

4-2. APERC Oil Report 2022 (Draft)

APERC Workshop

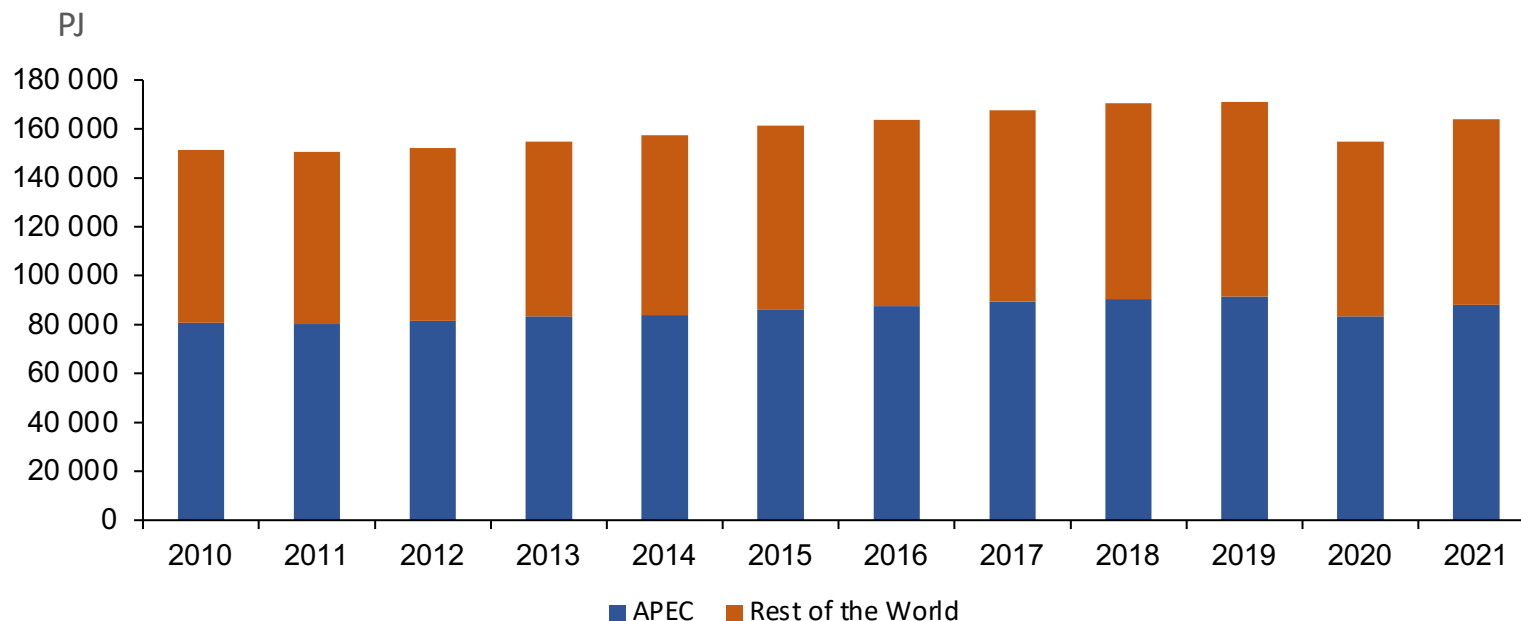
The 64th Meeting of APEC Energy Working Group (EWG64)
31 October 2022 (GMT+8)

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Global oil consumption grew steadily until 2019 but dropped in 2020

