

## Trump 2.0 and the Rise of US True Energy Force

- US weaponizes energy to exert power over Middle East, China, and Russia
- Structural bearish on oil price but bullish on LNG price on US' secret influence
- Underweight Energy sector with SPRC and BCP as top picks

### US weaponizes its energy forces against Middle East, China, and Russia

We think at present it is undeniable that the global oil and gas industry is now shifting from the OPEC/OPEC+ to US and its alliances mainly Canada and Mexico (UCM)., Despite UCM's smaller capacity of 27.5mbpd (26.5% of global production capacity) vs OPEC's 32.2mbpd (31%) and OPEC+'s 42.5mbpd (41%), UCM is the "true force" of global oil and industry with strong bargaining power over the long-standing intimidating OPEC group, resulting in narrower but high oil price range of USD70-80/bbl, limited impact from wars in Middle East, and a timely offset to Saudi Arabia's petrodollar end.

### Structural decline in crude oil price but steady rise in LNG price

We project Brent crude oil price to average USD81/bbl in 2024E, down slightly from USD81/bbl in 2023 due to the rising supply mainly from US. In 2025E-26E, we expect Brent crude oil price average to USD76/bbl in 2025E and USD75/bbl in 2026E due chiefly to the chronic oversupply from the rising productions from US, Canada, and other non-OPEC+ producers while demand growths are projected to decelerate as the substitutions from EV will continue.

### US oil weapon will be strengthened further under Trump 2.0 government

With the upcoming Trump's government in January 2025-December 2029, we think US crude oil and gas productions will continue their uptrends, for oil from 22.2mbpd in Nov-24 to 23-25mbpd by 2026E-27E, likely to surpass Saudi Arabia and Russia to become the world's largest oil exporter by 2028E at 7-8mbpd, up from 3.6mbpd in Nov-24 vs Saudi Arabia's 7.4mbpd export and Russia's 4.8mbpd export.

### US dominates gas market; China dissipates gas supply risk

Not only does US dominate global oil market but also seize the leading position in global gas market. Even with supply constraint on Biden's freezing new license for LNG terminals, US has boosted its LNG export capacity to become the world's largest LNG exporter in 2023 with average 11.9bcfcpd (89.2mtpa). Unlike oil which China heavily relies on the imports from Middle East and Russia, China's gas supply depends much more on Russian gas pipeline Power of Siberia 1 pipeline, which continues to ramp up to full production, with a target to reach 3.7bcfcpd in export flows by 2025.

### Underweight sector with SPRC and BCP as top picks

We are bearish on net profit outlook of Thai energy sector, based on our y-y lower crude oil price assumptions of USD81/bbl in 2024, down to USD75-76/bbl in 2025E-26E on oversupply caused by production growths from US and high spare capacity of OPEC+. GRM outlook is bleak on surging exports of gasoline and diesel from US and China and structural drop in oil demands due to EV substitution. We underweight energy sector and prefer refinery plays with diversification (BCP) and no chemical exposures (SPRC, BSRC). We are neutral on PTTEP given its lower selling prices will be partly offset by volume growth and bearish on PTT's net profit outlook on PTT's structural weakness in strategic growth, structural deterioration in gas business.

#### Analyst

Siriluck Pinthusoonthorn  
Siriluck@globlex.co.th,  
+662 672 5806

# Trump 2.0 & the Rise of US Energy Force

## How US is Reshaping Global Oil and Gas Markets

In the past two years since 2023 global crude oil price has been moving in the much narrower range of USD70-USD90/bbl despite the occurrences of many wars in Middle East, the prolonged OPEC+'s supply cuts, the strong demand growths, and the end of petrodollars by Saudi Arabia.

The last time that global oil prices spiked to hit USD140/bbl is the aftermath of Russia's invasion of Ukraine in February 2022 when the US and EU countries banned the imported energy from Russia, leading to supply dislocations, if not disruptions, from western (Europe) to eastern (China, India) Russia.

