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The crises in Iran and the Black Sea and their impact on global energy markets and shipping

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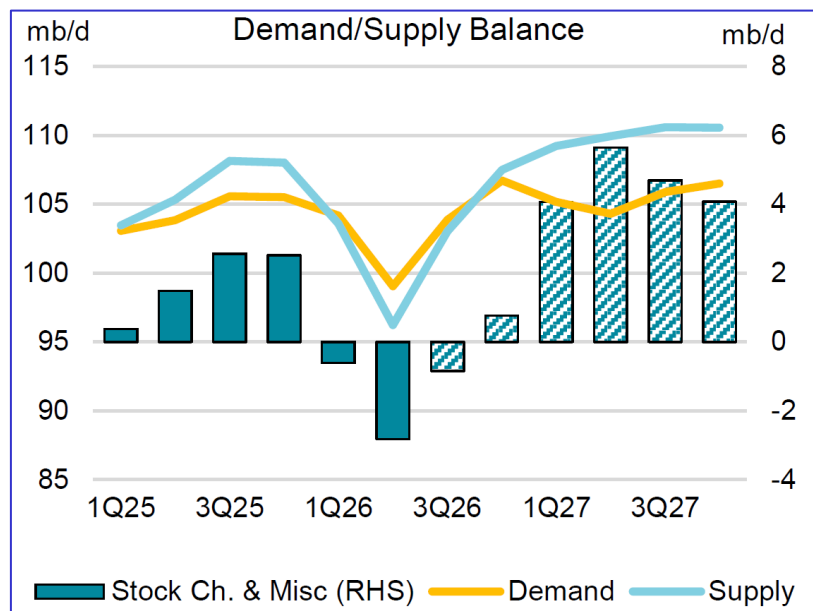
The world in turmoil

- ❑ We are witnessing a serious destabilisation of world order with two major wars -in Iran and in Ukraine- being conducted at the same time.
- ❑ The war in Ukraine lead to the 2022/2023 energy crisis which badly affected European economy, while now we have a major armed conflict in the Persian Gulf with adverse consequences on global energy markets
- ❑ Global oil and gas production was badly affected following the USA-Israel attack on Iran on February 28,2026 and energy prices have exhibited strong volatility since then
- ❑ Since March we have been facing substantial shortfalls in crude oil and LNG production due to the closure of the Strait of Hormuz.
- ❑ For the first time in modern energy history the global system is experiencing oil and gas supply disruption and loss at the same time
- ❑ Consequently Brent oil prices are up + 40% on average since the start of the year and gas prices at the Dutch TTF are + 100 % since February 2026
- ❑ The current energy crisis is morphing into a global financial crisis with symptoms in Europe now evident as eurozone inflation is accelerating at 3.3% and energy inflation jumping at 14.3%
- ❑ Latest IMF forecasts indicate a slowing down of global economic growth at 3.1% for 2026 and 3.2% for 2027, substantially less than previous predictions

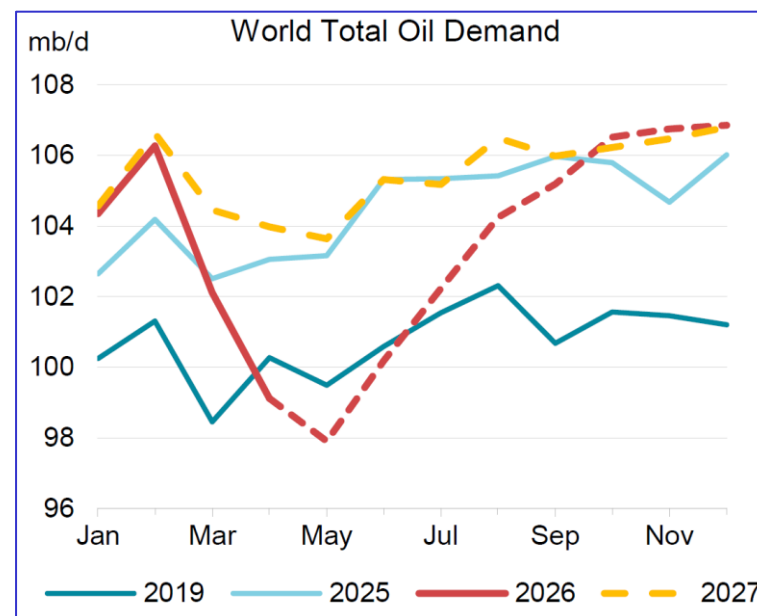
Global oil production

Global oil and gas production was negatively affected following USA-Israel attack on Iran

