Energy Tidbits

BlackRock: Think Oil & Natural Gas, Solar Farms & Power Grids to Meet Growing Energy Demand Driven by AI Datacenters

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2 Production, operating fields and investments

Investment levels remain high on the shelf

Gas production reached a new record in 2024, and the investment level remains high. Several new development plans are expected over the next few years. Most will be small developments tied back to existing infrastructure.

Record-high gas production

Gas production from the NCS reached a record-high level in 2024. A total of 124 billion standard cubic metres (Sm^3) was sold. In comparison, the previous record of 122.8 billion Sm^3 of gas was set in 2022. The high production in 2024 was caused by high regularity on the fields and increased capacity following upgrades in 2023.

Gas constitutes more than half of all production on the shelf. Most of the oil and gas is exported to Europe.

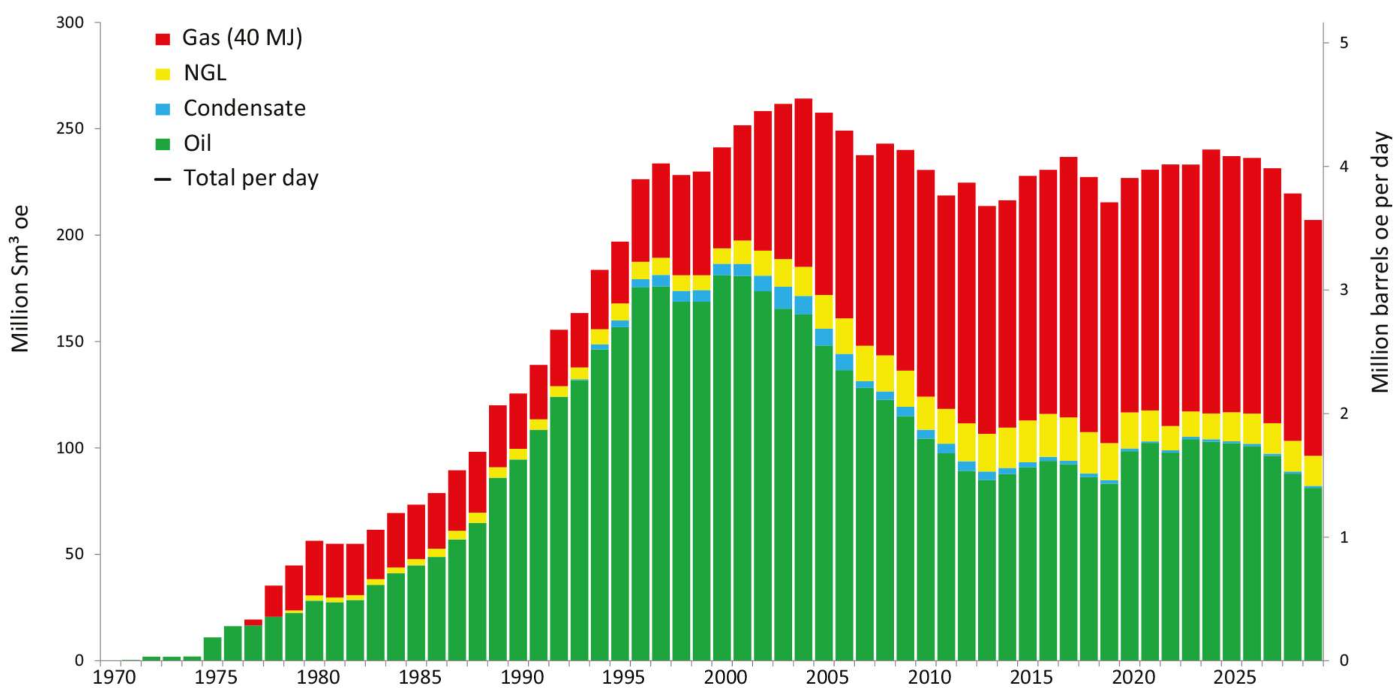
Overall production will remain at a high and stable level. In 2024, it reached about 240 million standard cubic metres of oil equivalent (MSm^3 o.e.). This is the highest level since 2009. Production from the Troll and Johan Sverdrup fields in the North Sea contributes about 37 per cent of overall production from the NCS.

High and stable total production

Production on the shelf is expected to remain at a stable, high level over the next two-to-three years, and will then gradually decline towards the end of the 2020s.

At year-end 2024, there were 94 fields in operation on the Norwegian shelf. The Hanz and Tyrving fields in the North Sea came on stream, and no fields were shut down over the previous year.

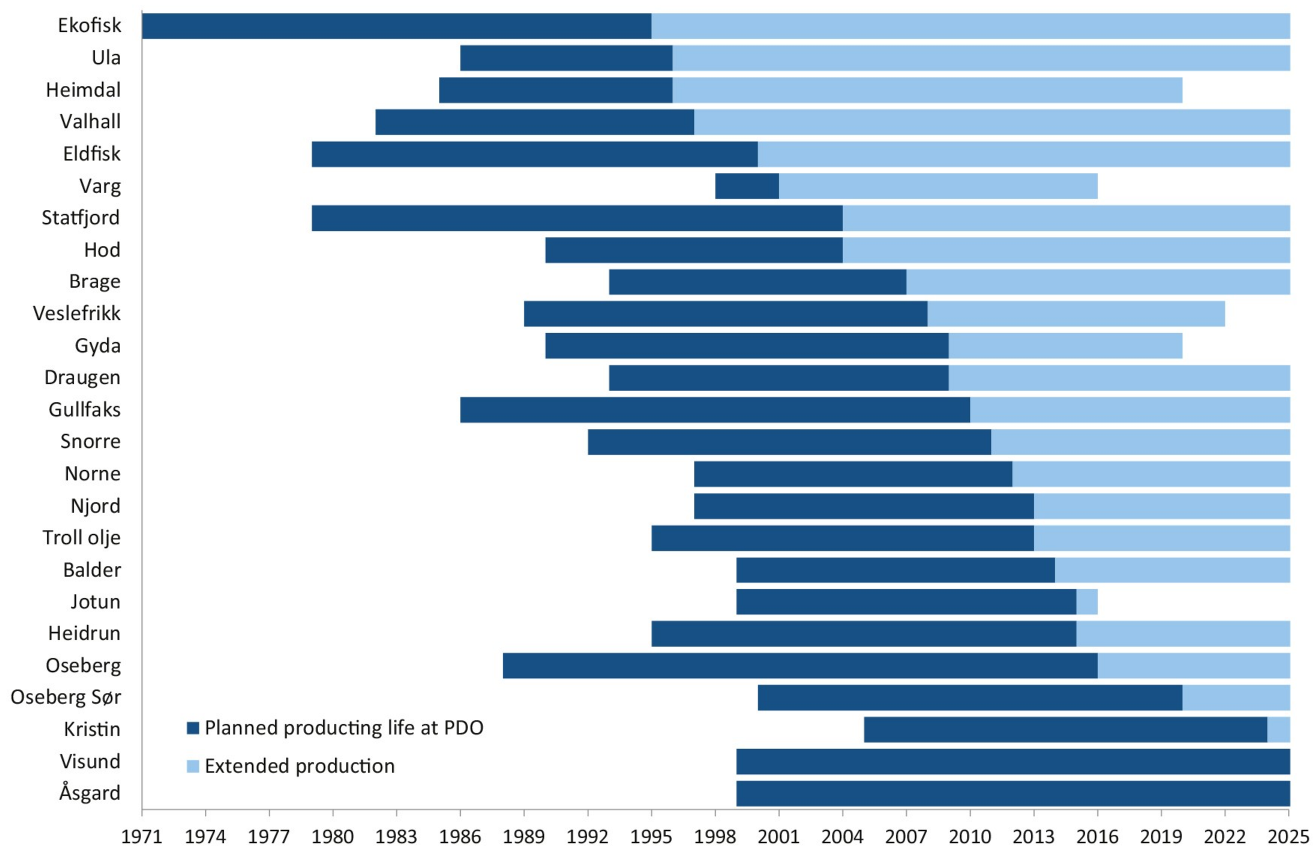
The Castberg field in the Barents Sea is expected to come on stream in the first quarter. This will be important for oil production and further development of the Barents Sea as a petroleum province. Several new fields are expected to come on stream over the next few years, but many will also shut down.



Some previously shut-down fields are now being considered for redevelopment with a simpler development solution.

One important reason why production remains at such high levels is that the fields are producing for longer than originally planned. New and improved technology has allowed us to continuously improve our understanding of the subsurface. This has enabled the industry to further develop the fields. New development projects, more production wells and exploration in the surrounding area have helped extend the lifetimes of most fields.

The figure below shows a number of fields that are producing between 10 and 30 years longer than originally planned. Several of these fields will continue to produce until 2030, and some even to 2040. This provides a significant contribution to production and value creation on the shelf.



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	million barrels per day			bcf/d
year	total liquids	oil	ngl + conddnsate	natural gas
2022	1.90	1.69	0.22	11.89
2023	2.02	1.79	0.22	11.23
2024	2.00	1.76	0.23	12.00
2025	2.01	1.76	0.25	11.64
2026	2.00	1.74	0.26	11.62
2027	1.92	1.66	0.26	11.59
2028	1.78	1.51	0.26	11.26
2029	1.66	1.40	0.26	10.72
Source: Norwegian Offshore Directorate				

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Russia's Crude Shipments Tumble to the Lowest in 16 Months

Four-week average flows are the smallest since August 2023

By Julian Lee

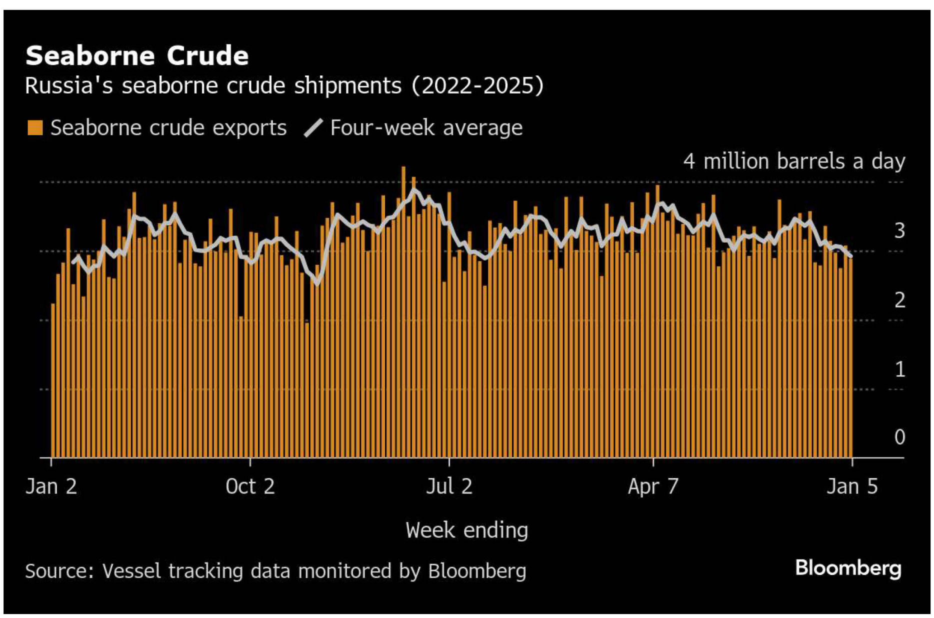
(Bloomberg) -- Russia's seaborne crude exports slumped to the lowest level since August 2023, with the latest dip stretching the loss since an October peak to 540,000 barrels a day.

The drop in shipments over the two-and-a-half month period has been concentrated at ports in western Russia, and was accentuated by a decline in the number of cargoes leaving Ust-Luga since mid-December.

Crude flows through the port in the four weeks to Jan. 5 — the measure smooths out some of the volatility seen in shorter timeframes — were down by 25% from the period to Oct. 20. At least five cargoes appear to have been removed from the loading program in the last ten days of December, according to shipping information seen by Bloomberg. The slowdown has continued into January, with a partial program showing just five shipments in the first ten days. That's half the number a month earlier.

Higher refinery runs reducing the volume of crude available for export are a possible reason for the slump in crude flows. Neither a short-lived unspecified incident at a pump station on the pipeline to Ust-Luga last month, nor a Ukrainian drone attack on the port at the weekend appears to have been significant enough to explain the drop.

Some crude may have been diverted to Russia's Pacific port of Kozmino, which saw record shipments of 993,000 barrels a day last month. The port was due to receive crude delivered via the Gruzovaya railway station by the end of last year. That could boost flows by 7 million tons a year, or about 140,000 barrels a day.

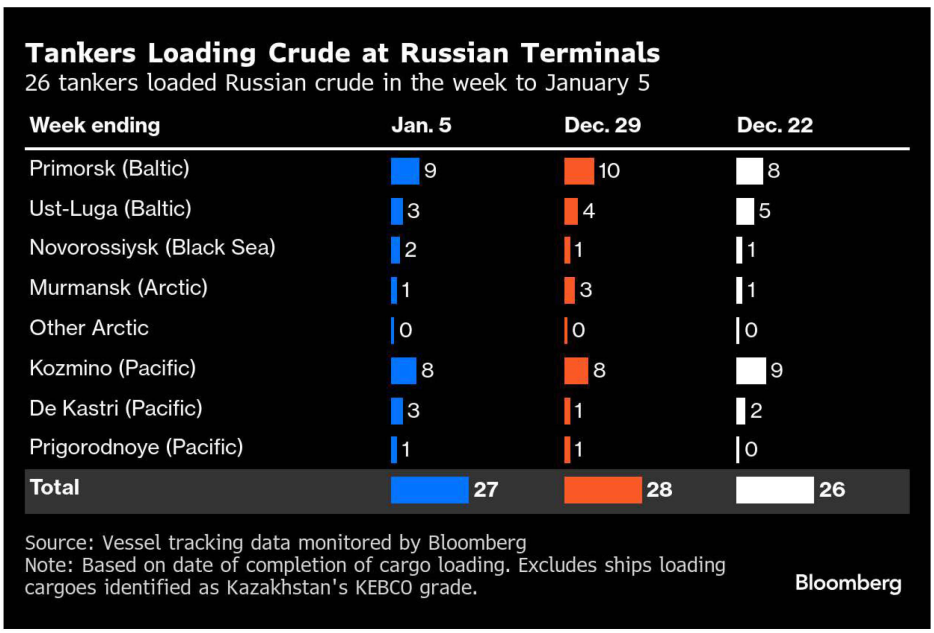


The drop in shipments came after the OPEC+ group of oil producers, which Russia leads alongside Saudi Arabia, delayed for a third time their plan to start adding back some of the supply it has cut in recent years. Moscow will have to wait until at least April to enjoy a rising production target, though that could be postponed again amid expectations of oversupply.

Official figures show that Russia's crude production in December was slightly below its OPEC+ target. The nation pumped 8.971 million barrels a day of crude last month, virtually unchanged from November, while its target output rose by 30,000 barrels a day with the end of compensation cuts it had pledged the previous month.

Crude Shipments

A total of 27 tankers loaded 20.17 million barrels of Russian crude in the week to Jan. 5, vessel-tracking data and port-agent reports show. The volume was down from 21.51 million barrels on 28 ships the previous week.


Tankers Loading Crude at Russian Terminals
26 tankers loaded Russian crude in the week to January 5

Week ending	Jan. 5	Dec. 29	Dec. 22
Primorsk (Baltic)	9	10	8
Ust-Luga (Baltic)	3	4	5
Novorossiysk (Black Sea)	2	1	1
Murmansk (Arctic)	1	3	1
Other Arctic	0	0	0
Kozmino (Pacific)	8	8	9
De Kastri (Pacific)	3	1	2
Prigorodnoye (Pacific)	1	1	0
Total	27	28	26

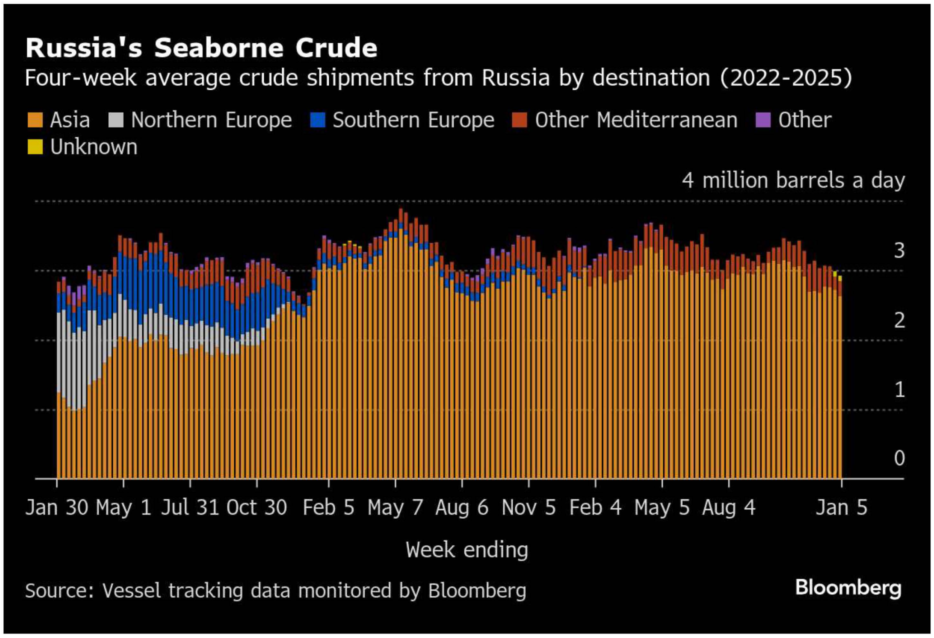
Source: Vessel tracking data monitored by Bloomberg
Note: Based on date of completion of cargo loading. Excludes ships loading cargoes identified as Kazakhstan's KEBCO grade.
Bloomberg

Daily crude flows in the week to Jan. 5 slumped by about 190,000 barrels to 2.88 million, reversing more than half of the previous week's gain. The drop was driven by lower flows from the country's Baltic and Arctic ports. Shipments also remained more than 25% down from their recent high.

Less volatile four-week average flows also fell, dropping for a third week to average 2.92 million barrels a day, down by 60,000 from the period to Dec. 29. On that measure, shipments have been on a downward trend since their recent peak in October, falling in eight of the 11 subsequent weeks.

Crude shipments in 2024 were about 80,000 barrels a day, or 2.5%, below the average for the whole of the previous year.

One cargo of Kazakhstan's KEBCO crude was loaded at Ust-Luga on the Baltic Sea and three at Novorossiysk on the Black Sea during the week.



Russia terminated its export targets at the end of May, opting instead to restrict production, in line with its partners in the OPEC+ oil producers' group. The country's output target is set at 8.978 million barrels a day until the end of March, after a planned easing of some output cuts was delayed for a third time.

Moscow has also pledged to make deeper output cuts between March and September to compensate for pumping above its OPEC+ quota last year, although this schedule could be revised.

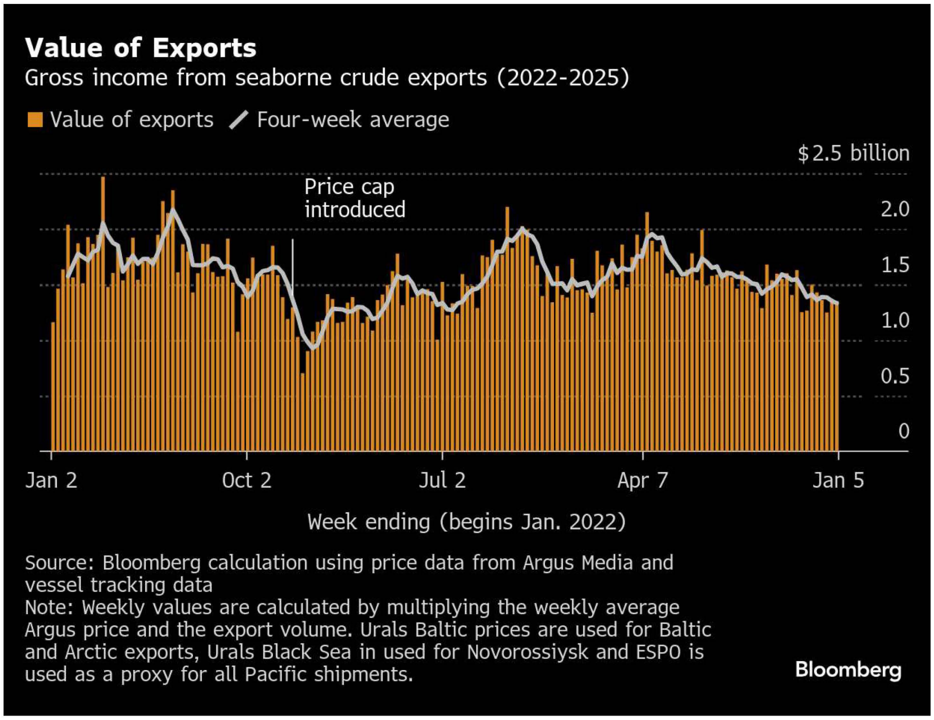
Export Value

The effect on the Kremlin's oil income from the drop in flows was largely offset by an increase in the price of Russian crude. That resulted in the gross value of Moscow's exports falling by about $20 million to $1.35 billion in the week to Jan. 5.

Export values at Baltic and Black Sea ports were up week-on-week by about $2.50 a barrel, while those for key Pacific grade ESPO rose by about $2.70 compared with the previous week. Delivered prices in India were up by about $1.80, all according to numbers from Argus Media.

Four-week average income slipped to about $1.33 billion a week, from $1.35 billion in the period to Dec. 29.

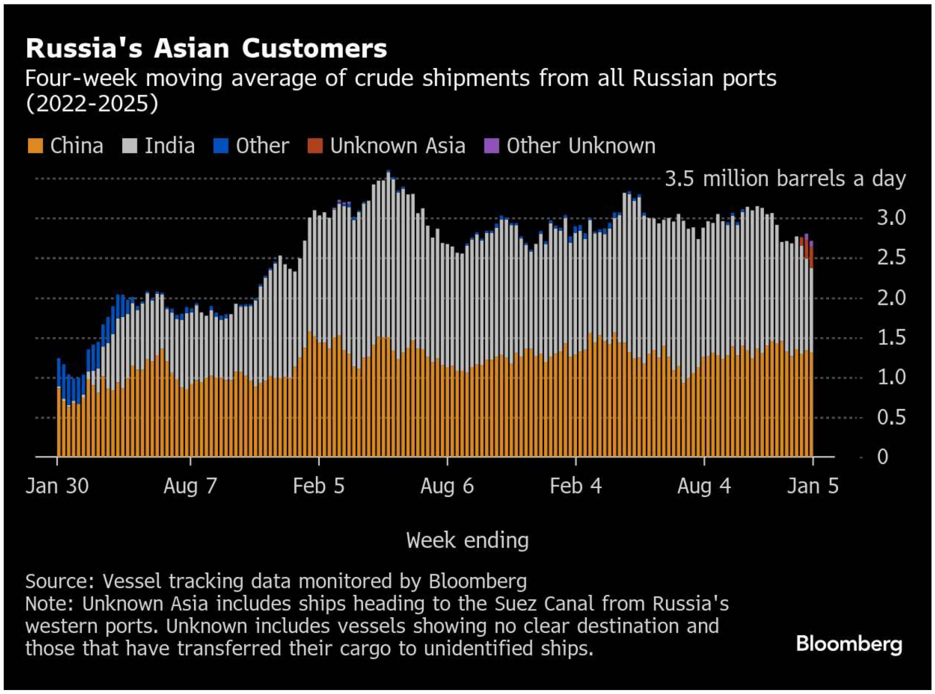
On this basis, the price of Russia's shipments from the Baltic and Black Sea in the four weeks to Jan. 5 was down by about $0.80 a barrel from the period to Oct. 27. Prices for key Pacific grade ESPO were lower by about $0.30 a barrel.



Flows by Destination

- **Asia**

Observed shipments to Russia's Asian customers, including those showing no final destination, fell to 2.71 million barrels a day in the four weeks to Jan. 5. That's about 19% below the average level seen during the most recent peak in April.



About 1.32 million barrels a day of crude were loaded onto tankers heading to China. The Asian nation's seaborne imports are boosted by about 800,000 barrels a day of crude delivered from Russia by pipeline, either directly, or via Kazakhstan.

Flows on ships signaling destinations in India averaged 1.06 million barrels a day, down from 1.14 million for the period to Dec. 29.

The Indian figures, in particular, are likely to rise as the discharge ports become clear for vessels that are not currently showing final destinations. Most of those heading from Russia's western ports through the Suez Canal end up in the south Asian nation.

The equivalent of about 260,000 barrels a day was on vessels signaling Port Said or Suez in Egypt. Those show up as "Unknown Asia" until a final destination becomes apparent.

The "Other Unknown" volumes, running at about 80,000 barrels a day in the four weeks to Jan. 5, are those on tankers showing no clear destination. Most originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others may be moved from one vessel to another.

Crude Shipments to Asia

Shipments of Russian crude to Asian buyers in million barrels a day

4 weeks ending	China	India	Other	Unknown Asia	Other Unknown	Total
December 1, 2024	1.32	1.39	0.00	0.00	0.00	2.71
December 8, 2024	1.26	1.41	0.00	0.00	0.00	2.68
December 15, 2024	1.35	1.41	0.00	0.00	0.00	2.77
December 22, 2024	1.29	1.36	0.00	0.10	0.00	2.76
December 29, 2024	1.34	1.14	0.00	0.24	0.08	2.80
January 5, 2025	1.32	1.06	0.00	0.26	0.08	2.71

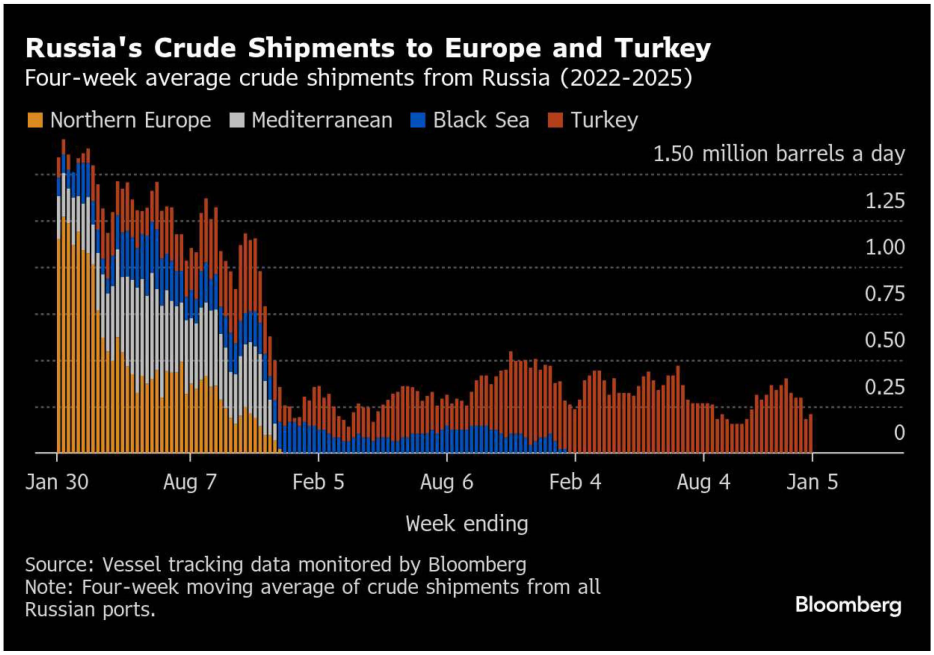
Source: Vessel tracking data compiled by Bloomberg

Bloomberg

- **Europe and Turkey**

Russia's seaborne crude exports to European countries have ceased, with flows to Bulgaria halted at the end of last year. Moscow also lost about 500,000 barrels a day of pipeline exports to Poland and Germany at the start of 2023, when those countries stopped purchases.

Turkey is now the only short-haul market for shipments from Russia's western ports, with flows in the 28 days to Jan. 5 up by 30,000 barrels a day to about 210,000 barrels a day from the period to Dec. 29.



NOTES

This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. The next update will be on Tuesday, Jan. 14.

All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and Ust-Luga and are not subject to European Union sanctions or a price cap. The Kazakh barrels are blended with crude of Russian origin to create a uniform export stream. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

Vessel-tracking data are cross-checked against port agent reports as well as flows and ship movements reported by other information providers including Kpler and Vortexa Ltd.

If you are reading this story on the Bloomberg terminal, click for a link to a PDF file of four-week average flows from Russia to key destinations.

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https://www.whitehouse.gov/briefing-room/statements-releases/2025/01/10/statement-from-deputy-national-security-advisor-for-international-economics-and-deputy-director-of-the-national-economic-council-daleep-singh-on-todays-sanctions-actions/

January 10, 2025

Statement from Deputy National Security Advisor for International Economics and Deputy Director of the National Economic Council Daleep Singh on Today's Sanctions Actions

Today, the United States imposed the most significant sanctions yet on Russia's energy sector, by far the largest source of revenue for Putin's war. These sanctions will hit hard across every key node of Russia's oil production and distribution chain, including against two of the four largest Russian oil producers, dozens of oilfield service providers, traders of Russian oil across the world, over 150 vessels moving seaborne Russian oil, and an oil terminal that knowingly received sanctioned oil from sanctioned vessels. The U.S. Department of the Treasury also announced it will rescind a provision that previously exempted the intermediation of energy payments from our sanctions on Russian banks. These measures will collectively drain billions of dollars per month from the Kremlin's war chest and, in doing so, intensify the costs and risks for Moscow to continue its senseless war.

Some will ask why we waited for the end of the Administration to introduce sanctions on Russian oil. It's a fair question. The answer is this: for sanctions to be successful, they must be sustainable. That doesn't mean they should be costless – sanctions never are – but to succeed they must impact the target more than they damage the U.S. and global economy. Until recently, we were constrained by tight supply in global energy markets, which meant that reducing Russia's oil exports to the world would likely push up Putin's export revenues while raising prices at the gas pump for families in the United States and across the world. That's why we unveiled a novel "price cap" in December 2022 to limit the price that Russia receives for its oil sales while keeping steady the global supply of energy. Oil markets are now in a fundamentally better place. Forecasters expect the global supply of energy to exceed global demand through this year, with ample capacity within and outside of OPEC+ to increase production if necessary. Since the start of Russia's war, benchmark oil prices have fallen almost $35 per barrel and average U.S. gasoline prices have dropped from roughly $4 to just over $3 per gallon. The moment was ripe for us to adjust our strategy, and the President took action.

Today's actions build on recent steps that reinforce an economic trajectory along which Russia will face hard choices. Last November, President Biden levied our harshest financial sanctions against more than 50 Russian banks, including Gazprombank, the Kremlin's key financial conduit to the global energy market. Nearly all of Russia's biggest banks with major connections abroad are now sanctioned by the United States. The impact was immediate and broad-based: Russia's currency, the ruble, sank to its weakest level since the first weeks of the invasion, alongside a spike in borrowing costs that may unleash a wave of corporate bankruptcies and default. Landing a direct hit on the Russian energy sector will aggravate pressures on Russia's wartime economy that have already pushed up inflation to almost 10 percent, and which the Russian central bank has failed to stem with strict capital controls and record-high interest rates over 20 percent.

Looking ahead, Russia's economic outlook is bleak. Sanctions have sapped the most essential sources of Russia's economic vitality. But don't take our word for it. More than a thousand multinational companies have quit Russia. More than a million of Russia's own people have fled. It has been shut out of global financial markets. It has been cut off from cutting-edge technology. Most of its largest energy customers are gone. With less capital, less technology, and less talent, the endgame facing Moscow is further descent into a smaller, weaker, and isolated pariah state.

As the costs on Russia intensify, we've also taken recent action to reduce Ukraine's vulnerabilities. This includes backstopping Ukraine with economic support – and not just from our taxpayers, but also by making Russia pay. Shortly after Russia's invasion in 2022, G7 leaders acted in lockstep to immobilize over $300 billion of Russian central bank assets held in our respective jurisdictions. Last June, President Biden and G7 leaders committed to issue $50 billion in loans for Ukraine that will be paid back by the interest earned on the frozen Russian assets. It was an historic step: never before has a multilateral coalition frozen the assets of an aggressor country, and then harnessed the value to fund the aggrieved party fighting for its freedom – all while respecting the rule of law and maintaining solidarity. Last December, the United States finalized its $20 billion share of the G7 loans. Separately, we've announced a surge of military assistance to Ukraine through January 20, including hundreds of thousands of additional artillery rounds, thousands of additional rockets, and hundreds of additional armored vehicles. This will serve to exacerbate dilemmas for Putin as he faces mounting casualties – over 600,000 since the start of this tragic war – for minimal battlefield gains.

Taken together, the ultimate aim of our efforts is to provide Ukraine the leverage it needs to negotiate a just and lasting end to the war. Today's actions leave a solid foundation upon which the incoming administration can build, while putting a clear choice to Russia: either continue to absorb the escalating costs of a tragic and unnecessary war, or take steps to chart a different course.

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https://home.treasury.gov/news/press-releases/jy2777

Treasury Intensifies Sanctions Against Russia by Targeting Russia's Oil Production and Exports

January 10, 2025

New energy sector determination targets Russia's primary revenue source with sanctions against Gazprom Neft and Surgutneftegas, more than 180 vessels, and dozens of oil traders, oilfield service providers, insurance companies, and energy officials

WASHINGTON — Today, the U.S. Department of the Treasury took sweeping action to fulfill the G7 commitment to reduce Russian revenues from energy, including blocking two major Russian oil producers. Today's actions also impose sanctions on an unprecedented number of oil-carrying vessels, many of which are part of the "shadow fleet," opaque traders of Russian oil, Russia-based oilfield service providers, and Russian energy officials. Today's actions are underpinned by the issuance of a new determination that authorizes sanctions pursuant to Executive Order (E.O.) 14024 against persons operating or having operated in the energy sector of the Russian Federation economy. These actions substantially increase the sanctions risks associated with the Russian oil trade.

The United Kingdom (UK) is also taking action today, joining Treasury in sanctioning two major Russian oil producers.

"The United States is taking sweeping action against Russia's key source of revenue for funding its brutal and illegal war against Ukraine," said Secretary of the Treasury Janet L. Yellen. "This action builds on, and strengthens, our focus since the beginning of the war on disrupting the Kremlin's energy revenues, including through the G7+ price cap launched in 2022. With today's actions, we are ratcheting up the sanctions risk associated with Russia's oil trade, including shipping and financial facilitation in support of Russia's oil exports."

The Department of State is also taking steps to reduce Russia's energy revenues by blocking two active liquefied natural gas projects, a large Russian oil project, and third-country entities supporting Russia's energy exports. State is also designating numerous Russia-based oilfield service providers and senior officials of State Atomic Energy Corporation Rosatom.

RUSSIA'S ENERGY SECTOR

Today, the U.S. Departments of the Treasury and State are taking action to further implement commitments made by G7 leaders to reduce Russian revenues from energy and other commodities. The Secretary of the Treasury, in consultation with the Secretary of State, issued a determination pursuant to E.O. 14024 that authorizes the imposition of sanctions on any person determined to operate or have operated in the energy sector of the Russian Federation economy. This new determination strengthens the ability of Treasury and State to target revenue—in particular, revenue generated from the export of oil—that Russia uses to fuel its brutal war against Ukraine and other harmful foreign activities.

Additionally, Treasury issued amended General License 8L, which authorizes certain wind-down transactions related to energy through 12:01 a.m. eastern daylight time, March 12, 2025. The narrowing authorization for transactions related to Russian energy further reduces Russia's ability to leverage this sector and fund its war machine.

PETROLEUM SERVICES PROHIBITION

Treasury, in consultation with the Department of State, issued a new determination pursuant to E.O. 14071 prohibiting the provision of U.S. petroleum services to persons located in the Russian Federation, cutting off Russia's access to U.S. services related to the extraction and production of crude oil and other petroleum products. The prohibition takes effect beginning at 12:01 a.m. eastern standard time on February 27, 2025.

RUSSIAN OIL MAJORS

Pursuant to today's determination, OFAC designated two of Russia's most significant oil producers and exporters pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy.

Public Joint Stock Company Gazprom Neft (Gazprom Neft) is a Russia-based, vertically integrated oil company whose core activities include the exploration, production, and sale of oil.

