

## The global oil demand forecast for June 2023

Global oil markets are undergoing a gradual recalibration following a turbulent period marked by the interplay of the Covid-19 pandemic and Russia's invasion of Ukraine. Crude oil prices have returned to levels below those seen prior to the conflict, and refined product cracks have eased from their previous all-time highs. This shift can be attributed to a confluence of factors, including increased oil supplies and a notable deceleration in oil demand growth in advanced economies. Furthermore, the unprecedented reshuffling of global trade flows and two consecutive emergency stock releases by IEA member countries in 2022 have facilitated the rebuilding of industry inventories, thereby alleviating market tensions.

While the market may tighten significantly in the upcoming months due to OPEC+ production cuts curbing the upswing in global oil supplies, the outlook improves over our projected forecast period of 2022-2028. The Russia, Ukraine conflict triggered a surge in oil prices and heightened concerns over supply security, thereby expediting the adoption of clean energy technologies. Additionally, investments in upstream oil activities are anticipated to reach their highest levels since 2015 in 2023.

Our projections assume that major oil producers will adhere to their capacity expansion plans, even as demand growth decelerates. This would result in a spare capacity cushion of at least 3.8 million barrels per day (mb/d), predominantly concentrated in the Middle East, ensuring an adequate supply of oil throughout the forecast period.

As always, numerous risks exist that could impact the accuracy of our forecasts, thereby influencing market balances in the medium term. Uncertain global economic conditions, the decisions taken by OPEC+ regarding production levels, and Beijing's policies pertaining to the refining industry will all play pivotal roles in the equilibrium of crude oil and product markets.

The growth of global oil demand is projected to witness a significant slowdown during the 2022-2028 forecast period as the energy transition gains momentum. Although a peak in oil demand looms on the horizon, the overall consumption of oil, excluding biofuels, petrochemical feedstocks, and other non-energy uses, is anticipated to continue growing owing to increased demand for petrochemical feedstocks and air travel. Our estimates indicate that global oil demand will reach 105.7 mb/d in 2028, representing a 5.9 mb/d increase compared to 2022 levels.

Nevertheless, it is crucial to note that demand for oil derived from combustible fossil fuels is expected to peak at 81.6 mb/d in 2028, the final year of our forecast. The demand for gasoline is projected to reach its zenith after 2023, while overall

transport fuel demand will culminate after 2026. These patterns are a consequence of the shift towards lower-emission sources prompted by the global energy crisis, along with policies emphasizing energy efficiency enhancements and the rapid proliferation of electric vehicles (EVs).

Following the lifting of stringent Covid-19 restrictions at the end of 2022, China witnessed a post-pandemic resurgence in oil demand during the first half of 2023. However, demand growth in China is anticipated to taper off significantly from 2024 onwards, resulting in a contraction of global oil demand growth from 2.4 mb/d in 2023 to a mere 400 kb/d by 2028. Nonetheless, robust petrochemical demand and strong consumption growth in emerging economies are poised to offset the decline witnessed in advanced economies. To achieve an earlier decline in total oil demand in alignment with the IEA's Net Zero Emissions by 2050 Scenario, additional policy measures and behavioral changes would be imperative.

The global oil industry is set to undergo significant transformations in the coming years. The petrochemical sector will retain its position as the primary driver of oil demand growth, fueled by the increasing usage of liquified petroleum gas (LPG), ethane, and naphtha. These three components are projected to contribute over 50% of the overall rise in demand between 2022 and 2028, representing an astonishing 90% surge compared to pre-pandemic levels. Furthermore, as international borders reopen and air travel gradually returns to normalcy, the aviation sector is poised for substantial expansion. Although jet fuel demand faced a 13% lag behind 2019 levels at the beginning of 2023, it is anticipated to exhibit the highest growth among all oil products throughout the forecast period, with a substantial increase of 2 mb/d. However, the pace of growth will be moderated by efficiency improvements and changes in consumer behavior, resulting in a delayed recovery that surpasses 2019 consumption levels only by 2027.