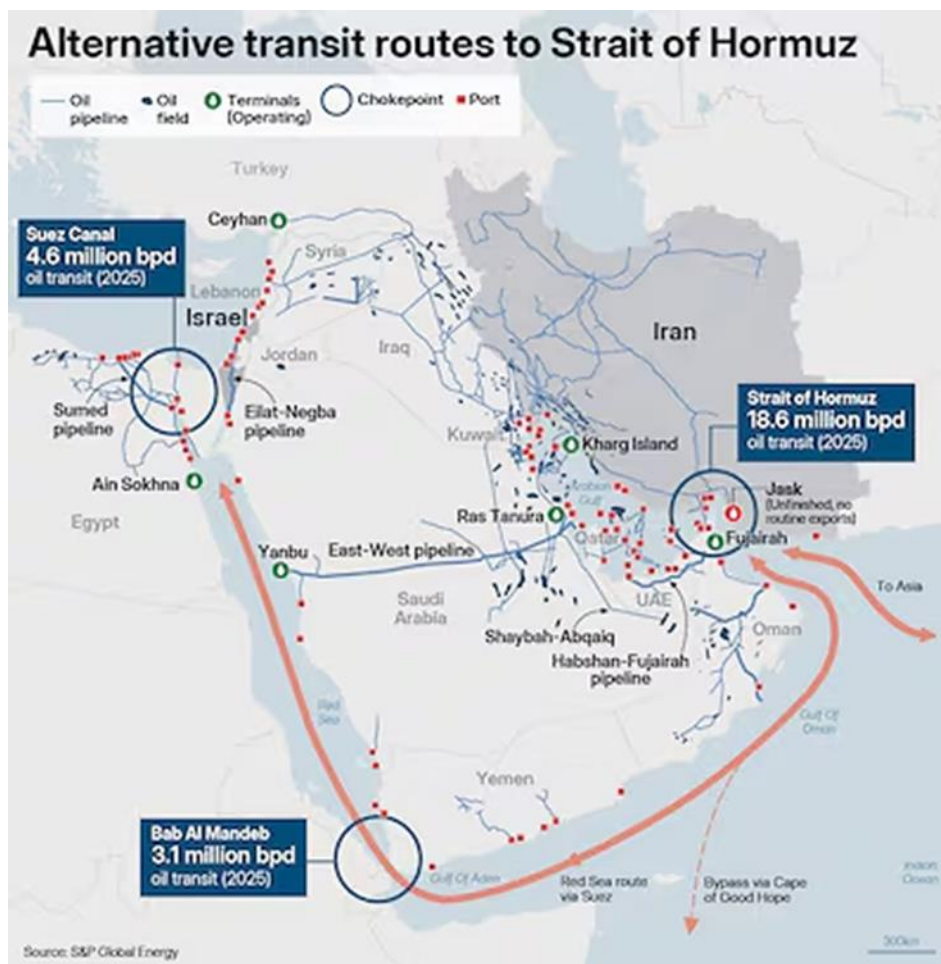
For the first time, as Middle East energy crises are concerned, we have oil and gas output affected at the same time



Source: IEA Oil Market Report – 10 July 2026

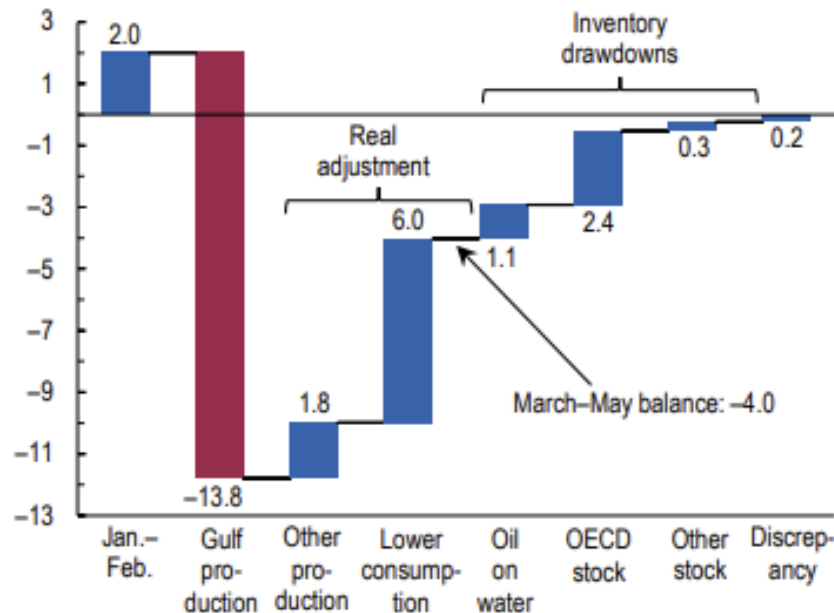


Alternative transit routes to Strait of Hormuz



Where did the missing barrels go?

Figure 1. Global Oil Balance Adjusts to War-Induced Shortfall
(Million barrels per day; March–May vs. January–February)



Sources: International Energy Agency, *Oil Market Report*; and IMF staff calculations.

Note: "Discrepancy" captures measurement and estimation errors. The "Jan.-Feb." bar indicates that in those months production was on average 2 million barrels per day above consumption. Seasonal factors are embedded in the estimation of changes. Some data are preliminary and subject to change. OECD = Organisation for Economic Co-operation and Development.

Where did the missing barrels go?

According to the IEA, the main mechanisms were:

- ❑ **Middle East production was shut in or stranded.** By April, global oil supply had fallen to 95.1 mb/d, with Gulf-country output 14.4 mb/d below pre-war levels. The IEA estimated cumulative Middle East supply losses had exceeded 1.3 billion barrels by June.
- ❑ **Saudi Arabia redirected exports around Hormuz.** Saudi Arabia made particularly effective use of its East-West pipeline to Yanbu on the Red Sea. Exports from Yanbu rose from about 2 mb/d before the conflict to more than 5 mb/d in early June. Saudi Arabia also used oil stocks held overseas.
- ❑ **Other producers outside the Gulf increased supply.** Higher production and exports from the Atlantic Basin provided some relief. By June, robust production growth in the Americas and other non-OPEC+ producers was offsetting part of the Gulf losses.
- ❑ **The IEA released Strategic Petroleum Reserve barrels.** Increased Atlantic Basin crude exports were supported by steep US SPR releases, helping move additional crude toward markets east of Suez.
- ❑ **Inventories were heavily drawn down.** This is probably the most important part of the answer. Global observed oil stocks fell by 129 million barrels in March and another 117 million barrels in April. In May, stocks fell by a further 143 million barrels, equivalent to about 4.6 mb/d.
- ❑ **Demand also fell sharply.** China and Japan reduced crude imports by around 40%, or nearly 6 mb/d combined, while refinery crude runs in China, the Middle East, Eurasia and elsewhere in Asia were more than 5 mb/d lower year-on-year in Q2. This reduced the amount of replacement oil the market actually needed.

