Sulfur content and density are the key factors that differentiate types of crude oil. Then you have location.

The demand dynamic for crude oil is interesting because there aren’t many uses for crude oil in its unrefined form. So, the demand for the byproducts translates into demand for crude oil.

The main buyers of crude oil are refineries. So, by default, the number of refineries in operation affects total demand.

There were 825 operational crude oil refineries worldwide as of 2023, and this number was expected to grow by around 23 refineries by the end of 2024.

Here a new refinery is Dangote in Nigeria (with capacity = 650,000 barrels per day) biggest in Africa.

The things that affect the refineries demand for crude oil are: transportation levels, economic activity (industrial sector mainly, manufacturing), storage capacity levels.

**Air Travel**:

* **2023**: Recovery was progressing with international traveler numbers improving throughout the year. By the end of 2023, passenger numbers were projected to reach about 94% of pre-pandemic levels.
* **2024**: Expected to fully recover and exceed pre-pandemic levels, reaching 103% of 2019 levels by the end of the year​ ([International Air Transport Association](https://www.iata.org/en/pressroom/2022-releases/2022-03-01-01))​.

**Public and Ground Transport**:

* **2023**: Public transport systems were still recovering, with ridership generally increasing but remaining below pre-pandemic levels in many areas. Rail and bus services in Europe showed gradual improvement​ ([ING](https://www.ing.com/Newsroom/News/Global-transport-and-logistics-outlook-normalisation-in-a-different-world.htm))​.
* **2024**: Continues to experience recovery, although full return to pre-pandemic levels is slow, particularly in regions where remote work remains prevalent​ ([ING](https://www.ing.com/Newsroom/News/Global-transport-and-logistics-outlook-normalisation-in-a-different-world.htm))​.

 **Logistics and Shipping**:

* **2023**: The logistics sector faced challenges with balancing supply and demand, ongoing excess capacity, and adapting to new trade regulations and geopolitical tensions​ ([Supply Chain Brain](https://www.supplychainbrain.com/articles/38908-a-global-logistics-outlook-for-2024))​​ ([ING](https://www.ing.com/Newsroom/News/Global-transport-and-logistics-outlook-normalisation-in-a-different-world.htm))​.
* **2024**: Growth may slow as the global economic slowdown impacts goods transportation, with continued adjustments in shipping and logistics practices​ ([ING](https://www.ing.com/Newsroom/News/Global-transport-and-logistics-outlook-normalisation-in-a-different-world.htm))​.

**Global Economic Activity** (non-OECD):

China: The slowdown (5.2% in 2023 to 4.1% in 2024 anticipated) is due to several structural challenges, including the ongoing property market downturn, persistent consumer confidence issues, and weaker global demand.

India: (6.4% 2023 to 6.7% 2024 anticipated)

Brazil: (3% 2023 to 1.8% 2024 anticipated)

Russia: (3% 2023 to 2.9% 2024 anticipated)