Oil Flash Note

Can the world live with 9% less oil?

Global Commodities Research

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We spent last week in China, and the most striking takeaway from our meetings was not simply that oil demand has fallen. It was that it may have dropped by as much as 9% or 1.5 mbd—abruptly, unexpectedly, and with remarkably little visible disruption.

The sharpest hit has been in petrochemicals, but the weakness has spread to transportation fuels like gasoline and diesel. The decline does not appear to be the product of a formal government conservation campaign. There were no conspicuous appeals to save energy, no major limits on mobility, and no sense of crisis in daily life. Instead, it looks like consumers have made a quiet economic choice. Faced with higher gasoline, diesel and airfare, many seem to have shifted away from oil-based transportation toward cheaper, lower-carbon alternatives: electric buses, gas-powered trucks, subways, electrified high-speed rail, and electric taxis.

Feedback from Europe tells a similar story. Unlike 2022, when the energy shock registered as an acute macroeconomic crisis, this oil shock has, so far, felt oddly more manageable, even as it marks the largest disruption to oil markets on record. Even with oil prices nearing $120 a barrel in April and May, electricity prices across most European countries continued to slip into negative territory, pushed down by massive surges in solar and wind generation.

This is not to suggest that the adjustment has been painless everywhere. Globally, we track demand losses of 2.8 mbd in March, 4.3 mbd in April, and 5.6 mbd in May, while acknowledging extremely limited visibility in parts of Africa and Southeast Asia. Roughly 40-60% of the decline reflects weaker petrochemical feedstock demand, with the remainder coming from transport fuels. Even so, the broader impact on global economic activity has been relatively contained: our economists have trimmed global growth by only about 24 basis points in 2026, while raising inflation by around 100 basis points.

Nor has China been immune, despite the presumed availability of large stocks of petrochemicals. China's economic growth weakened sharply in April, and high-frequency data suggest that softness carried into May. Industrial activity slowed, while nearly every segment tied to domestic demand weakened materially. Even so, China's shift toward alternative energy systems may have helped the country absorb the shock with far less pain than its roughly 70% oil-import dependence alone would imply.

See page 6 for analyst certification and important disclosures.

Crucially, what we are seeing in China does not look like an outright collapse in activity. Road transport indicators have shown little material weakening beyond normal seasonality, yet gasoline and diesel demand fell sharply in April and May—a divergence that only makes sense if the miles are still being driven, but increasingly in different powertrains. Consistent with that interpretation, China's highway EV charging volumes climbed to record highs during the Spring Festival holiday week in late February and then surged 55.6% year-on-year on the first day of the five-day May Day holiday in early May. China's Ministry of Transport estimates that an average of 15.4 million electrified vehicles traveled during the May holiday period, accounting for a massive 24% of all vehicles on the road—up 33% from a year earlier.

A similar pattern is emerging in aviation. Chinese air travel is running 6.5% below last year's pace so far in May, with the bulk of the weakness concentrated in the domestic market. Here again, the story may be substitution rather than retrenchment. Over the May Day holiday, China saw a record 1.52 billion inter-regional passenger trips—up 3.5% from the same period a year earlier. Road travel remained the dominant mode, also up 3.5% year on year, while rail trips rose 4.6% and civil aviation fell 5.7%. Against this backdrop, China's high-speed rail network is often faster, cheaper, and increasingly the default choice for domestic travel. In effect, some of the jet fuel demand may now be shifting to the power grid via electrified rail, rather than disappearing altogether.

Taken together, developments in China and Europe raise a larger set of questions: how much of today's demand weakness is likely to reverse once conditions normalize, and how much reflects a more durable shift in consumption? Put differently, could the world actually function with something like 9% less oil?

The answer is nuanced. A decline of that magnitude would typically read as recessionary—especially when set against the Global Financial Crisis, when the world's oil demand fell by only about 2% at its trough. But if a meaningful share of the reduction comes from *substitution* rather than *forgone activity*, the macro signal is materially different.

Consider the mechanics. Despite the relative calm in broader markets, the physical supply shock itself has been immense. Supply losses linked to the closure of the Strait of Hormuz were severe and intensified further after the US blockade effectively halted Iranian oil exports. As a closed-loop system that must clear daily, the oil market can only adjust through some combination of inventory draws and demand loss. Supply to the market fell by roughly 12.6 mbd in March, 14.1 mbd in April, and 16.4 mbd in May. These losses were offset through a mix of inventory draws—about 3 mbd in March, 6.5 mbd in April, and 7.4 mbd in May—alongside demand declines of roughly 2.8 mbd, 4.3 mbd, and 5.6 mbd over the same months, respectively.