### Exhibit 1: Key assumptions

	Unit	2020	2021	2022	2023	2024E	2025E	2026E
WTI	USD/bbl	39	68	95	78	77	72	70
<b>Brent</b>	<b>USD/bbl</b>	<b>42</b>	<b>71</b>	<b>101</b>	<b>82</b>	<b>81</b>	<b>76</b>	<b>75</b>
Henry Hub	USD/mmbtu	2.0	3.9	6.4	2.5	2.2	2.9	2.8
<b>Demand</b>	<b>mbpd</b>	<b>92</b>	<b>98</b>	<b>100</b>	<b>102</b>	<b>103</b>	<b>104</b>	<b>105</b>
Demand growth	mbpd		5.8	2.5	2.1	1.0	1.2	0.8
Demand growth	%		6.4	2.6	2.1	1.0	1.2	0.8
<b>Supply</b>	<b>mbpd</b>	<b>93.9</b>	<b>95.7</b>	<b>100.2</b>	<b>102.0</b>	<b>102.6</b>	<b>104.7</b>	<b>105.7</b>
Supply growth	mbpd		1.8	4.5	1.9	0.6	2.0	1.0
Supply growth	%		1.9	4.7	1.8	0.6	2.0	1.0
<b>Gross refining margin</b>	<b>USD/bbl</b>					<b>6.5</b>	<b>6.0</b>	<b>5.5</b>
Diesel-Brent	USD/bbl					16.0	15.0	14.0
Jet fuel-Brent	USD/bbl					17.0	16.0	15.0
Gasoline-Brent	USD/bbl					15.0	14.0	13.0

Sources: EIA; Globlex Research

We project Brent crude oil price to average USD81/bbl in 2024E, down slightly from USD82/bbl in 2023 due to the rising supply mainly from US. In 2025E-26E, we expect Brent crude oil price average to USD76/bbl in 2025E and USD75/bbl in 2026E due chiefly to the chronic oversupply from the rising productions from US, Canada, and other non-OPEC+ producers while demand growths are projected to decelerate as the substitutions from EV will continue.

### Exhibit 2: Brent crude oil prices (1990-2024)



Sources: Barchart

### Exhibit 3: Brent crude oil price (2015-2024)

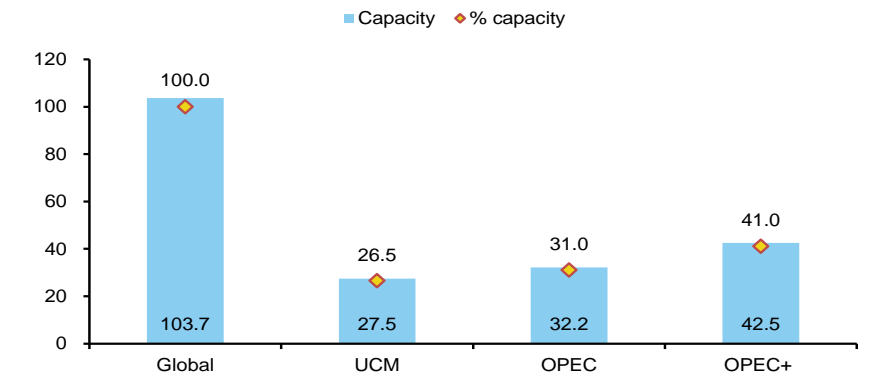


Sources: Barchart

## The New Energy Axis: US, Canada, and Mexico vs. OPEC+ and Russia

We think at present it is undeniable that the global oil industry is now shifting from the OPEC or even OPEC+ to US and its alliances mainly Canada and Mexico (UCM), with a combined production capacity of 27.5mbpd vs OPEC's 32.17mbpd and OPEC+'s 42.52mbpd. Several structural changes in global energy markets contribute to the much less volatile oil price compared to other commodity prices.

**Exhibit 4: Oil production shares US, Canada, Mexico vs OPEC & OPEC+**

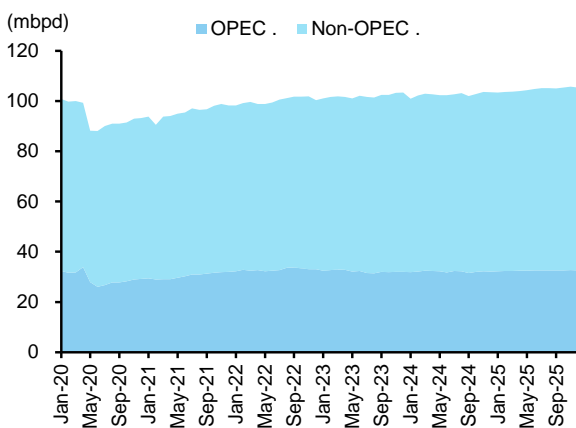


Sources: EIA

First, global oil and gas supply now are dominated by UCM despite its smaller production at 27.5mbpd (26.5% of global production capacity) compared to capacities of OPEC's 32.2mbpd (31%) and OPEC+'s 42.5mbpd (41%) due to

- 1) Saudi Arabia, the largest producer in OPEC, is highly susceptible to the change in oil price, particularly on the downside given Saudi Arabia needs oil price at USD70-USD80/bbl to sufficiently balance the country's fiscal budget. Without the high-price oil revenue, Saudi Arabia is facing the domestic chaos, both within the dynasty family and the people.
- 2) Russia has no choice but to require high crude oil price at USD70/bbl and above, given the growing spending for the military campaign against Ukraine war. In addition, the realized selling price for oil exported to China, India, and other Asian countries to replace the European buyers on the back of the bans has been at discount. Hence Russia needs high benchmark oil price above USD70/bbl to earn oil revenue.

