The Big Read **Oil**

Has China already reached peak oil?

The country's demand for crude seems to be plateauing sooner than expected. The implications are huge

Malcolm Moore in London 19 HOURS AGO

Amin Nasser, the head of Saudi Aramco, the world's largest oil company, has always had one special customer: China.

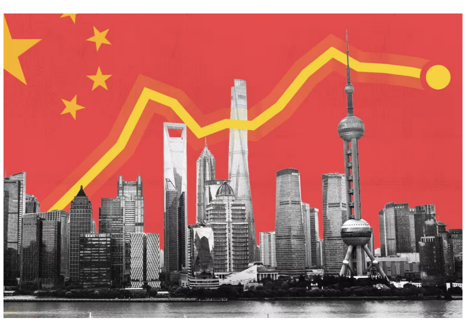
In his 10 years in charge, Nasser has seen the value of Saudi oil exports to China more than triple, to a record $56bn in 2022, a year in which almost one in six barrels that Saudi Arabia pumped was shipped to Chinese refineries.

Foreign oil has underpinned China's economic rise, as the country built the world's largest car industry from scratch, new railways and air travel networks, and thousands of skyscrapers. In 2022, 72 per cent of its total crude oil supply was imported, according to the International Energy Agency (IEA).

"I have no doubt that elevating our relationship to undreamed-of heights would help turbo-charge China's efforts to meet the hopes and dreams of its people," said Nasser at last year's China Development Forum in Beijing.

But there are now signs that China's thirst for crude is reaching a peak sooner than expected, a development that has sent shockwaves through the oil market.

The end of the Chinese supercycle



This is the second of a two-part series on how Chinese demand for commodities, which transformed the mining and

This week, China said its oil imports had fallen nearly 2 per cent, or 240,000 barrels a day, to just over 11mn b/d in 2024 compared with the year before, the first decline in two decades barring the disruption during the Covid pandemic.

China's stuttering economy is partly to blame. The country's ongoing property crisis led to a slowdown in construction, which hit demand for diesel to run heavy machinery, as well as for the petrochemicals used in paint, pipes and insulation.

energy industries for two decades, is now beginning to weaken, in part because of the property crisis

Part one: The China commodities supercycle is over. Will there be another?

But the decline stems from longer-term trends too. There was a boom in trucks switching from diesel to liquefied natural gas, and, most importantly, the rising number of electric vehicles helped to depress sales of petrol and diesel.

Sales of both road fuels peaked in 2023, according to China National Petroleum Corp, and will now fall by 25-40 per cent over the next decade.

In December, Sinopec, China's biggest refiner, brought forward its forecast for crude oil consumption to reach a peak to 2027, compared with the range it previously gave of between 2026 and 2030.

The implications of China hitting peak oil are enormous. If Chinese demand is reaching a plateau that would fulfil projections by the IEA of global oil demand peaking before 2030. The forecast sustains hope for the world to reach net zero carbon emissions by 2050.

The milestone would also shake the global economy. Over the past three decades, China has accounted for half of all growth in the world's oil demand — some 600,000 b/d.

If that rate continues to level off, the $500bn that oil companies are spending every year on finding new sources of oil and gas may be far too high. "The jury is out on whether the demand will be there to absorb it or not," says Martijn Rats, an analyst at Morgan Stanley. "The answer may be that it is not."

In December, Sinopec, China's biggest refiner, brought forward its forecast for peak crude oil consumption to 2027, compared with the previous range of between 2026 and 2030 © CFOTO/Sipa USA/Reuters

An electric vehicle battery electrolyte factory in Anhui province. The rising number of EVs has helped to depress sales of petrol and diesel © CFOTO/Sipa USA/Reuters

In the markets, the anxiety over China's weak oil demand last year kept crude prices within their narrowest trading range in over two decades in real terms.

Benchmark Brent crude ended the year at just over $74 a barrel, a few dollars down from the beginning of the year, despite crises in the Middle East, the ongoing war in Ukraine, a shutdown of oil production in Libya, and a more than 20 per cent drop in Middle Eastern crude shipments to Europe because of attacks on tankers in the Red Sea.