Surgutneftegas is a Russia-based, vertically integrated oil company whose core activities include the exploration, production, and sale of oil.

The UK is also sanctioning Gazprom Neft and Surgutneftegas today.

Alongside Gazprom Neft and Surgutneftegas, OFAC is designating more than two dozen Gazprom Neft and Surgutneftegas subsidiaries. All entities owned 50 percent or more, directly or indirectly, by Gazprom Neft, Surgutneftegas, or their subsidiaries listed today, are also subject to blocking, even if not identified by OFAC.

For more information on the Gazprom Neft and Surgutneftegas subsidiaries targeted today, please see Annex 1.

RUSSIA'S SEABORNE OIL EXPORTS

Russia has grown increasingly reliant on vessels that participate in high-risk shipping practices to facilitate illicit or sanctionable activity, often called the "shadow fleet." Today's action sanctions 183 vessels, largely oil tankers that are part of the shadow fleet as well as oil tankers owned by Russia-based fleet operators. Several of the vessels sanctioned today have shipped not only Russian oil, but also sanctioned Iranian oil. OFAC is also sanctioning two Russia-based maritime insurance providers, **Ingosstrakh Insurance Company** and **Alfastrakhovanie Group**, which were previously sanctioned by the UK.

For more information on these targets, please see Annex 2.

OPAQUE TRADERS OF RUSSIAN OIL

Similarly, Russia's dependence on opaque traders willing to ship and sell its oil has dramatically increased. These traders often are registered in high-risk jurisdictions, have murky corporate structures and personnel with links to Russia, and conceal their business activities. Many were only established in the wake of Russia's full-scale invasion of Ukraine and quickly began moving hundreds of millions of dollars' worth of Russian oil within months of their creation. OFAC has previously sanctioned such traders and is taking further action today by sanctioning opaque traders and a shadowy Government of Russia-linked network facilitating massive amounts of oil exports.

For more information on these targets, please see Annex 3.

OILFIELD SERVICE PROVIDERS AND RUSSIAN ENERGY OFFICIALS

Russia's domestic oil industry is supported by providers with critical specialized services that enable producers to keep oil flowing from wells and provide technical know-how and equipment to allow oil producers to access challenging reserves. In addition to the determination described above that prohibits the provision of U.S. petroleum services to persons located in the Russian Federation, today's action sanctions more than 30 Russia-based oilfield service providers.

Additionally, OFAC is sanctioning more than a dozen leading Russian energy officials and executives, including the CEOs of a number of Russian oil producers.

For more information on these targets, please see Annex 4.

ANNEX 1: RUSSIAN OIL MAJORS

Gazprom Neft Subsidiaries

The following Russia-based entities are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy:

- **Gapzromneft Moscow Refinery Joint Stock Company** operates an oil refinery.
- **Gazprom Neft Shelf Limited Liability Company** produces oil.
- **Gazpromneft Aero Joint Stock Company** is a leading supplier of jet fuel.
- **Gazpromneft Bitumen Materials Limited Liability Company** produces and sells petroleum products, particularly the petroleum-based hydrocarbon bitumen.
- **Gazpromneft Khantos Limited Liability Company** produces oil.
- **Gazpromneft Lubricants Ltd** produces and sells petroleum products such as oils, lubricants, and technical fluids.
- **Gazpromneft Noyabrsk Oil and Gas Joint Stock Company** produces oil.
- **Gazpromneft Omsk Refinery Joint Stock Company** operates an oil refinery.
- **Gazpromneft Orenburg Limited Liability Company** produces oil.

- **Gazpromneft Technological Partnerships Limited Liability Company** provides scientific and engineering services for customers engaged in the exploration and extraction of hard-to-recover reserves and projects related to chemical methods for enhancing oil recovery.
- **Gazpromneft Vostok LLC** produces oil.
- **Gazpromneft Yamal Limited Liability Company** refines oil.
- **Gazpromneft Zapolyarye Limited Liability Company** extracts oil from the Chadyanda oil and gas condensate field, one of the largest in Eastern Russia.
- **Limited Liability Company Gazpromneft Regional Sales** sells and stores oil and oil products.

The following entities are being designated pursuant to E.O. 14024 and E.O. 13662 for being owned or controlled by, or having acted or purported to act for or on behalf of, directly or indirectly, Gazprom Neft:

- **Chamaiyati Doroi Masauliyati Makhdudi Gazprom Neft Tadzhikistan** is a Tajikistan-based Gazprom Neft subsidiary.
- **Gazprom Neft International SA** is a Luxembourg-based Gazprom Neft subsidiary.
- **Gazprom Neft KazakhstanLLC** is a Kazakhstan-based Gazprom Neft subsidiary.
- **NIS AD Novi Sad** is a Serbia-based Gazprom Neft subsidiary.
- **OSOO Gazprom Neft Aziya** is a Kyrgyz Republic-based Gazprom Neft subsidiary.
- **ZAO Munay Myrza** is a Kyrgyz Republic-based Gazprom Neft subsidiary.

Surgutneftegas Subsidiaries

The following Russia-based entities are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy:

- **Kaliningradnefteprodukt OOO** sells automotive fuel.
- **KINEF OOO** operates an oil refinery.
- **Kirishiavtovservis AO** sells automotive fuel.
- **Lengiproneftekhim OOO** designs and provides equipment for the construction and reconstruction of oil and gas condensate processing units.
- **Novgorodproduct OOO** sells automotive fuel and manages oil depots.
- **Pskovnefteprodukt OOO** sells automotive fuel.
- **SO Tvernefteprodukt OOO** sells automotive fuel.

Joint Stock Company Surgutneftegasbank (SNGB) is a Russia-based commercial bank. SNGB is being designated pursuant to E.O. 14024 for operating or having operated in the financial services sector of the

Russian Federation economy and pursuant to E.O. 13662 for operating in the financial services sector of the Russian Federation economy.

ANNEX 2: RUSSIA'S SEABORNE OIL EXPORTS

Sovcomflot

Treasury is designating Joint Stock Company Sovcomflot (Sovcomflot), Russia's state-owned shipping company and fleet operator that specializes in the transportation of hydrocarbons and the servicing and support of offshore oil production, pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. Treasury is also identifying as blocked property 69 vessels, including 54 oil and product tankers and four liquefied natural gas (LNG) tankers, that are owned by Sovcomflot.

Treasury previously sanctioned Sovcomflot pursuant to E.O. 14024 for operating or having operated in the marine sector of the Russian Federation economy and for being owned or controlled by, or having acted or purported to act for or on behalf of, directly or indirectly, the Government of the Russian Federation. Treasury also previously identified as blocked property 14 crude oil tankers owned by Sovcomflot.

The following vessels are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Sovcomflot, a person whose property and interests in property are blocked pursuant to E.O. 14024 and E.O. 13662, has an interest:

- Russia-flagged supply vessel ***Aleksey Chirikov*** (IMO 9613551)
- Russia-flagged products tanker ***Alexander Beggrov*** (IMO 9876373)
- Russia-flagged products tanker ***Alexey Bogolyubov*** (IMO 9876361)
- Barbados-flagged chemical/oil tanker ***Aria*** (IMO 9397559)
- Barbados-flagged chemical/oil tanker ***Ariadne*** (IMO 9397547)
- Barbados-flagged crude oil tanker ***Bolero*** (IMO 9412335)
- Barbados-flagged crude oil tanker ***Callisto*** (IMO 9299692)
- Panama-flagged crude oil tanker ***Captain Kostichev*** (IMO 9301392)
- Panama-flagged LNG carrier ***Christophe De Margerie*** (IMO 9737187)
- Barbados-flagged chemical/oil tanker ***Diamond*** (IMO 9385142)
- Russia-flagged passenger vessel ***Fedor Ushakov*** (IMO 9753739)
- Russia-flagged tug ***Gennadiy Nevelskoy*** (IMO 9742120)
- Barbados-flagged chemical/oil tanker ***Jupiter*** (IMO 9397535)
- Russia-flagged products tanker ***Ivan Aivazovsky*** (IMO 9876359)
- Russia-flagged products tanker ***Kapitan Gotsky*** (IMO 9372559)

- Russia-flagged crude oil tanker ***Kirill Lavrov*** (IMO 9333682)
- Barbados-flagged crude oil tanker ***Leo*** (IMO 9412347)
- Barbados-flagged crude oil tanker ***Liberty*** (IMO 9339325)
- Russia-flagged products tanker ***Mikhail Lazarev*** (IMO 9837547)
- Russia-flagged crude oil tanker ***Mikhail Ulyanov*** (IMO 9333670)
- Gabon-flagged crude oil tanker ***Moskovsky Prospect*** (IMO 9511521)
- Panama-flagged crude oil tanker ***Nikolay Zadornov*** (IMO 9901037)
- Gabon-flagged chemical/oil tanker ***NS Pride*** (IMO 9322956)
- Panama-flagged chemical/oil tanker ***NS Silver*** (IMO 9309576)
- Russia-flagged crude oil tanker ***Okeansky Prospect*** (IMO 9866380)
- Barbados-flagged crude oil tanker ***Pathfinder*** (IMO 9577094)
- Panama-flagged crude oil tanker ***Pavel Chernysh*** (IMO 9301380)
- Barbados-flagged products tanker ***Premier*** (IMO 9577082)
- Barbados-flagged LNG carrier ***Pskov*** (IMO 9630028)
- Barbados-flagged crude oil tanker ***Rigel*** (IMO 9511533)
- Barbados-flagged chemical/oil tanker ***Saga*** (IMO 9318553)
- Russia-flagged supply vessel ***SCF Endeavour*** (IMO 9335678)
- Russia-flagged supply vessel ***SCF Endurance*** (IMO 9335680)
- Russia-flagged icebreaker ***SCF Enterprise*** (IMO 9335692)
- Russia-flagged supply vessel ***SCF Sakhalin*** (IMO 9307724)
- Barbados-flagged chemical/oil tanker ***Serenade*** (IMO 9318541)
- Russia-flagged crude oil tanker ***Shturman Albanov*** (IMO 9752084)
- Russia-flagged crude oil tanker ***Shturman Malygin*** (IMO 9752096)
- Russia-flagged crude oil tanker ***Shturman Ovtsyn*** (IMO 9752101)
- Barbados-flagged crude oil tanker ***Sirius*** (IMO 9422445)
- Russia-flagged supply vessel ***Stepan Makarov*** (IMO 9753727)
- Barbados-flagged products tanker ***Success*** (IMO 9333436)
- Barbados-flagged products tanker ***Talisman*** (IMO 9292060)
- Barbados-flagged products tanker ***Tango*** (IMO 9292058)

- Russia-flagged crude oil tanker ***Timofey Guzhenko*** (IMO 9372561)
- Barbados-flagged products tanker ***Topaz*** (IMO 9292034)
- Barbados-flagged products tanker ***Triumph*** (IMO 9344033)
- Barbados-flagged products tanker ***Trust*** (IMO 9382798)
- Barbados-flagged chemical/oil tanker ***Universal*** (IMO 9384306)
- Russia-flagged crude oil tanker ***Vasily Dinkov*** (IMO 9372547)
- Barbados-flagged LNG carrier ***Velikiy Novgorod*** (IMO 9630004)
- Panama-flagged products tanker ***Victor Konetsky*** (IMO 9301421)
- Panama-flagged crude oil tanker ***Viktor Titov*** (IMO 9301407)
- Russia-flagged supply vessel ***Vitus Bering*** (IMO 9613549)
- Russia-flagged LNG carrier ***Vostochny Prospect*** (IMO 9866392)
- Russia-flagged research ***Vyacheslav Tikhonov*** (IMO 9538115)
- Russia-flagged supply vessel ***Yevgeny Primakov*** (IMO 9753741)
- Panama-flagged crude oil tanker ***Zaliv Amerika*** (IMO 9354301)
- Panama-flagged crude oil tanker ***Zaliv Amurskiy*** (IMO 9354313)
- Panama-flagged crude oil tanker ***Zaliv Aniva*** (IMO 9418494)
- Panama-flagged products tanker ***Zaliv Baikal*** (IMO 9360128)
- Panama-flagged crude oil tanker ***Zaliv Vostok*** (IMO 9360130)
- Barbados-flagged crude oil tanker ***Zenith*** (IMO 9610781)

OFAC is also sanctioning two UAE-based ship managers that support Sovcomflot: **Fornax Ship Management FZCO** (Fornax) and **Stream Ship Management FZCO** (Stream). Sovcomflot has sought to circumvent sanctions by transferring the management of tankers to Fornax and Stream. Fornax and Stream have managed oil-related vessels during port calls in the Russian Federation. Fornax and Stream are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The following vessels are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Fornax, a person whose property and interests in property are blocked pursuant to E.O. 14024 and E.O. 13662, has an interest:

- Barbados-flagged chemical/oil tanker ***Hyperion*** (IMO 9322968)
- Barbados-flagged chemical/oil tanker ***Pegasus*** (IMO 9276028)
- Barbados-flagged chemical/oil tanker ***Proxima*** (IMO 9329655)

- Barbados-flagged chemical/oil tanker ***Symphony*** (IMO 9309588)

The following vessels are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Stream, a person whose property and interests in property are blocked pursuant to E.O. 14024 and E.O. 13662, has an interest:

- Barbados-flagged products tanker ***Atlas*** (IMO 9413573)
- Barbados-flagged crude oil tanker ***Capella*** (IMO 9341079)
- Barbados-flagged crude oil tanker ***Cassiopeia*** (IMO 9341081)
- Barbados-flagged crude oil tanker ***Galaxy*** (IMO 9826902)
- Barbados-flagged crude oil tanker ***Legacy*** (IMO 9339337)
- Barbados-flagged crude oil tanker ***Vanguard*** (IMO 9311622)
- Panama-flagged crude oil tanker ***Vladimir Arsenyev*** (IMO 9901025)
- Barbados-flagged crude oil tanker ***Voyager*** (IMO 9843560)
- Panama-flagged crude oil tanker ***Yuri Senkevich*** (IMO 9301419)

Russian Owned Crude Oil Tankers

Russia-based fleet and bunker operator **Gazpromneft Marine Bunker Limited Liability Company** (Gazpromneft Marine Bunker), a Gazprom Neft subsidiary, is involved in the delivery of bunker fuel for vessels. Gazpromneft Marine Bunker is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy.

OFAC is also identifying the following vessels, all of which Gazpromneft Marine Bunker operates, pursuant to E.O. 14024 and E.O. 13662 as property in which Gazpromneft Marine Bunker has an interest:

- Russia-flagged chemical/oil tanker ***GazpromneftZuid East*** (IMO 9537109)
- Russia-flagged chemical/oil tanker ***GazpromneftNordwest*** (IMO 9590137)
- Russia-flagged chemical/oil tanker ***Omsk*** (IMO 9418509)
- Russia-flagged chemical/oil tanker ***Tymen*** (IMO 9422653)
- Russia-flagged chemical/oil tanker ***Olanga*** (IMO 9286463)
- Russia-flagged chemical/oil tanker ***Murmansk*** (IMO 9167930)
- Russia-flagged chemical/oil tanker ***Dmitry Mendeleev*** (IMO 9888182)
- Russia-flagged chemical/oil tanker ***Shturman Shcherbinin*** (IMO 9759927)
- Russia-flagged chemical/oil tanker ***Shturman Koshelev*** (IMO 9759939)
- Russia-flagged chemical/oil tanker ***Shturman Skuratov*** (IMO 9759915)

Russia-based **Joint Stock Company Rosnefteflot** (Rosnefteflot) is the marine transportation arm of Russian oil company Open Joint-Stock Company Rosneft Oil Company (Rosneft), which is subject to certain restrictions pursuant to E.O. 13662. Rosnefteflot provides crude oil transportation services. Rosnefteflot is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy.

OFAC is also identifying the following vessels, all of which are owned and operated by Rosnefteflot, pursuant to E.O. 14024 and E.O. 13662 as property in which Rosnefteflot has an interest:

- Russia-flagged crude oil tanker ***Akademik Gubkin*** (IMO 9842190)
- Russia-flagged crude oil tanker ***Dobrynya*** (IMO 8730077)
- Russia-flagged crude oil tanker ***Yard No. 131040 Zvezda-DSME*** (IMO 9842205)
- Russia-flagged crude oil tanker ***Vladimir Vinogradov*** (IMO 9842188)
- Russia-flagged crude oil tanker ***Vladimir Monomakh*** (IMO 9842176)
- Russia-flagged shuttle tanker ***Valentin Pikul*** (IMO 9885879)
- Russia-flagged passenger vessel ***Svyatoy Knyaz Vladimir*** (IMO 9678238)
- Russia-flagged tug ***RN Ussuri*** (IMO 9653070)
- Russia-flagged products tanker ***RN Sakhalin*** (IMO 9650016)
- Russia-flagged tug ***RN Amur*** (IMO 9653068)
- Russia-flagged crude oil tanker ***Okeansky Prospect*** (IMO 9898254)
- Russia-flagged crude oil tanker ***Nursultan Nazarbayev*** (IMO 9842217)
- Russia-flagged crude oil tanker ***Yard No. 131080 Zvezda-DSME*** (IMO 9908994)

Russia-based **Argo Tanker Group LLC** (Argo Tanker) is the registered owner and ship manager of the Russia-flagged crude oil tanker ***Dignity*** (IMO 9283241).

Argo Tanker is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Dignity* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Argo Tanker has an interest.

Russia-based **Sunor ILLC** (Sunor) is the registered owner of the Russia-flagged tankers ***Boray*** (IMO 9198783), ***Sanar 7*** (IMO 9211999), and ***Sanar 8*** (IMO 9212008).

Sunor is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Boray, Sanar 7,* and *Sanar 8* are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Sunor ILLC has an interest.

Russia-based **RPK Nord Limited Liability Company** (RPK Nord) is the beneficial owner of the Russia-flagged floating crude oil storage tanker ***Umba*** (IMO 9196620), salvage tug ***Buk*** (IMO 9201994), tug ***Vyaz*** (IMO 9804057), and tug ***Tis*** (IMO 9817779).

RPK Nord is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Umba*, *Buk*, *Vyaz*, and *Tis* are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which RPK Nord has an interest.

Russia-based **LK Volga Limited Liability Company** (LK Volga) is the beneficial owner of the Russia-flagged floating crude oil storage tanker ***Kola*** (IMO 9217979).

LK Volga is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Kola* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which LK Volga has an interest.

Shadow fleet

Prominent Shipmanagement Limited (PSML) is the commercial and technical manager of the Panama-flagged crude oil tanker ***Fjord Seal*** (IMO 9513139), which has made port calls in a Russian port where oil has consistently traded well above the $60 price cap on Russian-origin crude oil imposed by the United States and its international partners in the Price Cap Coalition ("the $60 price cap"). PSML also manages the Panama-flagged products tankers ***Corum*** (IMO 9544281) and ***Valour*** (IMO 9832559); the Panama-flagged crude oil tankers ***Salty Wolf*** (IMO 9530917), ***Sakarya*** (IMO 9524463), ***Sable*** (IMO 9524451), ***Cankiri*** (IMO 9411331), ***Elegance*** (IMO 9383950), ***Venture*** (IMO 9832547), ***Samsun*** (IMO 9436006), and ***Sivas*** (IMO 9419137); and the Panama-flagged ***Orient Vision*** (IMO 9673202) and ***Orient Harmony*** (IMO 9620633). The *Fjord Seal*, *Corum*, *Sakarya*, *Salty Wolf*, *Sable*, *Cankiri*, *Elegance*, *Venture*, and *Valour* are considered to be part of the shadow fleet, and the *Samsun* has also shipped Iranian oil.

PSML is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Fjord Seal*, *Corum*, *Salty Wolf*, *Sakarya*, *Sable*, *Cankiri*, *Elegance*, *Venture*, *Valour*, *Samsun*, *Sivas*, *Orient Vision*, and *Orient Harmony* are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which PSML has an interest.

Sao Viet Petrol Transportation Company Limited (Sao Viet) is the beneficial owner of the Vietnam-flagged crude oil tanker ***Panda*** (IMO 9284582), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. Sao Viet also owns the Vietnam-flagged crude oil tankers ***Ivy*** (IMO 9337133) and ***Leopard*** (IMO 9284594), the Vietnam-flagged chemical tanker ***Astra*** (IMO 9273387), and the Panama-flagged liquefied petroleum gas carrier ***Owens*** (IMO 9223540). The *Panda*, *Ivy*, and *Leopard* are considered to be part of the shadow fleet, and the *Panda*, *Ivy*, *Leopard*, and *Owens* have also shipped Iranian oil.

Sao Viet is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Panda*, *Ivy*, *Leopard*, *Astra*, and *Owens* are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Sao Viet has an interest.

Sino Ship Management Company Limited (Sino) is the manager of the Panama-flagged crude oil tanker ***Deyna*** (IMO 9299903), which has made port calls in a Russian port where oil has consistently traded well above the $60 price cap. Sino also manages the Panama-flagged crude oil tankers ***Sirius 1*** (IMO 9285847) and ***Turaco*** (IMO 9247780). The *Deyna*, *Sirius 1*, and *Turaco* are considered to be part of the shadow fleet.

Sino is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Deyna*, *Sirius 1*, and *Turaco* are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Sino has an interest.

Sunne Co Limited (Sunne) is the beneficial owner of the Panama-flagged crude oil tanker ***Heidi A*** (IMO 9321976), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. Sunne also owns the Panama-flagged crude oil tankers ***Amber 6*** (IMO 9235713), ***Apus*** (IMO 9280885), ***Aquila II*** (IMO 9281152), ***Emily S*** (IMO 9321847), ***Lauren II***(IMO 9258521), ***M Sophia*** (IMO 9289477), ***Minerva M*** (IMO 9282479), ***Sagitta*** (IMO 9296822), and ***Tasca*** (IMO 9313149). The *Amber 6*, *Emily S*, *Heidi A*, *Lauren II*, *M Sophia*, *Minerva M*, *Sagitta*, and *Tasca* are considered to be part of the shadow fleet.

Sunne is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Heidi A*, *Amber 6*, *Apus*, *Aquila II*, *Emily S*, *Lauren II*, *M Sophia*, *Minerva M*, *Sagitta*, and *Tasca* are being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Sunne has an interest.

Meghan Group Limited (Meghan Group) is the registered owner of the Panama-flagged crude oil tanker ***Nereus Sophia*** (IMO 9266853), which has made port calls in a Russian port where oil has consistently traded well above the $60 price cap. The *Nereus Sophia* is considered to be part of the shadow fleet.

Meghan Group is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Nereus Sophia* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Meghan Group has an interest.

Trident Infinity Limited (Trident) is the registered owner of the Panama-flagged crude oil tanker ***Neve*** (IMO 9224465), which has made port calls in a Russian port. The *Neve* is considered to be part of the shadow fleet.

Trident is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the

Russian Federation economy. The *Neve* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Trident has an interest.

Serpens Limited (Serpens) is the registered owner of the Panama-flagged crude oil tanker ***Nurkez*** (IMO 9253325), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Nurkez* is considered to be part of the shadow fleet.

Serpens is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Nurkez* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Serpens has an interest.

Amsha Maritime (Amsha) is the ship operator and commercial manager of the Panama-flagged crude oil tanker ***Krishna 1*** (IMO 9271585), which has made port calls in a Russian port where oil has consistently traded well above the $60 price cap. The *Krishna 1* is considered to be part of the shadow fleet.

Amsha is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Krishna 1* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Amsha has an interest.

Aristos Maritime Incorporated (Aristos) is the registered owner of the Gabon-flagged crude oil tanker ***Olia*** (IMO 9268112), which has made port calls in a Russian port where oil has consistently traded well above the $60 price cap. The *Olia* is considered to be part of the shadow fleet and has also traded Iranian oil.

Aristos is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Olia* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Aristos has an interest.

Bluejourney Shipping Limited (Bluejourney) is the registered owner of the Antigua & Barbuda-flagged crude oil tanker ***Cup*** (IMO 9271327), which has made port calls in Russian ports. The *Cup* is considered to be part of the shadow fleet.

Bluejourney is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Cup* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Bluejourney has an interest.

Celestial Star Corporation (Celestial) is the registered owner of the Panama-flagged crude oil tanker ***Aquatica*** (IMO 9299769), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Aquatica* is considered to be part of the shadow fleet.

Celestial is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the

Russian Federation economy. The *Aquatica* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Celestial has an interest.

Doxa Shipping Line Inc (Doxa) is the registered owner of the Gabon-flagged crude oil tanker ***Alissa*** (IMO 9273052), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Alissa* is considered to be part of the shadow fleet.

Doxa is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Alissa* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Doxa has an interest.

Elgon Maritime Corporation (Elgon) is the registered owner of the Gabon-flagged crude oil tanker ***Attica*** (IMO 9436941), which has made a port call in a Russian port. The *Attica* is considered to be part of the shadow fleet.

Elgon is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Attica* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Elgon has an interest.

Frina Express Corporation (Frina) is the registered owner of the Sierra Leone-flagged crude oil tanker ***Olivia*** (IMO 9233741), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Olivia* is considered to be part of the shadow fleet.

Frina is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Olivia* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Frina has an interest.

Cheng Shipping and Trader Limited (Cheng Shipping) is the registered owner of the Panama-flagged crude oil tanker ***Ping An*** (IMO 9378632), which has made port calls in a Russian port where oil has consistently traded well above the $60 price cap. The *Ping An* is considered to be part of the shadow fleet.

Cheng Shipping is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Ping An* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Cheng Shipping has an interest.

Columba Limited (Columba) is the registered owner of the Panama-flagged crude oil tanker ***Cepheus*** (IMO 9299721), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Cepheus* is considered to be part of the shadow fleet.

Columba is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the

Russian Federation economy. The *Cepheus* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Columba has an interest.

Crius Limited is the registered owner of the Panama-flagged crude oil tanker ***Crius*** (IMO 9251274), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Crius* is considered to be part of the shadow fleet.

Crius Limited is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Crius* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Crius Limited has an interest.

Cube Ventures Shipping SA (Cube) is the registered owner of the Barbados-flagged crude oil tanker ***Carl*** (IMO 9288851), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Carl* is considered to be part of the shadow fleet.

Cube is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Carl* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Cube has an interest.

Hengtai Shipping Limited (Hengtai Shipping) is the registered owner of the Panama-flagged crude oil tanker ***Heng Tai*** (IMO 9419448), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Heng Tai* is considered to be part of the shadow fleet.

Hengtai Shipping is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Heng Tai* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Hengtai Shipping has an interest.

Hera Gam Limited (Hera Gam) is the registered owner of the Panama-flagged crude oil tanker ***Freda*** (IMO 9402469), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Freda* is considered to be part of the shadow fleet.

Hera Gam is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Freda* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Hera Gam has an interest.

Hong Kong Yongye Shipping Limited (HK Yongye) is the registered owner of the Panama-flagged crude oil tanker ***Clio*** (IMO 9238052), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Clio* is considered to be part of the shadow fleet and has also traded Iranian oil.

HK Yongye is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Clio* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which HK Yongye has an interest.

Kangen Maritime Corporation (Kangen) is the registered owner of the Panama-flagged crude oil tanker ***Arjun*** (IMO 9297357), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Arjun* is considered to be part of the shadow fleet.

Kangen is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Arjun* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Kangen has an interest.

Kupa Lines Incorporated (Kupa) is the registered owner of the Cook Islands-flagged crude oil tanker ***Cangjie*** (IMO 9299680), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Cangjie* is considered to be part of the shadow fleet.

Kupa is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Cangjie* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Kupa has an interest.

Luseia Marine Services Co Ltd (Luseia) is the registered owner of the Panama-flagged products tanker ***Borey G*** (IMO 9199127), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Borey G* is considered to be part of the shadow fleet and has also shipped Iranian oil.

Luseia is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Borey G* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Luseia has an interest.

Noblefu Company Limited (Noblefu) is the registered owner of the Panama-flagged crude oil tanker ***Aulis*** (IMO 9233765), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Aulis* is considered to be part of the shadow fleet.

Noblefu is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Aulis* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Noblefu has an interest.

Ocean Waters Maritime Corporation (Ocean Waters) is the registered owner of the Barbados-flagged crude oil tanker ***Python*** (IMO 9250531), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Python* is considered to be part of the shadow fleet.

Ocean Waters is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Python* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Ocean Waters has an interest.

Symi Shipping Limited (Symi Shipping) is the registered owner of the Liberia-flagged crude oil tanker ***Shun Tai*** (IMO 9242223), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Shun Tai* is considered to be part of the shadow fleet.

Symi Shipping is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Shun Tai* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Symi Shipping has an interest.

Loengo Shipping and Trader Limited (Loengo Shipping and Trader) is the registered owner of the Panama-flagged product tanker ***Sl He*** (IMO 9378618), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Sl He* is considered to be part of the shadow fleet.

Loengo Shipping and Trader is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Sl He* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Loengo Shipping and Trader has an interest.

Surrey Quays Company Limited (Surrey Quays Company) is the registered owner of the Panama-flagged crude oil tanker ***Surrey Quays*** (IMO 9350654), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Surrey Quays* is considered to be part of the shadow fleet.

Surrey Quays Company is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Surrey Quays* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Surrey Quays Company has an interest.

Selena Lively Limited (Selena Lively) is the registered owner of the Panama-flagged crude oil tanker ***Thalia III*** (IMO 9259197), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Thalia III* is considered to be part of the shadow fleet.

Selena Lively is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Thalia III* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Selena Lively has an interest.

Double Harmony Marine Corporation (Double Harmony) is the registered owner of the Cook Islands-flagged crude oil tanker ***Makalu*** (IMO 9314105) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Makalu* is considered to be part of the shadow fleet.

Double Harmony is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Makalu* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Double Harmony has an interest.

Gessi Maritime Corporation (Gessi) is the registered owner of the Gabon-flagged crude oil tanker ***Mercury*** (IMO 9321706) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Mercury* is considered to be part of the shadow fleet.

Gessi is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Mercury* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Gessi has an interest.

Merluza Group Limited (Merluza) is the registered owner of the Panama-flagged crude oil tanker ***Mermar*** (IMO 9231212) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Mermar* is considered to be part of the shadow fleet.

Merluza is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Mermar* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Merluza has an interest.

Lepus Sai Limited (Lepus) is the registered owner of the Panama-flagged crude oil tanker ***Merope*** (IMO 9281891) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Merope* is considered to be part of the shadow fleet.

Lepus is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Merope* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Lepus has an interest.

Harmony Grove Corporation (Harmony Grove) is the registered owner of the Sierra Leone-flagged crude oil tanker ***Meru*** (IMO 9187227) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Meru* is considered to be part of the shadow fleet.

Harmony Grove is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Meru* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Harmony Grove has an interest.

Ambra Limited (Ambra) is the registered owner of the Cook Islands-flagged crude oil tanker ***Min Hang*** (IMO 9257137) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Min Hang* is considered to be part of the shadow fleet.

Ambra is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the

Russian Federation economy. The *Min Hang* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Ambra has an interest.

Odine Marine Incorporated (Odine) is the registered owner of the San Marino-flagged crude oil tanker ***Mistral 1*** (IMO 9257993) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Mistral 1* is considered to be part of the shadow fleet.

Odine is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Mistral 1* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Odine has an interest.

Wavecrest Maritime Limited (Wavecrest) is the registered owner of the Djibouti-flagged crude oil tanker ***Moti*** (IMO 9281011) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Moti* is considered to be part of the shadow fleet.

Wavecrest is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Moti* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Wavecrest has an interest.

Aquaquasar Holding Limited (Aquaquasar) is the registered owner of the Antigua & Barbuda-flagged crude oil tanker ***Mum*** (IMO 9315446) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Mum* is considered to be part of the shadow fleet.

Aquaquasar is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Mum* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Aquaquasar has an interest.

Tagabo Maritime Corporation (Tagabo) is the registered owner of the Gabon-flagged crude oil tanker ***Nanda Devi*** (IMO 9274434) which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Nanda Devi* is considered to be part of the shadow fleet.

Tagabo is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Nanda Devi* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Tagabo has an interest.

Danika Robert Limited (Danika Robert) is the registered owner of the Belize-flagged crude oil tanker ***Vesna*** (IMO 9233349), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Vesna* is considered to be part of the shadow fleet and has also shipped Iranian oil.

Danika Robert is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Vesna* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Danika Robert has an interest.

Xingfu Hai Shipping Limited (Xingfu Hai Shipping) is the registered owner of the Panama-flagged crude oil tanker ***Wei Feng*** (IMO 9388754), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Wei Feng* is considered to be part of the shadow fleet.

Xingfu Hai Shipping is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Wei Feng* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Xingfu Hai Shipping has an interest.

Gifted Peak Limited (Gifted Peak) is the registered owner of the Panama-flagged crude oil tanker ***Himalayan*** (IMO 9392822), which has made a port call in a Russian port where oil has consistently traded well above the $60 per barrel price cap. The *Himalayan* is considered part of the shadow fleet.

Gifted Peak is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Himalayan* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Gifted Peak has an interest.

Huihai Hong Kong Shipping Co Limited (Huihai Hong Kong) is the registered owner of the Panama-flagged crude oil tanker ***Hui Hai Atlantic*** (IMO 9312872), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Hui Hai Atlantic* is considered part of the shadow fleet.

Huihai Hong Kong is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Hui Hai Atlantic* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Huihai Hong Kong has an interest.

Hong Kong Hanyuan Shipping Co Limited (Hong Kong Hanyuan) is the registered owner of the Panama-flagged crude oil tanker ***Huihai Pacific*** (IMO 9346732), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Huihai Pacific* is considered part of the shadow fleet.

Hong Kong Hanyuan is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Huihai Pacific* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Hong Kong Hanyuan has an interest.

Worthalliance Limited (Worthalliance) is the registered owner of the Cook Islands-flagged crude oil tanker ***Kapal Cantik*** (IMO 9224283), which has made a port call in a Russian port. The *Kapal Cantik* is considered part of the shadow fleet.

Worthalliance is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Kapal Cantik* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Worthalliance has an interest.

Haima Shipping Limited (Haima) is the registered owner of the Panama-flagged crude oil tanker ***Li Bai***(IMO 9589750), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Li Bai* is considered part of the shadow fleet.

Haima is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Li Bai* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Haima has an interest.

Kat Dennings Limited is the registered owner of the Panama-flagged crude oil tanker ***Lyra*** (IMO 9314088), which has made a port call in a Russian port where oil has consistently traded well above the $60 price cap. The *Lyra* is considered part of the shadow fleet.

Kat Dennings Limited is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. The *Lyra* is being identified pursuant to E.O. 14024 and E.O. 13662 as property in which Kat Dennings Limited has an interest.

Lagosmarine Limited (Lagosmarine) is the technical manager of a crude oil tanker that has made multiple port calls in a Russian port where oil has consistently traded well above the $60 price cap.

Lagosmarine is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy.

Maritime Insurance Providers

Ingosstrakh Insurance Company (Ingosstrakh) and **Alfastrakhovanie Group** (Alfastrakhovanie) are insurance companies headquartered in Moscow, Russia. Both Ingosstrakh and Alfastrakhovanie have insured oil tankers transporting Russian petroleum products.

Alfastrakhovanie and Ingosstrakh are being designated pursuant to E.O. 14024 for operating or having operated in the financial services sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the financial services sector of the Russian Federation economy.

ANNEX 3: OPAQUE TRADERS OF RUSSIAN OIL

Black Pearl Network

Since 2023, UAE-based **Black Pearl Energy Trading LLC** (Black Pearl) has been a major trader of Russian crude oil, including barrels priced above the $60 price cap. Since 2023, Black Pearl has likely sold more than $2 billion worth of Russian crude oil and oil products.

Black Pearl has connections with the Government of the Russian Federation, which is likely involved in its operations. In particular, Black Pearl has worked with Russia-based **Aktsionernoe Obshchestvo Tsentr Ekspluatatsionnykh Uslug** (OSC) to move Russian oil. The OSC is wholly owned by the Government of the Russian Federation and is involved in Russian Ministry of Energy projects both domestically in Russia and abroad.

Russian national **Denis Olegovich Deryushkin** (Deryushkin) is a Black Pearl employee involved in Black Pearl's Russian oil-related activities. Deryushkin is a longtime operator in the Russian energy industry, having previously been the deputy director of the Russian Energy Agency (REA), a division of the Russian Ministry of Energy. While at the REA, Deryushkin created an analytical center that focuses on research and consulting and presents to Russian Ministry of Energy leadership.

