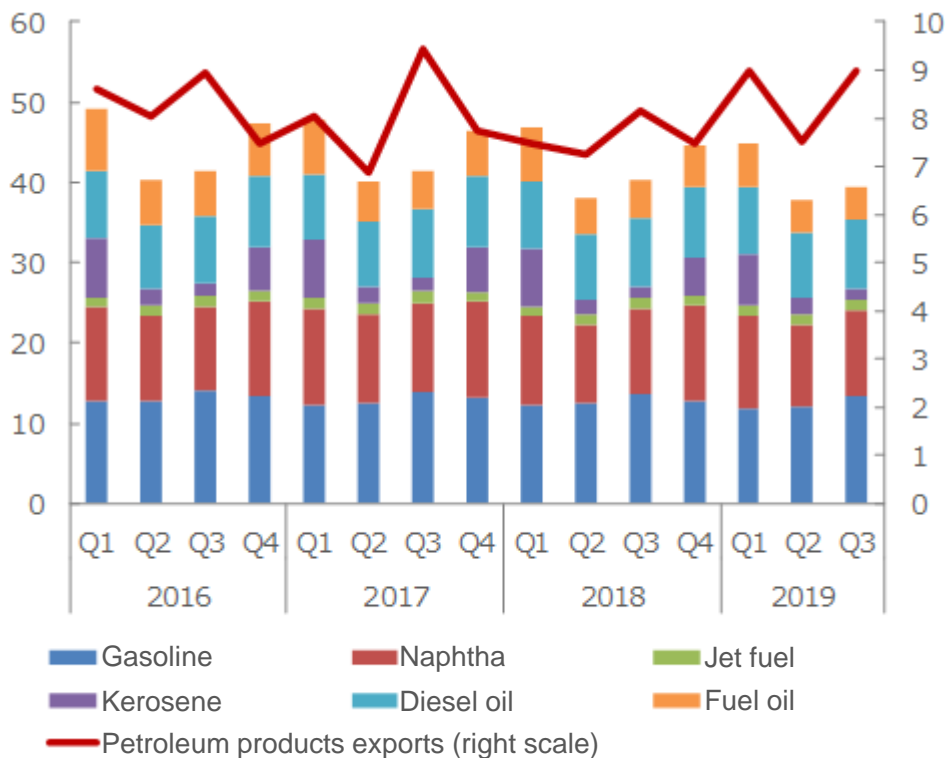
Note: HSFO for High Sulfur Fuel Oil, VLSFO for Very Low Sulfur Fuel Oil, MGO for Marine Gasoil

Sources: IEA, Platts

- As the IMO toughens a regulation on the sulfur content in bunker fuel, 2.1 mb/d in demand for HSFO for bunker is expected to be lost.
- HSFO's price gaps with MGO and VLSFO could widen further in the beginning of 2020.
- How would price gaps between heavy and light crude oil change?

Fuel oil sales and exports

Oil refining capacity and capacity factor



Source: Ministry of Economy, Trade and Industry

- In 3Q 2019, fuel oil demand in Japan decreased by 0.87 million KL or 2.2% year on year to 394.84 million KL (2.7 mb/d), with exports increasing by 0.79 million KL or 9.8% to 89.65 million KL (0.6 mb/d).
- While oil refineries' capacity factor remains high, how best to secure HSFO sales channels will be a challenge.