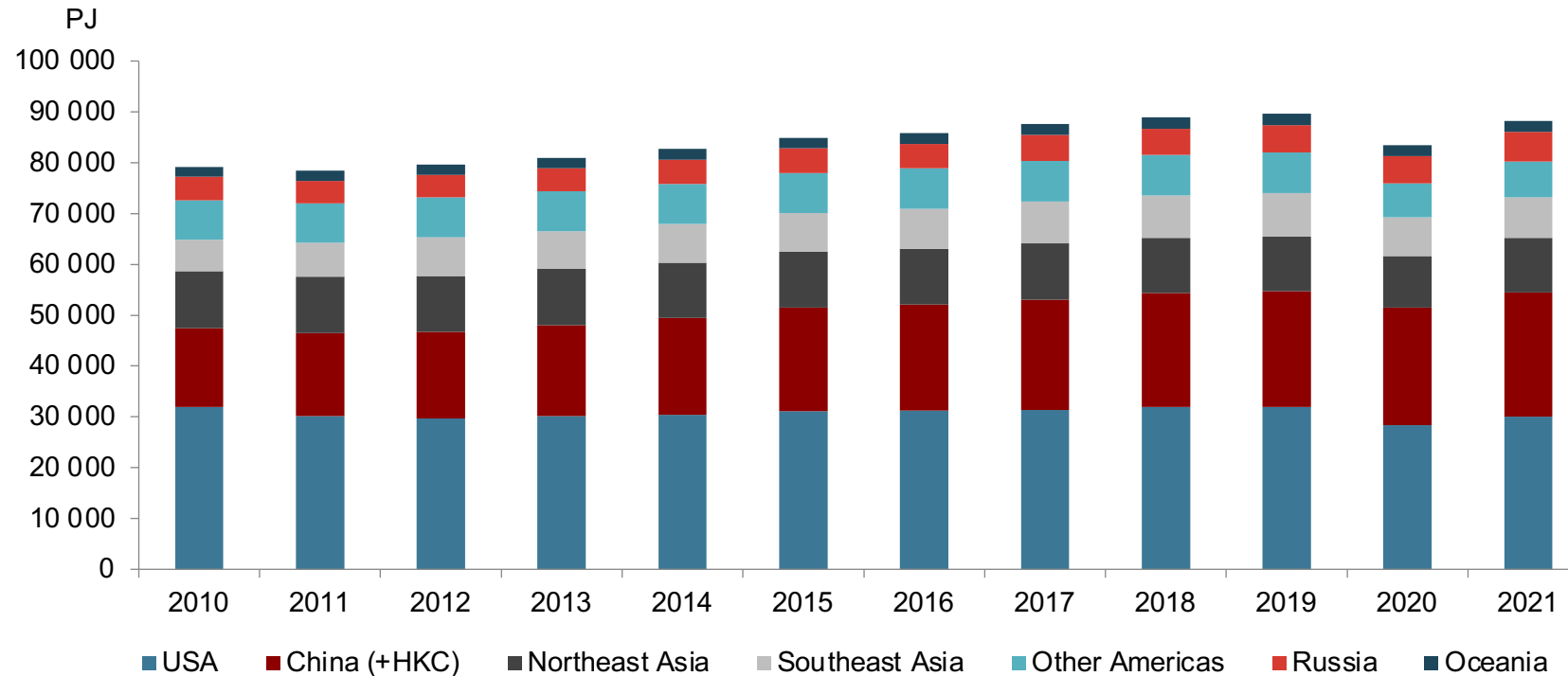
Global oil consumption, 2010-2021



- From 2010 to 2019, oil use grew at an average rate of 1.4% per year.
- In 2020, world oil demand fell by 9.4% compared to 2019, its lowest level since 2013.
- In 2021, world oil demand grew by 5.8% compared to 2020, but remained below 2019 levels by 4.2%.

APEC oil demand also dropped in 2020

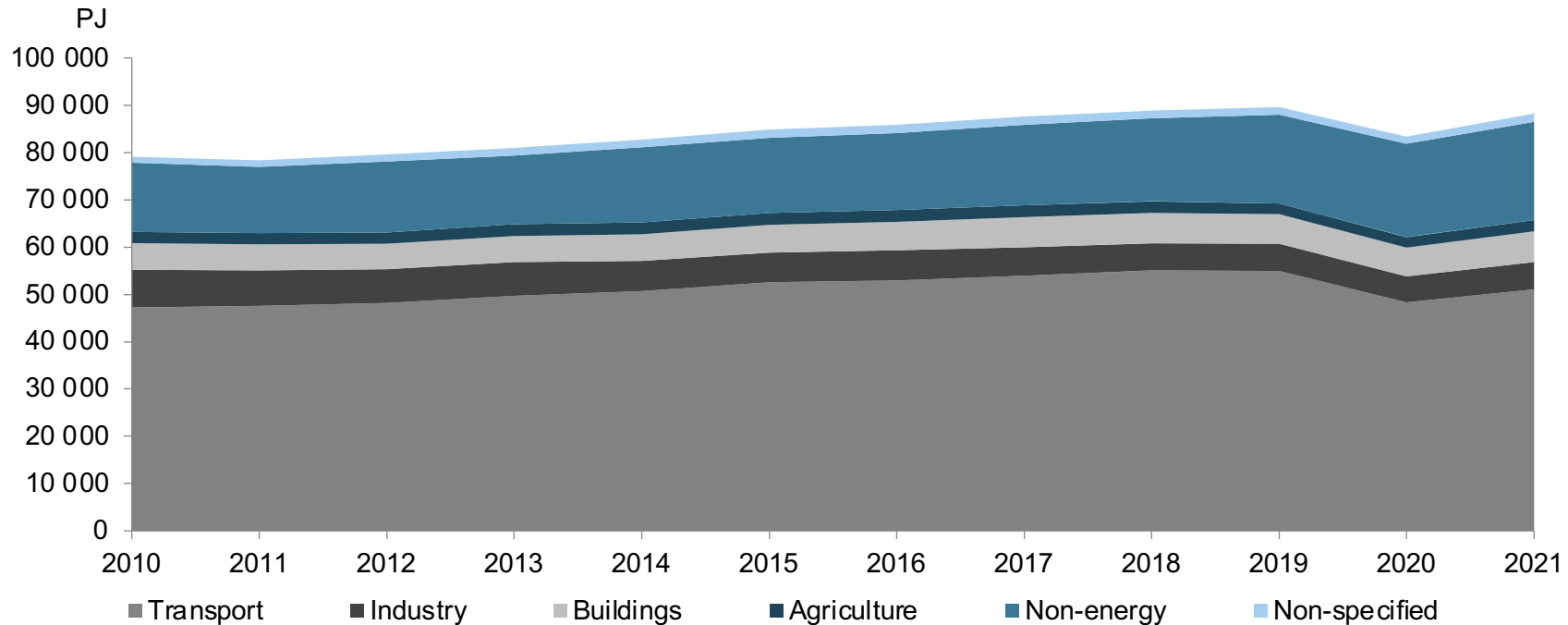
APEC oil consumption, 2010-2021



- From 2010 to 2019, APEC oil use also grew at an average rate of 1.4% per year.
- In 2020, APEC oil demand fell by 7% compared to 2019, its lowest level since 2014.
- In 2020, the largest oil use declines came in the US (-11%) and Other Americas (-16%).
- China was the only APEC economy that saw an increase in oil demand during 2020 (2%) .