The lessons of the 1973 oil shock are instructive precisely because the world today looks fundamentally different from the one that entered the first oil embargo. In 1973, oil was deeply embedded across nearly every part of the global economy: electricity generation was heavily oil-dependent, vehicle efficiency was poor, public transportation infrastructure was limited, and large-scale alternatives barely existed. The result was a severe macroeconomic shock that triggered recession, inflation, industrial weakness, and a lasting restructuring of global energy systems.

Much of the modern energy system was built in direct response to those vulnerabilities. In the US, the crisis led to the creation of the Strategic Petroleum Reserve, the establishment of the Department of Energy, the introduction of fuel economy standards, and even the national 55 mph speed limit aimed at reducing gasoline consumption. Across Europe and Japan, governments accelerated the buildout of nuclear power, expanded public transportation systems, improved building insulation standards, and diversified away from oil in electricity generation. The crisis also reshaped industrial processes, encouraged smaller and more fuel-efficient vehicles, and ultimately reduced the share of oil in the global energy mix over the following decades **(Figures 1 & 2)**.

This raises the key question for today: should we expect structural changes of similar magnitude from the current shock? Possibly yes, but the direction of change may be different. The 1973 crisis pushed economies to use energy more efficiently. Two major wars involving large oil producers over the past five years could accelerate something broader: the steady decoupling of economic activity from oil consumption itself.

- **Gasoline demand may prove to be one of the clearest examples of crisis-driven behavioral adaptation.** When fuel is scarce and prices surge, consumers and firms often respond by accelerating changes already underway: efficiency improvements, modal substitution, and adoption of alternative drivetrains. China sits at the center of this dynamic. Even before the current shock, gasoline demand was on a structurally weaker trajectory as rapid EV adoption displaced incremental gasoline use. The crisis is now acting as an accelerant, reinforcing the shift through higher fuel costs, energy-security concerns, supportive policy, and the continued rapid expansion of charging infrastructure. We estimate China's gasoline demand destruction at about 180 kbd, and expect 70% of that loss may not return even after markets normalize **(Figures 3 & 4)**. The reason is simple: once consumers switch to EVs, the change tends to be sticky. Outside China, the structural effects are likely smaller but still meaningful. In Europe, new car registrations climbed to their highest level since 2019 in March, led by hybrids, which overtook diesel and petrol cars in late 2025. History suggests that past oil shocks often left lasting declines in gasoline demand, and this episode may prove no different. On that basis, we expect that some portion of the 900 kbd loss in gasoline demand may never fully return. Diesel shows a similar, if more uneven, risk profile. Part of the roughly 850 kbd decline in diesel demand may also prove durable, with the risk of permanent substitution concentrated in China **(Figures 5 & 6)**.

- **Petrochemicals are a harder case for substitution, because they run through supply chains in ways that are difficult to unwind.** But even there, economies tend to adapt through efficiency gains, material substitution, and, at the margin, outright thrift. A small but telling example comes from Japanese snack maker Calbee. To help offset rising naphtha costs—a key petrochemical feedstock largely sourced from the Gulf—the company has temporarily shifted 14 of its iconic products (including potato chips) to black-and-white packaging. The move will likely be reversed once naphtha supplies normalize, not least because it imposes a real friction on consumers. Without the familiar color-coding (orange for lightly salted, green for seaweed), shoppers have to slow down and scrutinize labels, relying on text rather than instant visual cues to quickly grab their favorite flavors. That distinction matters. Measures like this reflect cost pass-through and short-term coping strategies more than a durable rewriting of demand. For that reason, we assume most of the roughly 2.4 mbd of lost petrochemical feedstock demand is likely to return as supply conditions normalize.
- **Jet fuel is the clearest case of the roughly 500 kbd demand loss that should mostly recover once supply chains stabilize.** The pullback—concentrated in the Middle East and Asia—looks driven more by operational disruption than a lasting shock to mobility: airlines have rerouted flights, avoided certain Middle East refueling hubs, trimmed unprofitable routes, and run inventories more conservatively amid higher prices and elevated uncertainty. Long-haul aviation is also usually hard to substitute, particularly across Asia and on intercontinental routes. Scalable alternatives are limited, and sustainable aviation fuel remains a small, supply-constrained share of the mix. For that reason, our base case is that most of today's jet fuel demand shortfall returns as availability normalizes. That said, higher fares and prolonged uncertainty could still leave structural fingerprints. They may accelerate the shift to remote business meetings, curb discretionary short-haul travel, and divert some passenger demand to rail where it is a viable substitute. Airlines, for their part, may prioritize profitability and load factors over rapid capacity expansion. The net result is that jet demand looks relatively resilient versus other refined products, with recovery likley, but with the key risk being a flatter long-term growth trajectory than the pre-crisis path.
- **Fuel oil demand destruction is estimated at 600 kbd so far, driven by weaker shipping and industrial activity, refinery disruptions, and lower oil-fired power burn.** Unlike jet fuel, a meaningful share of this loss may not return even after crude flows normalize, because end users are adapting in ways that tend to persist. In shipping, higher bunker costs are accelerating slow steaming, route optimization, and fleet-efficiency upgrades. In power, governments are minimizing oil burn through conservation, grid optimization, faster renewable deployment, and in some cases greater coal use. In industry, firms are tightening processes, selectively electrifying systems, and reducing energy intensity **(Figure 7)**. A relevant precedent is global shipping after the 2008 financial crisis and the IMO 2020 transition. Slow steaming began as a temporary response to higher costs, but became embedded as operators found they could materially cut fuel use with limited impact on supply chains, evolving into a structurally more fuel-efficient operating model for parts of the fleet **(Figure 8)**. Because fuel oil is relatively easy to replace at the margin, even a partial step-down can become structural. The implication is an incomplete recovery and a faster long-term decline in fuel oil demand even once conditions stabilize.