Where did the missing barrels go?

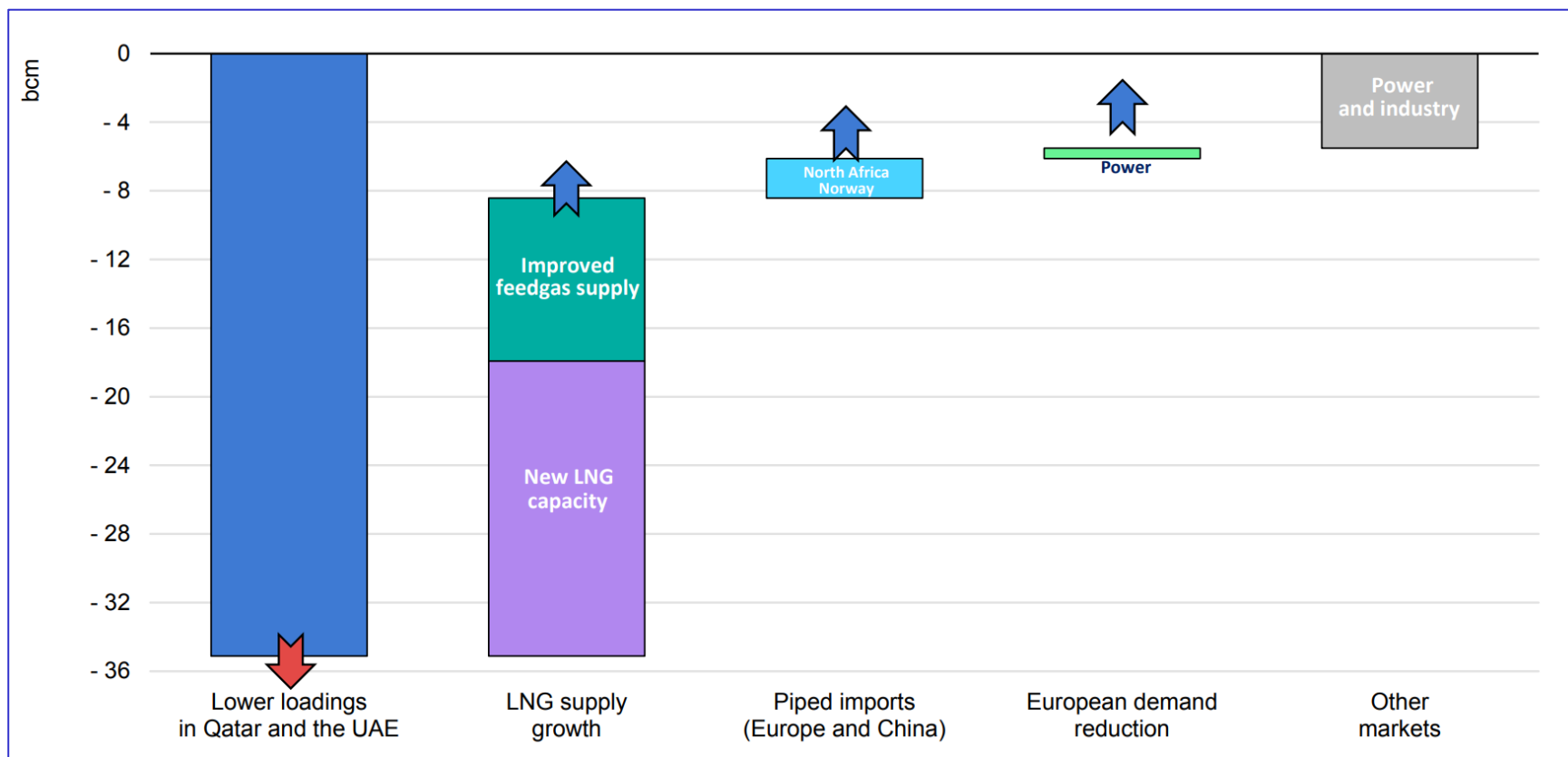
- ❑ Normally (i.e.. before the war) some 16-18 mbd of crude oil and products were transiting through the Strait of Hormuz and 4-6 mbd were exported via pipelines (East-West, ADCOP, Kirkuk-Ceyhan)
- ❑ In short total Gulf oil exports were approx. 20 -24 mbd
- ❑ Today (i.e. August 2026) the profile of the volume of oil which is exported (or not exported) from the Gulf has changed as follows:
 - 8-10 mbd are exported via pipelines (i.e. Fujeirah, Yanbu, Ceyhan)
 - 4-5 mbd has been substituted by volumes from other producers (eg USA, Russia, Kazakhstan, Azerbaijan, Brazil, Norway)
 - 3-4 mbd drawdown from strategic (2.5 mbd) and commercial inventories (1.5mbd)
 - 5-6 mbd from lower consumption because of high prices and lack of access to oil supply

How was missing gas supply from the Gulf replaced?