Transportation is the largest oil consumer

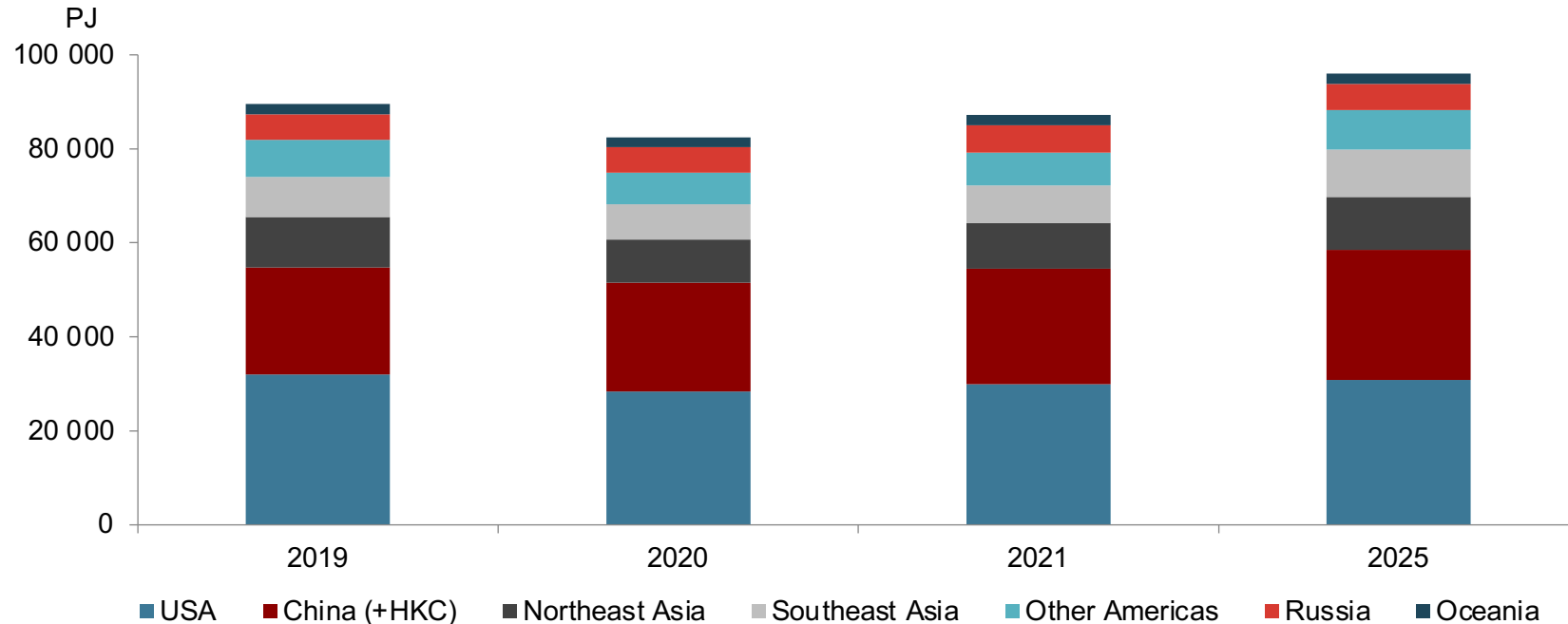
APEC oil consumption by sector, 2010-2021



- The transport sector accounts for 57% of APEC oil use.
- Oil demand in the transport sector grew by 16% from 2010-2019 but dropped by 12% in 2020.
- Oil consumption in all other sectors grew by 1.3% in 2020.

Strong oil consumption growth in China and SE Asia

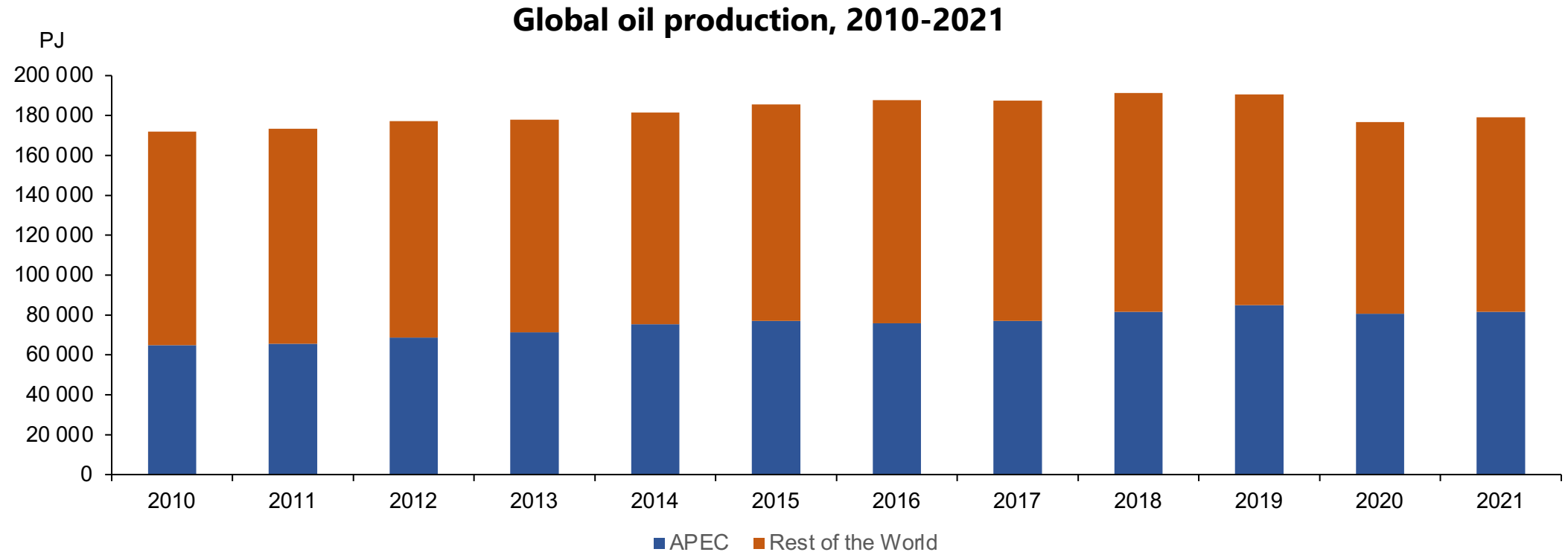
Oil demand outlook in APEC, 2019 and 2025



Source: EGEDA, APERC Analysis

- In APEC, total oil demand is expected to increase 7% above the 2019 level by 2025.
- From 2019 to 2025, China's and Southeast Asia's oil demand increases by 20% and 19%, respectively.
- The US is the only economy in APEC that sees a decline in oil demand through 2025 (-3.7%).