**Exhibit 5: Global crude oil production by OPEC and non-OPEC groups**



Sources: EIA

**Exhibit 6: US crude oil production vs OPEC's and non-OPEC's productions**

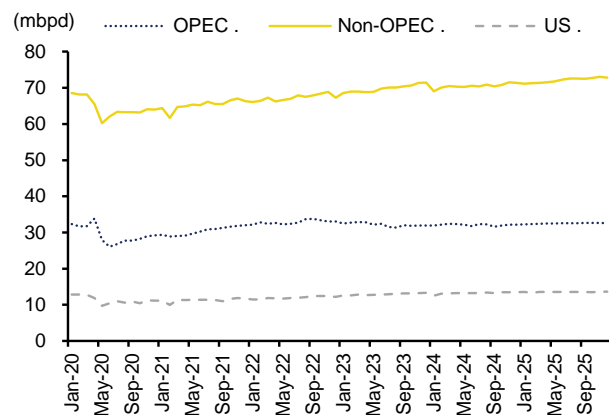
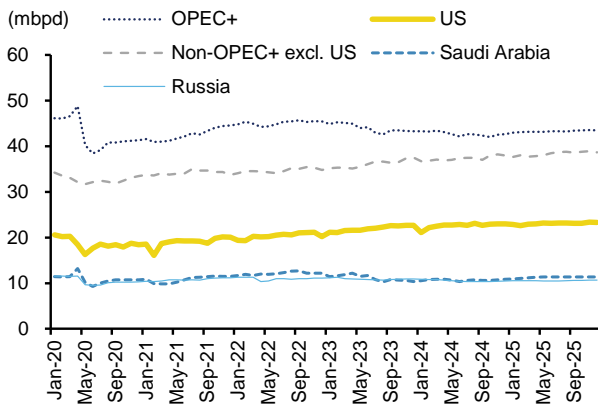


Chart or other exhibit

Sources: EIA

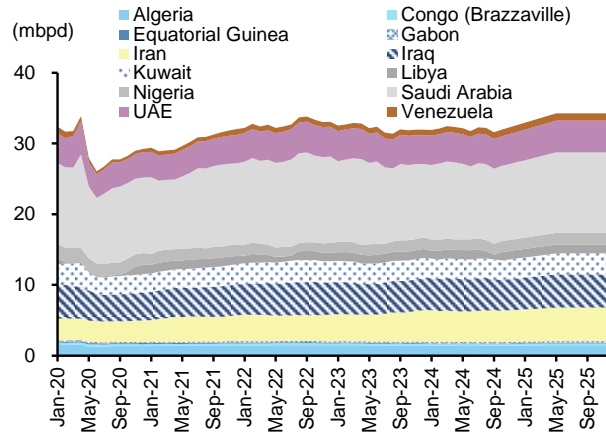
3) US shale oil and Canada oil sand have estimated cost structures of USD40-USD50/bbl, thereby requiring USD70/bbl oil prices to make good profits, based on or estimates.

**Exhibit 7: Crude oil productions US vs OPEC+, non-OPEC+ excl. US, Russia, and Saudi Arabia**



Sources: EIA

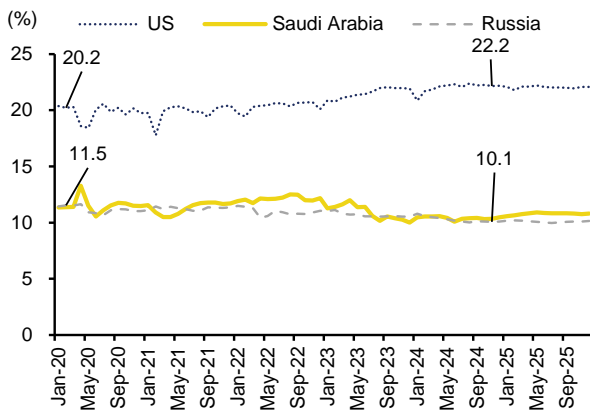
**Exhibit 8: Crude oil productions by OPEC members**