- ❑ **Non-Gulf LNG producers increased output substantially.** This was the most important replacement mechanism. The IEA says the sharp reduction in Qatar and UAE LNG exports was broadly offset by a very strong increase in LNG output from non-Gulf producers.
- ❑ **US production was particularly important.** Higher US LNG production and exports helped compensate for the loss of Gulf LNG, alongside additional supply from other Atlantic Basin producers. The IEA notes that global LNG production declined sharply in March, but the decline was only partially offset by higher output from other regions.
- ❑ **Europe was able to attract more LNG.** LNG cargoes were redirected toward Europe and other markets where prices were sufficiently high to attract flexible cargoes. This helped prevent an even larger supply deficit, although it tightened competition for LNG in Asia.
- ❑ **Pipeline gas and domestic production provided some additional flexibility.** Markets with access to alternative pipeline supplies could reduce their dependence on LNG. This was particularly relevant for Europe, where Norwegian pipeline gas and other pipeline suppliers remained important.
- ❑ **Demand destruction played a significant role.** Higher gas prices and supply uncertainty encouraged reductions in gas consumption, especially in power generation and industrial sectors. In other words, not every lost Gulf molecule had to be replaced by another molecule of production.
- ❑ **Gas storage provided an additional buffer, particularly in Europe.** Withdrawals from storage helped smooth the immediate supply shock and reduce the need for instantaneous replacement LNG.

Global gas production

Missing volumes from Qatar have been largely substituted by increased production from other countries.



Sources: IEA Gas Market Report, Q3-2026

How have oil and gas prices behaved following the Iran crisis?

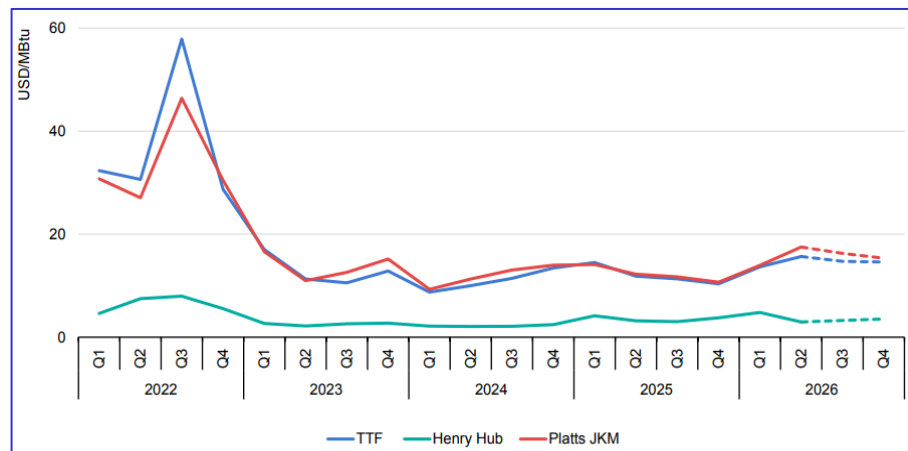
Brent Crude Oil Price - 5 years



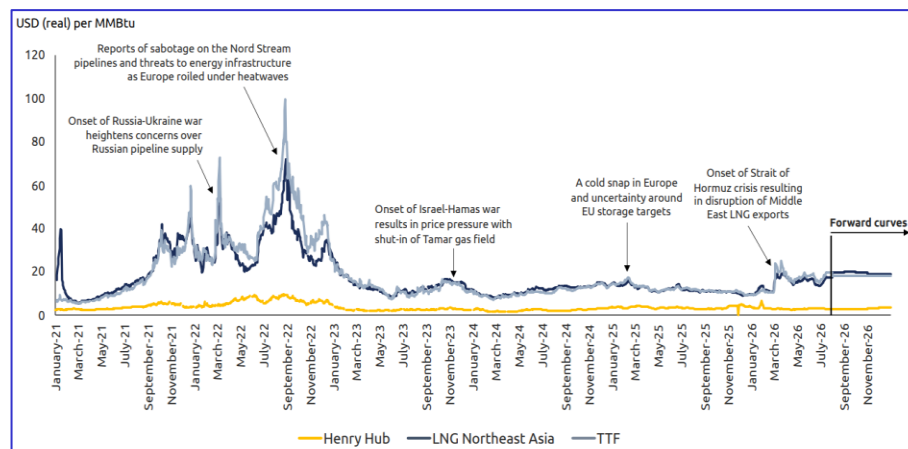
Brent Crude Oil Price - 1 year



Main spot and forward natural gas prices, 2022-2026



Main spot and forward natural gas prices, 2020-2026



Source: Financial Times

Sources: IEA Gas Market Report Q2-2026, IGU Global Gas Report 2026

Dutch TTF Natural Gas Futures

Dutch TTF Natural Gas Futures – 3 months (June 04 – September 02, 2026)