Russian national **Alexander Valeryevich Nemirovskiy** (Nemirovskiy) is another Black Pearl employee involved in Black Pearl's Russian crude oil deals.

UAE-based **Conmar Maritime DMCC** (Conmar) is affiliated with Black Pearl. Conmar has operated on behalf of Black Pearl, including by providing financial services.

Latvian national **Aleksejs Halavins** (Halavins) has been deeply involved in Black Pearl's Russian oil trade and has been a prolific buyer of above-price cap Russian oil since 2023.

OFAC is also designating a number of companies owned or controlled by Halavins.Halavins owns and manages UAE-based **Conrad Management Company LLC FZ** (Conrad). Halavins is the president of Liberia-registered **Lule One Services Inc** (Lule) and **Lathyrus Shipping Company** (Lathyrus). Halavins holds leadership positions at UAE-registered **International Marine Management FZE** (International Marine) and Liberia-registered **Fulda Shipping Co** (Fulda).

Black Pearl, OSC, Deryushkin, Nemirovskiy, and Halavins are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy.

Conmar is being designated pursuant to E.O. 14024 and E.O. 13662 for being owned or controlled by, or having acted or purported to act for or on behalf of, directly or indirectly, Black Pearl.

Conrad, Lule, Lathyrus, International Marine, and Fulda are being designated pursuant to E.O. 14024 and E.O. 13662 for being owned or controlled by, or having acted or purported to act for or on behalf of, directly or indirectly, Halavins.

Traders of Russian oil

The following entities are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy:

Established in November 2023, UAE-based **Arctos Shipping And Trade DMCC** was the supplier of at least six shipments of Russian crude oil between February 2024 and May 2024.

UAE-based **Demex Trading Limited DMCC** bought over 700 shipments of crude oil and diesel fuel from Russia worth at least $8 billion in 2023.

Established in November 2022, UAE-based **Eterra Crude Oil Abroad Trading LLC** was the consignee for over 300 shipments of crude oil originating from Russia between September 2023 and April 2024.

Hong Kong-based **Guron Trading Limited** was the consignee for over 400 shipments of crude oil originating from Russia between May 2023 and April 2024.

Established in July 2023, UAE-based **Marion Commodity DMCC** was the supplier of over 250 shipments of crude oil originating from Russia between January 2024 and May 2024.

UAE-based **Marsa Energy Trading DMCC** was the consignee for over 300 shipments of crude oil originating from Russia between March 2022 and April 2024.

Established in September 2022, UAE-based **Pratum Oil Trading LLC** was the consignee for over 50 shipments of crude oil originating from Russia between August 2023 and April 2024.

Established in June 2022, Hong Kong-based **Sunrise X Trading Co Limited** was the buyer of at least 30 shipments of Russia crude oil, with shipments totaling more than $800 million, between January 2023 and May 2023.

Established in January 2024, UAE-based **Zion Trade Limited** supplied at least 10 shipments of Russian export blend crude oil between April 2024 and May 2024.

ANNEX 4: OILFIELD SERVICE PROVIDERS AND RUSSIAN ENERGY OFFICIALS

Oilfield Service Providers

The following Russia-based entities are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy:

- **Aktsionernoe Obshchestvo Achimgaz** provides oilfield and gas field services.
- **Aktsionernoe Obshchestvo Gazprom Shelfproekt** offers production support involving oil and gas industry projects throughout Russia.
- **Aktsionernoe Obshchestvo Samotlorneftepromkhim** provides oilfield services, specializing in well construction and workover services.
- **Aktsionernoe Obshchestvo Upravlenie Po Povysheniyu Nefteotdachi Plastov I Kapitalnomu Remontu Skvazhin** performs oil and gas well repairs, as well as drilling of oil and gas wells, in Eastern and Western Siberia.
- **Argos** performs services for and works on construction and repair of oil and gas wells.
- **Atlas NNB** provides services for directional drilling (a type of oilfield drilling), including work planning and engineering calculations, as well as geological and technological support for drilling and service of drilling fluids.

- **Denkars** provides services related to the extraction of oil and gas and the maintenance, repair, and disassembly of drilling rigs.
- **Energy of Oil and Gas Service LLC** provides well construction and workover services for Russian oil and gas companies.
- **Frakdzhet Volga** provides support activities for oil and gas operations and creates and develops advanced technologies in the fields of well construction and workover, hydraulic fracturing, and well testing.
- **LLC Golfstrim** specializes in the construction of horizontal and directional wells exploited by the steam-assisted gravity drainage method and has completed the construction of more than 600 horizontal wells for the production of high-viscosity oil and more than 1,500 small-diameter wells.
- **Joint Stock Company Investgeoservis** conducts the entire cycle of oil and gas well construction.
- **Joint Stock Company OFS Technologies** delivers high-tech oilfield services and equipment.
- **Leninogorskremservice Limited Liability Company** is an oilfield services company specializing in drilling of small and conventional diameter wells, drilling of horizontal wellbores, sidetracking, and hydraulic fracturing.
- **Limited Liability Company Catkoneft** provides oilfield services, including services related to hydraulic fracturing, repair and isolation works, and coiled tubing operations.
- **Limited Liability Company Naftagaz Drilling** provides services related to drilling of oil and gas wells and a full range of rig up services.
- **Limited Liability Company Oil Service Garant** providessupport for petroleum extraction, technological supervision of well construction, management and technological supervision of work on routine and major repairs of wells, and technological supervision of the hydraulic fracturing process.
- **Limited Liability Company RN Service** conducts support activities for oil and gas operations and provides well repair services, with production facilities in 12 regions of Russia.
- **Limited Liability Company Welltech** provides services and high-tech solutions for the oil and gas industry.
- **Nauchno Proizvodstvennoe Predpriyatie Burenie**provides support for oil and gas operations.
- **Newteck Well Service LLC** provides services including oil and gas well stimulation with hydraulic fracturing, particularly high-technology hydraulic fracturing stimulation of hard-to-recover and non-conventional resources.
- **Paker Service** renders services for major gas and oil producers and oilfield service firms related to workover and well servicing, testing, and completion. Paker Service also supplies and sells oilfield equipment.
- **Petro Welt Technologies** provides oilfield services in Russia.

- **RN Burenie Limited Liability Company** carries out drilling of oil and gas development and exploratory wells.
- **RN-Grp LLC** provides services related to hydraulic fracturing, cementing, acidic and nitrogen treatment, as well as work involving various technological solutions using coiled tubing for the oil and gas industry.
- **RN Vankor** conducts support activities for oil operations.
- **Rusgazalyans** provides services related to the exploration of oil and gas fields, and the integrated development, construction, and operation of oil and gas fields.
- **Service Prom Komplektatsiya** provides oil and gas field services including drilling of horizontal and directional wells; restoring well flow rates by sidetracking; providing services related to drilling rig installation and dismantling; and maintenance and repair of drilling equipment and instruments.
- **Taimyrburservis** provides oilfield services to a Russian oil project.
- **Tekhnraiz** provides a spectrum of oilfield services for hydrocarbon extraction and deposit exploitation.
- **TNG Grupp** is an oilfield service company that provides geophysical support for the construction of exploration, prospecting and production wells, seismic surveys, and prospecting services.
- **Tsentr Nauchno Issledovatelskikh I Proizvodstvennykh Rabot** primarily works on corrosion monitoring of oilfield equipment.
- **TSS Limited Liability Company** specializes in the manufacturing of completion systems for the construction and reconstruction of oil and gas wells.
- **UDS Neft** provides services related to exploration, oil and gas production, conditioning and transportation of oil and petroleum-containing fluid, and well servicing and workover.
- **Veteran** provides oilfield services in Russia.

Energy Officials and Elites

The following individuals, all of whom are Russian nationals, are being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy and pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy:

Yusuf Vagitovich Alekperov is the founder and owner of Russian oilfield services company Limited Liability Company Welltech, which is also being designated today.

Peter Mikhailovich Bobylev is the Head of the Department for Coal Industry Development at the Ministry of Energy of the Russian Federation.

Vladimir Nikolaevich Chernov is the CEO of a major Russian oil company.

Aleksandr Valeryevich Dyukov is the CEO of Gazprom Neft.

Sergei Ivanovich Kudryashov is the CEO of a major Russian oil company.

Nail Ulfatovich Maganov is the General Director of a major Russian oil company.

Roman Anatolyevich Marshavin (Marshavin) is a Deputy Minister at the Ministry of Energy of the Russian Federation. In that role, Marshavin coordinates the Russian Ministry of Energy's international cooperation activities.

Vadim Alekseevich Pavlov (Pavlov) is the Director of the Department for the Implementation of Special Projects at the Ministry of Energy of the Russian Federation. Pavlov oversees energy projects in Russian-occupied territories of Ukraine.

Dmitry Borisovich Semenov is the Director of the Department of International Cooperation at the Ministry of Energy of the Russian Federation.

Eduard Mikhailovich Sheremettsev is a Deputy Minister of Energy and the Head of Digital Transformation at the Ministry of Energy of the Russian Federation.

Artem Aleksandrovich Verhov is the Director of the Gas Industry Development Department at the Ministry of Energy of the Russian Federation.

Vadim Nikolaevich Vorobyev is the CEO of Lukoil OAO (Lukoil), a major Russian oil company that is subject to certain restrictions pursuant to E.O. 13662.

Vladimir Leonidovich Bogdanov (Bogdanov) is the CEO of Surgutneftegas. OFAC previously designated Bogdanov on April 6, 2018 pursuant to E.O. 13662 for operating in the energy sector of the Russian Federation economy. Today, Bogdanov is being designated pursuant to E.O. 14024 for operating or having operated in the energy sector of the Russian Federation economy.

SANCTIONS IMPLICATIONS

As a result of today's action, all property and interests in property of the persons above that are in the United States or in the possession or control of U.S. persons are blocked and must be reported to OFAC. In addition, any entities that are owned, directly or indirectly, 50 percent or more by one or more blocked persons are also blocked. All transactions by U.S. persons or within (or transiting) the United States that involve any property or interests in property of designated or blocked persons are prohibited unless authorized by a general or specific license issued by OFAC, or exempt. These prohibitions include the making of any contribution or provision of funds, goods, or services by, to, or for the benefit of any blocked person and the receipt of any contribution or provision of funds, goods, or services from any such person. Non-U.S. persons are also prohibited from causing or conspiring to cause U.S. persons to wittingly or unwittingly violate U.S. sanctions, as well as engaging in conduct that evades U.S. sanctions. OFAC's Economic Sanctions Enforcement Guidelines provide more information regarding OFAC's enforcement of U.S. sanctions, including the factors that OFAC generally considers when determining an appropriate response to an apparent violation.

In addition, foreign financial institutions that conduct or facilitate significant transactions or provide any service involving Russia's military-industrial base, including any persons blocked pursuant to E.O. 14024, run the risk of being sanctioned by OFAC. For additional guidance, please see the updated OFAC advisory, “Updated Guidance for Foreign Financial Institutions on OFAC Sanctions Authorities Targeting Support to Russia’s Military-Industrial Base,” as well as OFAC Frequently Asked Questions (FAQs) 1146-1152, 1181-1182. Non-U.S. persons, including foreign financial institutions, could also face sanctions for knowingly facilitating significant transactions for or on behalf of the individuals or entities blocked pursuant to E.O. 13662. See FAQs 541-546, 574 for additional information.

The power and integrity of OFAC sanctions derive not only from OFAC’s ability to designate and add persons to the SDN List, but also from its willingness to remove persons from the SDN List consistent with the law. The ultimate goal of sanctions is not to punish, but to bring about a positive change in behavior. For information concerning the process for seeking removal from an OFAC list, including the SDN List, please refer to OFAC’s FAQ 897 here. For detailed information on the process to submit a request for removal from an OFAC sanctions list, please click here.

Any persons included on the SDN List pursuant to E.O. 14024 or E.O. 13662 may be subject to additional export restrictions administered by the Department of Commerce, Bureau of Industry and Security (BIS).

For identifying information on the individuals, entities, and vessels sanctioned today, click here.

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https://ndmc.gov.sa/en/mediacenter/news/Pages/News_05012025.aspx

The Minister of Finance Approves the 2025 Annual Borrowing Plan

1/5/2025

His Excellency the Minister of Finance, Mr. Mohammed Abdullah Aljadaan, has approved the Annual Borrowing Plan for the fiscal year 2025, following its endorsement by the Board of Directors of the National Debt Management Center. The plan highlights key developments in public debt for 2024, initiatives related to local debt markets, and the funding plan and its guiding principles for 2025, in addition to the 2025 issuances' calendar for the Local Saudi Sukuk Issuance Program in Saudi Riyal.

According to the plan, the projected funding needs for 2025 are estimated at approximately SAR 139 Bn. This amount is intended to cover the anticipated budget deficit of SAR 101 Bn for the fiscal year 2025, as outlined in the Ministry of Finance's Official Budget Statement. And the principals' repayment of the debts maturing in the current year, 2025, amounting to approximately 38 billion Saudi Riyals.

To enhance the sustainability of the Kingdom's access to various debt markets and broaden the investor base, Saudi Arabia aims in 2025 to continue diversifying local and international financing channels to efficiently meet funding needs. This will be achieved through the issuance of sovereign debt instruments at fair pricing, guided by well-defined and robust risk management frameworks. Additionally, the Kingdom plans to benefit from market opportunities by executing private transactions that can promote economic growth, such as export credit agency financing, infrastructure development project financing, capital expenditure (CAPEX) financing, and exploring tapping into new markets and currencies based on market conditions.

Crude Oil (FOB) Differentials (in US$) - FEBRUARY 2025

North America (versus ASCI)

	JANUARY	FEBRUARY	Change	VS. Light
Extra Light	+6.05	+5.75	-0.30	+2.25
Light	+3.80	+3.50	-0.30	0.00
Medium	+4.10	+3.70	-0.40	+0.20
Heavy	+3.75	+3.35	-0.40	-0.15

North West Europe (versus ICE Brent)

	JANUARY	FEBRUARY	Change	VS. Light
Extra Light	+0.35	+1.65	+1.30	+1.60
Light	-1.25	+0.05	+1.30	0.00
Medium	-2.05	-0.75	+1.30	-0.80
Heavy	-4.45	-3.15	+1.30	-3.20

Asia (versus Oman/Dubai)

	JANUARY	FEBRUARY	Change	VS. Light
Super Light	+1.75	+2.25	+0.50	+0.75
Extra Light	+0.90	+1.50	+0.60	0.00
Light	+0.90	+1.50	+0.60	0.00
Medium	+0.25	+0.75	+0.50	-0.75
Heavy	-0.90	-0.50	+0.40	-2.00

Mediterranean (versus ICE Brent)

	JANUARY	FEBRUARY	Change	VS. Light
Extra Light	+0.35	+1.65	+1.30	+1.70
Light	-1.35	-0.05	+1.30	0.00
Medium	-1.95	-0.65	+1.30	-0.60
Heavy	-4.65	-3.35	+1.30	-3.30

https://www.yicaiglobal.com/news/consumption-growth-in-chinas-smaller-county-level-cities-outstrips-the-big-metropolises

China's Smaller Cities Beat Big Metropolises for Consumption Growth, Data Shows

Lin Jing

DATE: Dec 27 2024

/ SOURCE: Yicai

China's Smaller Cities Beat Big Metropolises for Consumption Growth, Data Shows

(Yicai) Dec. 27 -- Consumption in China's county-level cities and rural areas is growing faster than that in the bigger first- and second-tier municipalities thanks to an expanding middle class with more spending power, according to the latest data.

Only six out of China's 31 provincial-level regions logged more than 5 percent growth in the retail sales of consumer goods in the first three quarters from a year earlier, according to the National Bureau of Statistics.

These were Xizang Autonomous Region, Henan province, Hunan province, Shandong province, Jiangxi province and Hubei province, and most of them are in the less-developed central and western parts of the country with lower urbanization rates.

This far outstripped the national average of 3.3 percent growth in the first nine months to CNY35.3 trillion (USD4.9 trillion), according to NBS' figures.

County-level cities have maintained relatively rapid economic expansion in recent years as they become destinations of substantial industrial transfers, thanks to the development of urban clusters and metropolitan circles in the country.

Municipalities with significant potential for urbanization have seen notable increases in consumption growth. In the first 11 months, Zhoukou in Henan province logged a 6.6 percent rise in its sales of consumer goods, while Nanyang in Henan province recorded a 6.1 percent jump and Hengyang in Hunan province witnessed a 6.9 percent surge.

Compared to large cities with higher housing prices and living costs, small and medium-sized metropolises offer residents a life with less pressure and more leisure time. Thus, the middle class in county towns is pursuing a more refined style of consumption.

The volume of on-demand retail orders in county-level and other lower tier cities, which refers to instant delivery of online orders from brick-and-mortar outlets in the vicinity, jumped 54 percent in the first eight months year on year, according to data released at the Meituan Instant Retail Industry Conference in October.

Meituan is also putting more focus on county-level economies, the Beijing-based company said during its third-quarter earnings call.

Other well-known brands are also developing strategies to enter county-level cities. For example, fast food chain KFC has developed a "small town mini-store model," to lower the investment needed to open new outlets. By streamlining menus and optimizing equipment, the Kentucky-based firm has reduced costs to as little as CNY500,000 (USD68,518) per new store, making it KFC's store model with the lowest investment cost.

Editor: Kim Taylor

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OIL DEMAND MONITOR: The Jury Is Out on 2025's Market Balance

- Major forecasting agencies divided on demand-supply equation
- Cold snaps to provide a short-term boost for heating fuels

By John Deane

(Bloomberg) -- Whether the oil market chalks up a surplus, a deficit or ends up broadly balanced in 2025 could be a close call.

The narrative of a significant surplus, which was prevalent in the latter part of 2024, has started to fray in recent weeks, with some analysts suggesting that expectations for a big glut may have been overstated.

The oil market doesn't face an "inevitable" supply glut in 2025, with output growth set to slow while demand expands, according to Standard Chartered Plc. Demand gains this year and next will be "close to trend," the bank said in a Jan. 7 note.

In another note on Thursday, the bank said fundamentals are more supportive than the consensus, though it trimmed its Brent price forecast for this year, saying that negativity remains entrenched in the market.

There's no consensus among the major forecasting agencies. In its December report, the International Energy Agency saw a supply overhang of between 950,000 and 1.4 million barrels a day in 2025, depending on the OPEC+ alliance's output strategy. In its equivalent report, the US's Energy Information Administration saw global consumption of liquid fuels at 104.3 million barrels a day this year, marginally higher than production of 104.2 million, reversing earlier predictions for a surplus.

The Organization of Petroleum Exporting Countries has long taken a more optimistic view than the IEA and EIA. In its December report, the organization saw demand at 105.3 million barrels a day in 2025. While it didn't specify a production number for the year, an analysis of its data suggests a deficit of as much as 2 million barrels a day, if OPEC production levels remained unchanged.

A combination of slower population growth, sluggish performance from oil-intensive parts of the global economy and economic issues in China probably means that demand will grow below the historical trend rate of 1.2 million barrels a day in 2025, Morgan Stanley analysts including Martijn Rats, Charlotte Firkins and Amy Gower said in a Jan. 5 note. The bank sees a surplus of 700,000 barrels a day this year, though less if OPEC+ cuts are extended.

OPEC+ may have little room to revive output, according to Onyx Capital.

"The margin for maneuver for OPEC+ in reinstating barrels this year will be very narrow," according to head of research Harry Tchilinguirian. "They are likely to be stuck maintaining voluntary cuts much longer than they thought, or wanted."

The market has seen some bullish signals in recent days, including Saudi Arabia hiking prices for buyers in Asia next month. China's services activity expanded at the fastest pace in nine months in December, while the manufacturing sector grew for a third straight month, signaling improving domestic demand after Beijing's stimulus blitz.

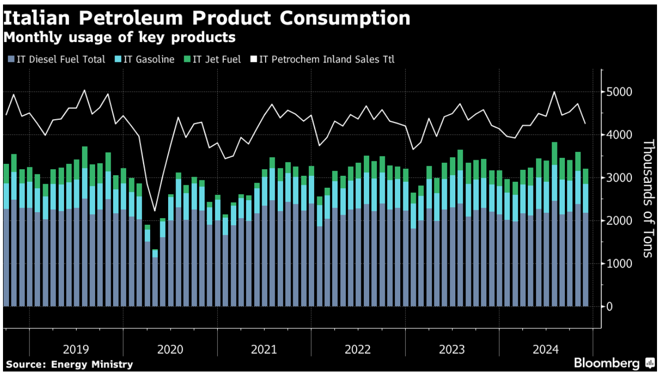
And forecasts for a cold snap in many parts of the globe may spell a seasonal boost for heating fuels.

DEMAND BY COUNTRY:

Demand Measure	Location	% vs 2024	% vs 2023	% vs 2022	% vs 2021	% vs 2019	m/m chg	Freq	Latest Date	Latest Value	Source
Gasoline product supplied	US	1.9	12.2	3.8	14.0	-2.9	-3.7	w	Jan. 3	8.48m b/d	EIA
Distillates product supplied	US	-7.4	-16.8	-15.0	8.1	7.5	-7.9	w	Jan. 3	3.18m b/d	EIA
Jet fuel product supplied	US	7.8	22.5	17.3	87.8	-4.8	-6.5	w	Jan. 3	1.72m b/d	EIA
Total oil product supplied	US	0.9	12.3	0.6	16.0	0.1	-1.8	w	Jan. 3	19.79m b/d	EIA
Total products consumption	India	2.1	5.8	9.3	12.6	9.1	1.0	m	December	20.67m tons	PPAC. Click for data. See related story

Diesel sales	India	6.0	3.5	10.3	12.0	9.1	−1.3	m	December	8.06m tons	PPAC
Gasoline sales	India	10.8	11.0	17.6	22.4	33.9	−3.4	m	December	3.3m tons	PPAC
Jet fuel sales	India	8.7	18.7	41.7	83.3	7.3	4.6	m	December	782k tons	PPAC
LPG sales	India	5.8	8.2	12.6	10.2	18.1	4.0	m	December	2.78m tons	PPAC
% change y/y in toll roads kms traveled	France	2.9						m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Italy	1.8						m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Spain	8.3						m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Brazil	3.9						m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Chile	4.2						m	November	n/a	Mundys
% change y/y in toll roads kms traveled	Mexico	3.6						m	November	n/a	Mundys

- READ: Cushing Crude Inventories Nearing Tank Bottoms: EIA Takeaways
- READ: Italy's Gasoline, Jet Fuel Sales Gained in November; Diesel Weak



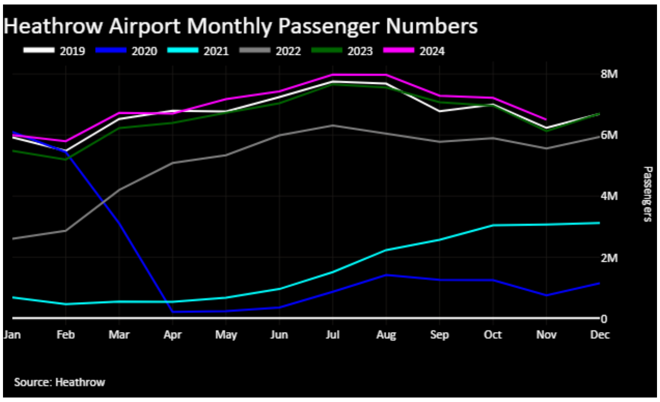
- READ: France's Road Diesel Sales Weakened in November; Gasoline Gained
  - Data link
- READ: German Jet Fuel Sales Weakened Again in September; Gasoline Down
  - Data
- READ: Exolum Oil Product Deliveries to Spain Rose 7% Y/y in November
  - Data
- READ: Spain November Road Diesel Sales Drop to Four-Year Seasonal Low
- Link to Anas data on Italy road traffic

- Link to ENSE data on Portugal's oil products consumption
- UK govt data on fuel sales
- UK govt data on traffic levels
- NOTE: Link on sources

AIR TRAVEL:

Measure	Location	vs 2024	vs 2023	vs 2022	vs 2021	vs 2019	m/m	w/w	Freq	Latest Date	Latest Value	Source
All flights (7-day avg)	Worldwide	7.4	16.4	23.9	49.6	20.8	-6.4	10.6	d	Jan. 7	192,426	Flightradar 24
Commercial flights (7-day avg)	Worldwide	7.7	23.2	43.6	81.7	18.5	3.0	3.6	d	Jan. 7	124,531	Flightradar 24
Airport passenger throughput (7-day avg)	US	2.3	14.6	41.8	141.3	7.3	-3.2	-6.8	d	Jan. 7	2.39 million	TSA

- Click here for link to Eurocontrol data
- Click here for link to OAG data on airline seat capacity



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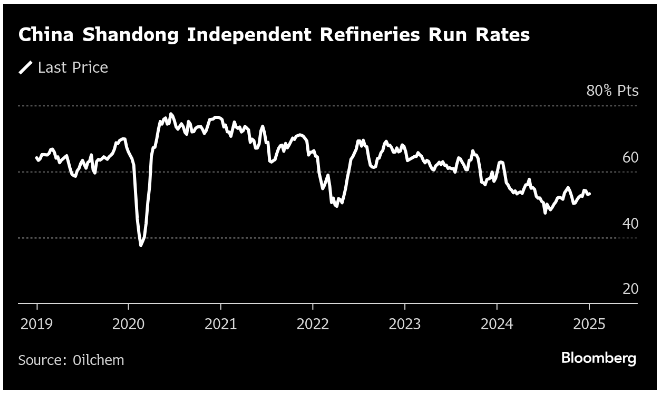
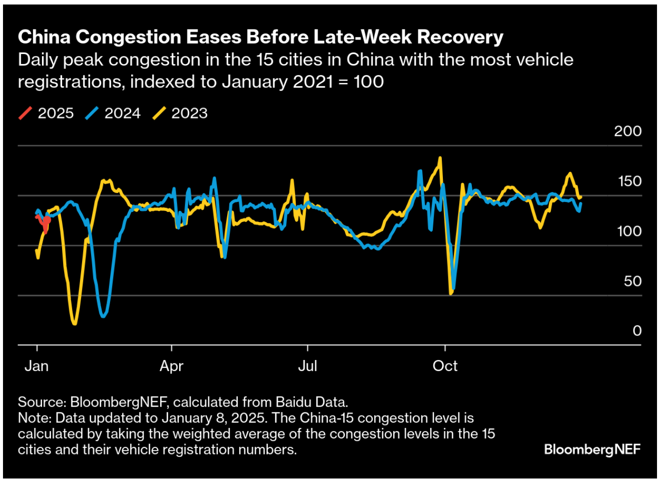
Measure	Location	vs 2024	vs 2023	vs 2022	vs 2021	vs 2019	m/m chg	Latest as of Date	Latest Value	Source
Crude intake	US	2.3	15.4	6.5	17.6	-3.8	1.5	Jan. 3	16.9m b/d	EIA
Utilization	US	0.4	9.2	3.5	12.6	-2.8	0.9	Jan. 3	93.3	EIA
Utilization	US Gulf	1.2	11.4	5.0	14.0	-2.0	1.0	Jan. 3	95.7	EIA
Utilization	US East	-5.1	-5.9	-8.1	16.3	-4.8	-1.1	Jan. 3	83.1	EIA
Utilization	US Midwest	0.5	10.9	2.7	9.3	-1.4	2.9	Jan. 3	95.7	EIA

- NOTE: US refinery data is weekly. Changes are shown in percentages for the row on crude intake (millions of barrels a day), while changes in refinery utilization percentages are shown in percentage points.



CONGESTION:

- READ: China Road Traffic Weekly: Recovery After Post-Holiday Dip



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Brian Wingfield

Air Passenger Market Analysis

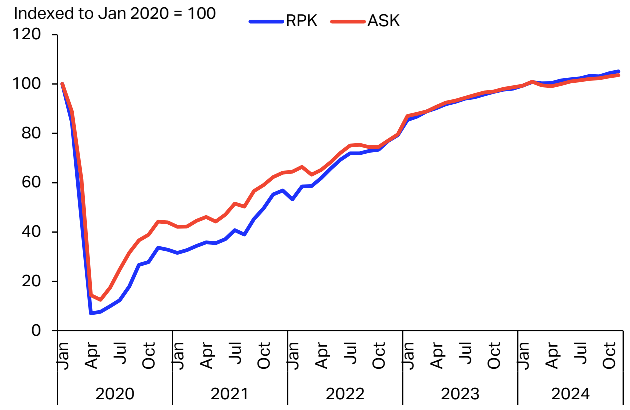
November 2024

Slight acceleration in traffic growth in November

- The industry's total Revenue Passenger-Kilometer (RPK) increased by 8.1% year-on-year (YoY) in November, continuing to exceed historical records. Available Seat-Kilometer (ASK) rose by 5.7% YoY lagging demand growth. The Passenger Load Factor (PLF) improved by 1.9 percentage points compared to the previous year, reaching 83.4%, an all-time high for November.
- Domestic traffic overall grew by 3.1% YoY. India led the main markets this month with a 13.3% rise in RPK. All monitored markets showed stable demand growth, although seat capacity in some areas plateaued.
- International passenger traffic for the industry surged by 11.6% YoY in November. Carriers in the Middle East and Asia Pacific experienced higher growth, significantly contributing to global momentum. International RPK in Asia Pacific is now just 0.5% below pre-pandemic levels.
- Major international markets in the Middle East saw a significant increase in traffic demand, supported by the exceptional performance of the region's largest aviation hubs, despite some countries being affected by geopolitical conflicts.

Traffic growth accelerates in November

Chart 1 – Global RPK and ASK, Seasonally Adjusted, Indexed to Jan 2020 = 100

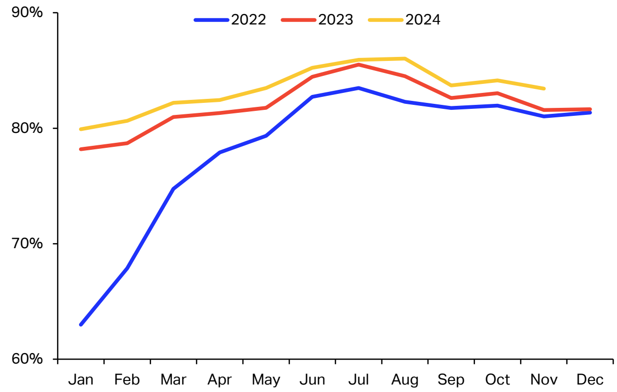


Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

In November, industry-wide Revenue Passenger-Kilometers (RPK) grew by 8.1% year-on-year, showing a steady positive trend. Seasonally adjusted, RPK rose by 1.2% month-on-month (MoM) (**Chart 1**). Airline seat capacity, measured in Available Seat Kilometers (ASK), increased by 5.7% year-on-year and 0.8% month-on-month in seasonally adjusted terms.

The average Passenger Load Factor (PLF) for the industry reached 83.4%. Overall, all traffic indicators point to stable growth, with passenger traffic continuing to exceed historical levels. Total RPK has now surpassed 2019 levels by 6.8%, while ASK is up by 3.6%. Noticeably, PLF has been increasing over the past two years. In November 2024, the passenger load factor (PLF) was 2.5 percentage points higher than in November 2019 and 1.9 points higher than the previous year. The recent PLF trend is likely influenced by faster passenger demand growth compared to airline seat capacity. Ongoing supply chain challenges, which have resulted in fewer new aircraft deliveries to airlines, can explain, to some extent, the slower increase on the seat supply side (**Chart 3**).

Chart 2 – Industry PLF, RPK's % share of ASK



Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

Domestic and international traffic saw similar developments, as PLF levels surpassed those of last

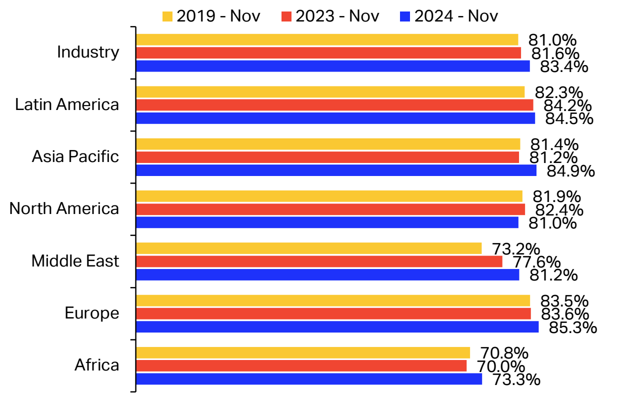
Air passenger market in detail - November 2024

	World share [1]	November 2024 (% year-on-year)				November 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	*100.0%*	**8.1%**	**5.7%**	**1.9%**	**83.4%**	**10.6%**	**8.9%**	**1.2%**	**83.5%**
International	*60.1%*	11.6%	8.6%	2.3%	83.4%	13.8%	13.3%	0.4%	83.2%
Domestic	*39.9%*	3.1%	1.5%	1.2%	83.5%	5.7%	2.5%	2.6%	84.0%

[1]% of industry RPKs in 2023

year for all regions and markets, in the exception of North America and domestic US traffic (**Chart 3**). Asia Pacific and Middle Eastern carriers saw the largest improvements in load factor among all the regions.

Chart 3 – Regional and industry passenger load factors, RPK's %share of ASK

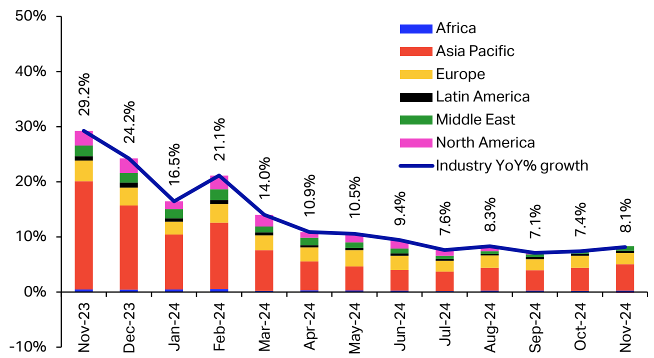


Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

Uptick in traffic growth recorded in November

Passenger traffic growth slightly accelerated in November, growing 8.1% YoY against approximately 7% the two months prior. This gentle acceleration resulted from additional contributions from Asia Pacific and Middle Eastern carriers, which saw strong demand for international air travel this month (**Chart 4**).

Chart 4 – Regional contribution to industry-wide RPK growth, YoY%



Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

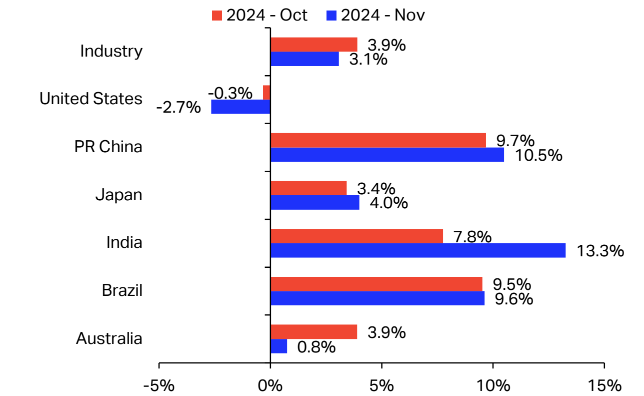
Contraction in the US, steady growth in main markets

Domestic RPK increased 3.1% over the previous year, decelerating from the last month. In actual volume, domestic passenger traffic continues to establish new records while load factors are higher compared to the previous year. Signs of stable growth were shown in all markets, while the US saw a deeper contraction in November compared to the prior month.

Indeed, data confirms that the US air traffic growth has slowed since June 2024. This trend mainly reflects lower low-cost carrier activity, while mainline carriers have continued to see growth over the same period. RPK contracted 2.7% YoY in the US (**Chart 5**).

PR China domestic traffic saw 10.5% YoY increase this month, while RPK now stand 22.5% above 2019 levels with load factors in the vicinity of 2019 levels.