If Chinese oil imports continue to slow, it would fundamentally change the market, says Rats. "If you have slower growth for six months or a year, then you have softer oil prices and supply slows down a bit.

"But if you truly have very little oil demand growth then that is a different oil market in the future than it has been in the past."

Many oil producers are loath to call this moment a turning point, sceptical that China is fading as an engine of growth.

"It is too early to claim peak oil," says Meg O'Neill, the chief executive of Woodside, Australia's largest oil and gas company. She points to the fact that China's economy still has a long way to go to reach western levels of per capita wealth.

"If you go back over the last 20 years, there have been proclamations of peak oil at points of economic softness, and it's proven to be incorrect," she adds. "China still aspires to grow its economy and lift the standard of living and often that has a direct correlation to energy consumption."

Opec, the oil cartel, has a bullish outlook for China despite last year's decline in imports, forecasting that consumption will continue to grow, by 2.5mn b/d, from 2023 to 2050. Saudi Arabia and other Middle Eastern producers tend to rely on Opec's data when making policy.

Saudi Aramco has also rejected the idea that China is slowing down. "When people talk about China, they are always trying to maximise the downside and ignore the upside," said Nasser last October at the Future Investment Initiative conference in Riyadh. "In general, there is still growth in China."

Nasser insisted there was stronger and more durable demand than official imports data implied, noting that the country's surging solar and wind power industries still required large amounts of oil.

"For 5 megawatts of wind-generated power you need 50 tonnes of plastics. For every electric vehicle you need 200-230kg of plastic. Even in solar panels, 10 per cent comes from fibre and so on. So for the transition to happen you need more oil," he said.

Saudi Aramco has said the public information on China's oil consumption is unreliable. Since the country does not officially report oil consumption statistics, analysts estimate it from a range of sources, including import and export data, the changes in stockpiles and the outflow from refineries. There have been a wide range of estimates, with differences of up to 1mn b/d, even for historical data.

Ziad al-Murshed, the company's chief financial officer, told analysts at the end of last year that significant upwards revisions to 2023's oil data "makes 2024 growth look less than it actually is. That kind of distorts the picture."

A tanker carrying imported crude oil is inspected at Qingdao port, Shandong province. China's oil imports fell nearly 2% in 2024 compared with the year before © China Daily/Reuters

A solar panel factory in Jiangsu province. The country's surging solar and wind power industries still require large amounts of oil © CFOTO/Sipa USA/Reuters

At the IEA, analysts acknowledge that assessing China's oil consumption is "quite challenging". "It has been a very noisy period for Chinese demand between lockdowns and the return from lockdowns and chasing high growth," says Ciarán Healy, an oil market analyst.

Nevertheless, the IEA continues to forecast that China will hit peak oil by the end of the decade. This is based on two huge, and opposing, structural trends, Healy says.

The first is the strong rise in the amount of crude oil flowing into China's rapidly growing petrochemical industry. The second is the more precipitous fall in the amount of oil needed for road transport.

"In the run-up to Covid, the growth [in oil use] was quite broad based; petrochemicals, road transport, jet fuel, everything grew," says Healy. "Since 2019, petrochemical production has become a bigger factor. On a net basis, all of the growth in oil consumption globally between 2019 and 2023 is actually the growth of petrochemicals in China."

China has been steadily building more petrochemical plants in order to become self-sufficient in the plastics, solvents and fibres that its factories depend on.

"Chinese imports of polymers are still really big, but were enormous," says Healy, referring to the class of chemicals that includes nylon, polyester, polyethylene and Teflon, among others. "The statistic that blows my mind is that the [country's] imports of polymers are something like 2 to 3 per cent of the world's oil demand. That's Germany's [oil use] in demand terms."