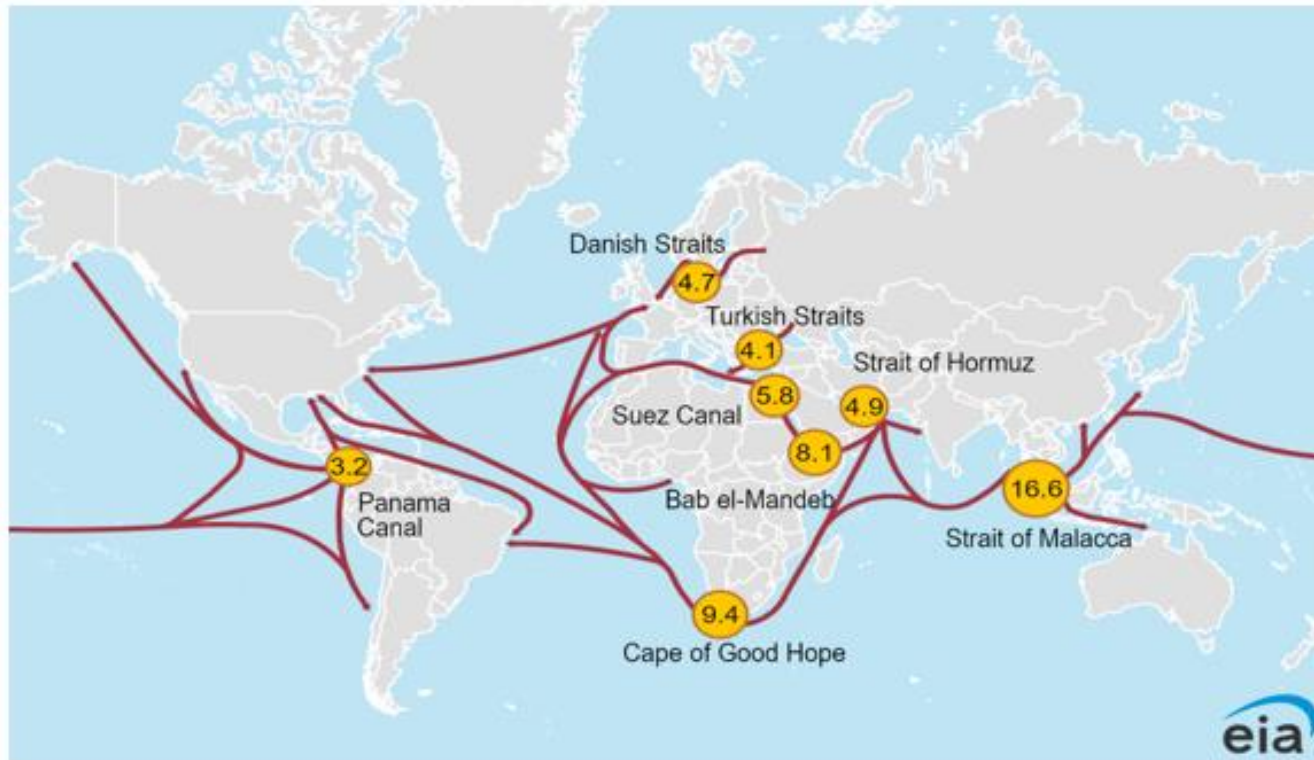
Dutch TTF Natural Gas Futures – 2 years (September 29, 2024 – September 02, 2026)



Source: Intercontinental Exchange (ICE)

The Gulf crisis has affected seaborne oil routes

Map of daily transit volumes of petroleum and other liquids through world maritime oil chokepoints, 2Q26
million barrels per day



Data source: U.S. Energy Information Administration (EIA) analysis, based on Vortexa tanker tracking; World Bank; and Panama Canal Authority data, using EIA conversion factors and calculations

Note: 2Q26=second quarter of 2026.

Source: US EIA analysis Q2-2026

Global LNG Shipping

The global LNG fleet grew by **8.4% year-on-year** in 2025.