Chart 5 – Domestic RPK growth by market, YoY%



Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

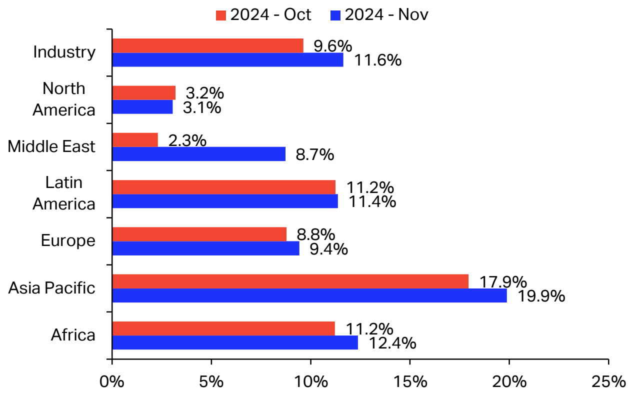
In India and Australia, RPK growth remained positive at 4.0% and 0.8% YoY, respectively. In both of these markets, ASK levels are stagnating, resulting in higher load factors this month. Brazil's air passenger traffic growth remained similar to the prior month's at 9.6% YoY.

International traffic growth accelerates in November

Industry-wide international RPK rose by 11.6% in November, slightly accelerating from October, which had seen a stagnation in growth levels that had halted the decline of YoY growth rates. All regions have seen faster growth this month, with the exception of North America. For this region, international RPK increased by 3.1% YoY.

The strengthening global momentum was carried by the Middle East and Asia Pacific, which have respectively seen RPK climb by 8.7% and 19.9% YoY (**Chart 6**). Ongoing geopolitical changes and conflicts in the Middle East had no noticeable impact on the latest figures, while traffic levels in the concerned countries remain below pre-pandemic levels.

Chart 6 – International RPK growth by airline region of registration, YoY%



Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

African carriers have also achieved outstanding results, with 12.4% YoY growth in international RPK and an increase of 4.1 percentage points in load factor, the highest increase among the regions.

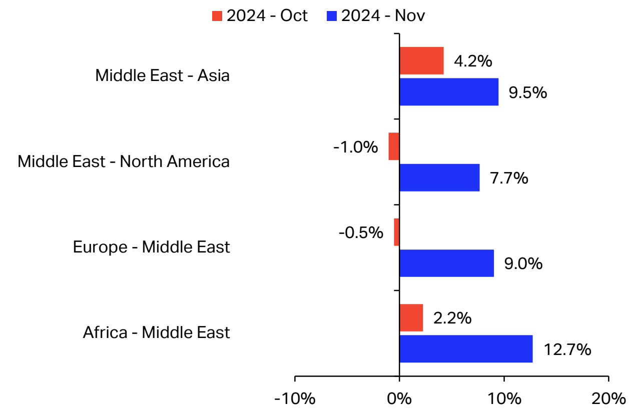
European and Latin American carriers achieved strong results this month again, with international passenger traffic increasing by 9.4% and 11.4% YoY, respectively, for these two regions.

Compared to 2019 levels, industry total international RPK were 5.2% above the same month's levels in November. Latin American carriers saw the largest expansion so far, currently standing 13.8% above pre-pandemic figures. Asia Pacific is still behind the remaining regions; however, these airlines' international traffic is now only 0.5% under their 2019 levels.

Traffic surge in the Middle East

All major international route areas have seen a great increase in growth pace, mirroring Middle Eastern airlines' latest results (**Chart 7**). The noticeable solid performance of Gulf countries supported this increase in demand for air travel. The Middle East-Asia route area saw a 9.5% increase in RPK compared to the previous year, while the Africa -Middle East route area saw the highest growth at 12.7% YoY.

Chart 7 – International RPK, YoY% - Middle East route areas

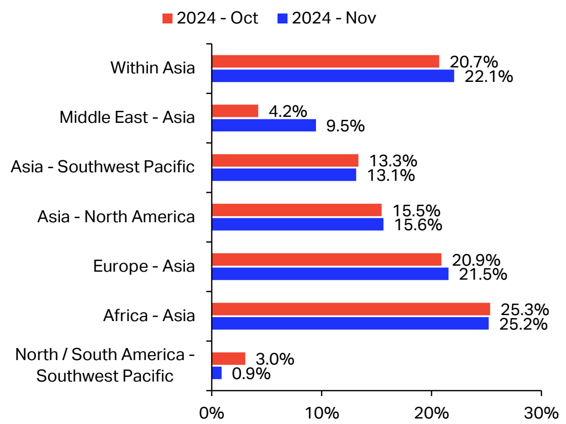


Sources: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

Momentum persists in Asia Pacific

Major international passenger markets from and to Asia Pacific have seen solid growth rates this month again, reflecting surging international traffic demand from the region (**Chart 8**). RPK within Asia grew 22.1% YoY, while the Africa–Asia route area saw the highest increase this month again with 25.2%.

Chart 8 – International RPK, YoY% **–** Major route areas from and to Asia Pacific



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Air passenger market in detail - November 2024

	World share [1]	November 2024 (% year-on-year)				November 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	*100.0%*	**8.1%**	**5.7%**	**1.9%**	**83.4%**	**10.6%**	**8.9%**	**1.2%**	**83.5%**
Africa	*2.1%*	10.9%	6.0%	3.3%	73.3%	13.2%	9.8%	2.2%	74.8%
Asia Pacific	*31.7%*	14.0%	9.0%	3.7%	84.9%	17.4%	12.8%	3.3%	83.4%
Europe	*27.1%*	8.3%	6.1%	1.7%	85.3%	8.8%	8.2%	0.5%	84.7%
Latin America	*5.5%*	7.0%	6.6%	0.4%	84.5%	8.0%	7.3%	0.6%	83.8%
Middle East	*9.4%*	8.9%	4.1%	3.6%	81.2%	9.7%	8.7%	0.7%	80.8%
North America	*24.2%*	-0.7%	1.0%	-1.4%	81.0%	4.5%	4.9%	-0.3%	84.2%
International	*60.1%*	**11.6%**	**8.6%**	**2.3%**	**83.4%**	**13.8%**	**13.3%**	**0.4%**	**83.2%**
Africa	*1.8%*	12.4%	6.0%	4.1%	72.9%	13.2%	9.5%	2.5%	74.2%
Asia Pacific	*14.7%*	19.9%	16.2%	2.6%	84.9%	26.9%	26.0%	0.6%	83.8%
Europe	*23.6%*	9.4%	7.1%	1.8%	85.0%	9.8%	9.3%	0.4%	84.0%
Latin America	*2.7%*	11.4%	11.9%	-0.4%	84.4%	14.8%	14.6%	0.1%	85.0%
Middle East	*9.1%*	8.7%	3.9%	3.6%	81.0%	9.5%	8.8%	0.6%	80.8%
North America	*8.1%*	3.1%	1.6%	1.1%	81.0%	7.0%	8.0%	-0.8%	84.2%
Domestic	*39.9%*	**3.1%**	**1.5%**	**1.2%**	**83.5%**	**5.7%**	**2.5%**	**2.6%**	**84.0%**
Dom. Australia	*0.8%*	0.8%	-1.4%	1.9%	85.8%	3.5%	2.0%	1.2%	81.6%
Domestic Brazil	*1.2%*	9.6%	6.4%	2.5%	85.2%	4.3%	2.7%	1.2%	81.8%
Dom. China P.R.	*11.2%*	10.5%	2.6%	6.0%	83.4%	12.6%	3.2%	7.0%	83.2%
Domestic India	*1.8%*	13.3%	9.2%	3.2%	89.5%	5.9%	6.5%	-0.5%	86.2%
Domestic Japan	*1.1%*	4.0%	0.9%	2.5%	84.1%	3.0%	-0.5%	2.7%	78.1%
Domestic US	*15.4%*	-2.7%	0.5%	-2.6%	80.7%	3.4%	3.5%	0.0%	83.9%

[1]% of industry RPKs in 2023

Note: the six domestic passenger markets for which broken-down data are available account for approximately 31.4% of global total RPKs and 78.8% of total domestic RPKs

Note: The total industry and regional growth rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in which the carrier is registered; it should not be considered as regional traffic. Historical statistics are subject to revision.

IATA Sustainability & Economics
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9 January 2025

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Air Cargo Market Analysis

November 2024

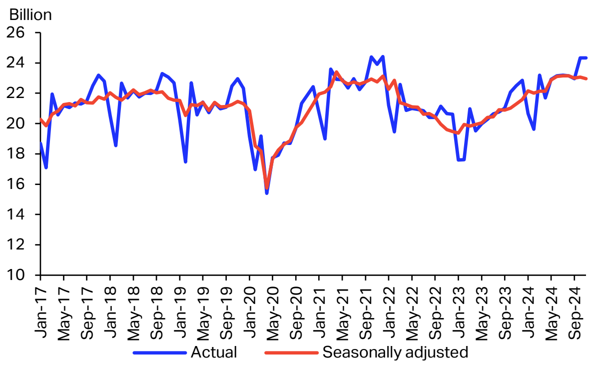
Industry capacity and demand achieve new records

- Global Cargo Tonne-Kilometers (CTK) grew by 8.2% year-on-year (YoY) in November, marking the 16th consecutive month of growth. However, month-on-month (MoM), demand dropped by 0.5 % after seasonal adjustments.
- Yearly growth rates have been decelerating since September to single digits, indicating a move back to pre-2021 values. Meanwhile, the latest CTK volumes were the highest of any November on record.
- International CTK expanded by 9.5% compared to last year with most regions, excluding Africa, and all major trade lanes seeing growth. North American carriers led with a 13.4% YoY increase. Among major trade lanes, Asia-North America trade led with a 13% annual rise in cargo demand.
- Global air cargo capacity, measured in Available Cargo Tonne-Kilometers (ACTK), grew by 4.6% YoY in November.
- Jet fuel prices rose in MoM terms for a second month, while global air cargo yield continued to increase in MoM terms, for its ninth consecutive month.

Air cargo demand keeps expanding for 16 consecutive months

The global air cargo industry experienced its 16th straight month of yearly demand growth in November, with an 8.2% YoY increase compared to the same month last year **(Chart 1)**. However, on a MoM basis, CTK fell by 0.5%, after adjusting for seasonal variations.

Chart 1 – Industry CTK, billion



Source: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

The biggest contributors to the industry's annual CTK growth were carriers from the Asia Pacific region, followed by those from North America. North American carriers held the second spot for the second consecutive month, replacing European airlines. Asia Pacific carriers contributed 53%, an increase of 3.7 percentage points from November 2023. North American carriers contributed 22%, an increase of 16.7 percentage points from the previous year, reflecting a stronger economy walking out of the shadow of inflation concerns. European airlines contributed 14.9%, down 5.7 percentage points, while Middle Eastern carriers contributed 6.2%, experiencing a sharper decline of 15.7 percentage points compared to November 2023.

Year-to-date, the industry's air cargo demand in November increased by a remarkable 11.8% compared to 2023. At the same time, the latest CTK volume set a new year-to-date record.

Growth in international cargo demand for nearly all regions

In November, international air traffic rose by 9.5%, fueled by increased e-commerce demand in the US and Asia Pacific, and continued restriction in ocean shipping. Most airline regions saw growth, with changes ranging from a 13.4% increase to a minor 0.7% decrease **(Chart 2)**.

North American airlines led with a 13.4% annual growth in international air cargo traffic. Asia Pacific airlines

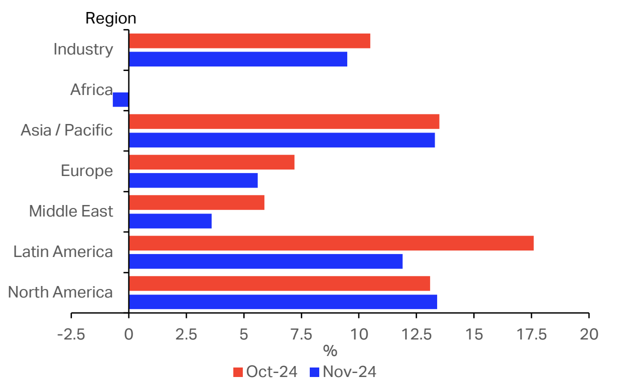
Air cargo market in detail - November 2024

	World share [1]	November 2024 (% year-on-year)				November 2024 (% year-to-date)			
		CTK	ACTK	CLF (%-pt)	CLF (level)	CTK	ACTK	CLF (%-pt)	CLF (level)
TOTAL MARKET	***100.0%***	**8.2%**	**4.6%**	**1.6%**	**49.0%**	**11.8%**	**7.7%**	**1.7%**	**45.7%**
International	*86.6%*	9.5%	6.5%	1.5%	54.6%	12.7%	9.9%	0.4%	51.3%

Note 1: % of industry CTKs in 2023

followed closely with 13.3%, while Latin America and Caribbean airlines experienced an 11.9% increase. African airlines were the only ones that saw a slight decline, following zero growth in the previous month.

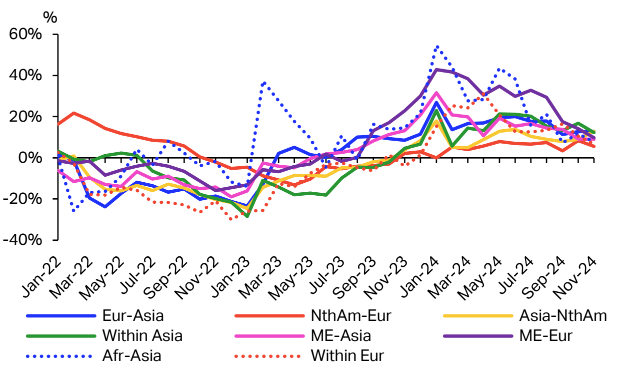
Chart 2 – International CTK by airline region of registration, YoY, %



Source: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

Annual international cargo traffic showed growth across all major route areas **(Chart 3)**. The Asia-North America route, the largest market based on CTK volumes, saw the highest increase at 13%, marking 13 straight months of growth. Europe - Asia followed with 12.9% YoY growth, sustaining growth for 21 months, including the past 12 months in double digits. Within Asia ranked third, rising 12.2% YoY, maintaining 13 consecutive months of growth, and the latest 9 of which were double digits. Europe-North America, the third largest market, grew more moderately at 5.6% in its 13th consecutive month of growth.

Chart 3 – International CTK by route area, YoY, %

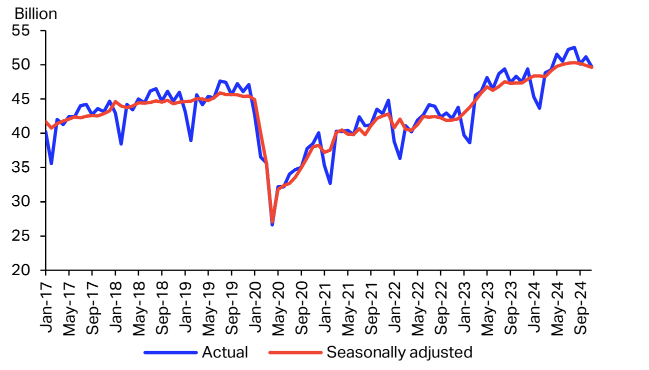


Source: IATA Sustainability and Economics using data from IATA Information and Data

Air cargo capacity expansion extends to November

In November, global ACTK rose by 4.6% YoY. However, MoM, after seasonal adjustments, it declined by 0.6% for the third straight month **(Chart 4)**. Year-to-date, ACTK jumped by 7.7%. The cargo load factor (CLF), which indicates the balance between demand and supply, increased by 1.6 percentage points year-to-date compared to the value in November 2023. An increasing CLF is typically associated with a boost in airline earnings and financial performance.

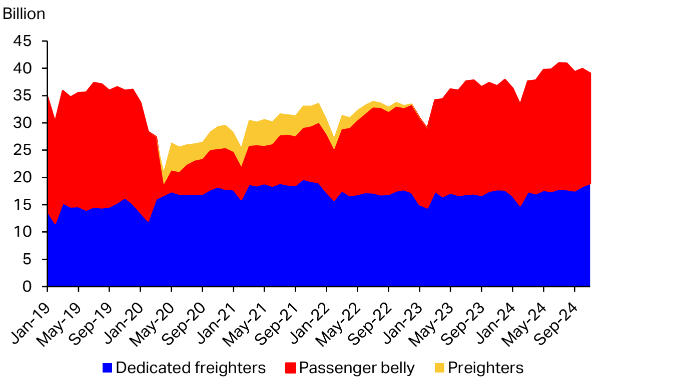
Chart 4 – Industry ACTK, billion



Source: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

International air cargo capacity expanded by 6.5% YoY in November, marking 16 months of continuous growth, and thus remained the main driver of total air cargo capacity. International belly-hold capacity continued to rise, by 6.9% YoY, despite some deceleration. Meanwhile, dedicated freighter capacity rose by 6.1% YoY, marking the eighth consecutive month of growth. As of November 2024, belly capacity covered 51.6% of total capacity, 3.2 percentage points higher than freighters. **(Chart 5)**.

Chart 5 – International ACTK by cargo business type, billion



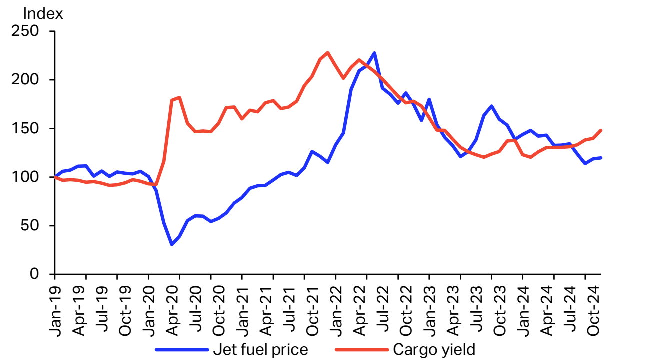
Source: IATA Sustainability and Economics using data from IATA Information and Data

Persistent growth in air cargo earnings amid stabilized fuel expenses

Average monthly global jet fuel prices in November dropped in YoY terms by a stunning 22%, the fifth consecutive fall, continuing a trend that started in February 2024. In contrast, the price expanded by 0.8% in MoM terms, as did the monthly jet fuel crack spread to USD 16.1, its second month in a row. Several factors are driving down global oil prices from its peak in early 2022. Notably, increased oil production from Libya and

Kazakhstan has led to an oversupply. Additionally, China's economic slowdown, characterized by reduced consumer spending and industrial activity, continues to impact oil prices. Consequently, falling oil prices have led to lower jet fuel costs, providing some relief to airlines' operating expenses **(Chart 6)**.

Chart 6 – Jet fuel price and air cargo yield (with surcharges), global index, Jan 2019 = 100

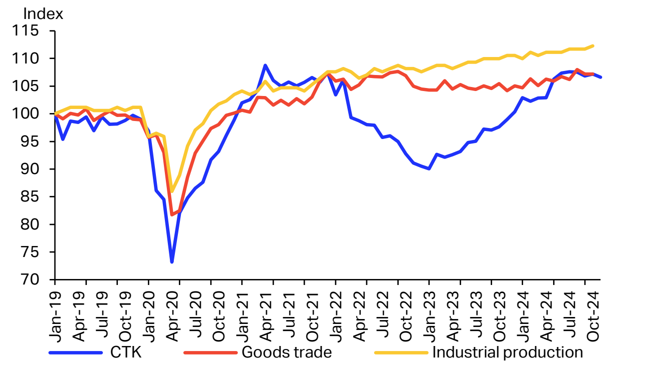


Source: IATA Sustainability and Economics using data from IATA Jet fuel price monitor, CargoIS

Meanwhile, global air cargo yield (including surcharges) rose by 5.8% MoM and 7.8% YoY. By the end of November, air cargo yields were 52% higher than in 2019. The increasing yield, from the MoM perspective, is driven by several factors. One is the strong e-commerce demand as the holiday season approaches. Another is the limited air cargo capacity between Asia and North America, and Asia and Europe, due to air space restrictions. Additionally, ongoing disruptions in sea shipping such as the effective blockade in the Red Sea caused by Houthi-rebel attacks on merchant ships, are causing some shippers to choose air transport instead.

Industrial production outpaces trade while PMIs signal further expansion for industrial production

Chart 7 – CTK, industrial production at constant USD prices, and cross-border goods trade volume, global index, seasonally adjusted, Jan 2019 = 100

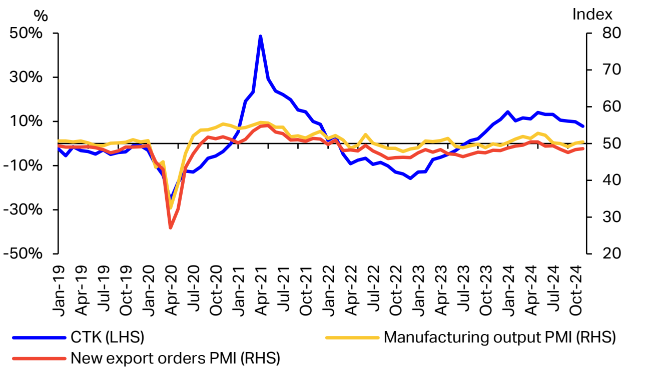


Source: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics, Macrobond

Production in the industrial sector experienced a 0.5% increase from September in constant dollar values, breaking a two-month stalemate (Chart 7). On a YoY basis, the index demonstrated even more impressive gains, rising by 2.1%, marking continuous expansion since October 2020. The global merchandise trade followed a similar trend, with a 1.6% YoY surge, its seventh consecutive month of growth, while monthly growth remained stable, a notable improvement over the previous month's decline **(Chart 7)**.

Economic benchmarks, known as Purchasing Managers' Indexes (PMIs), are derived from monthly surveys of private sector companies, measuring economic trends in manufacturing and services. In November, the global manufacturing activity showed signs of stabilization, with the PMI rising to 50.4. In contrast, the global new export orders PMI remained subdued, stuck below the 50-point mark at 48.6 for the sixth month in a row, indicating contraction in cross-border demand **(Chart 8)**.

Chart 8 – Seasonally adjusted industry CTK, YoY, % (LHS), and global manufacturing and new export orders PMIs, 50 = no change (RHS)

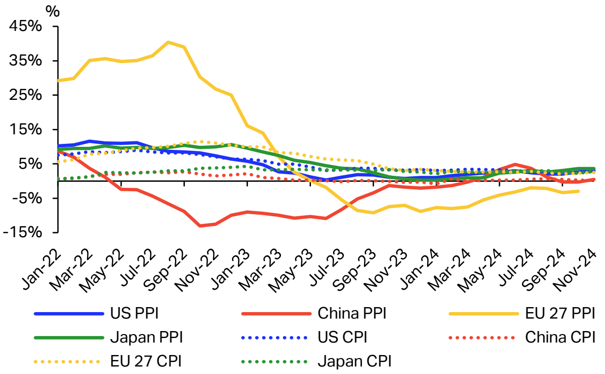


Source: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics, S&P Global Markit

Producer price trends reflect mixed inflation dynamics across major economies

In the United States, the cost-of-living index, as measured by the annual percentage change in Consumer Price Index (CPI), experienced a second consecutive monthly increase, gaining 0.1 percentage points to reach 2.7% in November. Likewise, the European Union's CPI growth rate ticked up by 0.2 percentage points to 2.5%. Japan's CPI saw a significant jump of 0.6 percentage points to 2.9%, marking the first month of rapid expansion since August. In all these regions, inflation rates have not been able to stay sustainably at targets, which could result in unpredictable business environment for air cargo and economic growth. On the other hand, China's CPI growth rate declined to 0.2% in November, a 0.1 percentage point down from October, sparking additional worries about a slowdown in economic growth. Sluggish domestic demand could lead to a decrease in air cargo shipments as reduced household expenditures and downward pressure on manufacturers result in lower demand for foreign goods and diminished international trade volumes **(Chart 9)**.

Chart 9 – Consumer price index and producer price index in major economies, YoY, %



Source: IATA Sustainability and Economics using data from Macrobond

The Producer Price Index (PPI) monitors price fluctuations at the wholesale level and serves as a crucial predictor of future price trends. In November, the U.S. PPI climbed by 3% compared to the same period last year, marking a 0.4 percentage point surge and the second consecutive monthly gain. Japan's PPI edged up to 3.7% YoY, gaining 0.1 points. China's PPIs rebounded to 0.5% in YoY terms, exiting a two-month period of declining prices. The EU's PPI for September, still in a state of declining prices, improved to -3.0% YoY, a 0.3-point increase from the previous month, with November figures yet to be released.

These PPI fluctuations have a direct impact on air cargo dynamics. The 3% and 3.7% PPIs in the U.S. and Japan, respectively, indicate higher production expenses, which could lead to reduced air cargo demand as businesses manage their expenditures. In contrast, China's modest 0.5% PPI rise suggests minimal price pressures, offering stable production costs that may support air cargo flows. Meanwhile, the EU's -3.0% PPI likely continues to lower manufacturing expenses, enhancing export competitiveness, and potentially boosting air cargo demand on outbound routes.

Air cargo market in detail - November 2024

	World share[1]	November 2024 (% year-on-year)				November 2024 (% year-to-date)			
		CTK	ACTK	CLF (%-pt)	CLF (level)	CTK	ACTK	CLF (%-pt)	CLF (level)
TOTAL MARKET	***100.0%***	**8.2%**	**4.6%**	**1.6%**	**49.0%**	**11.8%**	**7.7%**	**1.7%**	**45.7%**
Africa	*2.0%*	-0.7%	0.4%	-0.5%	42.5%	9.4%	14.7%	-2.0%	41.9%
Asia Pacific	*33.3%*	13.2%	9.4%	1.7%	50.0%	15.2%	11.8%	1.4%	47.1%
Europe	*21.4%*	5.6%	4.3%	0.7%	57.6%	11.7%	8.1%	1.8%	53.5%
Latin America	*2.8%*	11.6%	6.4%	1.9%	39.6%	12.6%	7.8%	1.6%	36.9%
Middle East	*13.5%*	3.6%	-0.6%	2.0%	49.4%	14.0%	6.1%	3.3%	46.9%
North America	*26.9%*	6.9%	2.2%	1.9%	43.8%	6.6%	3.4%	1.2%	40.1%
International	***86.6%***	**9.5%**	**6.5%**	**1.5%**	**54.6%**	**12.7%**	**9.9%**	**0.4%**	**51.3%**
Africa	*2.0%*	-0.7%	0.2%	-0.4%	43.7%	9.4%	14.5%	2.5%	42.9%
Asia Pacific	*29.8%*	13.3%	12.6%	0.3%	56.5%	15.2%	15.4%	0.6%	54.6%
Europe	*21.0%*	5.6%	4.3%	0.7%	59.1%	11.9%	8.4%	0.4%	55.5%
Latin America	*2.4%*	11.9%	7.4%	1.8%	45.3%	11.5%	9.1%	0.1%	41.1%
Middle East	*13.4%*	3.6%	-0.6%	2.1%	49.7%	14.0%	6.1%	0.6%	47.2%
North America	*17.9%*	13.4%	6.4%	3.3%	53.4%	9.0%	6.3%	-0.8%	47.7%

Note 1: % of industry CTKs in 2023

Note 2: the total industry and regional growth rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in which the carrier is registered; it should not be considered as regional traffic. Historical statistics are subject to revision.

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https://english.news.cn/20241203/fa8fe87be48543ad9c359746035feca0/c.html

China's air freight volume hits record high

Source: Xinhua

Editor: huaxia

2024-12-03 16:01:45

BEIJING, Dec. 3 (Xinhua) -- The volume of China's air cargo has reached a historic peak, fueled by robust growth in international air freight, an official with the Civil Aviation Administration of China (CAAC) said on Tuesday.

Between January and October of this year, the country's aviation sector handled nearly 7.3 million tonnes of cargo and mail, marking a 19.3 percent increase compared to the same period in 2019, Shang Kejia, a CAAC official told a press conference.

Notably, international routes carried about 2.93 million tonnes of cargo and mail, up by a significant 48.5 percent from the same period in 2019, Shang said.

Over the past week, for instance, the average daily cargo flights reached 752, including 498 international flights, reflecting year-on-year growth of 70.9 percent and 100.4 percent, respectively.

The surge in air cargo comes in the backdrop of China's industrial transformation, deeper Belt and Road cooperation, and the rapid development of cross-border e-commerce, Shang noted.

Looking ahead, Shang said the CAAC will continue to focus on enhancing the allocation of air traffic rights, refining route and flight management policies, and advancing cost reduction and efficiency improvements in air logistics. ■

2. A World with Lower Oil Prices?

The world has the ambition to wean itself off most of its fossil fuel use as it aims to limit global warming, and as many as 196 countries have signed on to this mission in the form of the Paris Agreement of 2015.

Airlines have been on this course since 2016 when the United Nation's specialized agency for civil aviation, ICAO (International Civil Aviation Organization), created the world's first sectoral global market-based measure to reduce emissions from international air transportation. IATA and ICAO committed to reaching net-zero CO2 emissions by 2050 in 2021 and 2022, respectively, making air transportation uniquely aligned across the private and public sectors.

Fossil-based jet fuel is the largest cost component of airlines, representing around 30% of total costs in 2024 for the industry globally. The challenge for the airline industry is to replace this with mostly renewable fuel, known as sustainable aviation fuel, or SAF. Airlines' quest for renewable alternatives is not unique to our industry. It concerns each and every industry in the global economy. As of 2023, coal, oil, and natural gas comprise 80% of the global energy mix (2023).[1] This share needs to decline to around 20% on the 2050 horizon. We are all part of the global energy transition, and all parts of the global economy must find renewable and cleaner energy alternatives to fossil fuels in their products and processes.

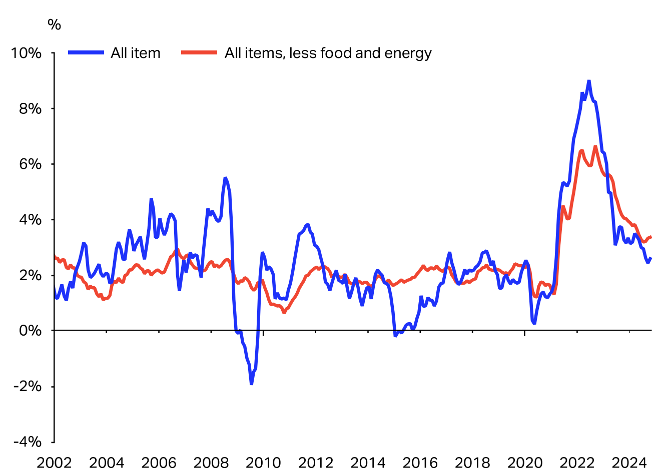
Airlines cannot use solar or wind energy, the cheapest energies in the world today,[2] to fly aircraft. Airlines still need liquid fuel to combust for propulsion, and the switch from fossil fuel to SAF involves a staggering price increase, as SAF is between 2-5 times more expensive than fossil-based jet fuel. In our Financial Roadmap,[3] we estimate that the fuel share of airlines' costs could reach 45% in 2050. Clearly, this SAF-jet fuel price differential must shrink for air transportation's wholesale energy-source shift to occur. This will not happen unless policymakers focus on implementing long-term plans for the whole economy's decarbonization and implementing incentives reflecting all economic sectors' requirements. Airlines are an integral part of that whole, and importantly, solving air transportation's challenges will go a long way toward solving those of the broader economy.

Any savings on the fossil fuel bill can, of course, help airlines pay for SAF and assist public and private sector investors in raising the necessary capital to enable future production of SAF and other decarbonization levers. At the time of writing, the Brent crude oil price stood at USD 74 per barrel, which is about USD 20 lower than a year ago, a 20% decrease. The US presidential election result adds a further downward bias to the oil price (Box 1), as the President elect Donald Trump has promised to "drill baby, drill". It is, therefore, important to consider the possible implications of lower oil prices on the global economy and the airline industry, especially in the context of the global energy transition.

Lower oil prices can lower inflation

The most direct impact of lower oil prices is seen in headline consumer price inflation (Chart 1). In September, the energy component of the US consumer price index (CPI) fell by 6.8% year-on-year (YoY), allowing the all-items CPI inflation to moderate to 2.4% YoY, while excluding food and energy, the rate of inflation was 3.3% YoY. Depending on how transitory central banks might deem the lower oil prices to be, the lower headline inflation should allow for more monetary policy easing, all things being equal.

Chart 1: Average US consumer prices, 2000-2024, % YoY



Source: Macrobond, US Bureau of Labor Statistics

1 IEA, World Energy Outlook 2024, data for 2023.
2 IEA, Renewables 2023 report.
3 IATA Finance – Net Zero CO2 Emissions Roadmap (September 2024).

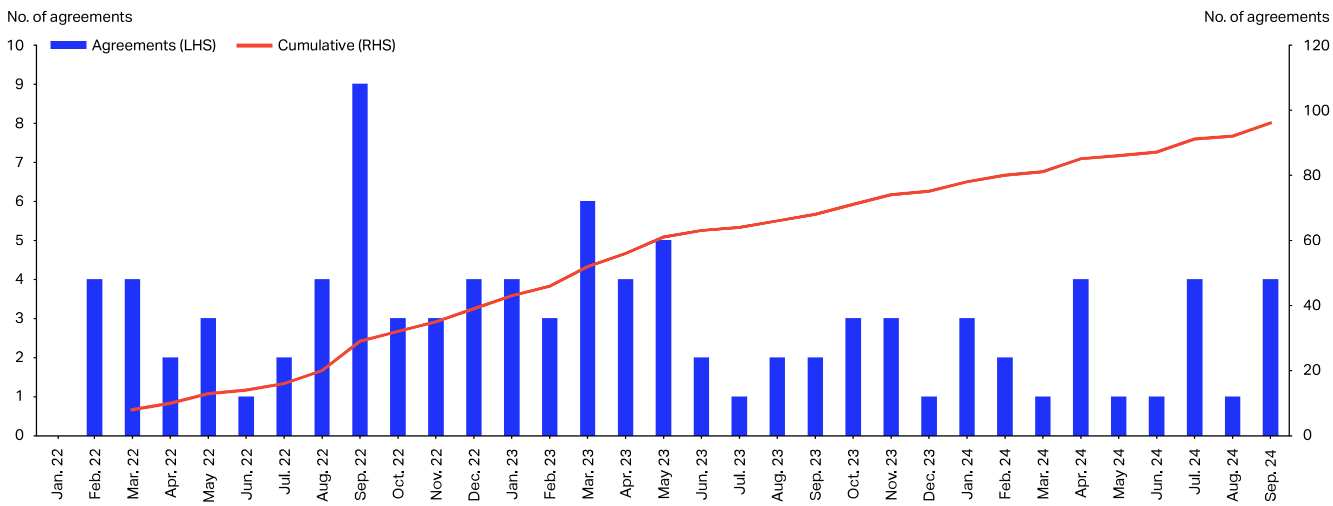
Sustainable Aviation Fuel and CORSIA

Sustainable Aviation Fuel (SAF) is of critical importance in the aviation industry's decarbonizing efforts. How much of the world's total renewable energy production will be in the form of SAF will depend on the production pathway, operators' optimization of the product mix at refineries, and policy drivers. According to our estimates, SAF production has been around 1 Mt in 2024. The airline industry has consumed all of the SAF produced at a hefty price tag of USD 2,350 per tonne (or 3.1x jet fuel) in 2024, adding an incremental USD 1.7 billion to the industry fuel bill. In 2025, we estimate that SAF production could rise to 2 Mt and or 0.6% of airlines' total fuel consumption, adding USD 3.8 billion to the fuel bill at USD 2,500 per tonne (or 3.8x conventional jet fuel).

Over the past two years, the aviation industry has signed 96 SAF offtake agreements to support the ramp-up of SAF production and secure supply (Chart 30). Of these, 70 are binding purchase commitments, and 26 are non-binding. Globally, 70 airlines, three aircraft manufacturers, and one airport publicly announced at least one SAF purchase agreement as of June 2024.