Sources: EIA

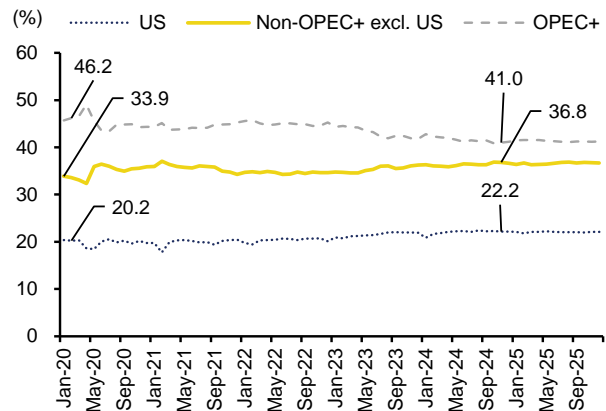
Hence, it is no surprises that in the past two years, in response to UCM's incessant production growths, OPEC+ has no choice but to cut and extend the group's oil productions in order to support the crude oil price above USD70/bbl. This situation is expected to continue into 2025E-26E as long as UCM remains the "true force" of global oil industry with strong bargaining power over the long-standing intimidating OPEC group.

**Exhibit 9: Three largest crude oil producers**



Sources: EIA

**Exhibit 10: US vs OPEC+ and non-OPEC+**

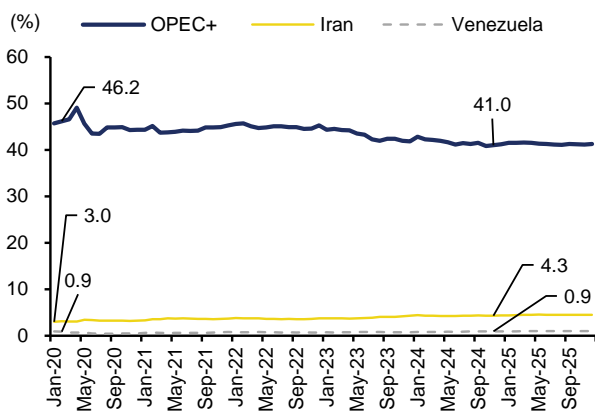


Sources: EIA



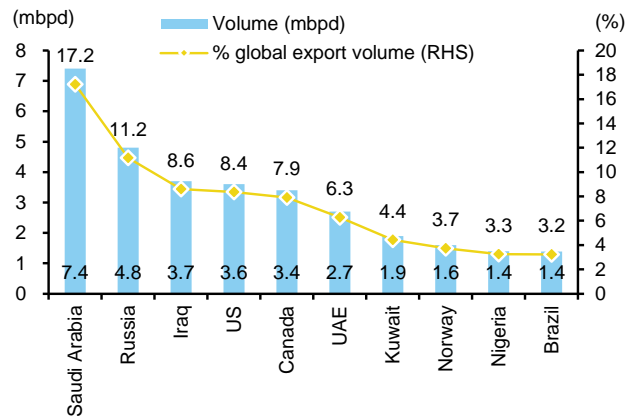
**US oil productions will grow further under Trump 2.0 government.** With the upcoming Trump's government in January 2025-December 2029, we think US crude oil production will continue its uptrend from 22.2mbpd in November 2024 to 23-25mbpd by 2026E-27E, surpassing Saudi Arabia and Russia as the world's largest oil producer and likely to become the largest oil exporter by 2028E at 7-8mbpd, up from 3.6mbpd in November 2024 vs Saudi Arabia's 7.4mbpd (17.2%) export and Russia's 4.8mbpd export (11.2%).