6,870

trade voyages, a change of

-2.8% year-on-year

804 / **79**
active vessels / new vessels¹

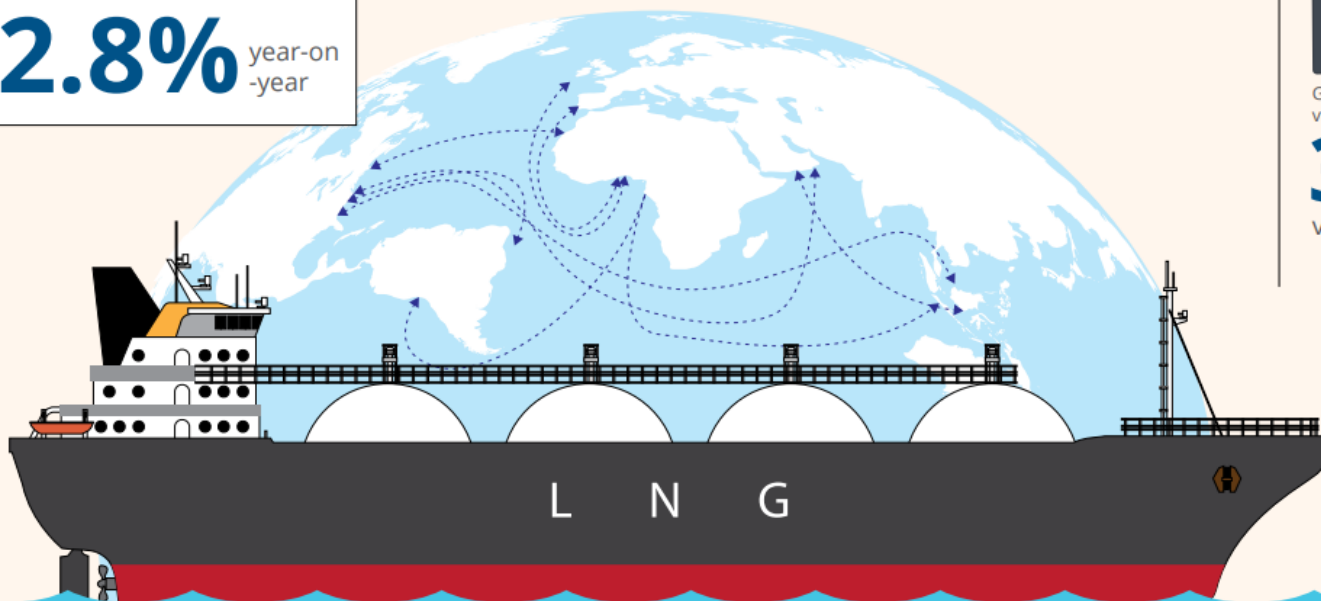


Including
49 / **11**
FSRUs / FSUs



Global LNG vessel orderbook²:

301
vessels

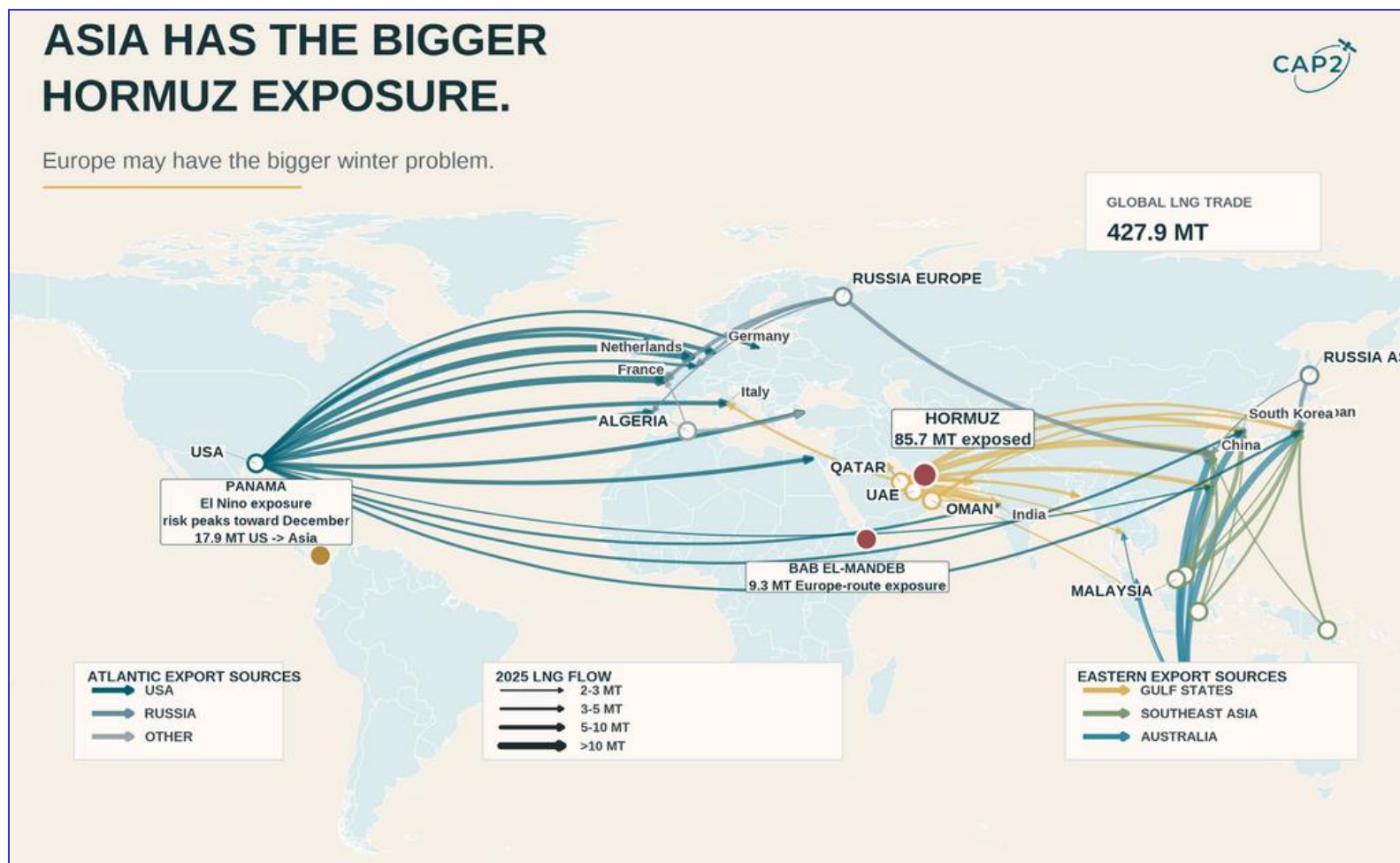


LNG trade between regions, 2025



Source: IGU LNG Report 2026

The Gulf crisis has affected LNG routes



How has international shipping been impacted by the current crises in the Persian Gulf and the Black Sea?