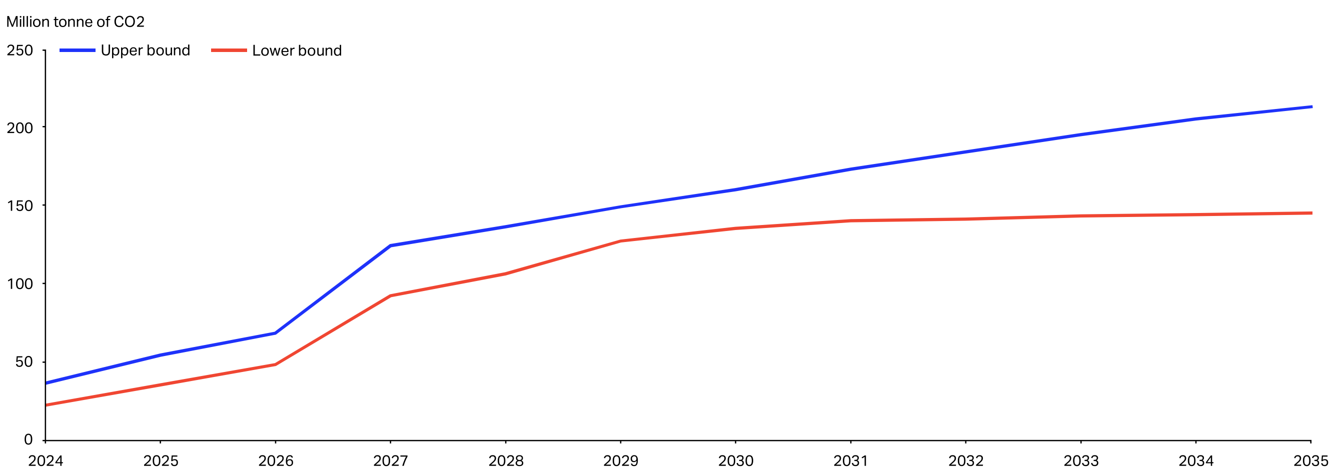
An additional cost will come from the carbon offsetting and reduction scheme for international aviation (CORSIA), a global market-based carbon offsetting mechanism designed to stabilize international aviation emissions. We estimate that the air transport industry will offset between 23 and 37 million tonnes of CO2 under CORSIA in 2024, costing airlines between USD 460 million and USD 925 million. For 2025 we forecast that the industry will offset between 36 and 55 million tonnes of CO2 at a cost USD 540 million and USD 1,375 million price range (Chart 31). In our forecast we use the mid-point of these two estimates (Table 7).

Chart 30: Number of SAF offtake agreements, as of June 2024



Source: IATA Sustainability and Economics

Chart 31: CORSIA offsetting requirements forecast (Sep24), million tonnes of CO2



Source: IATA Sustainability and Economics i_Cores

Avance provisional de consumo

Noviembre 2024

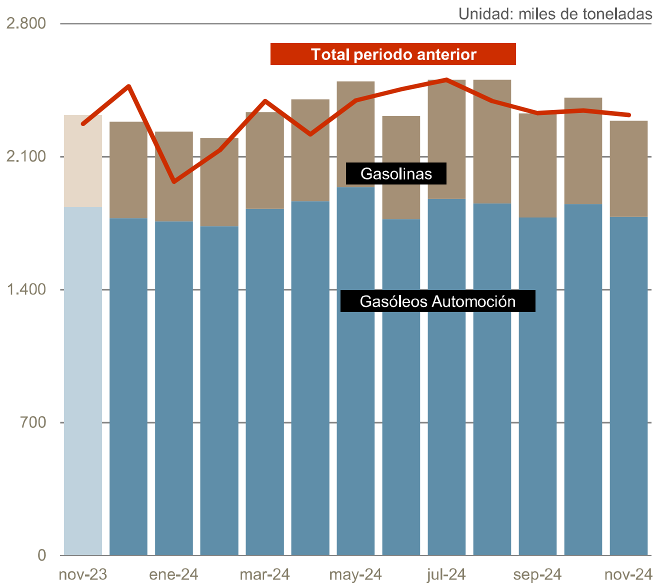
En noviembre desciende el consumo de los combustibles de automoción (-1,3% vs. noviembre 2023)

En noviembre desciende el consumo de los combustibles de automoción (2.289 kt, -1,3% vs. nov-23), descendiendo también respecto a octubre 2024 (-5,0%). Ascienden las gasolinas (+5,3% vs. nov-23), mientras que disminuyen los gasóleos (-3,0%). En el acumulado del año el consumo de los combustibles de automoción asciende un +2,2% vs. 2023, aumentando tanto las gasolinas (+7,4%) como los gasóleos auto (+0,7%).

Este mes asciende interanualmente el consumo de gasolinas (+5,3%), querosenos (+9,6%) y fuelóleos (+0,7%), mientras desciende el de GLP (-8,9%) y gasóleos (-4,8%). En el acumulado anual presentan incrementos los consumos de gasolinas (+7,4%), querosenos (+11,7%), gasóleos (+1,0%) y fuelóleos (+7,1%), mientras que el GLP se mantiene estable.

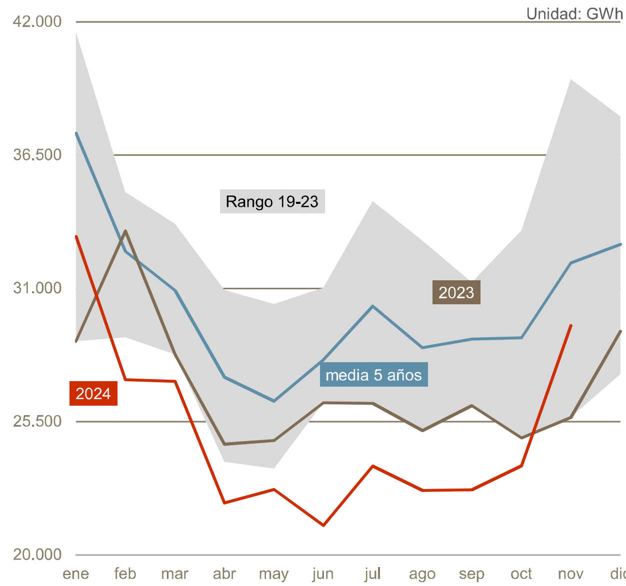
En noviembre aumenta el consumo de gas natural (+14,8% vs. nov-23), situándose en 29.461 GWh. Aumentan todos los tipos de consumo: convencional (+7,5%), generación eléctrica (+36,8%) y GNL de consumo directo (+15,8%). Respecto a octubre 2024, asciende el consumo total (+24,5%), aumentando también todos los tipos de consumo, el convencional (+22,5%), el destinado a generación eléctrica (+32,9%) y el GNL de consumo directo (+1,5%). En el acumulado anual, el consumo de gas natural se reduce un -6,2% vs. 2023: aumentan el consumo convencional (+2,5%) y GNL de consumo directo (+11,6%), mientras que disminuye el destinado a generación eléctrica (-26,9%).

Consumo mensual de combustibles automoción



Fuente: Cores

Consumo mensual gas natural



Fuente: Cores

Unidad: miles de toneladas

Productos Petrolíferos	Consumos Noviembre 2024	Consumos Acumulado Anual	Consumos Año Móvil	Tasas Variación (%) Interanuales Noviembre 2024	Tasas Variación (%) Interanuales Acumulado Anual	Tasas Variación (%) Interanuales Año Móvil
Gasolinas Automoción	507	5.969	6.477	5,3%	7,4%	6,5%
Gasóleos Automoción	1.782	20.035	21.811	-3,0%	0,7%	-0,1%
Combustibles de Automoción	**2.289**	**26.004**	**28.289**	**-1,3%**	**2,2%**	**1,3%**
GLP	139	1.909	2.097	-8,9%	0,0%	-0,7%
Gasolinas*	507	5.974	6.482	5,3%	7,4%	6,5%
Querosenos	569	6.813	7.357	9,6%	11,7%	12,1%
Gasóleos*	2.470	27.252	29.816	-4,8%	1,0%	-0,3%
Fuelóleos	696	7.875	8.551	0,7%	7,1%	7,1%

* Productos de automoción incluidos en el grupo de productos correspondiente

Unidad: GWh

Gas natural	Consumos Noviembre 2024	Consumos Acumulado Anual	Consumos Año Móvil	Tasas Variación (%) Interanuales Noviembre 2024	Tasas Variación (%) Interanuales Acumulado Anual	Tasas Variación (%) Interanuales Año Móvil
Consumo convencional	20.063	200.434	222.133	7,5%	2,5%	4,0%
Generación eléctrica	8.445	65.645	72.385	36,8%	-26,9%	-26,6%
GNL de consumo directo	952	9.675	10.458	15,8%	11,6%	12,2%
Total Gas natural	**29.461**	**275.754**	**304.976**	**14,8%**	**-6,2%**	**-5,1%**

Fuente: Cores

El contenido de este informe está basado en datos provisionales disponibles a fecha de su emisión.

Importaciones de crudo por países

i_Cores

Noviembre 2024

Las importaciones de crudo a España aumentan en noviembre (+14,0% vs. nov-23)

El crudo importado a España en noviembre se sitúa en 5.468 kt, aumentando las importaciones de crudo interanualmente en el mes (+14,0%), en el acumulado anual (+5,1%) y en el año móvil (+4,0%).

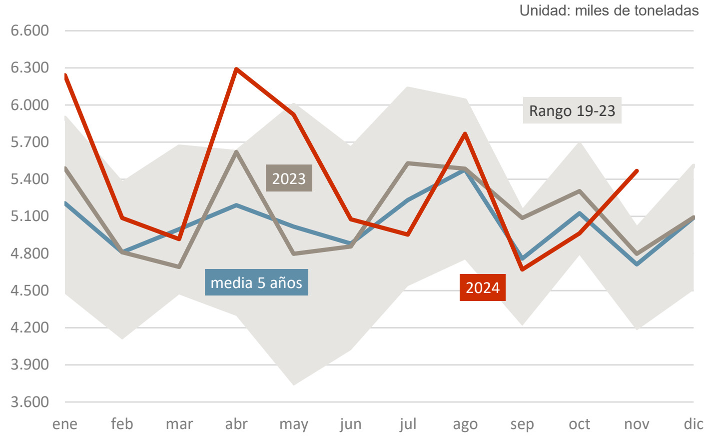
Este mes se importan 29 tipos de crudo originarios de 17 países.
México (941 kt; 17,2% del total) se sitúa como principal suministrador de crudo a España en noviembre, con un aumento interanual del 114,2%. Le siguen Brasil (832 kt; 15,2% del total), que aumenta sus entregas un 42,4% respecto a nov-23, y EE.UU. (827 kt; 15,1%), que las aumenta un 63,7%.

Las importaciones de crudo de los países miembros de la OPEP disminuyen en el mes un 22,1% vs. nov-23 y representan el 34,6% del total. Únicamente aumentan interanualmente las entradas de crudo procedentes de Venezuela (+94,0% vs. nov-23), Argelia (+41,7%) y Guinea Ecuatorial (sin importaciones en nov-23). Las entradas de crudo de los países No-OPEP aumentan en el mes (+51,0% vs. nov-23), y representan el 65,4% del total.

Por áreas geográficas, América del Norte (+57,4% vs. nov-23) es la principal zona de abastecimiento en el mes (34,0% del total). Le siguen América Central y del Sur (+77,8% vs. nov-23; 24,0% del total), África (-24,8%; 23,2%), Europa y Euroasia (-5,8%; 10,3%) y Oriente Medio (-21,8%; 8,4%).

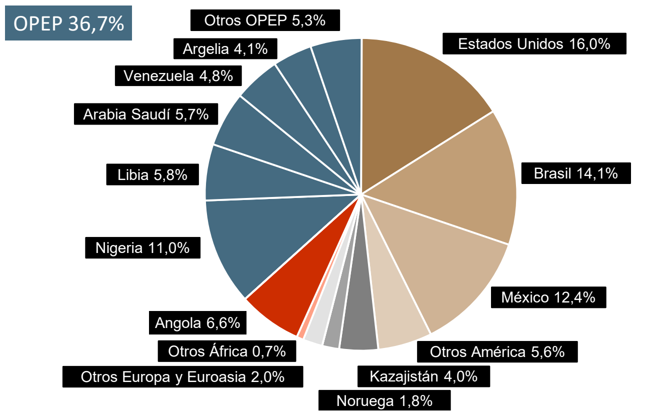
Importaciones mensuales de crudo últimos 5 años

Unidad: miles de toneladas



Fuente: Cores

Distribución importaciones de crudo Enero-Noviembre 2024



Fuente: Cores

Unidad: miles de toneladas

	Noviembre 2024			Acumulado anual		Año móvil		
	Importaciones	TV (%)*	Estructura (%)	Importaciones	TV (%)*	Importaciones	TV (%)*	Estructura (%)
Canadá	93	-60,8	1,7	1.628	-37,9	1.919	-36,8	3,0
Estados Unidos	827	63,7	15,1	9.500	24,2	10.562	30,8	16,4
México	941	114,2	17,2	7.370	13,7	7.926	11,4	12,3
Total América del Norte	**1.861**	**57,4**	**34,0**	**18.498**	**10,5**	**20.408**	**11,9**	**31,7**
Brasil	832	42,4	15,2	8.384	40,2	9.039	42,5	14,0
Colombia	-	-	-	-	-100,0	103	-91,3	0,2
Ecuador	-	-	-	-	-100,0	-	-100,0	-
Trinidad y Tobago	-	-	-	-	-100,0	-	-100,0	-
Venezuela	296	94,0	5,4	2.858	130,8	3.011	118,4	4,7
Otros América Central y del Sur	182	-	3,3	1.697	151,4	1.697	109,2	2,6
Total América Central y del Sur	**1.310**	**77,8**	**24,0**	**12.939**	**40,1**	**13.851**	**37,6**	**21,5**
Albania	-	-100,0	-	204	-45,6	250	-41,6	0,4
Azerbaiyán	85	-52,6	1,6	259	-81,8	354	-80,2	0,5
Italia	57	-1,6	1,0	499	37,2	499	11,2	0,8
Kazajistán	362	14,0	6,6	2.395	-22,4	2.395	-27,8	3,7
Noruega	-	-	-	1.041	-18,6	1.041	-26,9	1,6
Reino Unido	62	-	1,1	240	-24,0	240	-49,8	0,4
Total Europa y Euroasia	**566**	**-5,8**	**10,3**	**4.638**	**-32,2**	**4.777**	**-39,3**	**7,4**
Arabia Saudí	253	-17,7	4,6	3.378	-11,8	3.656	-9,8	5,7
Irak	208	-26,2	3,8	1.767	-37,6	2.043	-34,5	3,2
Total Oriente Medio	**461**	**-21,8**	**8,4**	**5.145**	**-22,8**	**5.699**	**-20,5**	**8,8**
Angola	134	-66,6	2,5	3.921	7,6	4.444	9,6	6,9
Argelia	229	41,7	4,2	2.412	14,0	2.749	17,4	4,3
Egipto	-	-	-	-	-100,0	-	-100,0	-
Gabón	-	-100,0	-	252	89,3	252	89,3	0,4
Ghana	-	-	-	254	93,7	254	93,7	0,4
Guinea Ec.	277	-	5,1	1.125	43,7	1.125	21,7	1,7
Libia	241	-50,1	4,4	3.463	-13,7	3.797	-14,3	5,9
Nigeria	388	-23,5	7,1	6.547	9,1	6.931	7,4	10,8
Senegal	-	-	-	137	-	137	-	0,2
Túnez	-	-	-	23	^	23	^	^
Total Africa	**1.270**	**-24,8**	**23,2**	**18.134**	**6,8**	**19.712**	**5,8**	**30,6**
Total	**5.468**	**14,0**	**100,0**	**59.354**	**5,1**	**64.447**	**4,0**	**100,0**
OPEP	**1.893**	**-22,1**	**34,6**	**21.802**	**-11,3**	**24.087**	**-10,4**	**37,4**
No-OPEP	**3.575**	**51,0**	**65,4**	**37.552**	**17,8**	**40.361**	**15,0**	**62,6**
OCDE	**1.980**	**59,6**	**36,2**	**20.277**	**2,7**	**22.290**	**2,4**	**34,6**
No-OCDE	**3.488**	**-1,9**	**63,8**	**39.077**	**6,4**	**42.157**	**4,8**	**65,4**
UE	**57**	**-1,6**	**1,0**	**499**	**37,2**	**499**	**11,2**	**0,8**

* Tasa de variación con respecto al mismo periodo del año anterior.

Fuente: Cores

- igual que 0,0 / ^ distinto de 0,0

Actualizado el 08-01-2025

https://blogs.microsoft.com/on-the-issues/2025/01/03/the-golden-opportunity-for-american-ai/

Microsoft | Microsoft On the Issues

The Golden Opportunity for American AI

Jan 3, 2025 | Brad Smith, Vice Chair & President of Microsoft

A vision for technology success during the next four years

As we usher in a New Year, we will welcome a new president into the White House as well as a golden opportunity for American technology and economic competitiveness. Not since the invention of electricity has the United States had the opportunity it has today to harness new technology to invigorate the nation's economy. In many ways, artificial intelligence is the electricity of our age, and the next four years can build a foundation for America's economic success for the next quarter century.

At Microsoft, we see a three-part vision for America's technology success. This starts with advances and investments in world-leading American AI technology and infrastructure. Second, the country needs to champion skilling programs that will enable widespread AI adoption and enhanced career opportunities across the economy. Finally, the United States must focus on exporting American AI to our allies and friends, bolstering our domestic economy and ensuring that other countries benefit from AI advancements.

The country has a unique opportunity to pursue this vision and build on the foundational ideas set for AI policy during President Trump's first term. Achieving this vision will require a partnership that unites leaders from government, the private sector, and the country's educational and non-profit institutions. At Microsoft, we are excited to take part in this journey.

Technology as a foundation for economic growth

Since the mid-1700s, the world has witnessed great leaps forward through major industrial revolutions, each driven by groundbreaking technology. The steam engine ignited the world's first industrial revolution in the United Kingdom, intensifying economic growth through subsequent and rapid advances in ironworking.

The second industrial revolution, starting in the late 1800s, catapulted the United States to global economic leadership. Americans uniquely harnessed the power of electricity across the economy, including by transforming machine tooling to build the world's largest manufacturing-based economy.

The third industrial revolution emerged in the latter half of the 1900s, fueled by computer chips and software. Once again, the United States led the world in this new technological era, giving rise to new companies that included Microsoft itself, which will celebrate its 50th anniversary this April.

Each of these eras was marked by what economists call a General-Purpose Technology, or GPT. In contrast to single-purpose products, GPTs boost innovation and productivity across the economy. Ironworking, electricity, machine tooling, computer chips, and software all rank among history's most impactful GPTs.

World-leading AI technology and infrastructure

As we look into the future, it's clear that artificial intelligence is poised to become a world-changing GPT. AI promises to drive innovation and boost productivity in every sector of the economy. The United States is poised to stand at the forefront of this new technology wave, especially if it doubles down on its strengths and effectively partners internationally.

America's technological strength has always been rooted in the private sector. Today, the United States leads the global AI race thanks to the investment of private capital and innovations by American companies of all sizes, from dynamic start-ups to well-established enterprises. At Microsoft, we've seen this firsthand through our partnership with OpenAI, from rising firms such as Anthropic and xAI, and our own AI-enabled software platforms and applications. Across the nation, a new generation of AI firms is emerging, each capitalizing on rapid advances in AI models and chips, moving now from Graphics Processing Units (GPUs) to AI Accelerators with Tensors. And across the economy, software programs are being redesigned to operate as AI-enabled applications.

None of this progress would be possible without new partnerships founded on large-scale infrastructure investments that serve as the essential foundation of AI innovation and use. In FY 2025, Microsoft is on track to invest approximately $80 billion to build out AI-enabled datacenters to train AI models and deploy AI and cloud-based applications around the world. More than half of this total investment will be in the United States, reflecting our commitment to this country and our confidence in the American economy.

Our success, however, depends on a broad and competitive technology ecosystem, much of which is based on open-source development. This includes our longstanding competitors, chip suppliers, applications companies, systems integrators, service providers, and the millions of software developers who use our products to create customized solutions working for our customers. The massive datacenters that make all this possible are being built by construction firms, steel and other manufacturers, and innovative advances in electricity and liquid cooling, all reliant on large numbers of skilled electricians and pipefitters, including members of organized labor unions. Together, all these groups have enabled the technology sector to become an economic backbone for the United States and the world.

Since the Second World War, America's technological innovation has been driven by research and development (R&D) based on two critical ingredients. The first is sustained support for basic research. While a few tech companies invest substantial sums in basic research, as we do through Microsoft Research (MSR), most world-leading basic research is pursued by academics at American universities, often based on funding from the National Science Foundation and other federal agencies. Driven by curiosity rather than a profit motive, this research often leads to unexpected but profound discoveries that are published publicly.

The second ingredient is a sustained commitment to investments in product development by companies of all sizes. The United States, more than any other country, has mastered the process of moving new ideas quickly from universities to the private sector. This success rests on healthy investments in both R and D, recognizing that basic research is often publicly funded and typically in universities, while product development is robustly and privately funded through companies. It's the combination of the two that makes American R&D so successful.

The incoming Administration can strengthen these foundational elements, building on the work from President Trump's first term. In 2019, the President approved an executive order designed to strengthen America's lead in artificial intelligence. It rightly focused on federal investments in AI research and making federal data and computing resources more accessible. Five years later, President Trump and Congress should expand on these efforts to support advancing America's AI leadership. More funding for basic research at the National Science Foundation and through our universities is one good place to start.

AI skilling

Skilling was a centerpiece of President Trump's 2019 AI Executive Order. It prioritized AI within existing federal educational grants and fellowship programs to help build a bigger pipeline of skilled AI researchers and practitioners. It also highlighted the importance of integrating AI technologies into educational curricula and called for the development of apprenticeship and skills programs, particularly in STEM fields, to ensure that American workers are well-prepared for the future.

This focus was prescient, as five years later, AI skilling has become a necessity for the nation. AI is reshaping the nature of work and the future of jobs. This mirrors the lessons from prior industrial revolutions. Ironworking in the 1700s spread rapidly in the United Kingdom because technical associations and apprenticeships enabled workers to master new skills. Machine tooling in the late 1800s spread quickly in the United States because land grant colleges expanded the number of mechanical engineers. And digital technology spread swiftly in the U.S. in the second half of the twentieth century because new computer science departments in American colleges and universities produced the software developers the nation needed. In sum, one of the most important elements in spreading a GPT across an economy is the skilling infrastructure that equips both current and future workers with the capabilities needed to put new technology to work.

AI, like all new technologies, will disrupt the economy and displace some jobs. But as we've worked on skilling initiatives during the past few years, our confidence has grown that AI will create new opportunities that will outweigh many of the challenges ahead. If used well, AI will help lower the barriers to entry for many professions, replace rote tasks, and create a foundation for human creativity that builds on AI tools. AI will create new economic opportunities, allowing entrepreneurs to start new businesses and create new jobs. Along the way, AI can boost productivity in every sector of the economy, adding to the country's opportunity for economic growth.

AI is already becoming a tool to enable small business owners with fewer staff to compete in new ways with larger companies. And it offers the best opportunity so far this century to help high school grads and others with less post-secondary education to reverse the growing economic inequality that has gripped the nation since the early 1990s.

The key will be to develop a national AI talent strategy that equips Americans of all ages and backgrounds with the opportunity to acquire the AI skills needed for economic advancement. A key opportunity for most people will be to develop an AI fluency that will enable them to use AI in their jobs, much as they use laptops, smartphones, software applications, and the internet today.

There is a lesson here from the recent past. A big part of Microsoft's 50-year history has been tied to the creation of knowledge workers that drive the modern services economy of the United States and many other countries. The PC/Mobile era has created a global economy with more than a billion such workers. During the next quarter century, we believe AI can help create the next billion AI-enabled jobs, reaching not just services but manufacturing, transportation, agriculture, government, and every other part of the economy.

In this new AI era, some individuals will want and need deeper training. Some of this will happen on the job, through online platforms such as LinkedIn Learning, or at a community college or four-year institution. For some people, this training will build upon existing disciplines like computer and data science, potentially evolving into a new generation of AI engineering. Other individuals will take business classes that will equip them to help design or manage the integration of AI systems into the business processes that support organizations across the private, public, and non-profit sectors.

Companies across the tech sector are already playing an important part. For instance, in 2025 alone, Microsoft is on a path to train 2.5 million American students, workers, and community members with the AI skills to land new jobs, pursue new careers, and build new businesses.

Our work is providing us with a broad perspective and a firm belief that now is the time for the country to pursue a new national goal to make AI skilling accessible and useful for every American. By definition, this will require a very broad range of partnerships, spanning across geographic, organizational, economic, and political divides.

This is why our work focuses in part on community colleges. In every part of the United States, they are integral to American workforce development, offering accessible, affordable, and flexible education. We're already partnering with the National AI Consortium for Community Colleges to provide industry-aligned AI curriculum. And we're developing faculty training through AI Bootcamps that will help prepare students with in-demand skills that meet regional workforce needs.

We've also developed new AI training programs for teachers. And we're partnering with workforce agencies to enhance AI skills and career guidance through a Microsoft Copilot for Career Navigators initiative, which provides tools to effectively support communities in the AI-driven economy.

Our goal is to reach every corner of the country, including rural communities. The National 4-H AI Skills Partnership will use Minecraft Education to introduce AI concepts and increase AI fluency for 1.4 million youth. And with the Future Farmers of America's FarmBeats for Students program, we are helping young people use AI to advance precision agriculture.

One conclusion jumps out from our work more than anything else: AI offers not only new tools for people's work but also new ways to help people learn almost anything. We have the opportunity as a country to equip all Americans with the skills needed to use AI to pursue higher-paying jobs and more successful careers. This should be our national north star.

AI exports

A third critical priority for 2025 is the promotion of American AI exports. President Trump's 2019 executive order rightly emphasized the need to promote an international environment that "opens markets for American AI industries while protecting our technological advantage in AI and protecting our critical AI technologies from acquisition by strategic competitors and adversarial nations." Since then, the advent of generative AI has increased the importance of this priority.

Even more critically, the rapid development of China's AI sector has heightened competition between American and Chinese AI, with much of this likely to play out during the next four years in international markets around the world.

While the U.S. government rightly has focused on protecting sensitive AI components in secure datacenters through export controls, an even more important element of this competition will involve a race between the United States and China to spread their respective technologies to other countries. Given the nature of technology markets and their potential network effects, this race between the U.S. and China for international influence likely will be won by the fastest first mover. Hence, the United States needs a smart international strategy to rapidly support American AI around the world.

This fundamental lesson emerges from the past 20 years of telecommunications equipment exports. Initially, American and European companies such as Lucent, Alcatel, Ericsson, and Nokia built innovative products that defined international standards. But as Huawei invested in innovation and China's government subsidized sales of its products, especially across the developing world, adoption of these Chinese products outpaced the competition and became the backbone of numerous countries' telecommunications networks. This created the technology foundation for what later became an important issue for the Trump Administration in 2020, as it grappled with the presence of Huawei's 5G products and their implications for national and cybersecurity.

As we enter the second half of the decade, early signs suggest the Government of China is interested in replicating its successful telecommunications strategy. China is starting to offer developing countries subsidized access to scarce chips, and it's promising to build local AI datacenters. The Chinese wisely recognize that if a country standardizes on China's AI platform, it likely will continue to rely on that platform in the future.

The best response for the United States is not to complain about the competition but to ensure we win the race ahead. This will require that we move quickly and effectively to promote American AI as a superior alternative. And it will need the involvement and support of American allies and friends.

The United States currently has multiple advantages. American companies currently have better technology, from chips to AI models to software applications. In addition, many U.S. companies, including Microsoft, have invested heavily in building AI that is more trustworthy than most products from China. We are designing AI technology that protects cybersecurity, privacy, digital safety, and other responsible uses of AI. And we are making this technology available around the world through datacenters that meet the U.S. Government's highest cyber and physical security standards.

Increasingly, this is also backed by strong international regulatory cooperation among the North American, European, and Asian and Pacific democracies. If the Trump Administration can build upon the best AI steps that have emerged in the past four years through international AI diplomacy, including the G7, the United States will offer the world a compelling value proposition.

Equally important, American tech companies and private capital markets are investing heavily to spread American AI platforms around the world. And building on the historic Abraham Accords of President Trump's first term, the United States is forging stronger technology and economic ties with key nations and sovereign investors in the Middle East. All this is creating a powerful approach that far exceeds what the United States and Europe had available to counter Chinese government subsidies in the telecommunications space.

Microsoft itself represents this effort more than any other single entity. Last year, we announced with national leaders that we intend to invest more than $35 billion in 14 countries within three years to build trusted and secure AI and cloud datacenter infrastructure. This is part of a global infrastructure that now reaches 40 countries, including in the Global South, where China has frequently focused so many of its Belt and Road investments. To enhance our capabilities, we are partnering with the UAE's sovereign AI company, G42, to bring AI infrastructure to Kenya. And we're working with Blackrock and MGX to create an international investment fund to add up to $100 billion of additional funding for AI infrastructure and the AI supply chain.

Other companies are accelerating their investments as well. Firms like Google, Amazon, and others are investing heavily. And more private capital is joining in.

We should expect China's government to spend public funds on international subsidies to support the adoption of its technology, especially in places like Africa, Asia, and Latin America. But it will be difficult for China to match America's private sector investments and these international capital funds.

Put in this context, the most important priority for the U.S. Government won't be to match Chinese subsidies with American public spending, although there may be some parts of the developing world where development banks and foreign aid may have a role to play. Instead, the most important U.S. public policy priority should be to ensure that the U.S. private sector can continue to advance with the wind at its back. The United States cannot afford to slow its own private sector with heavy-handed regulations. The country instead needs a pragmatic export control policy that balances strong security protection for AI components in trusted datacenters with an ability for U.S. companies to expand rapidly and provide a reliable source of supply to the many countries that are American allies and friends.

Causes for American Optimism

In sum, as we look to the four years ahead, there are many reasons to be optimistic about the role of American AI.

As a nation, we have a solid AI technology foundation fueled by the world's most robust and innovative private sector. With a thoughtful approach to government policy, we can sustain our leadership through well-funded basic research at the nation's universities and broad support for private sector innovation.

Our strong educational system can spread new AI skills to work that will energize our economy. Technology platforms and non-profits can help people use AI to enhance their careers. We have the world's most dynamic business sector that excels in adopting new technology. If the Trump Administration can develop a strong national AI talent strategy and use AI to make the government itself more effective and efficient, it will put the country on a promising path.

Finally, the United States is in a strong position to win the essential race with China by advancing international adoption of American AI. American products are more trusted than their Chinese counterparts, and our private sector is unmatched in its ability to invest in infrastructure around the world. With a balanced and common-sense approach to export control policy, the United States can solidify the diplomatic relations that will be critical to global AI adoption.

The key to the future is to bring together the best of what we can offer across American society, from across our private sector, educational and non-profit institutions, and government. Teamwork based on technology collaboration will build the foundation for a golden AI opportunity—and for the next generation of American prosperity.

BLACKROCK 2025 GLOBAL OUTLOOK

oil

Contents

We have argued since 2020 that we are not in a business cycle. Historical trends are being permanently broken in real time as mega forces, like the rise of artificial intelligence (AI), transform economies. The ongoing outsized response of long-term assets to short-term news shows how unusual this environment is. We stay risk-on as we look for transformation beneficiaries – and go further overweight U.S. stocks as the AI theme broadens out. We have more conviction inflation and interest rates will stay above pre-pandemic levels.

Mega forces are reshaping economies and their long-term trajectories – it's no longer about short-term fluctuations in activity leading to expansion or recession. 2024 has reinforced our view that we are not in a business cycle: AI has been a major market driver, inflation fell without a growth slowdown and typical recession signals failed. Volatility surged and narratives flipflopped as markets kept viewing new data through a business cycle lens, not one of transformation.

As we head into 2025, some countries have new leaders with a mandate for political and economic change. That could see policymakers pursuing measures that add to volatility rather than stability. Financial markets may work to rein in any policy extremes, such as with fiscal policy. Yet we think there will be fewer checks when stocks are running up, creating the potential for risk appetite to turn frothy.

This fundamentally different landscape upends the nature of investing, in our view. We think investors can find opportunities by tapping into the waves of transformation we see ahead in the real economy, with AI and the low-carbon transition requiring investment potentially on par with the Industrial Revolution. That's why our first theme is *financing the future*. We see capital markets playing a vital role as these mega forces drive a broad infrastructure buildout.

We think investors should focus more on themes and less on broad asset classes as mega forces reshape whole economies. In other words, the unit of analysis for thinking about returns is changing – and that calls for *rethinking investing*, our second theme. One key conclusion: with no stable long-term trend and an ever-evolving outlook, investors may want to reconsider what a neutral asset allocation is and put more weight on tactical views since investors cannot rely on eventual convergence back to historical trends. Being more dynamic with portfolios and getting granular with views are both essential, in our view.

Where does that leave us? We are *staying pro-risk*, our third theme. We see the U.S. still standing out versus other developed markets thanks to stronger growth and its ability to better capitalize on mega forces. We up our overweight to U.S. equities and see the AI theme broadening out. We don't think pricey U.S. equity valuations alone will trigger a near-term reassessment. But we are ready to adjust if markets become overexuberant. We are underweight long-term U.S. Treasuries on both a tactical and strategic horizon – and we see risks to our upbeat view from any spike in long-term bond yields. We see private markets as an important way to allocate to mega forces and have turned more positive on infrastructure equity on a strategic horizon.

"OUR FIRST THEME IS FINANCING THE FUTURE"

BLACKROCK 2025 GLOBAL OUTLOOK

oil

Financing the future

We've laid out how today's investment environment is one of major transformation – and one that puts greater onus on markets to enforce discipline. This makes capital markets core to the building of this transformation.

Sizable capital will be needed as the transformation unfolds, and that investment is happening now. Major tech companies are starting to rival the U.S. government on research and development spending. But it's not just about the rise of AI and its buildout via data centers. Meeting growing energy demand (think solar farms, power grids, oil and gas) will generate investment of US$3.5 trillion per year this decade, according to the BlackRock Investment Institute Transition Scenario. And governments are limited in how much they can support such investment and infrastructure upgrades.

We see capital markets deepening – including in emerging markets – to help channel money seeking new opportunities and sources of return.

Public markets have benefitted so far, hosting companies that have already benefitted from the transformation by capturing new revenue pools, notably in AI.

We also see private markets playing a pivotal role, allowing portfolios to gain unique exposure to the transformation as public markets can only fund some of it. For example, private markets can offer exposure to early-stage growth companies driving AI adoption and to vital infrastructure projects. We think the future of finance – a mega force on its own – will be shaped by non-bank lenders increasingly funding such large-scale projects. This highlights why private market assets under management are expected to roughly double by 2029 from 2023 levels, Preqin data show. See the chart.

We think this shows how finance itself is changing and innovating rapidly as activities that were previously bundled together in single institutions, like banks, are unbundled.

"THINK SOLAR FARMS, POWER GRIDS, OIL AND GAS"

On the rise
Private market assets under management, 2015-2029

Chart takeaway: *Private assets have become a growing share of financial markets. We see private markets playing a critical role in the transformation ahead – sticking to public markets doesn't fully capture this broadening opportunity set, in our view.*

Forward looking estimates may not come to pass. Source: BlackRock Investment Institute, Preqin, December 2024. Notes: The chart shows the total assets under management in private market funds with forecasts from 2024 onwards in Preqin's "Future of Alternatives 2029" report.

Investment implications

- Sizable capital will be needed as the transformation unfolds, and that investment is happening now.
- We think private markets will play a vital role in financing the waves of transformation.

BLACKROCK MID YEAR 2024 OUTLOOK

Infrastructure opportunities

Infrastructure is at the intersection of the mega forces driving the waves of transformation. AI is a key aspect of economic competition among countries, while the investment in data centers is starting to impact the low-carbon transition as well. Net-zero emissions targets of the companies investing the most in the AI buildout could drive up demand for renewable energy.

AI's energy needs could magnify the already massive investment expected, as noted earlier. Infrastructure investment is key to funding the low-carbon transition: By the 2040s, we estimate that low-carbon investment will account for up to 80% of energy spending, up from 64% now.

We see geopolitical fragmentation reinforcing energy pragmatism as countries seek to balance the transition with energy security and affordability. The rewiring of supply chains is driving infrastructure demand globally and we favor the emerging markets set to benefit.

"LOW-CARBON"

Across markets, demographic divergence is shaping investment needs. Typically, the faster a population grows, the faster capital investment grows to support growing populations. See the chart. And developed markets will need to invest to adapt to aging populations. See the next page.

A huge gap exists between the total amount of infrastructure investment needed globally and the amount governments can spend given high debt levels in many countries. We see private markets bridging the gap – though private markets are complex and not suitable for all investors.