Echoing Nasser's remarks, the IEA's Healy says "probably about a quarter" of China's increase in petrochemical demand over the past five years has come from wind turbines and solar panels, and says "essentially all" of the growth in China's oil use going forward will be from the petrochemical sector.

But the IEA believes that the fall in oil use for road transport will be more significant. "By 2030, three-quarters of cars being sold will be electric, and while you have growth in petrochemical demand, that's nowhere near strong enough to offset that decrease in road transport," says Healy. "It will plateau for a while and then start to fall a bit more sharply."

In its base case scenario, which extends all of the policies currently in place, Healy says the IEA believes China's oil consumption will fall from 16mn to 17mn b/d at present to about 12mn b/d by 2050.

China's electric vehicles boom, helped by government incentives to trade-in old cars for new, shows little sign of slowing down. The market for pure battery and plug-in hybrids is growing about 20 per cent year on year, compared with a similar contraction in petrol and diesel cars.

But some question whether the Chinese state will sit back and let peak oil happen. While the "revolution" in electric vehicles is both "profound" and "mind-boggling", says Victor Gao, chair of the China Energy Security Institute, the government will be gauging the potential impact on its huge, state-owned, oil refining industry.

He suggests that the country's state-owned refineries are unlikely to be suddenly deprived of business, but perhaps there would have to be a change in strategy.

Welders on an EV production line. If China succeeds in replacing petrol and diesel vehicles, it may decide to refine crude oil into different products for export © CFOTO/Reuters

Children visit Lianyungang Petrochemical Industry Base Science and Technology Museum. The IEA says 'essentially all' of the growth in China's future oil use will be in petrochemicals © Zhu Huanan/VCG/Reuters

"China's refining capacity is huge. Until now, China has refined petroleum for its domestic use, it does not export refined products. But if China succeeds in this EV revolution, it may decide to refine crude oil into different products for export. That means China's consumption of crude oil may not necessarily go down, it may hold steady," he says.

It is also much easier now for China to line up crude oil supplies, Gao notes, pointing to its deepening energy ties with Russia, which has been a dependable source of cheaper oil and gas since western countries imposed sanctions relating to the Ukraine war.

"This is changing China's mentality," he says. "It may be much easier, if the geopolitical risks can be managed, to expand its co-operation with Russia." In 2023, Russia overtook Saudi to become China's top oil supplier.

If China's oil demand is indeed passing its peak, the consensus is that India's growth will become the main driver of growth in global oil consumption.

While India's thirst for oil still lags far behind China, Opec believes that the country's oil use will grow by 1.5mn b/d, roughly three-quarters of China's additional demand, between 2023 and 2029, while the IEA forecasts Indian oil growth to be 1.2mn b/d by 2030.

Though India has far smaller manufacturing, construction and petrochemicals sectors than China, diesel and petrol car sales have yet to be significantly displaced by electric vehicles.

According to JMK Research, a renewables research agency, there were just under 100,000 electric cars sold in India last year, roughly 5 per cent of an electric vehicle market that is led by mopeds and e-bikes.

Yet analysts say that rising demand in emerging markets will not come close to matching that seen in China over the past decades. While there is likely to be material growth elsewhere in south-east Asia, the IEA said the performance of these economies would be affected if China's economic slowdown continued.

Oil consumption is growing across Africa and the Middle East, but remains only a tiny fraction of China's growth in absolute terms. Latin America's oil use was essentially flat, said the IEA.

In short, an end to China's oil boom would be a tectonic shift that is unlikely to be reversed, according to analysts.

"You can say other countries can pick up the slack, and India's oil demand is still growing, but there was something quite oil intensive about the growth that China has pursued over the last 30 years," says Rats of Morgan Stanley.

Some may disagree on the exact moment when China's appetite for oil peaks, but the IEA's Healy says long-term demand is only going in one direction — and producers and oil-exporting countries need to be prepared.

"It may still be profitable for them to extract oil and gas from the ground and sell it but it will be a huge reduction in their overall income," he says. "Given how dependent those countries are on oil and gas exports, that would have massive implications."