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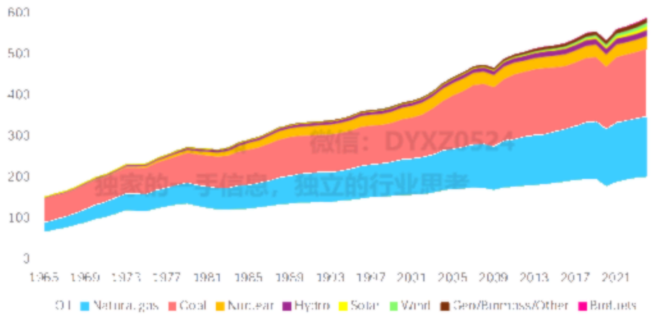
Figure 1: Global energy stack

Exajoules



Source: EI Statistical Review, J.P. Morgan Commodities Research

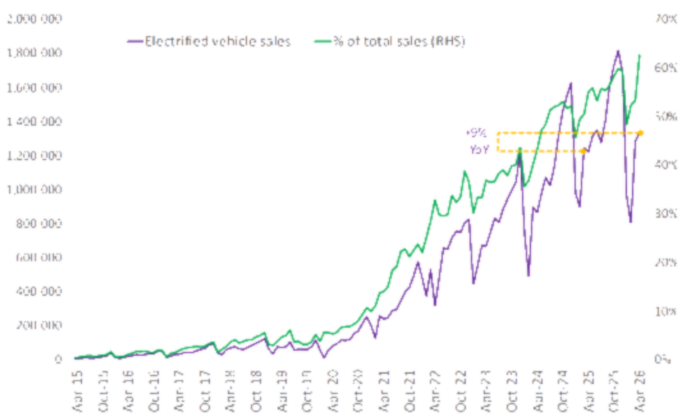
Figure 2: Oil intensity of GDP

Barrels of oil consumption per $1000 of real GDP

Source: EI Statistical Review, World Bank, J.P. Morgan Commodities Research

Figure 3: China electrified vehicle sales

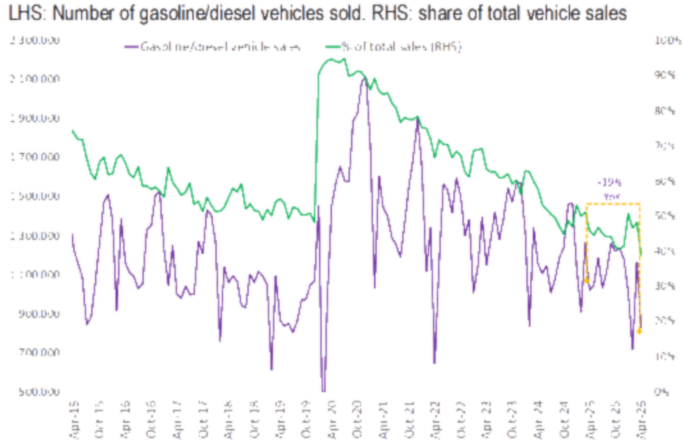
LHS: Number of electrified vehicles sold. RHS: share of total vehicle sales



Note: Electrified vehicles include BEV, PHEV and HEV vehicles
Source: Bloomberg Finance L.P., J.P. Morgan Commodities Research