> **"We are seeing the AI buildout boost demand for renewable energy."**

David Giordano
Global Head of Climate Infrastructure – BlackRock

Investment-demographic link
G20 population and investment growth, 2000-2019

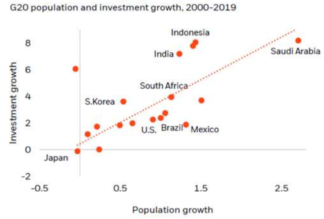


Chart takeaway: *The faster a population grows, the faster capital investment grows, we find. Opportunities arise where investment has not kept up with that growth.*

Source: BlackRock Investment Institute, World Bank Development Indicators, UN, with data from Haver, March 2024. Note: The chart shows the relationship between average population growth and average real investment growth, as measured by the gross fixed capital formation component of GDP, between 2000 and 2019. The chart includes data up to 2019 to avoid the pandemic's distortion of the data.

Investment implications

- We see private markets filling the gap between infrastructure investment needs and what governments can spend.
- We prefer infrastructure equity to other private growth assets on a strategic horizon.

Weekly commentary

BlackRock

December 9, 2024

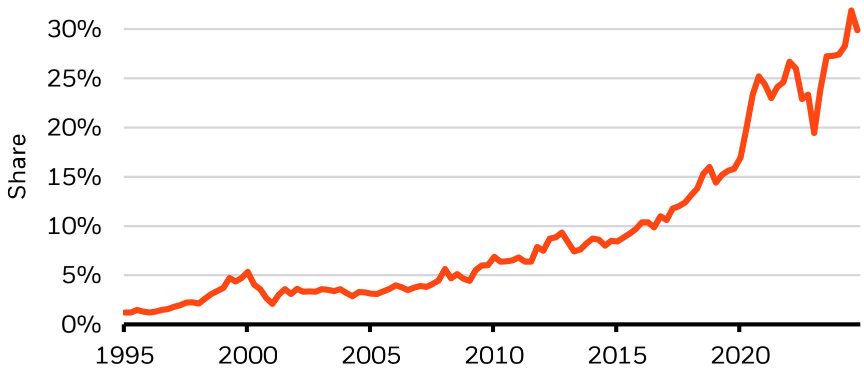
Staying pro-risk into 2025

- Structural shifts, like artificial intelligence, are reshaping economies. We stay pro-risk and up our U.S. stocks overweight as we see beneficiaries broadening.
- U.S. stocks hit new highs last week. November's U.S. jobs report showed wage growth above the level that would allow inflation to settle at the Fed's target.
- We see the European Central Bank cutting rates by 25 basis points this week. U.S. CPI should show services inflation staying sticky on solid wage gains.

This year has reinforced that we are not in a typical business cycle. Instead, mega forces – big structural shifts like the rise of artificial intelligence (AI) – are transforming economies and altering their long-term trajectories. That calls for a new way of investing: being more dynamic and putting more focus on themes and less on broad asset classes. We stay risk-on in our 2025 Outlook and up our U.S. equity overweight as the AI theme broadens out – but stand ready to dial down risk.

Ever-bigger share

"Magnificent 7" market cap as a share of the S&P 500, 1995-2024



Past performance is not a reliable indicator of future results. It is not possible to invest in an index. Indexes are unmanaged and performance does not account for fees. Source: BlackRock Investment Institute, with data from LSEG Datastream, December 2024. Notes: The chart shows the combined market capitalization (cap) of the "magnificent 7" stocks (Amazon, Apple, Google, Meta, Microsoft, Nvidia and Tesla) as a share of the S&P 500's total market cap. The chart sums up the market cap of each stock as they went public, capturing Amazon from 1997 onwards, Nvidia from 1999, Google from 2004, Tesla from 2010 and Meta from 2012.

We think investors should no longer think in terms of business cycles, with short-term fluctuations in activity leading to expansion or recession. Instead, mega forces are driving an economic transformation that could keep shifting the long-term trend, making a wide range of very different outcomes possible – on the upside and downside. Building the transformation – such as with AI data centers – requires a major infrastructure buildout. Financing the transformation given constrained public finances means that capital markets, including private markets, will be key. Markets are starting to reflect these shifts: The "magnificent 7" of mostly mega-cap tech shares now make up almost a third of the S&P 500's market capitalization. See the chart. We think this calls for rethinking investing, and challenges investment strategies based on valuations converging back to historical trends.

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BlackRock **Investment** Institute

We follow that playbook as we stay pro-risk headed into 2025. We increase our overweight to U.S. stocks as we expect AI beneficiaries to broaden out beyond tech. We're also confident U.S. equities can keep outpacing global peers given the ability to better capitalize on mega forces, a favorable growth outlook, potential tax cuts and regulatory easing. Signposts for changing our view include any surge in long-term bond yields or an escalation in trade protectionism. Pricey U.S. equity valuations, based on price-to-earnings ratios and equity risk premiums, don't yet change our view. Why? We find valuations affect near-term returns less than long-term returns. The equity risk premium – a common valuation gauge – for the equal-weighted S&P 500 is near its long-term average, according to LSEG data, and thus looks less affected by the transformation.

U.S. outperformance is unlikely to extend to government bonds. We go tactically underweight long-term Treasuries as we expect investors to demand more compensation for the risk of holding them given persistent budget deficits, sticky inflation and greater bond market volatility. We favor government bonds in other developed markets. Globally, Japanese equities stand out due to corporate reforms and the return of mild inflation that are driving corporate pricing power and earnings growth.

More broadly, we think investors can find opportunities by tapping into the transformation we expect in the real economy. AI and the low-carbon transition require investment potentially on par with the Industrial Revolution. Major tech companies are starting to rival the U.S. government on research and development spending. Plus, meeting growing energy demand will generate US$3.5 trillion of investment per year this decade, according to the BlackRock Investment Institute Transition Scenario. We see private markets playing a vital role in financing the future. Big spending on AI and the low-carbon transition plus rising geopolitical fragmentation is likely to cause persistent U.S. inflation pressures. And an aging workforce could start to bite as immigration slows, likely keeping wage growth too high for inflation to return to the Fed's 2% target. We think that means the Fed will keep rates well above pre-pandemic levels even after cutting some in 2025.

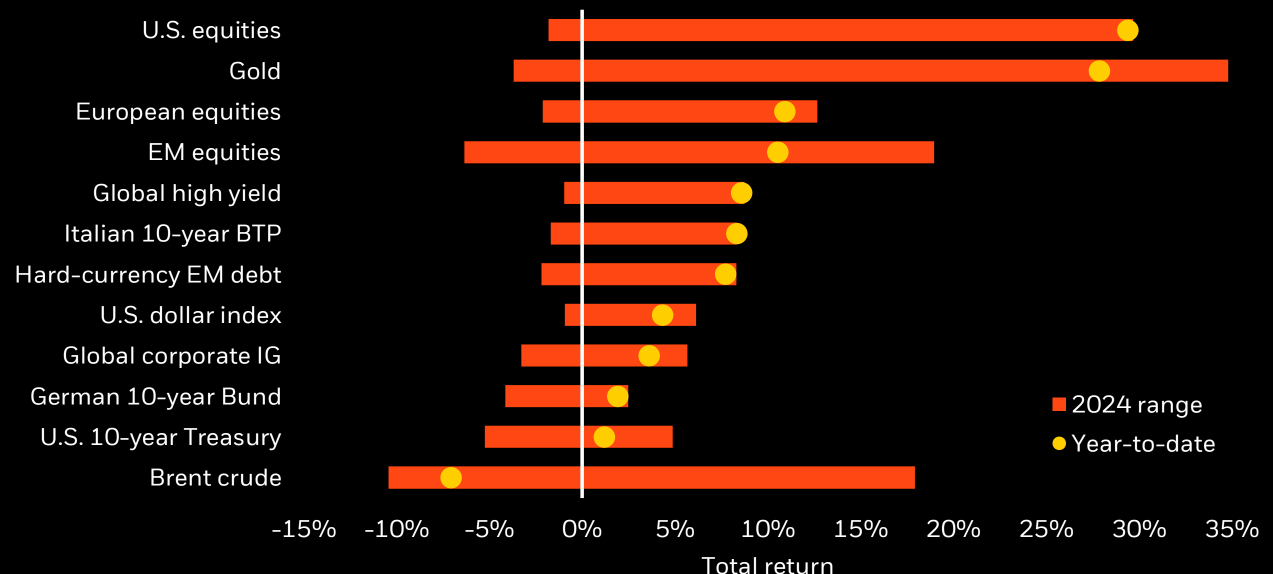
Bottom line: Mega forces are reshaping economies and markets. That requires a new playbook challenging old investment rules. We stay pro-risk to kick off 2025 but stand ready to dial down risk as catalysts emerge. Read our 2025 Global Outlook.

Market backdrop

U.S. stocks hit an all-time high last week. U.S. payrolls for November showed the economy is adding jobs at a healthy clip. Wage growth remains above the level that would allow inflation to settle at the Fed's 2% target – a reason we do not see the Fed cutting rates sharply. U.S. 10-year Treasury yields slid to around 4.15%, down about 35 basis points in the past few weeks. Spreads between French and German 10-year yields edged off 12-year highs reached on France's political stalemate.

Assets in review

Selected asset performance, year-to-date return and range



Past performance is not a reliable indicator of current or future results. Indexes are unmanaged and do not account for fees. It is not possible to invest directly in an index.
Sources: BlackRock Investment Institute, with data from LSEG Datastream as of Dec. 5, 2024. Notes: The two ends of the bars show the lowest and highest returns at any point year to date, and the dots represent current year-to-date returns. Emerging market (EM), high yield and global corporate investment grade (IG) returns are denominated in U.S. dollars, and the rest in local currencies. Indexes or prices used are: spot Brent crude, ICE U.S. Dollar Index (DXY), spot gold, MSCI Emerging Markets Index, MSCI Europe Index, LSEG Datastream 10-year benchmark government bond index (U.S., Germany and Italy), Bank of America Merrill Lynch Global High Yield Index, J.P. Morgan EMBI Index, Bank of America Merrill Lynch Global Broad Corporate Index and MSCI USA Index.

Week ahead

Dec. 9	China CPI and PPI	**Dec. 11**	U.S. CPI
Dec. 10	China trade data	**Dec. 12**	European Central Bank (ECB) policy decision

This week we expect the ECB to cut interest rates by 25 basis points as euro area core inflation has kept normalizing. We're monitoring the ECB's updated growth and inflation projections as consumer spending shows signs of recovery. Yet fiscal consolidation and the potential impact of U.S. tariffs cloud the outlook. In the U.S., we watch for whether the November CPI will keep showing services inflation catching up with wage growth, keeping core inflation sticky.

Big calls

Our highest conviction views on tactical (6-12 month) and strategic (long-term) horizons, December 2024

Tactical	Reasons
U.S. equities	We see the AI buildout and adoption creating opportunities across sectors. We tap into beneficiaries outside the tech sector. Robust economic growth, broad earnings growth and a quality tilt underpin our conviction and overweight in U.S. stocks versus other regions. We see valuations for big tech backed by strong earnings, and less lofty valuations for other sectors.
Japanese equities	A brighter outlook for Japan's economy and corporate reforms are driving improved earnings and shareholder returns. Yet the potential drag on earnings from a stronger yen is a risk.
Selective in fixed income	Persistent deficits and sticky inflation in the U.S. make us more positive on fixed income elsewhere, notably Europe. We are underweight long-term U.S. Treasuries and like UK gilts instead. We also prefer European credit – both investment grade and high yield – over the U.S. on cheaper valuations.
Strategic	**Reasons**
Infrastructure equity and private credit	We see opportunities in infrastructure equity due to attractive relative valuations and mega forces. We think private credit will earn lending share as banks retreat – and at attractive returns.
Fixed income granularity	We prefer short- and medium-term investment grade credit, which offers similar yields with less interest rate risk than long-dated credit. We also like short-term government bonds in the U.S. and euro area and UK gilts overall.
Equity granularity	We favor emerging over developed markets yet get selective in both. EMs at the cross current of mega forces – like India and Saudi Arabia – offer opportunities. In DM, we like Japan as the return of inflation and corporate reforms brighten the outlook.

Note: Views are from a U.S. dollar perspective, December 2024. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding any particular funds, strategy or security.

Tracking five mega forces

Mega forces are big, structural changes that affect investing now – and far in the future. As key drivers of the new regime of greater macroeconomic and market volatility, they change the long-term growth and inflation outlook and are poised to create big shifts in profitability across economies and sectors. This creates major opportunities – and risks – for investors. See our web hub for our research and related content on each mega force.

1. **Demographic divergence:** The world is split between aging advanced economies and younger emerging markets – with different implications.
2. **Digital disruption and artificial intelligence (AI):** Technologies are transforming how we live and work.
3. **Geopolitical fragmentation and economic competition:** Globalization is being rewired as the world splits into competing blocs.
4. **Future of finance:** A fast-evolving financial architecture is changing how households and companies use cash, borrow, transact and seek returns.
5. **Transition to a low-carbon economy:** The transition is set to spur a massive capital reallocation as energy systems are rewired.

Granular views

Six- to 12-month tactical views on selected assets vs. broad global asset classes by level of conviction, December 2024

Our approach is to first determine asset allocations based on our macro outlook – and what's in the price. **The table below reflects this and, importantly, leaves aside the opportunity for alpha, or the potential to generate above-benchmark returns.** The new regime is not conducive to static exposures to broad asset classes, in our view, but is creating more space for alpha.

Underweight **Neutral** **Overweight** ● Previous view

	Asset	View	Commentary
Equities	**Developed markets**		
Equities	United States	+2	We are overweight as the AI theme and earnings growth broaden. Valuations for AI beneficiaries are supported by tech companies delivering on earnings. Resilient growth and Fed rate cuts support sentiment. Risks include any long-term yield surges or escalating trade protectionism.
Equities	Europe	-1	We are underweight relative to the U.S., Japan and the UK – our preferred markets. Valuations are fair. A growth pickup and European Central Bank rate cuts support a modest earnings recovery. Yet political uncertainty could keep investors cautious.
Equities	UK	Neutral	We are neutral. Political stability could improve investor sentiment. Yet an increase in the corporate tax burden could hurt profit margins near term
Equities	Japan	+1	We are overweight. A brighter outlook for Japan's economy and corporate reforms are driving improved earnings and shareholder returns. Yet a stronger yen dragging on earnings is a risk.
Equities	**Emerging markets**	Neutral	We are neutral. The growth and earnings outlook is mixed. We see valuations for India and Taiwan looking high.
Equities	China	+1	We are modestly overweight. China's fiscal stimulus is not yet enough to address the drags on economic growth, but we think stocks are at attractive valuations to DM shares. We stand ready to pivot. We are cautious long term given China's structural challenges.
Fixed Income	Short U.S. Treasuries	Neutral	We are neutral. Markets are pricing in fewer Federal Reserve rate cuts and their policy rate expectations are now roughly in line with our views.
Fixed Income	Long U.S. Treasuries	-1	We are underweight. Persistent budget deficits and geopolitical fragmentation could drive term premium up over the near term. We prefer intermediate maturities less vulnerable to investors demanding more term premium.
Fixed Income	Global inflation-linked bonds	Neutral	We are neutral. We see higher medium-term inflation, but cooling inflation and growth may matter more near term.
Fixed Income	Euro area govt bonds	Neutral	We are neutral. Market pricing reflects policy rates in line with our expectations and 10-year yields are off their highs. Political uncertainty remains a risk to fiscal sustainability.
Fixed Income	UK gilts	+1	We are overweight. Gilt yields offer attractive income, and we think the Bank of England will cut rates more than the market is pricing given a soft economy.
Fixed Income	Japanese govt bonds	-2	We are underweight. Stock returns look more attractive to us. We see some of the least attractive returns in JGBs.
Fixed Income	China govt bonds	Neutral	We are neutral. Bonds are supported by looser policy. Yet we find yields more attractive in short-term DM paper.
Fixed Income	U.S. agency MBS	Neutral	We are neutral. We see agency MBS as a high-quality exposure in a diversified bond allocation and prefer it to IG.
Fixed Income	Short-term IG credit	+1	We are overweight. Short-term bonds better compensate for interest rate risk.
Fixed Income	Long-term IG credit	-1	We are underweight. Spreads are tight, so we prefer taking risk in equities from a whole portfolio perspective. We prefer Europe over the U.S.
Fixed Income	Global high yield	Neutral	We are neutral. Spreads are tight, but the total income makes it more attractive than IG. We prefer Europe.
Fixed Income	Asia credit	Neutral	We are neutral. We don't find valuations compelling enough to turn more positive.
Fixed Income	Emerging hard currency	Neutral	We are neutral. The asset class has performed well due to its quality, attractive yields and EM central bank rate cuts. We think those rate cuts may soon be paused.
Fixed Income	Emerging local currency	Neutral	We are neutral. Yields have fallen closer to U.S. Treasury yields, and EM central banks look to be turning more cautious after cutting policy rates sharply.

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https://www.prnewswire.com/news-releases/meta-selects-northeast-louisiana-as-site-of-10-billion-artificial-intelligence-optimized-data-center-that-will-be-companys-largest-in-the-world-302322851.html

Meta Selects Northeast Louisiana as Site of $10 Billion Artificial Intelligence Optimized Data Center That Will Be Company's Largest in the World

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News provided by **Louisiana Economic Development**
Dec 04, 2024, 13:18 ET

- **Project is expected to result in 500 or more direct new jobs, more than 1,000 indirect jobs and 5,000 construction workers at peak.**
- **Expansive technology campus will occupy 4 million square feet on 2,250 acres in Richland Parish.**
- **Entergy worked with Meta to address energy needs, and Meta will match its electricity use with 100% clean and renewable energy.**

RICHLAND PARISH, La., Dec. 4, 2024 /PRNewswire/ -- Today, Meta and **Louisiana Economic Development** (LED) announced a $10 billion artificial intelligence data center in northeast Louisiana, a transformational investment that cements the state's status as a major innovation hub and leader in the global digital revolution. The 4 million square foot data center, to be located in Richland Parish, will be Meta's largest in the world. Construction on the facility is expected to continue through 2030.

Meta projects the data center will support at least 500 direct new jobs in Richland Parish. LED estimates the project will result in the creation of more than 1,000 indirect jobs, for a total of more than 1,500 potential new jobs in the Northeast Region. The company estimates 5,000 construction workers at peak of construction on a 2,250-acre site.

"Today, Louisiana begins a new chapter. Today, we are delivering new jobs and economic growth on a scale unimaginable before we took office," Governor Jeff Landry said. "Meta's investment establishes the region as an anchor in Louisiana's rapidly expanding tech sector, revitalizes one of our state's beautiful rural areas, and creates opportunities for Louisiana workers to fill high-paying jobs of the future. I thank Meta for their commitment to our state, and to the State Legislature for positioning Louisiana to win this project by passing new tax reform legislation that attracts capital investment and improves Louisiana's business tax climate."

Hyperscaler data centers such as the one planned for Richland Parish are housed in huge physical structures designed to process the vast amounts of data required to support digital technologies, including Artificial Intelligence (AI) workloads. The facility is the largest of more than 20 Meta data centers around the world. Once operational, the Richland Parish Data Center will be optimized for Meta's AI workloads as part of the highly advanced infrastructure that helps bring Meta's technologies, including Facebook, Messenger, Instagram, WhatsApp, and Threads to life.

"Meta is building the future of human connection and the technology that makes it possible. And this data center will be an important part of that mission," said Kevin Janda, Meta Director of Data Center Strategy. "Richland Parish in Louisiana is an outstanding location for Meta to call home for a number of reasons. It provides great access to infrastructure, a reliable grid, a business-friendly climate, and wonderful community partners that have helped us move this project forward. We're thrilled to be a new member of the Richland Parish community and are committed to investing in its long-term vitality."

LED expects the project, one of the largest private capital investments in the state's history, to spark new economic activity and investments throughout northeast Louisiana as multiple industries benefit from the billions of dollars invested. Meta makes a concerted effort to source labor and materials locally, and partners with local schools and organizations to advance STEAM education and digital skills that can be used to compete in the digital workforce.

"This project is an example of what Louisiana can accomplish when economic development partners play offense rather than waiting for good projects to come to them," LED Secretary Susan B. Bourgeois said. "Louisiana has been actively positioning itself as a hub for AI innovation, with plans to support startups, grow a skilled workforce, and shape forward-thinking policy. Meta's historic investment is just the beginning of a bold strategy to drive economic growth through AI, expand and diversify the state's tech sector, and prove to the world that when Louisiana says that we are ready to compete on the global stage, we mean business."

The company is expected to take advantage of a new Louisiana incentive program, established by Act 730, that offers qualifying projects a state and local sales and use tax rebate on the purchase or lease of data center equipment. The company is also expected to participate in the state's Quality Jobs program.

To power the data center, which at its largest point extends more than one mile from front to back, Entergy will add clean, efficient power plants to its system to meet growing power demands, including from the data center. Meta has pledged to match its electricity use with 100% clean and renewable energy and will be working with Entergy to bring at least 1,500 MW of new renewable energy to the grid through its Geaux Zero program. In addition, Meta has committed to contribute up to $1 million a year to Entergy's "The Power to Care" low-income ratepayer support program, a figure that will be matched by Entergy Louisiana.

"This partnership underscores Entergy Louisiana's commitment to powering progress and driving innovation," Entergy Louisiana President and CEO Phillip May said. "By supporting this transformational investment, we are not only delivering the energy needed today, but also building the infrastructure that will support a brighter, more sustainable future for all of Louisiana. Together, we're laying the foundation for economic growth that will benefit generations to come. We could not be more proud to play a critical role in this monumental endeavor."

In addition to Meta's commitment to match its electricity usage with clean and renewable energy, the company prioritizes water stewardship in its operations, including minimizing water use at its data centers. Meta has pledged to restore more water than it consumes at this data center by investing in water restoration projects in Louisiana.

To support both the construction and eventual operation of the data center, Louisiana Community and Technical College System (LCTCS) has committed $250,000 in Workforce Rapid Response funding to Delta Community College to develop programs and expand capacity. Delta will scale up its construction trades programs to meet the initial construction needs, and partner with peer institutions experienced in developing and delivering curricula for data center operations.

Meta expects construction to continue through 2030 with site work beginning in December. The company has also committed to invest more than $200 million in local infrastructure improvements, including roads and water systems.

About LED
Louisiana Economic Development is responsible for driving capital investment, job creation and economic opportunity for the people of Louisiana and employers of all sizes. Explore how LED is positioning Louisiana to win at **OpportunityLouisiana.com**.

About Entergy Louisiana
Entergy Louisiana, LLC provides electric service to more than 1 million customers in 58 parishes and natural gas service to more than 94,000 customers in Baton Rouge. Entergy Louisiana is a subsidiary of Entergy Corporation (NYSE: **ETR**), a Fortune 500 company. Entergy powers life for 3 million customers through its operating companies in Arkansas, Louisiana, Mississippi and Texas. It is investing in the reliability, and resilience and growth of the energy system while helping the region transition to cleaner, more efficient energy solutions. With roots in Louisiana communities for more than 100 years, Entergy is a nationally recognized leader in sustainability and corporate citizenship delivering more than $100 million in local economic benefits each year through philanthropy, volunteerism and advocacy. Entergy is headquartered in New Orleans, and has approximately 12,000 employees. Learn more at **Entergy-Louisiana.com**.

SOURCE Louisiana Economic Development

https://www.centrica.com/media-centre/news/2025/perfect-storm-reduces-uk-winter-gas-storage-to-concerningly-low-levels/

Perfect storm reduces UK winter gas storage to 'concerningly low' levels

10 January 2025

Media Relations T: 01784 843000 E: media@centrica.com

Plunging temperatures and high demand for gas fired power stations have reduced UK winter gas storage to concerningly low levels.

The UK's gas storage is under pressure this winter as the UK battles both extreme cold and high gas prices. The ongoing colder-than-usual conditions in the UK combined with the end of Russian gas pipeline supplies through Ukraine on 31 December 2024 has meant that gas inventory levels across the UK are down. As of the 9th of January 2025, UK storage sites are 26% lower than last year's inventory at the same time, leaving them around half full. This means the UK has less than a week of gas demand in store.

Gas storage was already lower than usual heading into December as a result of the early onset of winter. Combined with stubbornly high gas prices, this has meant that it has been more difficult to top up storage over Christmas.

The situation is echoed across Europe. By 7 January 2024, despite many countries mandating minimum storage levels ahead of winter, European storage was at 69% capacity, down from 84% at the same time the previous year. The UK's total gas storage capacity is around 10 per cent or less than in France, Germany, or the Netherlands.

As energy demand spikes due to the freezing weather, the UK has seen a particular strain on its gas storage. Despite being full ahead of winter, current gas inventory at Rough, the country's largest gas storage site, which is operated by Centrica, is 20% lower than at the same time last year. Rough has played a crucial role so far this winter by supplying almost 420 million cubic meters (mcm) of gas since early November, enough to heat three million homes every day.

"Energy storage is what keeps the lights on and homes warm when the sun doesn't shine and the wind doesn't blow, so investing in our storage capacity makes perfect economic sense. We need to think of storage as a very valuable insurance policy." Chris O'Shea, Group CEO at Centrica

Without Rough's gas, UK consumers would face even higher prices, more imports and potential energy shortfalls. The UK is heavily reliant on Liquified Natural Gas (LNG) imports, but these shipments come with challenges. Most of the LNG the UK imports comes from the US, with each cargo traveling an average of over 3,000 nautical miles to reach UK shores. Many trading routes are also under pressure due to geopolitical issues. This means the UK is competing directly with other nations, particularly in Asia and Europe, for these vital shipments which can head for another destination at any time if other countries bid more than the UK.

"The UK's gas storage levels are concerningly low. We are an outlier from the rest of Europe when it comes to the role of storage in our energy system and we are now seeing the implications of that" said **Chris O'Shea, Group Chief Executive of Centrica**. "As we work towards Clean Power 2030, long-duration energy storage will be needed more than ever in order to help balance a system that is increasingly reliant on renewables. Energy storage is what keeps the lights on and homes warm when the sun doesn't shine and the wind doesn't blow, so investing in our storage capacity makes perfect economic sense. We need to think of storage as a very valuable insurance policy. Like any insurance policy, it may not always be needed, but having more capacity helps protect against worst-case scenarios.

"If Rough had been operating at full capacity in recent years, it would have saved UK households £100 from both their gas and their electricity bills each winter. We stand ready to invest £2bn of our own money in upgrading and redeveloping the Rough gas storage facility but we urgently need the cap and floor model recently announced for long duration energy storage to be applicable to Rough. With that, we can create thousands of new jobs in construction and safeguard a vital national asset. Without that, UK consumers will continue to have higher energy bills than is necessary."

If this investment goes ahead it will increase gas storage in the short term and enable Rough to be the world's largest hydrogen storage facility in the future. The 40-year-old site requires significant investment to enable this expansion, and to allow it to store hydrogen.

To unlock the £2bn investment in the facility, Centrica requires a cap and floor model for the asset, similar to the model used for other forms of long-duration energy storage. Recent reports from Centrica and FTI suggest that Rough would have saved consumers £5.2bn over the past two winters and looking forward, it could save consumers £1bn a year or more by 2050 if converted to hydrogen storage.

Notes to Editors:

- Rough keeps prices down for consumers by balancing the UK's gas market, injecting gas into the facility when there is excess supply and putting that gas back into the UK's gas network when customers need it most, keeping prices lower at that point of peak demand.
- Until 2017, Rough was the largest gas storage site in Great Britain, providing 150 bcf of storage capacity. The site's current capacity is the highest it can safely go without redevelopment and expansion.
- Centrica's proposed redevelopment and expansion of Rough would see the site increase its current maximum capacity of 54bcf.
- Rough currently provides half of the UK's total gas storage.
- The UK has some of the lowest levels of gas storage in Europe at 12 days average or 7.5 peak winter days, compared to Germany at 89 days, France at 103 days and the Netherlands at 123 days.

https://www.dailymail.co.uk/sciencetech/article-14254919/Wind-overtakes-gas-Britains-biggest-source-electricity-time-figures-reveal.html

Wind overtakes gas as Britain's biggest source of electricity for the first time, figures reveal

By SHIVALI BEST FOR MAILONLINE
PUBLISHED: 08:55 EST, 6 January 2025 | **UPDATED:** 09:30 EST, 6 January 2025

Britain is well on its way to fully 'clean' energy, new figures have revealed.

Wind officially overtook gas to become the UK's biggest source of power for the first time in 2024.

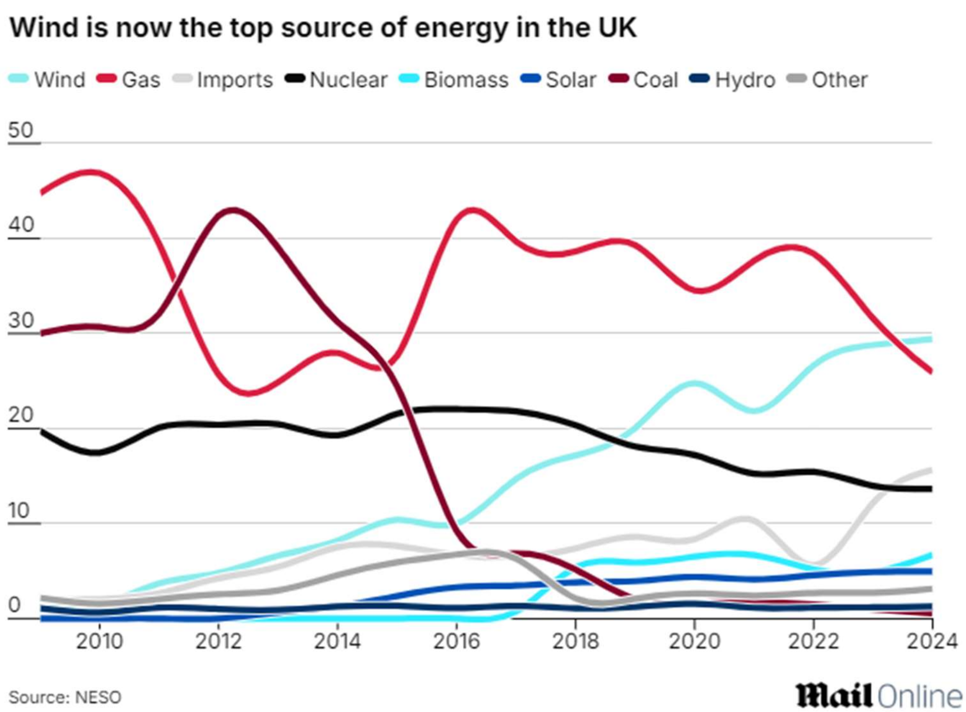
Figures released by the National Energy System Operator show that wind was responsible for 29.4 per cent of Britain's power last year.

In contrast, gas represented just over a quarter (25.9 per cent) of Britain's power.

According to the data, seen by **Bloomberg**, the last time gas made up such a small share of the UK's power was in 2013.
Back then, coal dominated the system, while wind accounted for just 6.6 per cent.

The new record comes as the government plans to make Britain's energy system 'clean' **by decarbonising the electricity grid by 2030**.

The UK has several different sources of energy thrown into the so-called 'mix' – from wind to gas, solar, biomass and nuclear.



Wind officially overtook gas to become the UK's biggest source of power for the first time in 2024

Our energy mix fluctuates daily depending on demand and the amount of energy generated from each source.

In 2024, 29.4 per cent of Britain's power came from wind, while 25.9 per cent came from gas, 15.7 per cent from imports, 13.7 per cent from nuclear, 6.7 per cent from biomass, five per cent from solar, 0.6 per cent from coal, 1.3 per cent from hydro, and 3.1 per cent from other sources.

The energy mix has changed hugely through the years.

For example, back in 2014, just 8.2 per cent of Britain's power came from wind, while 27.7 per cent came from gas, 24.4 per cent from coal, and 21.6 per cent from nuclear.

Wind power is an environmentally friendly, renewable energy source, contrasting with the likes of coal and gas, which are both **fossil fuels**.
Dotted around the UK, wind turbines harness energy from the wind using mechanical power to spin a generator and create electricity.

For example, on a windy day, we might generate more wind power than on a non-windy day – which is why we can't solely rely on wind for the UK's energy needs.

Gas, coal and oil are all considered fossil fuels because they were formed from the fossilized, buried remains of plants and animals that lived millions of years ago.

Wind power is an environmentally friendly, renewable energy source, contrasting with the likes of coal and gas, which are both fossil fuels

When fossil fuels are burned, they release large amounts of carbon dioxide ($CO2$), which traps heat in our atmosphere, contributing to global warming.

It's unclear when exactly the UK will stop using gas, although the government aims to phase out 80 per cent of gas boilers from UK homes by 2035.

Dr Simon Evans, senior policy editor at Carbon Brief, expects wind to overtake gas in the mix as soon as this year.

'By 2030, if the government's clean power target is to be met, then gas would be below 5 per cent and wind would be well over 50 per cent,' he previously told MailOnline.

'The UK already gets nearly as much electricity from wind as from gas – and wind will dominate our supplies by the end of the decade.

'While we'll still need gas-fired capacity for when it isn't windy, the rise of wind means we'll be burning much less fuel bought on volatile international gas markets.'

Already, there are an estimated 11,000 wind turbines in and around the UK and the government is considering **thousands more to be built around England** as an another way to increase the amount of energy from wind.

England and Scotland are also set to collaborate on the **construction of a 'superhighway'** that transports clean energy generated by wind.

Despite its continuing reliance on gas, the UK marked a huge milestone last year when it finally phased out coal.

The UK's last ever operating coal power station, in Ratcliffe-on-Soar in Nottinghamshire, was shut down for good on September 30.

It ended a nearly 150-year reliance on coal power by the UK, dating back to the Holborn Viaduct power station in London in 1882.

比 亞 迪 股 份 有 限 公 司

BYD COMPANY LIMITED

(A joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 01211（HKD Counter）and 81211(RMB Counter))

Website: www.bydglobal.com

VOLUNTARY ANNOUNCEMENT

PRODUCTION AND SALES VOLUME FOR DECEMBER 2024

This announcement is made voluntarily by BYD Company Limited (the "**Company**").

The Board of the Company is pleased to announce that the total production and sales volume of the Company for the month of December 2024 (Units):

	Production Volume					**Sales Volume**				
Items	December 2024	December 2023	Year-to-date December 2024	Year-to-date December 2023	Percentage Year on Year	December 2024	December 2023	Year-to-date December 2024	Year-to-date December 2023	Percentage Year on Year
New energy vehicle	466,441	308,972	4,304,073	3,045,231	41.34%	514,809	341,043	4,272,145	3,024,417	41.26%
– Passenger vehicle	460,719	308,107	4,281,084	3,033,662	41.12%	509,440	340,178	4,250,370	3,012,906	41.07%
– Battery electric vehicle	189,759	176,373	1,777,965	1,589,571	11.85%	207,734	190,754	1,764,992	1,574,822	12.08%
– Plug-in hybrid electric vehicle	270,960	131,734	2,503,119	1,444,091	73.34%	301,706	149,424	2,485,378	1,438,084	72.83%

	Production Volume					Sales Volume				
Items	December 2024	December 2023	Year-to-date December 2024	Year-to-date December 2023	Percentage Year on Year	December 2024	December 2023	Year-to-date December 2024	Year-to-date December 2023	Percentage Year on Year
– Commercial vehicle	5,722	865	22,989	11,569	98.71%	5,369	865	21,775	11,511	89.17%
– Bus	1,375	805	5,580	4,705	18.60%	1,375	805	5,580	4,705	18.60%
– Others	4,347	60	17,409	6,864	153.63%	3,994	60	16,195	6,806	137.95%
Total	466,441	308,972	4,304,073	3,045,231	41.34%	514,809	341,043	4,272,145	3,024,417	41.26%

Note:
The oversea sales volume of New Energy Passenger Vehicle achieved 57,154 units of the Company for the month of December 2024.
The installed capacity of NEV power battery and energy storage battery of the Company for the month of December 2024 was approximately 23.495 GWh. The cumulative installed capacity for the year 2024 was approximately 194.705 GWh.

Please note that the production and sales volumes above are unaudited figures and have not been confirmed by the Company's auditors and may be subject to adjustment and final confirmation. Shareholders and potential investors are advised to read the financial results of the Company carefully when it is published.