In response to the prevailing energy crisis, there is an accelerated push towards reducing dependence on oil. Global investments in upstream oil and gas are expected to increase by an estimated 11% in 2023, reaching a staggering USD 528 billion compared to the previous year's USD 474 billion. This level of investment, if sustained, will adequately cater to the projected demand within the covered period of the report, despite the partial offset caused by cost inflation.

Based on ongoing projects and the anticipated growth of US light tight oil (LTO), a net additional production capacity of 5.9 mb/d is expected to be brought online by 2028. Although the rate of capacity expansion will gradually ease, with an average decline from 1.9 mb/d over 2022-23 to a mere 300 kb/d by 2028, the new capacity aligns with the projected growth in demand for oil during the forecast period.

Medium-term capacity expansion plans are primarily dominated by non-OPEC+ countries, with the United States, Brazil, and Guyana leading the way in a supply

boost of 5.1 mb/d. Within the OPEC+ alliance, Saudi Arabia, the United Arab Emirates (UAE), and Iraq take the lead in capacity building efforts. Conversely, African and Asian members of OPEC+ face challenges with declining production, while Russian oil output is impacted by sanctions. As a whole, the net capacity gain from the 23 members of OPEC+ stands at 800 kb/d.

The relatively robust growth from non-OPEC+ producers, combined with the expected slowdown in demand growth, mitigates the necessity for OPEC+ crude. Consequently, an estimated effective spare capacity of at least 3.8 mb/d is projected to be maintained throughout the forecast period.

The refining industry has undergone notable transformations since the pandemic, including capacity closures, conversions to biofuel plants, and project delays. These factors have significantly reduced the surplus refinery capacity worldwide. Additionally, a sharp decline in Chinese oil product exports and disruptions in Russian trade flows have led to record profits for the industry in the previous year. Despite an expected net increase in refinery capacity of 4.4 mb/d by 2028, surpassing the growth in demand for refined products, there are diverging trends among various products, leaving room for the possibility of tightness in middle distillate markets, similar to the scenario experienced in 2022.

Refineries are facing the need to adapt their production strategies to meet changing demand patterns. As the demand for gasoline and diesel, which are premium road transport fuels derived from petroleum, lags behind, refiners may need to shift their focus towards middle distillates and petrochemical feedstocks. By the end of the forecast period, the demand for petroleum-based premium road transport fuels is expected to be 1 mb/d lower than the levels seen in 2019. On the other hand, the thriving petrochemical industry and the slower growth in natural gas liquids (NGLs) supply will drive an increased demand for refinery-supplied liquified petroleum gas (LPG) and naphtha. The policies governing production in China will play a pivotal role in shaping global markets, and aligning these policies closely with the needs of petrochemical plants could result in a tight market for middle distillates by 2028.

While the East of Suez region continues to lead in terms of capacity expansions and refinery operations, the Atlantic Basin might witness a decline in throughput, despite the establishment of significant new plants in Nigeria, Mexico, and Brazil.

However, the bulk of the global increase in crude oil and condensate production is expected to come from the Atlantic Basin. The Western Hemisphere, particularly the Americas, will emerge as the primary incremental oil supplier to global markets, with exports projected to rise by 4.1 mb/d by 2028. This shift in trade flows is compounded by the redirection of most of the 2.5 mb/d of Russian crude oil that was previously exported to Europe and G7 countries, now being redirected

eastward due to embargoes. Moreover, with no additional exports anticipated from the Middle East in 2028 compared to 2022 and a surge in Asian import requirements, the flow of oil from the Atlantic Basin to the East of Suez region will steadily increase.

The prevailing trend in both crude oil and refined products entails an increased supply from the Americas and the Middle East to Asia. Despite refinery additions and a decline in crude oil production, Africa's crude export potential is expected to decrease by approximately 15% over the forecast period. However, this decrease will be counterbalanced by a reduction in net product import requirements by 10%.

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