Figure 4: China gasoline/diesel vehicle sales

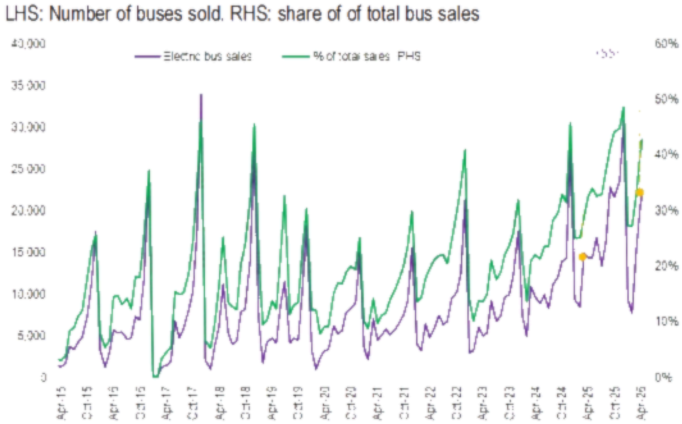
LHS: Number of gasoline/diesel vehicles sold. RHS: share of total vehicle sales



Source: Bloomberg Finance L.P., J.P. Morgan Commodities Research

Figure 5: China electric bus sales

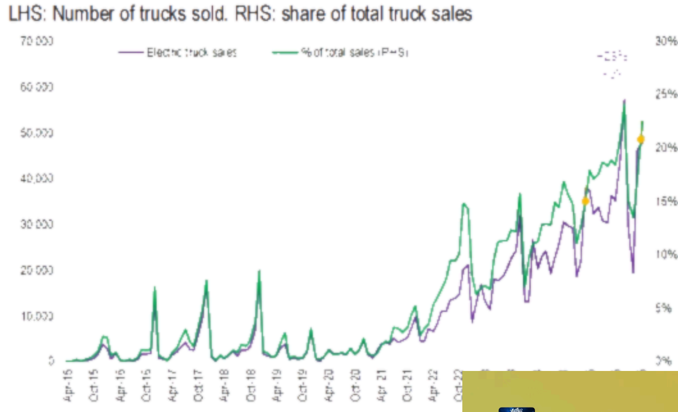
LHS: Number of buses sold. RHS: share of of total bus sales



Source: Bloomberg Finance L.P., J.P. Morgan Commodities Research

Figure 6: China electric truck sales

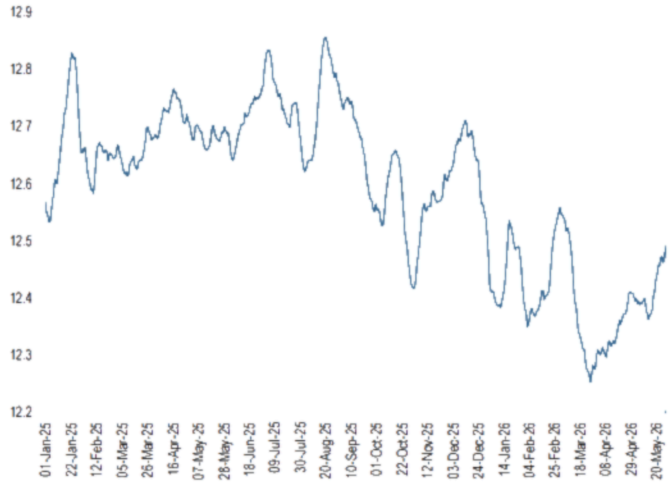
LHS: Number of trucks sold. RHS: share of total truck sales



Source: Bloomberg Finance L.P., J.P. Morgan Commodities Research

Figure 7: Global average containership speed

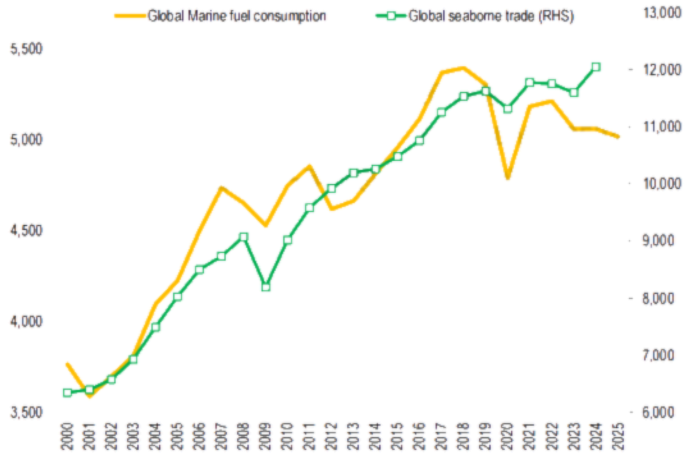
knots



Source: Bloomberg Finance L.P., J.P. Morgan Commodities Research

Figure 8: Global marine fuels demand vs seaborne trade

LHS: Marine fuel consumption, kbd. RHS: Global seaborne trade, million tons



Source: UNCTAD, WoodMackenzie, J.P. Morgan Commodities Research