By order of the Board
BYD Company Limited
Wang Chuan-fu
Chairman

Shenzhen, PRC, 1 January 2025

As at the date of this announcement, the Board of directors of the Company comprises Mr. Wang Chuan-fu being the executive director, Mr. Lv Xiang-yang and Mr. Xia Zuo-quan being the non-executive directors, and Mr. Cai Hong-ping, Mr. Zhang Min and Ms. Yu Ling being the independent non-executive directors.

https://arstechnica.com/cars/2025/01/cold-weather-range-hits-arent-as-bad-for-evs-with-heat-pumps/

Preconditioning is good

Cold-weather range hits aren't as bad for EVs with heat pumps

Heat pumps can mitigate range loss and are standard on newer models.

Kristoffer Teague, Inside Climate News – Jan 6, 2025 8:17 a.m. | 193

Andrew Garberson has a message for drivers in cold-climate states like Minnesota: Yes, you can still drive an electric car.

Public scrutiny over how well EVs perform in cold weather has grown in recent years following high-profile incidents, like one in Chicago last winter, when several Tesla drivers found themselves stuck in line for hours, waiting for their turn at public charging stations as temperatures dipped below zero. Many drivers reported that the cold had not only sapped their batteries of power but also made charging them a major hassle.

Cold weather temporarily reduces the available energy of EV batteries and slows their ability to charge—though they'll function normally again in warmer conditions. Heating the car's cabin during winter also requires energy from the battery, meaning less fuel for travel.

Research has found that freezing temperatures can reduce the average driving range of an electric vehicle anywhere from 25 percent to 41 percent, depending on the circumstances. So, a car that can drive 100 miles on a single charge when it's 70° Fahrenheit outside may only be capable of going 59 to 75 miles in freezing temperatures.

But Garberson, who lives in Iowa and works as the head of growth and research for the EV advocacy group Recurrent, said incidents like the one in Chicago have been overblown in the media and that drivers shouldn't avoid buying an electric car just because they live somewhere with cold winters.

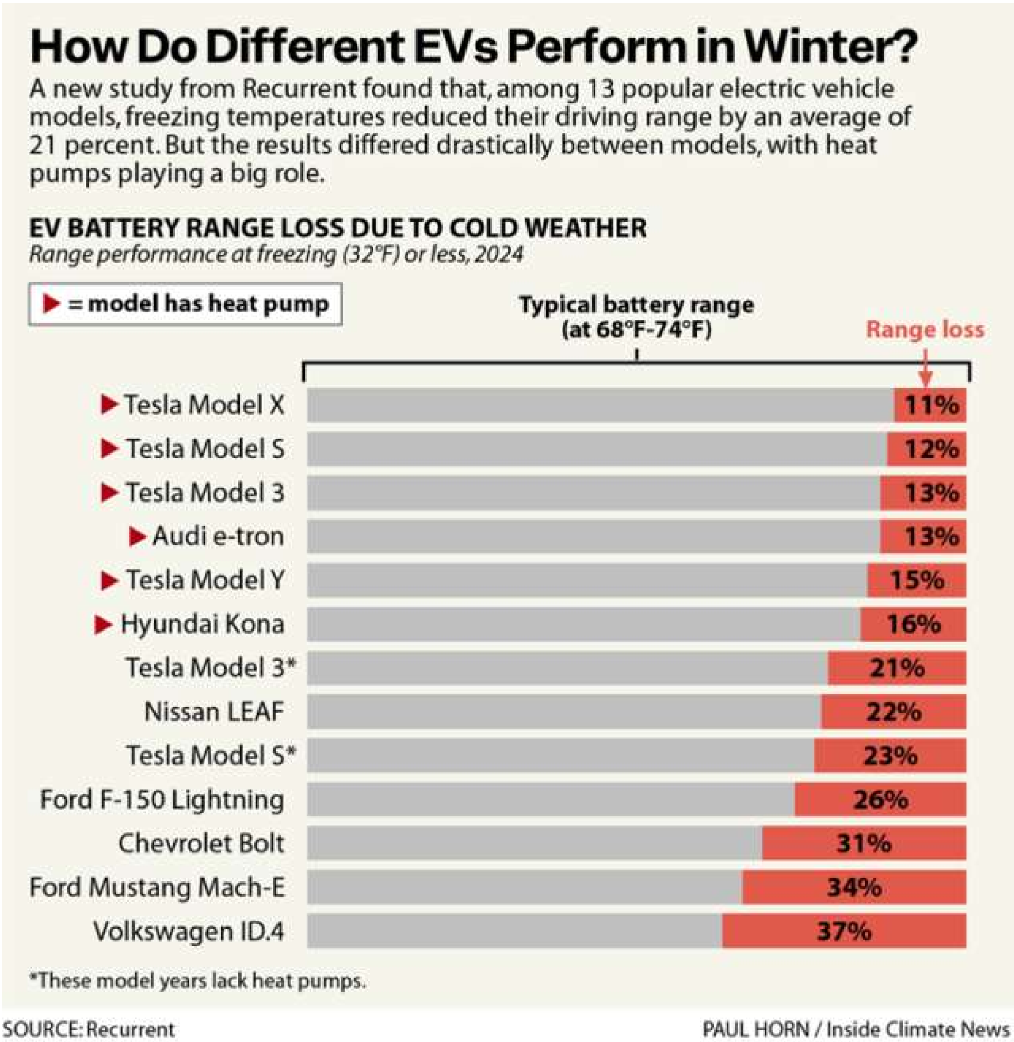
"I drive an EV every day, and my winter is almost as harsh as yours [in Minnesota]," he said. "The anxiety around winter and reduced range, while it's not inaccurate, is just a bit overhyped."

EVs aren't the only cars to suffer performance issues under frigid conditions. Conventional gasoline cars lose between 10 percent and 20 percent of their driving range when the temperature drops from 77° Fahrenheit to 20°, according to the US Department of Energy.

If drivers are properly prepared, most EVs should hold up fine in cold situations, Garberson said. Drivers can take certain steps to ensure their commute goes as smoothly as possible, he added, such as preconditioning their batteries before charging them—a setting on most modern EV models that warms the battery to an optimal temperature, allowing for faster charging.

Recurrent also reviews EV models every year to see how much cold weather impacts their range, which could help shoppers choose which model would work best for their needs, Garberson said. This year, the organization looked at 13 popular models, analyzing real-world driving data from over 10,000 vehicles. It found that those models lost 21 percent of their range on average when temperatures drop to 32° Fahrenheit. But the loss varied drastically by model and year.

The Tesla Model X had the smallest range loss, with an 11 percent decrease, while the Volkswagen ID.4 had the largest at 37 percent. The biggest factor, Garberson said, was whether the vehicle had a heat pump, which is more efficient than conventional heating systems and therefore reduces overall power use. Studies show that the power needed to heat the car's cabin is a big reason for range loss.



Credit: Inside Climate News

The EV models that did not utilize a heat pump, including the ID.4, saw their batteries reduced by an average of 28 percent, compared to an average of 13 percent for cars with heat pumps, Recurrent's analysis found. Overall, heat pumps added roughly 10 percent extra range to cars during freezing conditions, the report said.

Garberson said cars built in 2020 or later are more likely to have heat pumps installed than older models. Many popular models now have them or will soon have them, he added, noting that Ford added heat pumps to its 2024 F-150 Lightning and is adding them to its Mustang Mach-E in 2025.

"A lot of the [car companies] have added heat pumps because they've realized how important it is for people in northern climates," Garberson said. "So that's my No. 1 piece of advice, is just do a little bit of research about the technology in the car because it can make a 10 to 15 percent difference in overall range."

Ingrid Malmgren didn't know her Tesla Model Y, which she bought in November 2022, had a heat pump when she decided to take her family on a four-hour road trip from her Vermont home to Quebec City, Canada, last February. The day they left, she said, the high was 7° Fahrenheit.

"I'm not gonna lie, I was nervous about it," said Malmgren, who works as the senior policy director for Plug In America, another EV advocacy organization. "But it was a complete non-issue. We charged once along the way."

Malmgren said her experience is a common one for first-time EV buyers. A recent Plug In America survey of more than 3,000 EV owners found that 70 percent of the respondents worried about battery range before buying an electric car. The survey, however, also found that only 35 percent remained concerned after owning an EV.

"What we've found with our Plug In America survey is that a lot of people have concerns about cold weather operation of electric vehicles," she said. "But once they get in an electric vehicle, once they start driving an electric vehicle consistently, they find that these concerns go away."

The vast majority of the EV owners who remain concerned about range own EVs built before 2020 and live in rural areas, Malmgren added, where charging infrastructure is scarcer and drivers typically travel longer distances.

The survey also ranked owner satisfaction for different EV models, including for the car's battery range. Out of the 14 different EV models included, Rivan's R1T truck received the highest satisfaction rating for range performance from the survey respondents. Tesla's Model Y sedan received the second-highest rating.

Charging speed may be another factor prospective EV buyers want to consider. Garberson said newer models can typically charge faster than older models. His 2021 Hyundai Kona can charge in 30 to 40 minutes, he said, while his wife, who drives a 2023 Hyundai Ioniq 5, can charge her car in 12 to 14 minutes. Some used EVs that were built a decade or more ago, while cheaper, may take even longer to charge or require multiple charges a day, he added.

The most important thing to consider is your driving habits, Garberson said, adding that most drivers won't even notice when their EV loses range during cold weather.

"The average daily driving distance, it's like 30.2 miles," he said. "So it doesn't matter what EV you have. Any difference in range and cold conditions—or hot conditions, for that matter—isn't going to be something that materially impacts your daily driving."

This story originally appeared on Inside Climate News.

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FOR IMMEDIATE RELEASE

FADA Releases CY24 and December'24 Vehicle Retail Data

CY'24

- Auto retail grew by **9.1% YoY**, despite multiple headwinds like extreme weather, elections and uneven monsoons.
- **2W (+10.7%)**, **3W (+10.4%)**, **PV (+5.1%)** and **Tractor (+2.5%)** segments posted growth, while **CV** remained nearly flat at **0.07%**.
- 3W, PV and Tractor segments reached new all-time highs; 2W almost breached its CY18 peak and CV has yet to surpass its CY18 level.
- Challenges for ICE 2W included finance constraints and rising EV competition; CV struggled with election-driven uncertainty and low infra spend; PV growth led to margin pressures from higher inventory and discounts.

December'24

- Overall retail declined by **-12.4% YoY**, with **2W (-17.6%)**, **3W (-4.5%)**, **PV (-1.9%)** and **CV (-5.2%)** facing de-growth. Only **Tractor** showed a **25.7%** YoY jump.
- 2W retails were hit by low cash flow, poor sentiment, delayed harvest payments and heightened EV competition.
- PV declined due to high post-festive inventory, aggressive discounting and limited new launches, with many buyers deferring purchases to January.
- CV faced weak sentiment, delayed government funding and financing bottlenecks; LCV suffered, though tippers held some ground.

Near-Term Outlook

- Roughly **48.09%** of Dealers expect growth in January, **41.22%** see flat sales, and **10.69%** predict a slowdown.
- 2W demand could benefit from improved MSP and rural liquidity, though financing and EV transition remain key challenges.
- CV may see a slight recovery, contingent on infra projects and credit approvals.
- PV should get a boost from new launches, marriage-season demand and promotions—but possible price hikes could temper gains.

Long-Term Outlook

- In CY'25, **66.41%** of dealers expect growth, **26.72%** foresee stability and only **6.87%** project a downturn.
- 2W could rebound with rising rural incomes and fresh models, while the CV segment looks to infra investments and stable credit for fleet expansions.
- PV is poised for continued traction from new SUVs, EVs and feature-rich offerings, though price sensitivity and interest rates need monitoring.
- FADA stays optimistic about a robust finish to CY'25, aided by strategic OEM support, policy clarity and evolving customer demand.

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7th January'25, New Delhi, INDIA: The Federation of Automobile Dealers Associations (FADA) today released Vehicle Retail Data for CY'24 and December'24.

CY'24 Retails

FADA President, Mr. C S Vigneshwar, shared his perspective on the auto retail performance for CY 2024:
"Despite multiple headwinds in CY24—including heatwaves, elections at both central and state levels and uneven monsoons—the auto retail industry remained resilient, closing the year with a 9% YoY growth. While 2W, 3W, PV and Tractor segments grew by 10.78%, 10%, 5% and 2.5% YoY respectively, CV retails stayed nearly flat at 0.07% YoY. Notably, 3W, PV and Tractor segments touched new all-time highs and 2W barely missed surpassing its CY18 peak. CV is also yet to reach its CY18 peak, a year which saw the introduction of axle load norms.

In 2W, improved supply, fresh models and strong rural demand propelled growth, though finance constraints and rising EV competition remain challenges. CV performance was subdued amid election-driven uncertainty and reduced infrastructure spending. Meanwhile, PV benefited from robust network expansion and product launches, albeit with margin pressures due to higher inventory thus leading to discount war towards the 2nd half."

December'24 Retails

FADA President, Mr. C S Vigneshwar, shared his perspective on the auto retail performance for December 2024:

"In our previous release, 60% of dealers expected December to either experience de-growth or remain flat. Reflecting this sentiment, December's total retails dropped by -12% YoY. All categories except Tractors witnessed de-growth, with 2W, 3W, PV and CV falling by -17.6%, -4.5%, -2%, and -5.2% YoY respectively. Tractors, on the other hand, registered a notably contrasting 25.7% YoY growth.

The 2W segment suffered a substantial drop of -17.6% YoY and -54.2% MoM. Dealers cited low cash flow and poor market sentiment—exacerbated by delayed crop payments, halted government disbursements and typical year-end factors—as the main reasons. Supply challenges for popular models and the growing push toward EVs further weighed on volumes. Many dealers also mentioned that heightened discounts and limited financing options failed to offset weak demand.

PV retails declined by -1.9% YoY and -8.8% MoM, primarily due to high inventory levels following the festive season and aggressive discounting aimed at clearing stock. Poor market sentiment, limited new model launches and intense price competition among co-dealers further impacted sales. While some dealers benefited from year-end schemes and expanded product ranges, overall demand remained subdued, with many customers deferring purchases to January for anticipated benefits. Inventory levels ranged between 55 and 60 days.

CV retails declined by -5.2% YoY and -12.1% MoM due to low market sentiment, delayed government fund releases and slow financing approvals. Many customers postponed purchases, preferring 2025 models. While some segments, such as tippers, demonstrated resilience, ongoing LCV degrowth and unseasonal rains further dampened demand. Although year-end schemes and inquiries offered limited relief, overall sales remained under pressure."

Near-Term Outlook

Looking ahead, Auto Dealer sentiment for January remains cautiously optimistic, with nearly half (48.09%) of surveyed dealers anticipating growth, 41.22% expecting stable demand and only 10.69% foreseeing a decline.

In 2W, improved MSP and rural fund inflows could bolster sales, although financing challenges persist. The rise of EVs in this segment will also begin to impact entry-level 2W market share. The CV segment may see a mild uptick—Q4 is traditionally stronger—but progress will hinge on the pace of infrastructure projects and easier credit approvals. For PV, upcoming new launches, wedding-season demand, and year-start promotions should drive footfall, though potential price hikes could moderate gains.

Overall, despite certain headwinds, Auto Dealers remain hopeful that steady product availability, strategic marketing and supportive government measures will sustain momentum in the near term. However, PV OEMs must carefully manage their supplies in line with market demand.

Long-Term Outlook

With 66.41% of Auto Dealers anticipating growth, 26.72% expecting stability and only 6.87% foreseeing a slowdown in CY'25, the automotive retail sector appears poised for a significant rebound. Dealers across categories sense a resurgence in market confidence, fuelled by improved rural liquidity, evolving government policies and a wave of new product launches across multiple powertrain. Despite financing headwinds and heightened competition, many retailers believe that focused marketing strategies, robust supply chains and better alignment with customer preferences will create a foundation for sustained expansion.

In the 2W segment, rising rural incomes, fresh model introductions and an eventual plateau in EV disruption could revitalize growth after years of sluggish demand. The CV sector, traditionally strong in Q4, is looking for momentum from infrastructure investments, stable credit availability and government incentives—factors that could spark a healthy uptick in fleet renewals and expansions. Meanwhile, PV Dealers anticipate strong consumer pull from new SUV launches, feature-rich EVs and its maturing EV ecosystem, though price-sensitive buyers and interest rate fluctuations remain watchpoints.

Overall, FADA remains optimistic that market recovery, coupled with strategic OEM support and policy-level clarity, will enable the automotive retail industry to end CY'25 on a robust note.

Key Findings from our Online Members Survey

- **Liquidity**
  - Neutral 53.05%
  - Good 25.19%
  - Bad 21.76%

- **Sentiment**
  - Neutral 51.15%
  - Good 29.01%
  - Bad 19.85%

- **Expectation from January'25**
  - Growth 48.09%
  - Flat 41.22%
  - De-growth 10.69%

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- Expectation from CY'25
  - Growth 66.41%
  - Flat 26.72%
  - De-growth 06.87%

Chart showing Vehicle Retail Data for YTD FY'25 and December'24

All India Vehicle Retail Data for YTD FY'25 (April'24 to Dec'24)

CATEGORY	YTD FY'25	YTD FY'24	Growth %
2W	1,44,67,968	1,30,81,797	10.60%
3W	9,20,408	8,66,441	6.23%
CV	7,30,151	7,35,545	-0.73%
PV	30,02,311	28,88,868	3.93%
TRAC	6,50,136	6,48,538	0.25%
Total	**1,97,70,974**	**1,82,21,189**	**8.51%**

Source: FADA Research

All India Vehicle Retail Data for CY'24

CATEGORY	CY'24	CY'23	YoY %
2W	1,89,12,959	1,70,72,932	10.78%
3W	12,21,909	11,05,942	10.49%
E-RICKSHAW(P)	*4,81,786*	*4,74,226*	*1.59%*
E-RICKSHAW WITH CART (G)	*58,940*	*35,149*	*67.69%*
THREE-WHEELER (GOODS)	*1,24,972*	*1,14,732*	*8.93%*
THREE-WHEELER (PASSENGER)	*5,55,236*	*4,80,955*	*15.44%*
THREE-WHEELER (PERSONAL)	*975*	*880*	*10.80%*
PV	40,73,843	38,73,381	5.18%
TRAC	8,94,112	8,71,918	2.55%
CV	10,04,856	10,04,120	0.07%
LCV	*5,58,207*	*5,62,239*	*-0.72%*
MCV	*75,560*	*70,734*	*6.82%*
HCV	*3,17,568*	*3,27,202*	*-2.94%*
Others	*53,521*	*43,945*	*21.79%*
Total	**2,61,07,679**	**2,39,28,293**	**9.11%**

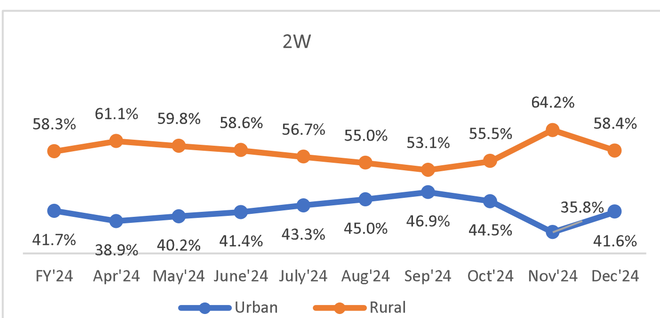
Source: FADA Research

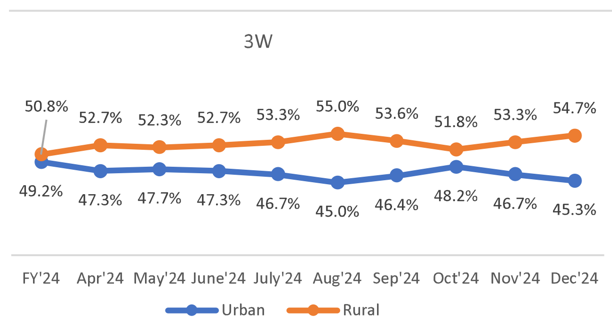
All India Vehicle Retail Data for December'24

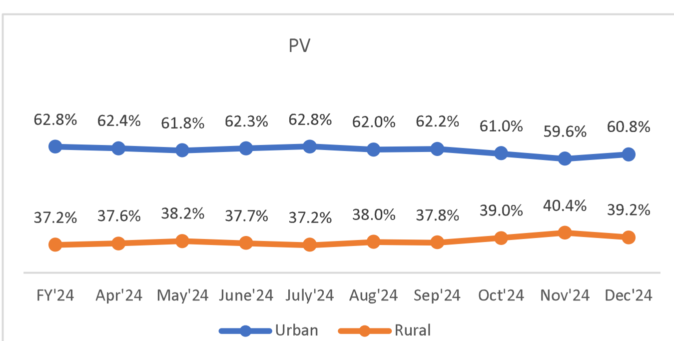
CATEGORY	Dec'24	Nov'24	Dec'23	MoM%	YoY%
2W	11,97,742	26,15,953	14,54,353	-54.21%	-17.64%
3W	93,892	1,08,337	98,384	-13.33%	-4.57%
E-RICKSHAW(P)	*40,845*	*40,391*	*45,100*	*1.12%*	*-9.43%*
E-RICKSHAW WITH CART (G)	*5,826*	*5,423*	*3,692*	*7.43%*	*57.80%*
THREE-WHEELER (GOODS)	*9,122*	*10,940*	*9,546*	*-16.62%*	*-4.44%*
THREE-WHEELER (PASSENGER)	*38,031*	*51,466*	*39,962*	*-26.10%*	*-4.83%*
THREE-WHEELER (PERSONAL)	*68*	*117*	*84*	*-41.88%*	*-19.05%*
PV	2,93,465	3,21,943	2,99,351	-8.85%	-1.97%
TRAC	99,292	80,519	78,944	23.31%	25.78%
CV	72,028	81,967	76,010	-12.13%	-5.24%
LCV	*39,794*	*47,530*	*42,814*	*-16.28%*	*-7.05%*
MCV	*4,662*	*5,473*	*4,987*	*-14.82%*	*-6.52%*
HCV	*22,781*	*24,441*	*23,904*	*-6.79%*	*-4.70%*
Others	*4,791*	*4,523*	*4,305*	*5.93%*	*11.29%*
Total	**17,56,419**	**32,08,719**	**20,07,042**	**-45.26%**	**-12.49%**

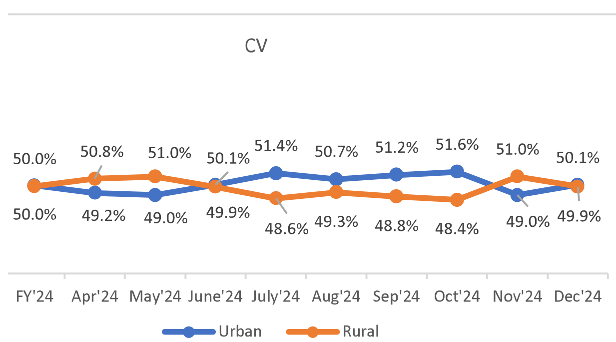
Source: FADA Research

All India Vehicle Retail Strength Index for Dec'24 on basis of Urban & Rural RTOs.









Pew Research Center

FOR RELEASE JULY 25, 2024

The Experiences of U.S. Adults Who Don't Have Children

57% of adults under 50 who say they're unlikely to ever have kids say a major reason is they just don't want to; 31% of those ages 50 and older without kids cite this as a reason they never had them

BY *Rachel Minkin, Juliana Horowitz and Carolina Aragão*

FOR MEDIA OR OTHER INQUIRIES:

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www.pewresearch.org

RECOMMENDED CITATION

Pew Research Center, July 2024, "The Experiences of U.S. Adults Who Don't Have Children"

The Experiences of U.S. Adults Who Don't Have Children

57% of adults under 50 who say they're unlikely to ever have kids say a major reason is they just don't want to; 31% of those ages 50 and older without kids cite this as a reason they never had them

The U.S. fertility rate reached a historic low in 2023, with a growing share of women ages 25 to 44 having never given birth.

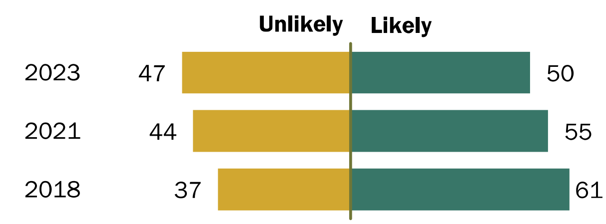
And the share of U.S. adults younger than 50 without children who say they are **unlikely to ever have kids** rose 10 percentage points between 2018 and 2023 (from 37% to 47%), according to a Pew Research Center survey.

In this report, we explore the experiences of *two groups of U.S. adults*:

- Those ages 50 and older who don't have children
- Those younger than 50 who don't have children and say they are unlikely to in the future

Growing share of adults under 50 say they're unlikely to ever have kids

Among adults ages 18 to 49 who don't have children, % saying they are ___ to have children in the future



Note: Figures include those who say they are very/somewhat likely versus not too/not at all likely to have children. Shares of respondents who didn't offer an answer are not shown.
Source: Survey of U.S. adults conducted Aug. 7-27, 2023.
"The Experiences of U.S. Adults Who Don't Have Children"

PEW RESEARCH CENTER

About four-in-ten of those in the older group (38%) say there was a time when they wanted to have children. A smaller but sizable share (32%) say they never wanted children, and 25% say they weren't sure one way or the other. Few say they frequently felt pressure to have children from family, friends or society in general.

Reasons for not having children – or being unlikely to ever have them – differ between the older and younger groups. The top response for those ages 50 and older is that it just didn't happen. Meanwhile, those in the younger group are most likely to say they just don't want to have kids. Women younger than 50 are especially likely to say they just don't want to have children (64% vs. 50% of men in this group).

Majorities in both groups say not having kids has made it easier for them to afford the things they want, have time for hobbies and interests, and save for the future. In the younger group, about six-in-ten also say not having kids has made it easier for them to be successful in their job or career and to have an active social life.

Still, majorities in both groups say *parents* have it easier when it comes to having someone to care for them as they age. Large shares in both groups say having a fulfilling life doesn't have much to do with whether someone does or doesn't have children.

These are among the key findings from a new Pew Research Center survey of 2,542 adults ages 50 and older who don't have children and 770 adults ages 18 to 49 who don't have children and say they are not too or not at all likely to have them. The survey was conducted April 29 to May 19, 2024.

Jump to read more about:

- Reasons adults give for not having children
- Perceived pros and cons of not having children
- Relationships and caregiving among adults without children
- Demographic and economic characteristics of adults 50 and older without children

Reasons for not having children

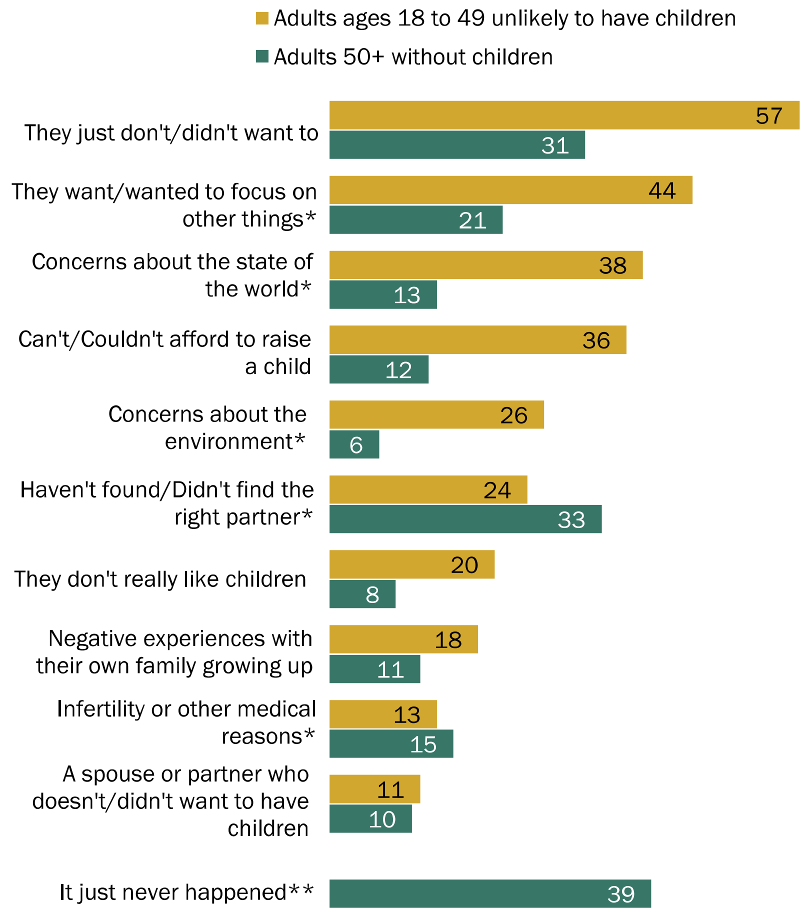
The study explores reasons U.S. adults give for not having children, among those ages 50 and older who haven't had kids and those under 50 who say they're unlikely to ever become parents.

By margins of at least 10 points, those in the younger group are more likely than those ages 50 and older to say each of the following is a major reason:

- They just don't want to have children (57% in the younger group vs. 31% in the older group)
- They want to focus on other things, such as their career or interests (44% vs. 21%)
- Concerns about the state of the world, other than the environment (38% vs. 13%)
- They can't afford to raise a child (36% vs. 12%)
- Concerns about the environment, including climate change (26% vs. 6%)
- They don't really like children (20% vs. 8%)

Younger and older adults' reasons for not having children differ widely

*Among adults who don't have children, % saying each of the following is a **major reason** they are unlikely to have/did not have children*



* Refer to topline for full question wording.
** Asked only of adults ages 50 and older without children.
Note: Based on those who have never had biological or adopted children. Other response options included "Minor reason" and "Not a reason."
Source: Survey of U.S. adults who don't have children conducted April 29-May 19, 2024.
"The Experiences of U.S. Adults Who Don't Have Children"

PEW RESEARCH CENTER

In turn, a larger share of those in the older group say a major reason they didn't have kids is that they didn't find the right partner (33% vs. 24% of those in the younger group).

There are no significant differences between the two groups in the shares pointing to infertility or other medical reasons (their own or their spouse's or partner's) or to a spouse or partner who didn't want to have children as major reasons.

Among those in their 40s, 22% say infertility or other medical reasons are a major factor in why they're unlikely to ever have children. About one-in-ten of those ages 18 to 39 (9%) say the same.

The impact of not having children

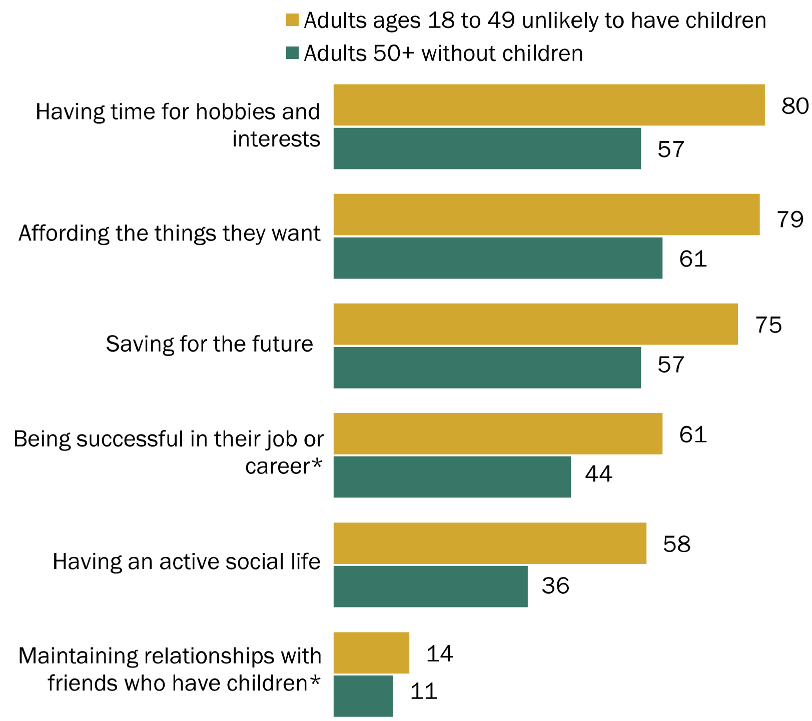
Majorities of adults ages 50 and older who don't have kids and those under 50 who say they're unlikely to do so see some benefits to not having children.

But by margins ranging from 17 to 23 points, those in the younger group are more likely than those ages 50 and older to say each of the following has been **easier for them** because they don't have children:

- Having time for hobbies and interests (80% in the younger group vs. 57% in the older group)
- Affording the things they want (79% vs. 61%)
- Saving for the future (75% vs. 57%)
- Being successful in their job or career (61% vs. 44%, among those who don't indicate this doesn't apply to them)
- Having an active social life (58 vs. 36%)

Among adults under 50 who say they're unlikely to have children, large majorities see financial and lifestyle advantages to not being parents

*Among adults who don't have children, % saying each of the following is **easier** for them because they don't have children*



* Based on those who didn't indicate this does not apply to them.
Note: Based on those who have never had biological or adopted children. Figures include those who say it has been somewhat/a lot easier. Other response options included "Somewhat harder," "A lot harder" and "Neither easier nor harder."
Source: Survey of U.S. adults who don't have children conducted April 29-May 19, 2024.
"The Experiences of U.S. Adults Who Don't Have Children"

PEW RESEARCH CENTER

The impact at work

We also asked those who are employed about the impact not having children has had on their work lives.

Experiences are mixed. For example, 45% of those in the younger group and 35% of those in the older group say they've had more opportunities to network outside of work hours because they don't have kids. At the same time, about a third in each group say they've been expected to take on extra work or responsibilities, and many also say they've been given less flexibility than those who have children.

Worries about the future

The survey also asked adults ages 50 and older without children about certain concerns they may have *as they age*.

About one-in-five or more say they worry *extremely or very often* about:

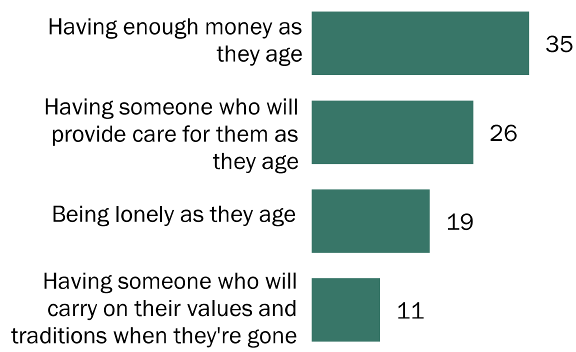
- Having enough money (35%)
- Having someone who will provide care for them (26%)
- Being lonely (19%)

A smaller share (11%) say they frequently worry about having someone who will carry on their values and traditions when they're gone.

In a separate survey, 46% of *parents ages 50 and older* said they frequently worry about having enough money as they age. Smaller shares said the same about having someone who will provide care for them as they age (20%), having someone who will carry on their values and traditions (17%) and being lonely as they age (15%).

About 1 in 4 adults 50 and older without children say they frequently worry about who will care for them as they age

*Among adults ages 50 and older who don't have children, % saying they worry about each of the following **extremely/very often** when thinking about the future*



Note: Based on those who have never had biological or adopted children. Other response options included "Sometimes," "Rarely" and "Never."
Source: Survey of U.S. adults who don't have children conducted April 29-May 19, 2024.
"The Experiences of U.S. Adults Who Don't Have Children"

PEW RESEARCH CENTER

How the survey findings do – or don't – differ by gender

For the most part, the experiences of adults without children and the reasons they give for not having them **don't vary much by gender.** This is the case across both age groups.

Still, there are some questions on which men and women without kids differ considerably.

Among those ages 50 and older, women are more likely than men to say:

- Being successful in their job or career has been easier because they don't have children (50% among women vs. 39% among men).
- They felt pressure to have children from society in general at least sometimes when they were younger (42% vs. 27%).

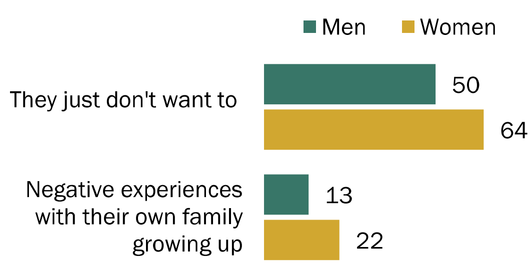
Among those ages 18 to 49, women are more likely than men to say each of the following is a major reason they're unlikely to have children:

- They just don't want to (64% vs. 50%)
- Negative experiences with their own families growing up (22% vs. 13%)

Women in the younger group are also more likely than their male counterparts to say the topic of whether they'll have children comes up in conversation with their friends at least sometimes (41% vs. 26%).