☐ **Logistics Costs**

- ☐ Skyrocketing due to mandatory war-risk insurance premiums, freight rates and container surcharges.

☐ **Insurance Reality**

- ☐ Lanes are effectively closing because insurers refuse to write coverage.

☐ **Freight Rates**

- ☐ Freight rates for all types of cargoes have increase manyfold, depending on cargo and type of vessel VLCC and LNG freight rates are worse affected.

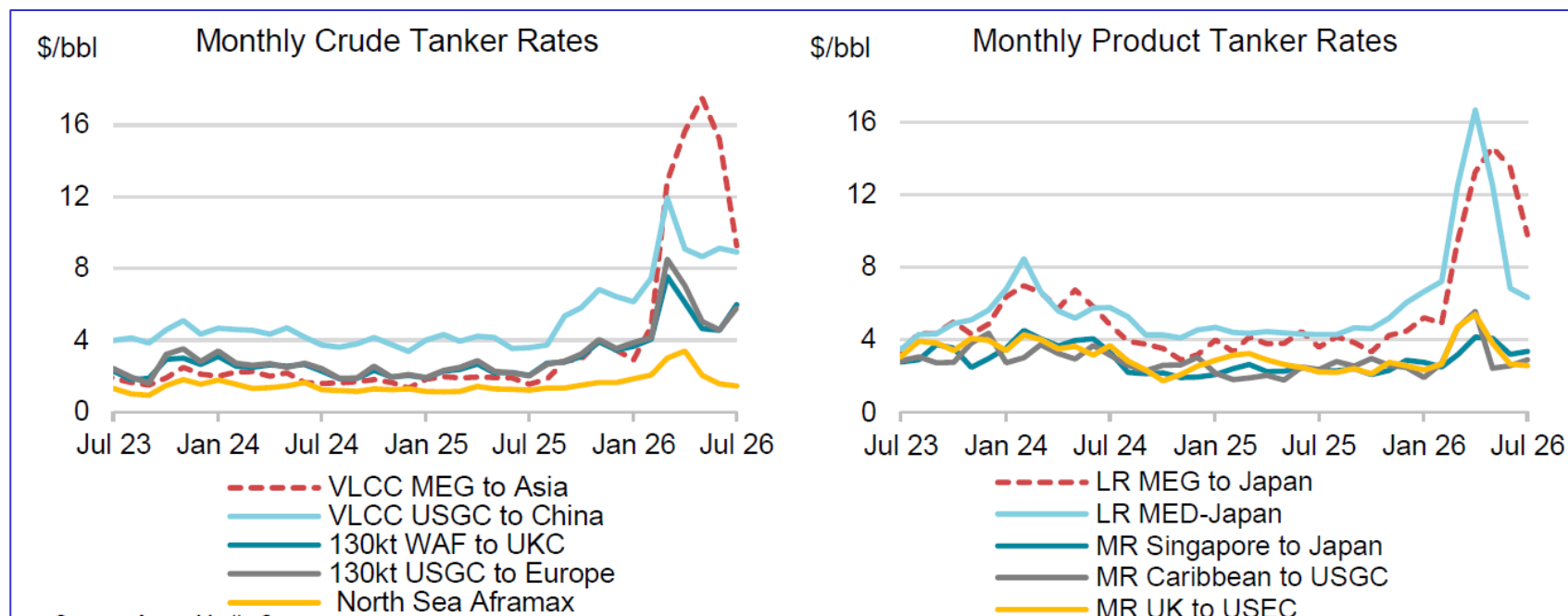
☐ **Rerouting Burden**

- ☐ Carriers are forced into long-term rerouting strategies (e.g., around Africa's Cape of Good Hope) and relying heavily on land-based pipelines and overland routes.