APEC oil production has grown faster than rest of world

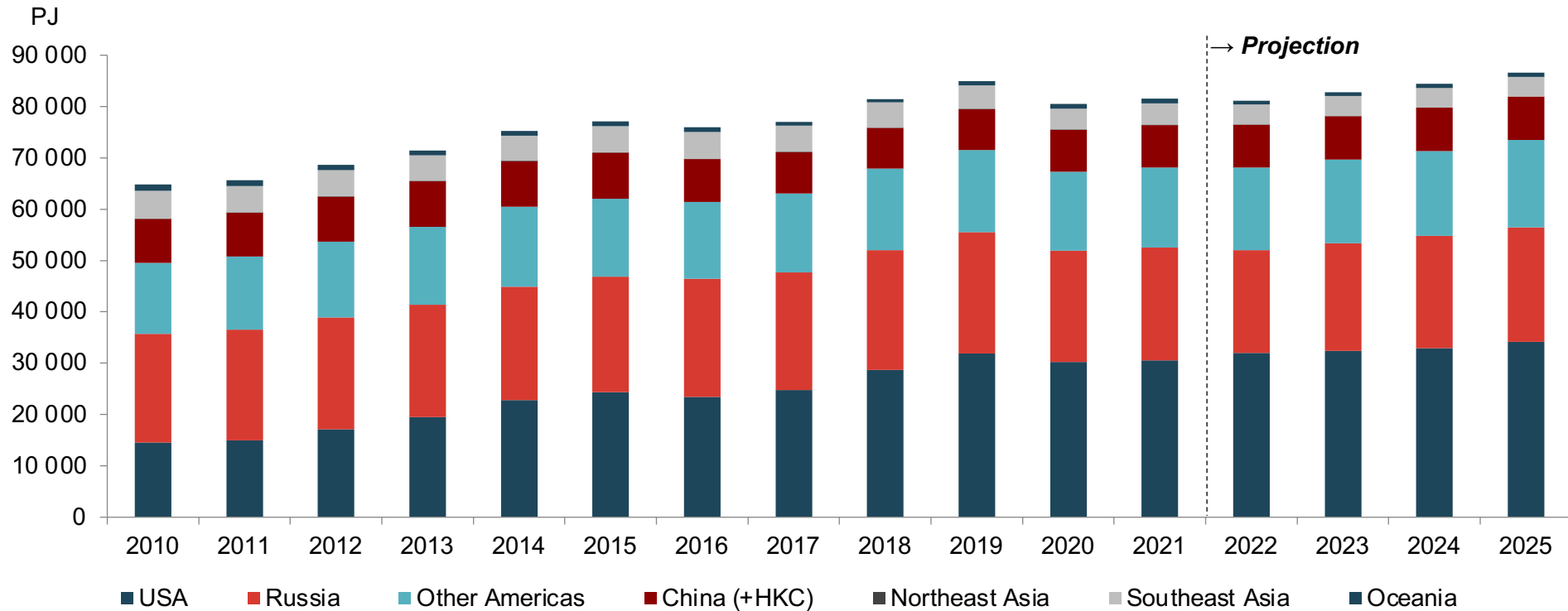


Source: IEA, EGEDA, APERC Analysis

- World and APEC oil production been growing: 11% and 31%, respectively, from 2010 to 2019
- In 2019, APEC economies accounted for 44% of world production, up by 31% from the beginning of the decade. This increase in share has been largely driven by the US.

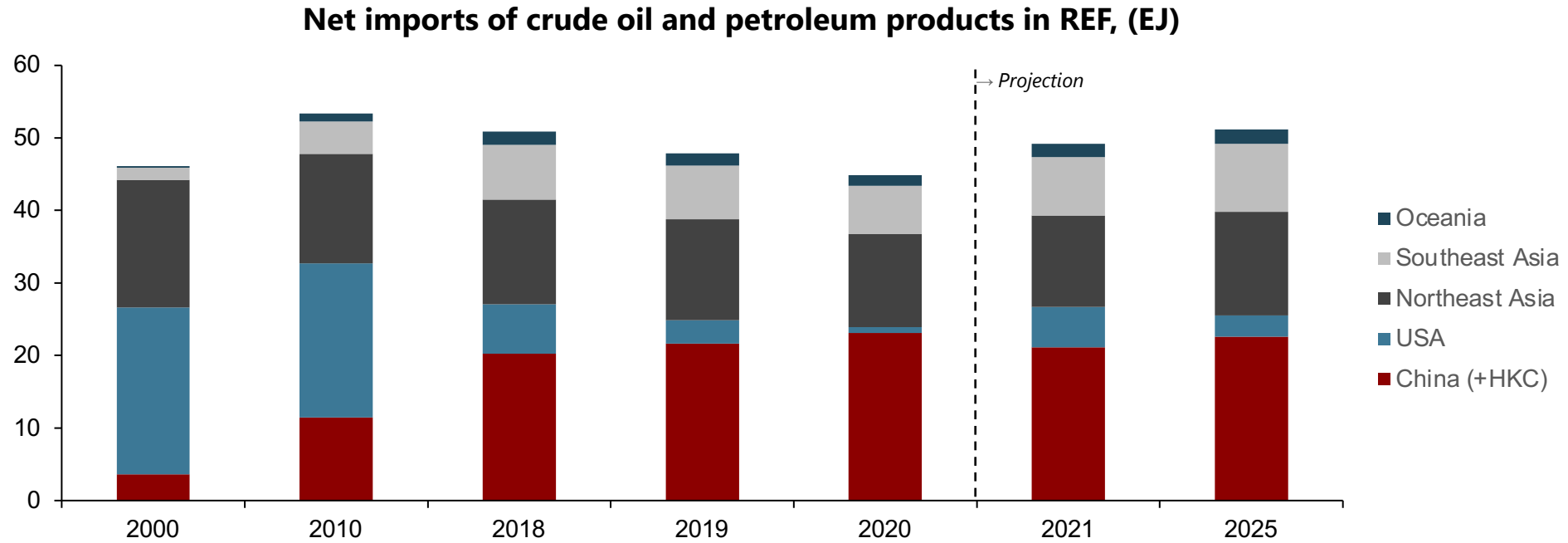
APEC oil production expected to recover to pre-pandemic levels