Most women under 50 who don't have kids say a major reason they're unlikely to have them is they just don't want to

Among adults ages 18 to 49 who don't have children and say they are unlikely to have them, % saying each of the follow is a ***major reason*** *they are unlikely to have children*



Note: Based on those who have never had biological or adopted children. The survey asked about 10 possible factors; only those with a statistically significant difference between men and women are shown. Other response options included "Minor reason" and "Not a reason."
Source: Survey of U.S. adults who don't have children conducted April 29-May 19, 2024.
"The Experiences of U.S. Adults Who Don't Have Children"

PEW RESEARCH CENTER

Demographic and economic differences between adults 50 and older with and without children

In addition to the survey findings, this report includes an analysis of government data to show how the demographic characteristics and economic outcomes of adults ages 50 and older who don't have children differ from those ages 50 and older who are parents.

Among adults in this age group, those who don't have children are less likely to have ever been married. They are *more* likely to have a bachelor's degree or more education. This difference in educational attainment is especially pronounced among women.

Older women who don't have children have higher median monthly wages than mothers. The opposite is true among older men; those without children tend to earn less than fathers.

https://japannews.yomiuri.co.jp/politics/politics-government/20241217-228221/

Japan to Actively Recruit Nursing Care Staff from Overseas; Government Plans to Subsidize Costs of Finding Workers


The Yomiuri Shimbun

A Vietnamese caregiver, left, speaks to an elderly person.

The Yomiuri Shimbun *7:00 JST, December 17, 2024*

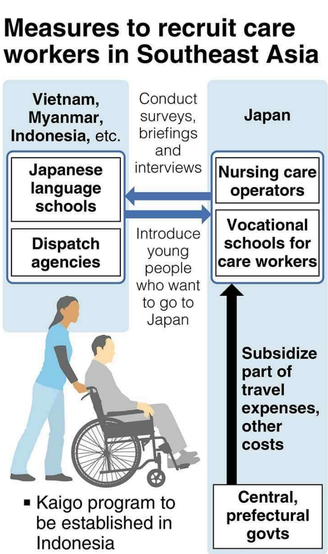
The Health, Labor and Welfare Ministry will actively promote the recruitment of nursing care staff from Southeast Asia, beginning next fiscal year, to cope with the serious labor shortage in the industry.

The ministry will shoulder part of the costs that Japanese nursing care operators incur when recruiting staff in the region, and establish a nursing care education program in Indonesia. With more elderly people expected to need care amid Japan's increasingly aging society, the ministry deemed it necessary to make strategic efforts to bring in human resources from outside Japan.

About one in five people in Japan will be aged 75 or over next year. There are currently about 2.15 million nursing care workers, but there will be an estimated shortage of about 250,000 workers in fiscal 2026 and about 570,000 in fiscal 2040.

According to the Immigration Services Agency, 28,400 foreign nationals had entered Japan with specified skilled worker visa status as of the end of 2023 to work in the nursing care industry. That figure is just over 50% of the government's target.

Behind the shortage is a global war for talent in the welfare industry as the population ages, particularly in developed countries.



The ministry will subsidize travel expenses for companies that operate special nursing homes for the elderly, or tokuyo, and vocational schools to train care workers. Money will also be spent to organize briefings at Japanese language schools and “dispatch agencies” in Southeast Asian countries, such as Vietnam and Myanmar.

Local young people in training to be caregivers would receive explanations about the benefits of working in Japan and the terms of employment on offer. Financial support will also be offered for interviews and other recruitment activities.

A total of ¥1 million will be provided from the national and prefectural governments per company. The ministry expects up to 100 businesses to participate next fiscal year and included relevant funding in the supplementary budget for this fiscal year.

A survey conducted in fiscal 2023 by Tokyo-based Care Work Foundation found that 60% of care facilities, including tokuyo, reported a staff shortage. Only 10% accepted foreign workers.

“We want to encourage people to take the first step toward hiring foreign staff,” said a spokesperson from the ministry’s office of policy planning for recruitment in welfare.

In Indonesia, which is keen to send workers overseas, a three-year program called Kaigo will be established next fiscal year to train people in nursing care techniques. Three experts in Japan’s care insurance system and elderly care will be dispatched from the ministry and the Japan International Cooperation Agency (JICA).

Kaigo is aimed at training young people studying at local public nursing schools and their instructors. Countries like Germany are already said to be making moves to recruit people in Indonesia.

Caregivers from overseas who pass a qualification exam for certified care workers can continue to work in Japan.

“The government should support the cost of acquiring qualifications and strive to create workplaces that are easy to function in,” said Prof. Noriko Tsukada, who studies social gerontology at Nihon University. “Conditions must be improved, such as by increasing wages, and the industry made attractive to foreigners as well.”

Dan Tsubouchi @Energy_Tidbits · 3h

AI data centers growth for 24/7 power = #NatGas demand growth

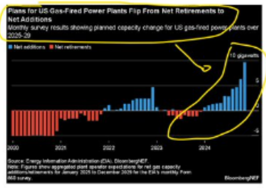
No other reason to explain the about face from US retiring #NatGas power plants to massive planned additions of #NatGas power.

Value of #NatGas is going higher.

Thx @BloombergNEF David Mohammadi
#OOTT

2025-01-11 10:55:00.0 GMT

By David Mohammadi



(BloombergNEF) -- For a while, it looked like the US would be retiring more gas-fired power capacity than it would be building. That outlook has changed.
Each month, power plant operators report their expectations for natural gas capacity build to the US Energy Information Administration. For most of 2023, expectations for 2025-29 were marked by net retirements, meaning more capacity would be taken offline than added. That outlook flipped toward net additions at the beginning of 2024.
As of the November 2024 survey, the US is expected to see 9.6 gigawatts of net gas capacity additions from January 2025 to December 2029. That's a significant change from earlier survey results, such asthe 5GW of net retirements expected in2020, and the 1.7GW of net retirements expected as recently as mid-2023.
For more information on changes in US electricity generating capacity, see US Power Capacity Overview 2Q 2024: Shuttered Gas Plants. For all US gas and power coverage from BNEF, click here.

To contact BloombergNEF about this article click here.
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David Mohammadi in New York at dmohammadi@bloomberg.net

2 · 6 · 18 · 3.7K

Dan Tsubouchi
@Energy_Tidbits

Surely Trump knows his US subsidizes Canada to >$100 mm is only because of US needing Canada #Oil #Electricity #Uranium etc.

"Strikingly, outside the energy sector, Canada's trade balance with the U.S. reveals an annual deficit of $40 b" NBF's Stéfane Marion & Ethan Currie

#OOTT

Excerpt from

Special Report
Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

December 23, 2024

The atrophy of the Canadian manufacturing sector has gone too far

By Stéfane Marion & Ethan Currie

Special Report

The narrative is no different with Canada's largest trading partner. Over the past 12 months, Canada's $100 billion trade surplus with the U.S. (equivalent to 3.4% of GDP) has been entirely driven by energy exports. Strikingly, outside the energy sector, Canada's trade balance with the U.S. reveals an annual deficit of $40 billion (approximately 1% of GDP), highlighting the country's growing dependence on oil exports to sustain its trade position (chart).

Canada: Trade surplus with US is all energy
Canada-US trade balance in goods: total and total excluding energy

NBC Economics and Strategy (data via Statistics Canada)

5:37 PM · Jan 11, 2025 · **2,660** Views

2 · 6 · 33 · 4

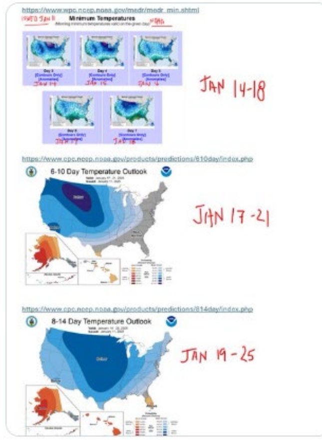
Dan Tsubouchi @Energy_Tidbits · 18h

Positive for HH #NatGas.

Cold temps expected to continue across most of Lower 48 for the next two weeks

Today's updated @NOAA 3-7, 6-10 & 8-14 day temperature outlooks.

#OOTT



1 · 4 · 30 · 3.8K

Dan Tsubouchi @Energy_Tidbits

Biggest wildcard causing the biggest swings in HH prices will always be how cold or not it is in winter.

BUT a key factor minimizing the potential swing is increasing #NatGas deliveries to LNG plants, which just hit 15.12 bcf/d on Jan 10.

Increasing #Datacenter need for 24/7 #NatGas power will also help minimize winter price swings.

#OOTT

2:08 PM · Jan 11, 2025 · **3,634** Views

1 · 5 · 35 · 7

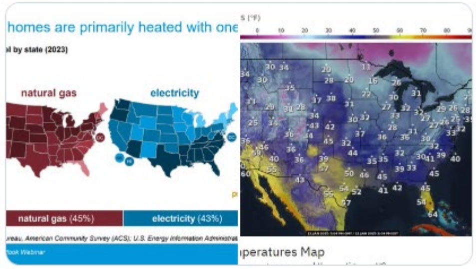
Dan Tsubouchi @Energy_Tidbits · 20h

Great week for HH #NatGas prices +$0.64 WoW to $3.99.

Reminds cold Jan temperatures around the more populous Great Lakes & NE US are great for HH #NatGas prices.

It's where natural gas has the highest penetration rate for home heating.

#OOTT



2 · 5 · 24 · 3.4K

Dan Tsubouchi
@Energy_Tidbits

Revisions up to really low Vortexa's 1st est for crude #Oil floating storage at Jan 3 but still at levels supportive of oil prices.

Total est 55.88 mmb at Jan 10, + 1.07 mmb WoW vs revised up +6.66 mmb of 54.81 mmb at Jan 3.

Asia est 25.74 mmb at Jan 10, +4.31 mmb WoW vs revised up +5.68 mmb of 25.74 mmb at Jan 3.

Thx @vortexa @business #OOTT

Region	Jan 10/25	Jan 3/25	WoW	Jan 3/25	Jun 23/23	Jan 3 vs Jun 23/23
Asia	25.74	21.43	4.31	15.75	73.26	-47.52
North Sea	0.76	0.71	0.05	0.94	4.71	-3.95
Europe	5.07	2.57	2.50	2.88	6.05	-0.98
Middle East	8.74	9.86	-1.12	8.41	6.59	2.15
West Africa	5.86	9.66	-3.80	9.81	7.62	-1.76
US Gulf Coast	0.00	0.15	-0.15	0.00	1.02	-1.02
Other	9.71	10.43	-0.72	10.36	29.42	-19.71
Global Total	55.88	54.81	1.07	48.15	128.67	-72.79

Vortexa crude oil floating storage posted on Bloomberg 9am MT on Jan 11
Source: Vortexa, Bloomberg

Prepared by SAF Group: https://safgroup.ca/news-insights/

9:08 AM · Jan 11, 2025 · **2,856** Views

4 · 7 · 1

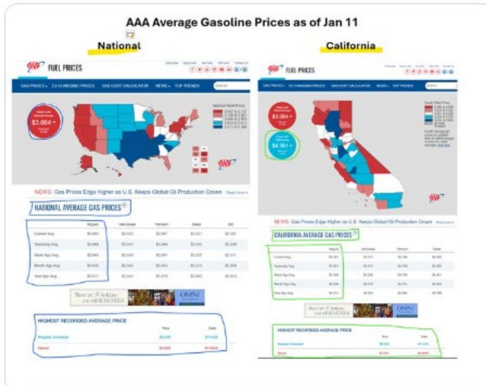
Dan Tsubouchi @Energy_Tidbits

AAA National average gasoline prices flat WoW at $3.06 on Jan 11, +$0.04 MoM & -$0.02 YoY.

California average prices +$0.01 WoW to $4.38, -$0.03 MoM & -$0.24 YoY

On new RUS energy sanctions, Biden sees gas prices "could increase as much as 3, 4 cents a gallon"

Thx @AAAnews #OOTT



8:01 AM · Jan 11, 2025 · **1,124** Views

1

Dan Tsubouchi @Energy_Tidbits · Jan 11

Xmas Europe air travel above pre-Covid didn't last.

Flying always seasonally declines post Xmas. But +0.8% vs pre-Covid on Dec 26 is now -4.2% below pre-Covid on Jan 9.

7-day moving average as of:
Jan 9: -4.2% below pre-Covid
Jan 2: -2.6%
Dec 26: +0.8%
Dec 19: -2.4% ...
Show more

1 1K

Dan Tsubouchi @Energy_Tidbits

Wine of the week. Opening old red wines that would have been opened w/o Covid.

Amuse Bouche 2005.

Reminds a high quality red wine often drinks much better for much longer than expected.

Target drinking was pre 2019 but was still very good.

Down to singles of 2004 & 2006.

8:47 PM · Jan 10, 2025 · **1,341** Views

7

Dan Tsubouchi @Energy_Tidbits · Jan 10

Big continuing win for Cdn #Oil cash flows.

Increasing tanker exports post June 2024 start 590,000 b/d TMX kept WCS less WTI diffs from normal S/O/N widening, and continue to stay narrow.

WCS less WTI diffs:
01/10/25: $12.15
01/10/24: $19.06
01/10/23: $25.00...
Show more

4 17 68 13K

Dan Tsubouchi @Energy_Tidbits · Jan 10

321 crack spreads -$0.01 WoW to $16.47 on Jan 10.

WTI +$2.61 WoW to $76.57.

Reminds WTI is impacted more by global #Oil moves (ie. potential that Russia/Iran barrels are being impacted by sanctions) than by crack spreads.

Thx @business
#OOTT

1 · 3 · 9 · 1.6K

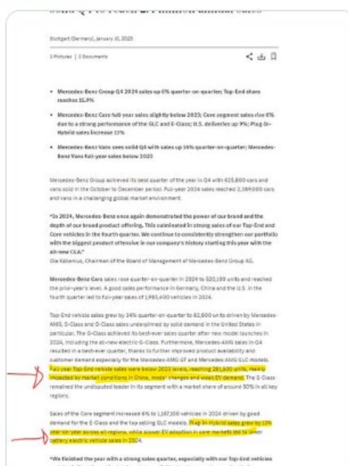
Dan Tsubouchi @Energy_Tidbits · Jan 10

Chinese consumer weakness and PHEVs winning over BEVs.

Mercedes Q4 sales.

"Top-End vehicle sales were below 2023 levels, reaching 281,500 units, mainly impacted by market conditions in China, model changes and weak EV demand."

"#PHEV sales grew by 13% year-on-year across all
Show more



Stuttgart (Germany), January 10, 2025

- **Mercedes-Benz Group Q4 2024 sales up 6% quarter-on-quarter; Top-End share reaches 15.9%**
- **Mercedes-Benz Cars full-year sales slightly below 2023; Core segment sales rise 6% due to a strong performance of the GLC and E-Class; U.S. deliveries up 9%; Plug-In-Hybrid sales increase 13%**
- **Mercedes-Benz Vans sees solid Q4 with sales up 16% quarter-on-quarter; Mercedes-Benz Vans full-year sales below 2023**

Mercedes-Benz Group achieved its best quarter of the year in Q4 with [illegible] cars and vans sold in the October to December period. Full-year 2024 sales reached [illegible] cars and vans in a challenging global market environment.

"In 2024, Mercedes-Benz once again demonstrated the power of our brand and the depth of our broad product offering. This culminated in strong sales of our Top-End and Core vehicles in the fourth quarter. We continue to consistently strengthen our portfolio with the biggest product offensive in our company's history starting this year with the all-new CLA."
Ola Källenius, Chairman of the Board of Management of Mercedes-Benz Group AG.

Mercedes-Benz Cars sales rose quarter-on-quarter in 2024 to [illegible] units and reached the prior-year's level. A good sales performance in Germany, China and the U.S. in the fourth quarter led to full-year sales of 1,983,400 vehicles in 2024.

Top-End vehicle sales grew by 34% quarter-on-quarter to 82,600 units driven by Mercedes-AMG, S-Class and G-Class sales underpinned by solid demand in the United States in particular. The G-Class achieved its best-ever sales quarter after new model launches in 2024, including the all-new electric G-Class. Furthermore, Mercedes-AMG sales in Q4 resulted in a best-ever quarter, thanks to further improved product availability and customer demand especially for the Mercedes-AMG GT and Mercedes-AMG GLC models. Full-year Top-End vehicle sales were below 2023 levels, reaching 281,500 units, mainly impacted by market conditions in China, model changes and weak EV demand. The S-Class remained the undisputed leader in its segment with a market share of around 50% in all key regions.

Sales of the Core segment increased 6% to 1,187,100 vehicles in 2024 driven by good demand for the E-Class and the top selling GLC models. Plug-In-Hybrid sales grew by 13% year-on-year across all regions, while slower EV adoption in core markets led to lower battery electric vehicle sales in 2024.

"We finished the year with a strong sales quarter, especially with our Top-End vehicles and the G-Class in particular. I want to explicitly thank our customers for their

4 · 854

Dan Tsubouchi @Energy_Tidbits · Jan 10

'Think #Oil and #NatGas" for powering the energy demand for the AI future says BackRock.

see my 👇 post last night

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Jan 9
>
> Finally, the dirty little AI secret is revealed.
>
> BlackRock's #1 theme for the game changing AI industrial revolution is financing the future, says "think solar farms, power grids, oil and gas".
>
> ...
>
> Show more

4 · 8 · 25 · 6.4K

Dan Tsubouchi
@Energy_Tidbits

Can China get to sustained decent growth?

Xinhua: "*China to see significant increase in fiscal deficit" "total fiscal expenditure will further be expanded, and countercyclical adjustment efforts will also be stepped up to provide solid support for the sustained recovery of the economy."*

#OOTT

China to see significant increase in fiscal deficit in 2025

Source: Xinhua Editor: huaxia

BEIJING, Jan. 10 (Xinhua) -- The size of China's fiscal deficit will increase significantly in 2025, Liao Min, vice minister of finance, told a press conference Friday.

Noting that the fiscal deficit ratio will be increased in 2025, Liao said considering the increasing size of China's GDP, the total fiscal expenditure will further be expanded, and countercyclical adjustment efforts will also be stepped up to provide solid support for the sustained recovery of the economy.

Meanwhile, the fiscal policy in 2025 has a clear and well-defined course, fully accounts for the need to enhance countercyclical adjustments, and is highly proactive, he said.

The policy also takes fiscal sustainability in the medium and long term into consideration, so that it is prudent at the same time, said Liao.

Specific policy measures must go through statutory procedures before being launched, the vice minister said.

TALK TO XINHUA

5:32 AM · Jan 10, 2025 · **843** Views

2

SAF

Dan Tsubouchi
@Energy_Tidbits

Renewable Energy 101 example.

Yes, renewable power exceeded fossil fuels for 1st time in UK.

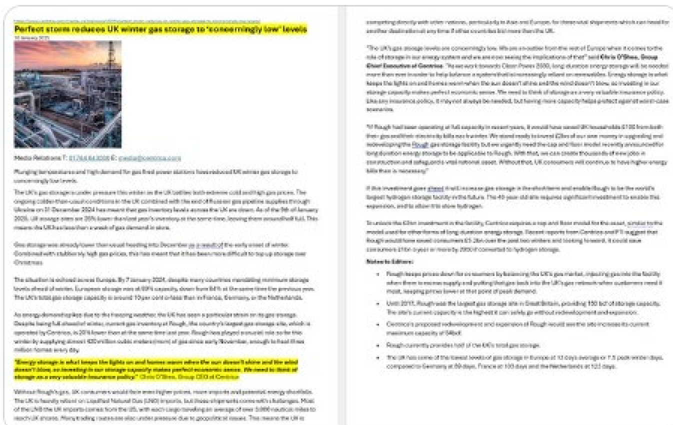
BUT only when sun shines and wind blows.

AND can't peak up if more power is needed ie when it's cold.

"Energy [#NatGas] storage is what keeps the lights on and homes warm when the sun doesn't shine and the wind doesn't blow ......" Chris O'Shea, Group CEO at Centrica.

NatGas can!

#OOTT



4:52 AM · Jan 10, 2025 · **3,015** Views

2 5 14

Dan Tsubouchi @Energy_Tidbits

Finally, the dirty little AI secret is revealed.

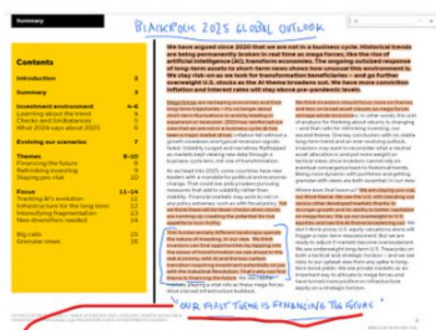
BlackRock's #1 theme for the game changing AI industrial revolution is financing the future, says "***think solar farms, power grids, oil and gas***".

1st time specifically naming oil and gas as a winner in the AI mega trend.

BlackRock 2025 global outlook "*Meeting growing energy demand (think solar farms, power grids, oil and gas) will generate investment of US$3.5 trillion per year this decade*"

Prior to this, only used deliberately vague "low-carbon"

Bullish for value of #Oil #NatGas going forward.
#OOTT



Dan Tsubouchi @Energy_Tidbits · Jan 6
dirty little secret

low carbon = natural gas

see 👇 12/12/24 post...
Show more

7:16 PM · Jan 9, 2025 · **17.8K** Views

Dan Tsubouchi @Energy_Tidbits · 7h

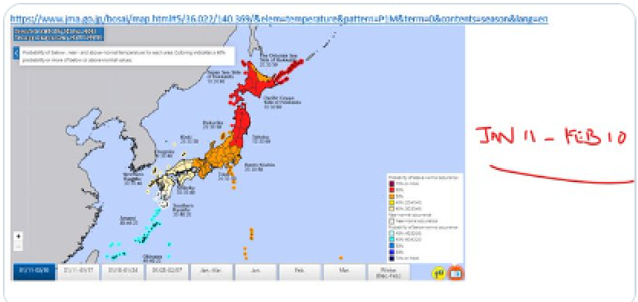
Holdback to JKM #LNG prices.

Updated Japan Meteorological Agency temperature outlook is for warmer than normal temperatures to end winter.

Only covers Jan 11-Feb 10 but winter for most of Japan ends in Feb.

Fits 👇 01/08/24 ECMWF forecast.

#OOTT



Dan Tsubouchi @Energy_Tidbits · Jan 8

Holdback to #LNG and global #NatGas prices.

ECMWF's Jan updated seasonal temperature outlook calls for warmer than normal temperatures in Europe and Asia to end winter....

4 · 1.5K

Dan Tsubouchi @Energy_Tidbits · 10h

Norway's new fcast for peak #Oil #NatGas production.

Oil. peak 2023 1.79 mmbd, plateaus 2023-26, then declines. to 1.40 mmbd in 2029.

NatGas, peak 2024 12.00 bcfd, modest drop to plateau 2025-27, then decline to 10.72 bcfd in 2029.

Decline accelerates as mostly older fields.

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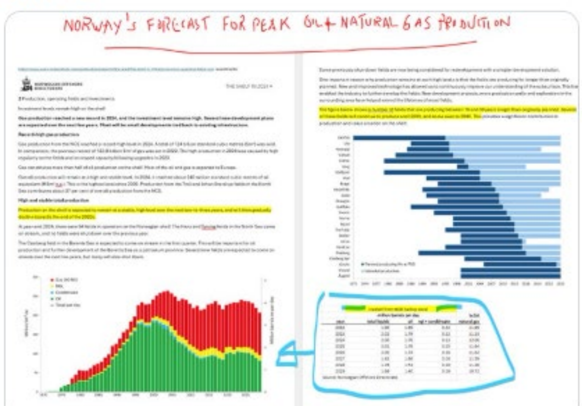

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Dan Tsubouchi @Energy_Tidbits · 10h

Weather forecasts never 100% but seems JKM #LNG & Europe TTF #NatGas futures for Mar are reflecting the expectation for a much warmer than normal end to winter.

👇01/08/24 post of ECMWF Jan updated FMA temperature forecasts.

Thx @osingyee @SStapczynski

#OOTT

Futures Prices:

- Japan-Korea Marker futures on Nymex for February delivery -0.3% to $14.225/mmbtu on Wednesday
  - March contract -5.2% to $13.745
- Dutch TTF futures for February delivery -4.2% to $13.773/mmbtu on Wednesday
  - March contract -4.3% to $13.787

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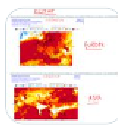
Dan Tsubouchi @Energy_Tidbits · Jan 8



Holdback to #LNG and global #NatGas prices.

ECMWF's Jan updated seasonal temperature outlook calls for warmer than normal temperatures in Europe and Asia to end winter....

3 7 3.2K

Dan Tsubouchi @Energy_Tidbits · Jan 8

Holdback to #LNG and global #NatGas prices.

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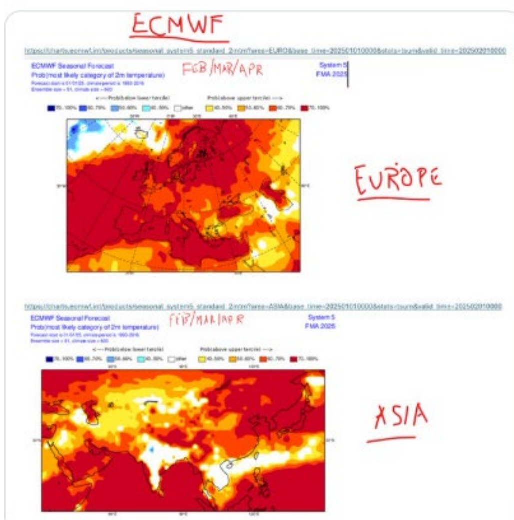

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Dan Tsubouchi @Energy_Tidbits · Jan 8

Indicator of lower growth India economy.

Brutal Dec vehicle sales followed a weak Nov.

Dec vehicle sales -43.26% MoM, -12.49% YoY.

Reminder India economy grew 5.4% in Jul-Sep qt, slowest pace in 7 qts.

But "Auto Dealer sentiment for Jan remains cautiously optimistic"

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INDIA VEHICE RETAIL SALES

Federation of Automobile Dealers Associations (FADA)

Excerpt FADA Releases CY24 and December'24 Vehicle Retail Data

All India Vehicle Retail Data for December'24

DEC 2024

CATEGORY	Dec'24	Nov'24	Dec'23	MoM%	YoY%
2W	11,97,742	26,15,953	14,54,353	-54.21%	-17.64%
3W	93,892	1,08,337	98,384	-13.33%	-4.57%
E-RICKSHAW(P)	40,845	40,391	41,300	[illegible]	[illegible]
E-RICKSHAW WITH CART (G)	5,826	5,422	3,692	[illegible]	[illegible]
THREE-WHEELER (GOODS)	9,122	10,940	9,546	[illegible]	[illegible]
THREE-WHEELER (PASSENGER)	38,031	51,466	39,962	[illegible]	[illegible]
THREE-WHEELER (PERSONAL)	68	117	84	[illegible]	[illegible]
PV	2,93,465	3,21,943	2,99,351	-8.85%	-1.97%
TRAC	99,292	80,519	78,944	23.31%	25.78%
CV	72,028	81,967	76,010	-12.13%	-5.24%
LCV	39,794	47,530	42,834	[illegible]	[illegible]
MCV	4,667	5,477	4,987	[illegible]	[illegible]
HCV	22,781	24,441	23,904	[illegible]	[illegible]
Others	4,791	4,523	4,305	[illegible]	[illegible]
Total	17,56,419	32,08,719	20,07,042	-45.26%	-12.49%

Source: FADA Research

All India Vehicle Retail Data for CY'24

CALENDAR YEAR 2024

CATEGORY	CY'24	CY'23	YoY %
2W	1,89,12,959	1,70,72,932	10.78%
3W	12,21,909	11,05,942	10.49%
E-RICKSHAW(P)	4,81,786	4,74,226	1.59%
E-RICKSHAW WITH CART (G)	58,940	35,149	67.69%
THREE-WHEELER (GOODS)	1,24,972	1,14,732	8.93%
THREE-WHEELER (PASSENGER)	5,55,236	4,80,955	15.44%
THREE-WHEELER (PERSONAL)	975	880	10.80%
PV	40,73,843	38,73,381	5.18%
TRAC	8,94,112	8,71,918	2.55%
CV	10,04,856	10,04,120	0.07%
LCV	5,58,207	5,62,239	-0.72%
MCV	75,560	70,734	6.82%
HCV	3,17,568	3,27,202	-2.94%
Others	53,521	43,945	21.79%
Total	2,61,07,679	2,39,28,293	9.11%

Source: FADA Research

Dan Tsubouchi @Energy_Tidbits · Dec 9, 2024

Were Nov India commercial vehicles sales a one-off or an indicator of lower growth India economy.

India economy grew 5.4% in Jul-Sep qt, slowest pace in 7 qts....

2 5 3.8K

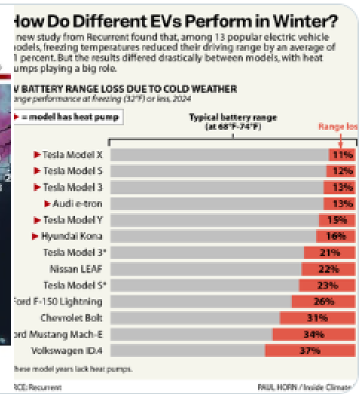
Dan Tsubouchi @Energy_Tidbits · Jan 8

Should be busy day at #EV charging across the US.

It's 32F or below in most of the US. @weatherchannel

At 32F, battery range loss is significant. And will be much worse when temps are below 32F. Thx Kristoffer Teague
arstechnica.com/cars/2025/01/c...

#OOTT



1 6 14 1.8K

Dan Tsubouchi @Energy_Tidbits · Jan 8

For those who weren't at their laptops at 8:30am MT, @EIAgov released #Oil #Gasoline #Distillates inventory as of Jan 3. Table below compares EIA data vs @business analyst survey expectations and vs @APIenergy estimates Tuesday. Prior to release, WTI was $74.25 #OOTT

Oil/Products Inventory Jan 3: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	-0.96	-2.00	-4.00
Gasoline	6.33	0.50	7.30
Distillates	6.07	0.50	3.20
	11.44	-1.00	6.50

Note: Oil is commercial. So excludes a +0.2 mmb build in SPR for the Jan 3 week
Note: Included in the oil data, Cushing had a 2.50 mmb draw forJan 3 week
Source EIA, Bloomberg
Prepared by SAF Group https://safgroup.ca/news-insights/

What's long-term effect on oil prices?

1 11 1.2K

Dan Tsubouchi @Energy_Tidbits · 2h

"Every single datacenter is limited by power" Jensen Huang.

This is a 2025 problem that only gets bigger every yr.

What else besides new #NatGas & expanding, not retiring #Coal can scale up fast enough to meet increasing AI datacenter thirst for 24/7 electricity?

Thx @AP

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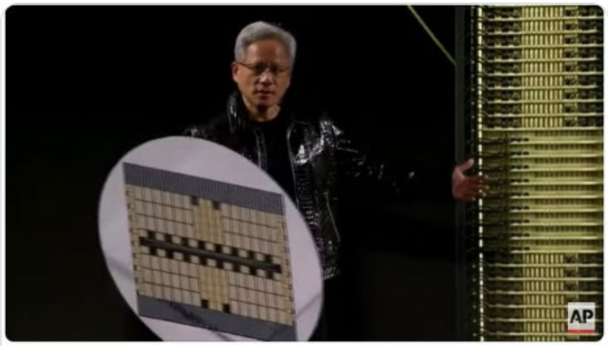

CES 2025: NVIDIA CEO Jensen Huang delivers keynote speech (RTX 5090 announcement)

2 1 4 1.1K

Dan Tsubouchi @Energy_Tidbits · 30m

Here's why it will likely take more than a stroke of the pen for Trump to reverse Biden's removal of #Oil #NatGas leases/drilling on 625 mm acres of offshore federal lands.

See 👇 excerpt on 1953 law & 2019 district court ruling from @maxinejoselow @MerylKornfield

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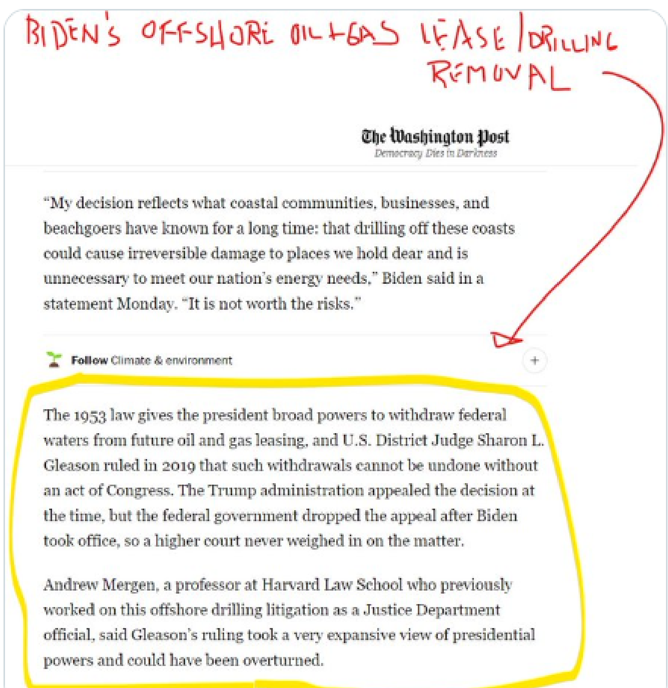

BIDEN'S OFF-SHORE OIL+GAS LEASE/DRILLING REMOVAL

The Washington Post
Democracy Dies in Darkness

"My decision reflects what coastal communities, businesses, and beachgoers have known for a long time: that drilling off these coasts could cause irreversible damage to places we hold dear and is unnecessary to meet our nation's energy needs," Biden said in a statement Monday. "It is not worth the risks."

Follow Climate & environment

The 1953 law gives the president broad powers to withdraw federal waters from future oil and gas leasing, and U.S. District Judge Sharon L. Gleason ruled in 2019 that such withdrawals cannot be undone without an act of Congress. The Trump administration appealed the decision at the time, but the federal government dropped the appeal after Biden took office, so a higher court never weighed in on the matter.

Andrew Mergen, a professor at Harvard Law School who previously worked on this offshore drilling litigation as a Justice Department official, said Gleason's ruling took a very expansive view of presidential powers and could have been overturned.

1 4 698

Dan Tsubouchi @Energy_Tidbits · 1h

June 15-17. Global spotlight on Canada for G7 in Kananaskis.

Will any Liberal party "deal" to get Trudeau to step down include one key give to him - he gets his swan song as PM for G7?

If so, will @theJagmeetSingh go along or force a call for an election pre G7?

> **Financial Times** @FT · 1h
>
> Justin Trudeau press conference fuels predictions of Canada PM's imminent resignation on.ft.com/4h0ItT7

1 · 2 · 984

Dan Tsubouchi @Energy_Tidbits · 2h

dirty little secret

low carbon = natural gas

see 👇 12/12/24 post

AI Datacenter massive increasing need for 24/7 power is bullish for #NatGas

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Dec 11, 2024
>
> AI Data Center 24/7 power need is bullish for #NatGas.
>
> Low-carbon = #NatGas
>
> BlackRock "I and the low-carbon transition require investment ...
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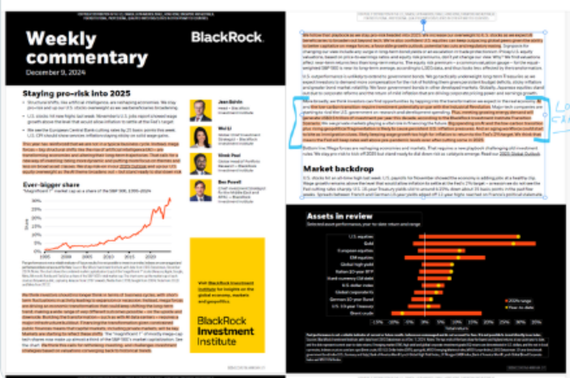

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