☐ **Supply Chains**

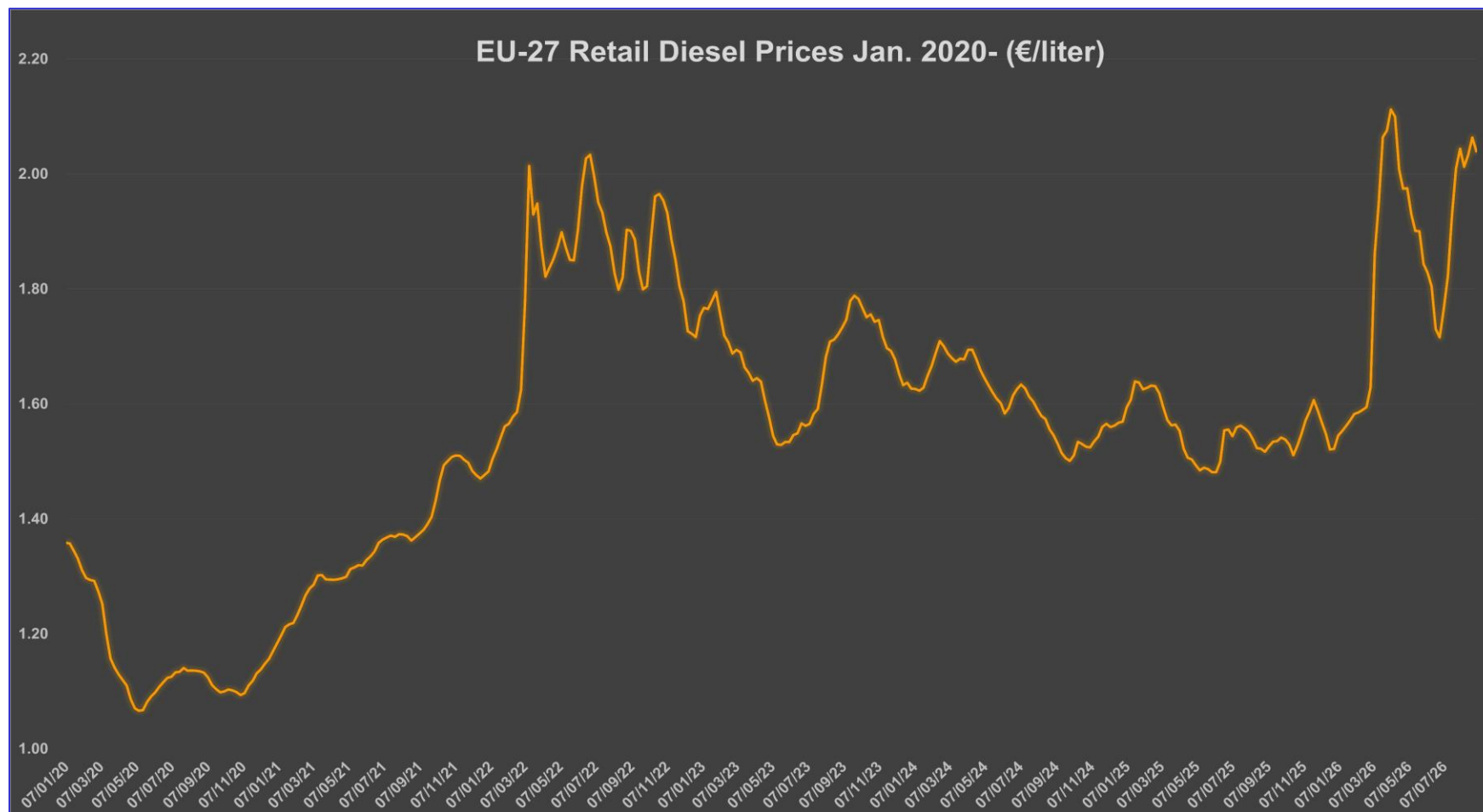
- ☐ Shippers are operating on a "steady state of uncertainty," implementing aggressive inventory buffering to prevent manufacturing delays.

Tanker rates



Source: IEA Oil Market Report – 10 July 2026

What is the impact of the Ukraine-Black Sea crisis on European diesel prices?



Source: European Commission Weekly Oil Bulletin

What is the impact of the Ukraine-Black Sea crisis on European diesel prices?



Source: Financial Times

How has the Ukraine war and attacks on Russian oil installations and ships affected the oil market?

❑ **The Refinery Crippling Effect**

- ❑ 25%–40% of total domestic oil refining capacity knocked offline by long-range drone strikes.
- ❑ Forced implementation of strict fuel export bans to prevent localized shortages and protect military supply.
- ❑ Loss of billions in high-margin, refined product foreign currency revenue.

❑ **The Crude Discount Trap**

- ❑ Refinery damage forces Russia to export raw, unrefined crude (Urals) instead of high-value fuels.
- ❑ Asian buyers enforce a steep geopolitical discount, significantly eating into state profit margins.

❑ **Black Sea Logistical Paralysis**

- ❑ Novorossiysk shipping corridors declared high-risk combat zones.
- ❑ Skyrocketing war-risk insurance premiums and freight rates inflate the cost of every exported barrel.
- ❑ Inland rerouting via Siberian rails and Arctic shipping adds severe operational overhead.

❑ **Negative Impact on Russian economy**

- ❑ Domestic fuel shortages drive up internal agricultural, manufacturing, and transport costs.
- ❑ Central Bank of Russia forced to maintain benchmark interest rates above 18%–20% to defend the Ruble.
- ❑ Crippling borrowing costs choke off all private, non-military commercial growth.
- ❑ Russian is experiencing a Technology Bottleneck
- ❑ Sanctions completely block the procurement of specialized Western components needed for refinery repairs.
- ❑ Damaged distillation units remain offline for months, inducing permanent industrial decay.

Concluding Remarks

- ❑ The current energy crisis highlights the need for increased energy security at both national and regional level
- ❑ Energy security can be enhanced by (a) expanding and differentiating the energy mix, and (b) taking precedence over energy transition policies
- ❑ The role of energy storage (both oil and gas) is crucial in our effort to improve energy security
- ❑ Pumped storage and batteries important as they may be can only help smooth peaks in power generation. Electricity still counts less than 25% of total energy use
- ❑ Fossil fuels should not be underestimated when formulating long term energy policies
- ❑ Peak oil demand is now forecasted beyond 2040 while gas demand may not climax until a much later. In any event, there are divergent views among forecasters and nobody really knows when exactly we might see peak fossil fuel demand happening – but not very soon!
- ❑ It is safe to assume that beyond 2050 the global energy mix will shift towards greater electricity input. This means that over the 20-25 years we shall need more vessel capacity to transport energy related commodities, especially LNG and special cargo vessels.



INSTITUTE OF ENERGY
FOR SOUTH-EAST EUROPE

The background of the slide is a dark blue image of the European continent. Overlaid on the map are numerous glowing blue lines that represent energy transmission or a network. These lines are curved and connect various points across the map, creating a sense of dynamic energy flow.

*Thank you
for your attention!*

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