APEC Oil production by region (PJ)



- By 2025, we expect APEC oil production to return to its 2019 level.
- A key uncertainty is Russian production which we expect to decline 5.6% by 2025, although the decline could be larger if the Russia-Ukraine crisis is not resolved.
- US and Chinese oil production increases by 7% and 5.7%, respectively.

USA and Northeast Asia see decreasing levels of net imports; while China, Southeast Asia, and Oceania remain heavily dependent

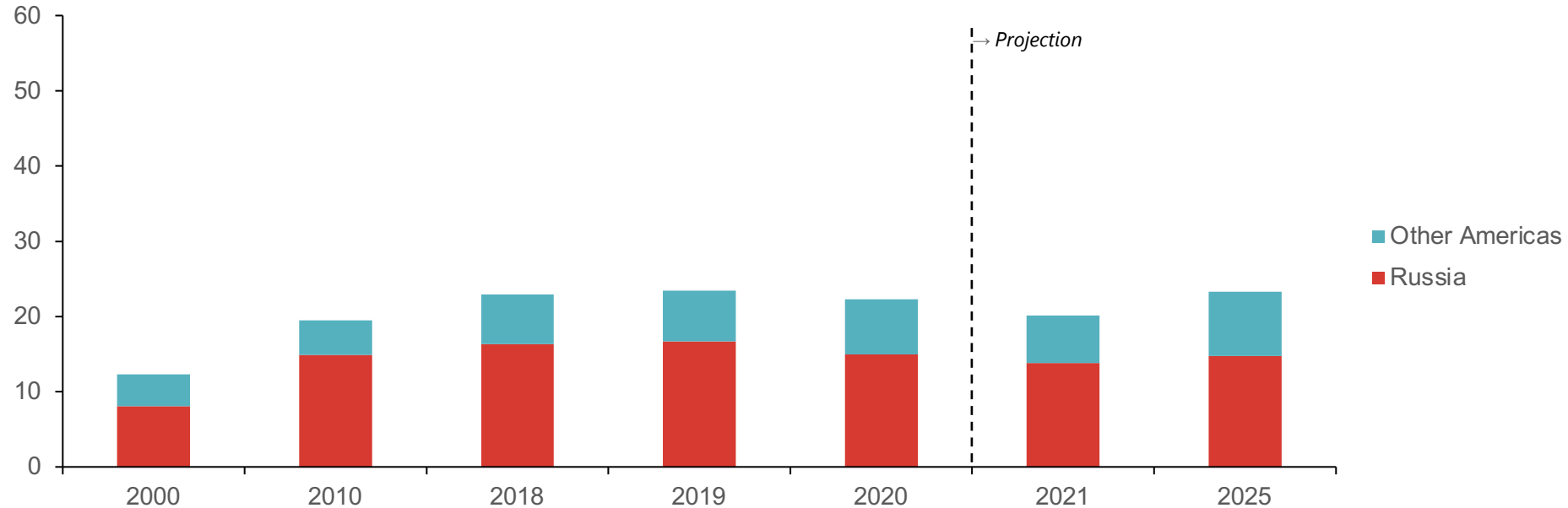


Source: APEC Energy Demand and Supply Outlook 8th Edition

- APEC's net imports dropped to 44.9 EJ (20.1 million B/D) in 2020 from 50.8 EJ (22.8 million B/D) in 2018. A rebound in net imports is expected reaching the 2018 level.
- China accounts for 45% of APEC net imports in 2025, up from 8% in 2000.
- USA net imports drop by 87% in 2025 relative to 2000.

Russia and Other America's net exports nearly double during 2000-2025

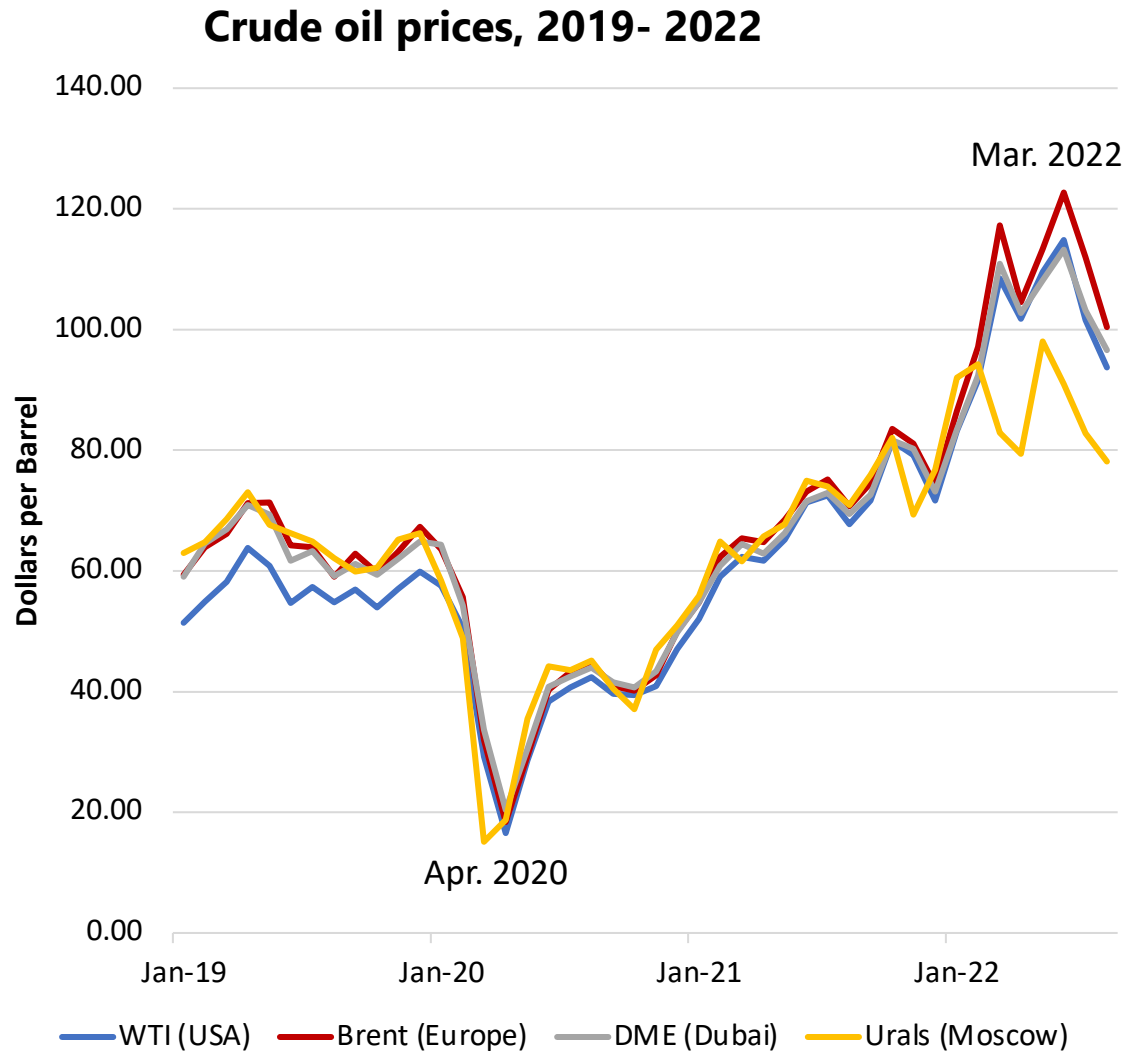
Net exports of crude oil and petroleum products in REF, (EJ)



Source: APEC Energy Demand and Supply Outlook 8th Edition

- Between 2000-2025, Russia and Other Americas increase net exports by 83% and 102%, respectively.
- Russia's net exports peaked at 16.7 EJ (7.5 million B/D) in 2019 before declining slightly. Going forward, Russian exports could be significantly lower if the Russia-Ukraine crisis continues.
- However, Other Americas' exports are expected to grow reaching 8.6 EJ (3.9 million B/D) by 2025.

Crude oil prices increased from April 2020 to March 2022

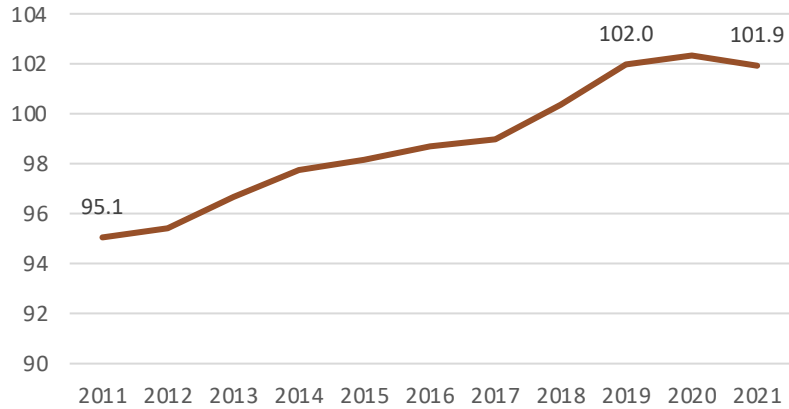


- On April 20th, 2020, WTI recorded its lowest price: negative \$37 USD/B, while Brent saw its lowest level on April 21st at \$9 USD/B.
- The average price for WTI in 2020 was 42 USD/B.
- Average annual 2021 prices exceeded those of 2019. Averaging \$70.67 USD/B compared to an average price of \$64.35 USD/B in 2019.
- On March 8th, oil prices reached their highest level so far this year at \$128 USD/B.
- Russian Urals sold at a discount to Brent of up to \$34 USD/B in March.

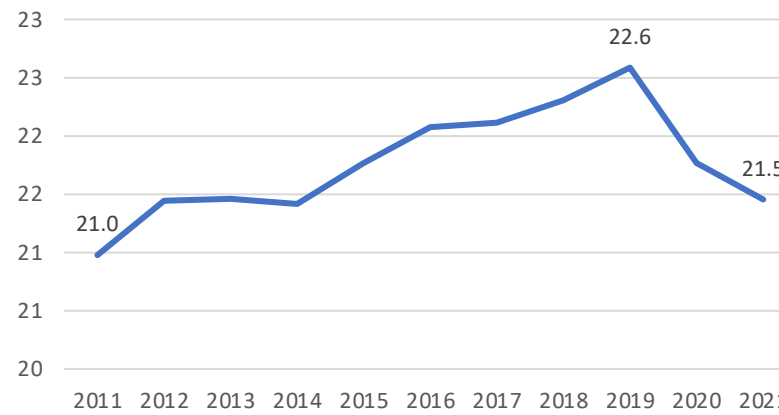
Global refinery capacity declined in 2021

Operable crude oil distillation capacity by region (million barrels per day)

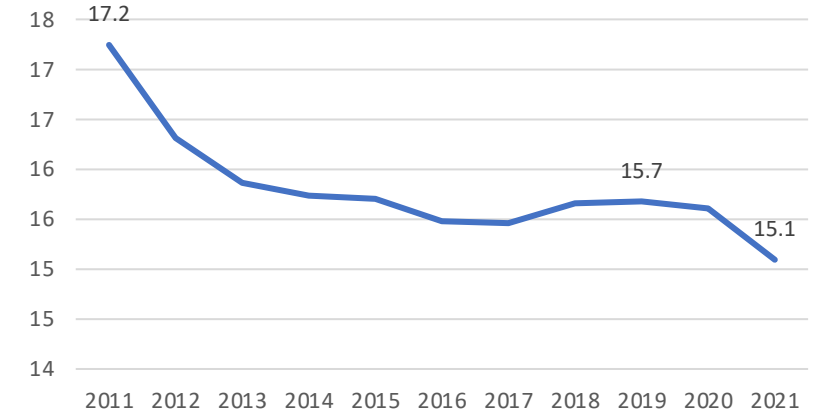
World



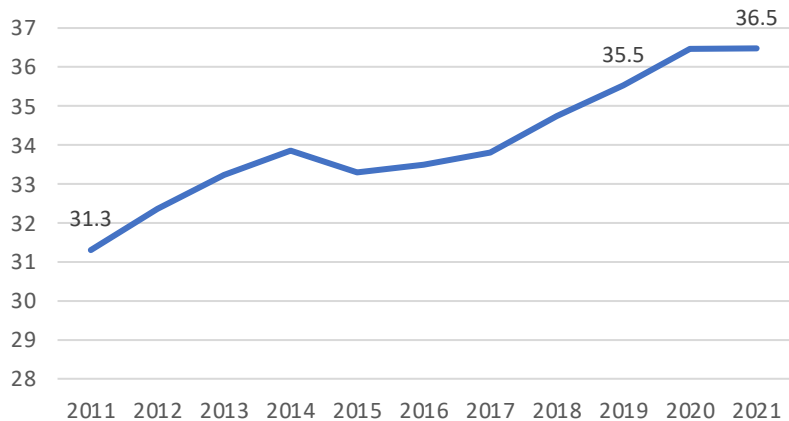
North America



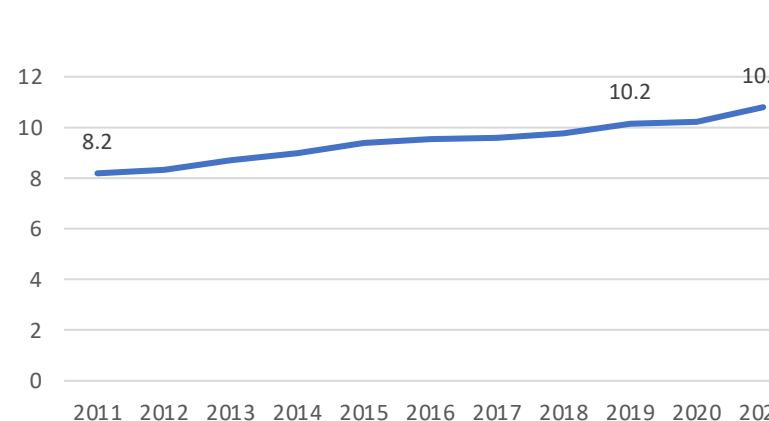
Europe



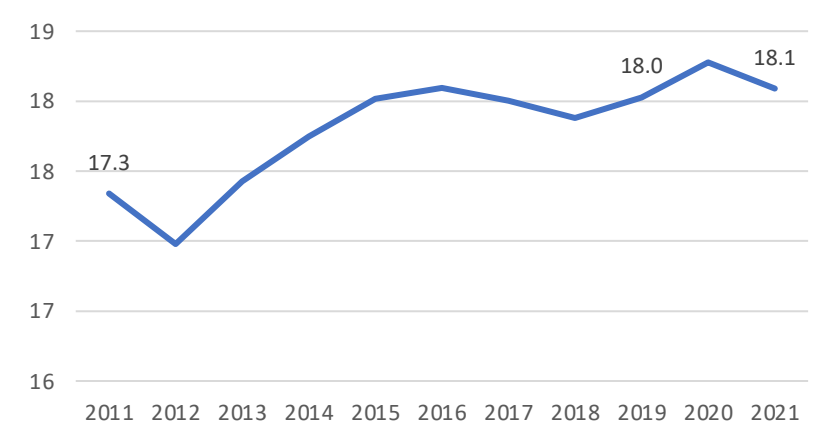
Asia Pacific



Middle East

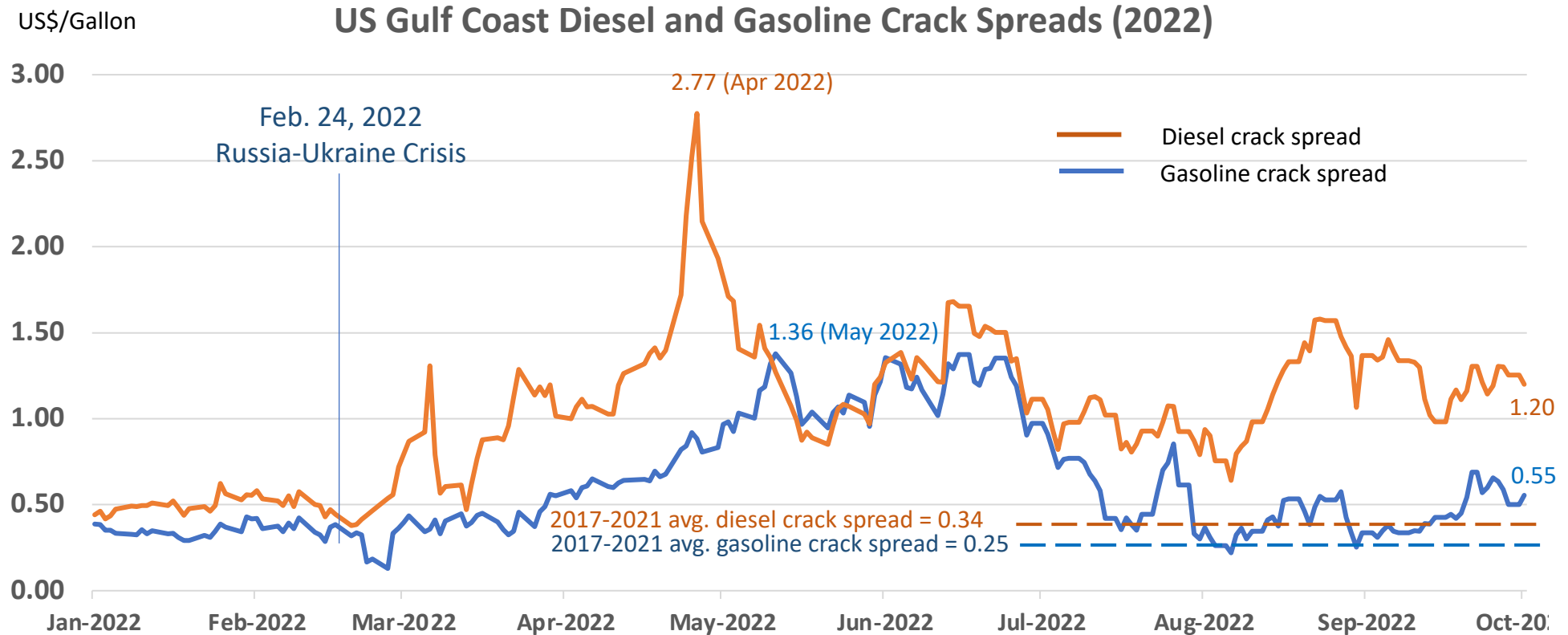


Other Regions



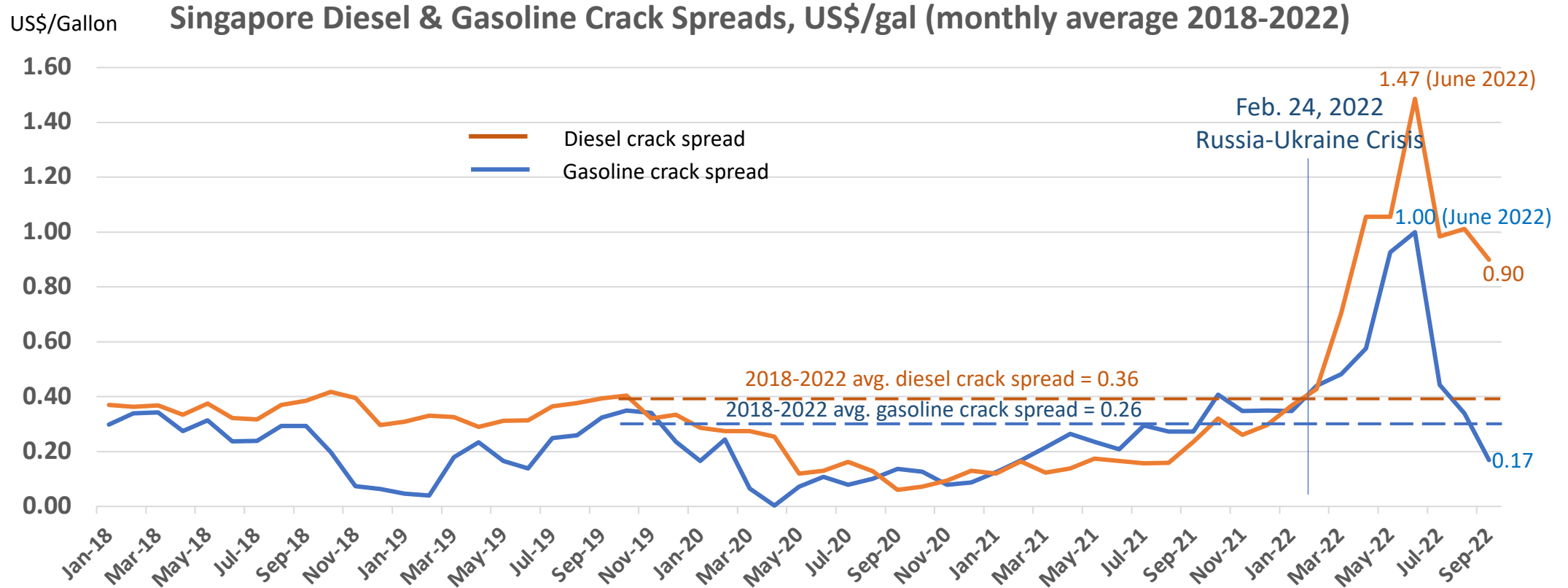
- Global refining capacity declined 0.06 million B/D from 2019 to 2021.
- North America plus Europe declined 1.72 million B/D. Other regions increased a total of 1.66 million B/D.

The Russia-Ukraine crisis increased the global demand for refining



- Oil market dislocations caused by sanctions on Russian oil exports exacerbated the tightness in global distillation capacity and caused petroleum product prices to spike
- At its peak, the US Gulf Coast crack spread for diesel was 8 times its 5-year average and the spread for gasoline was 5 times its average.

Limited global refining also caused price spikes in Singapore



- The diesel and gasoline crack spreads peaked in June 2022 following the Russia-Ukraine crisis.
- At their peaks, Singapore diesel and gasoline crack spreads were 5 times higher than 5-year averages, which were less than the percentage increases on the US Gulf Coast.

Thank you.

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