**Exhibit 11: Crude oil productions for OPEC+, Iran, and Venezuela**



Sources: EIA

**Exhibit 12: Top 10 world's largest crude oil producers in November 2024**

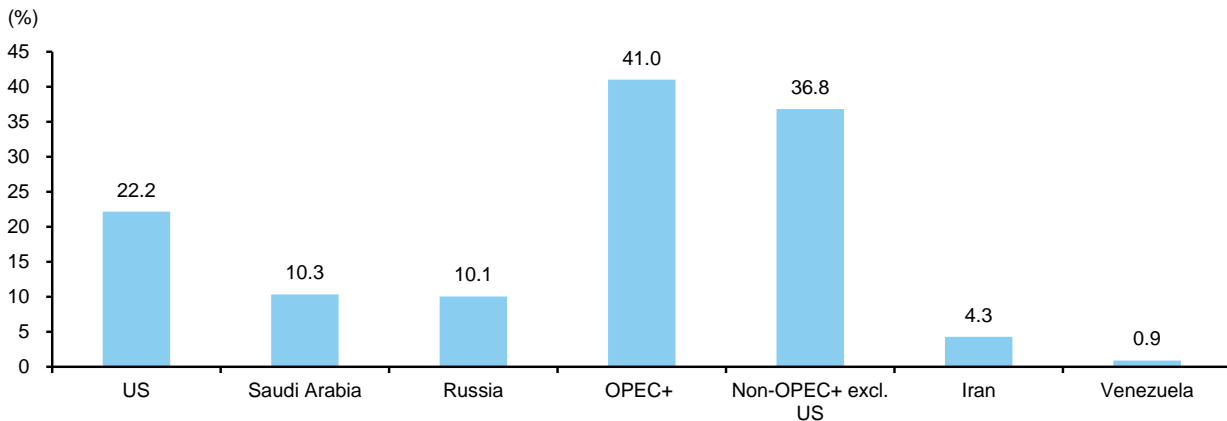


Sources: EIA

**Iran and Venezuela are immaterial in global oil supply.** In the mid of Trump's threatening sanctions against Iran in an attempt to wipe out its oil revenue, we think the repercussion of the full sanction with zero oil exports of 1.3mbpd out of total production of 4.3mbpd from Iran as of November 2024, the global oil price is still likely to stay in the range of USD70/bbl-USD80/bbl.

It is convincing that the entire Iran's oil supply export of 1.3mbpd should be fully offset by the rising crude oil productions from other producers including US, Canada, and particularly Saudi Arabia whose oil production capacity remains high above 3mbpd amid the growing pressure from the supply gluts from UCM. Venezuela produces only 0.9mbpd and hence is unlikely to have any impact to global crude oil supply and prices, in our view.

**Exhibit 13: Crude oil production shares by key producers**



Sources: EIA

## US energy: from Achilles' heels to Hercules' force

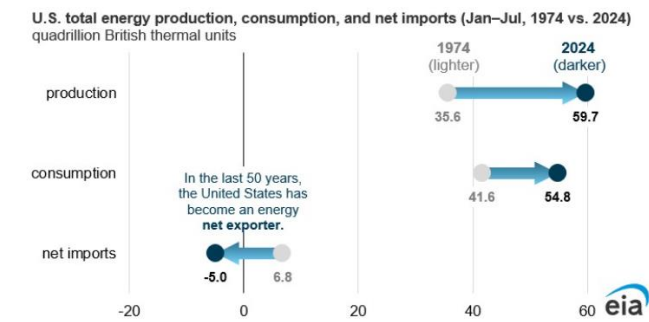
Since 2010 shale oil and gas productions have completely transformed US from the world's largest oil importer to today's world's largest oil and gas producers, revolutionized by the fracking technology that enables US shale producers to increase the productions incessantly.

**US oil imports as Achilles' heels until 2020.** In October 1974, in the wake of the 1973 Oil Embargo, the US still consumed more energy than it produced domestically and was a net importer of energy from other countries. When oil producers in Middle East decide to pursue bans on oil exports to US, the inflation spiked to almost 20%, causing US GDP to plunge and the Fed to hike its policy rate to over 16% in order to kill the hyperinflation in 1990s.

Forward to today, the US now produces more energy than it consumes domestically and is a net exporter of energy to other countries. Between January and July 2024, total US energy production was 68%, or 24.0 quadrillion British thermal units (quads), more than the same period in 1974. Increased crude oil and natural gas production, brought about by improvements in drilling techniques such as hydraulic fracturing and horizontal drilling beginning in the 2000s, drove much of the growth in total energy production, according to EIA.

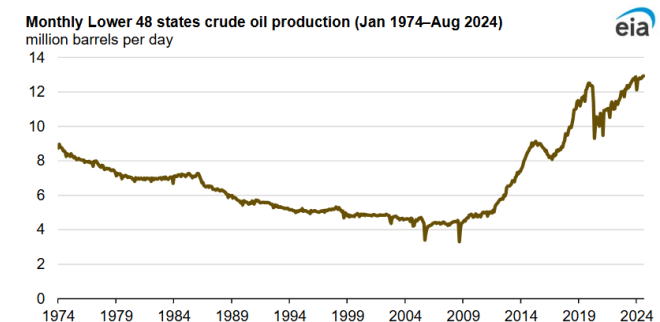
While US energy consumption has increased steadily since 1974, total consumption growth is less than total production growth. Between January and July 2024, US energy consumption was 32%, or 13.2 quads, more than the same period in 1974, driven by several factors including population growth and increased economic activity.

**Exhibit 14: US energy production has increased faster than energy consumption in over the past 50 years**



Sources: EIA

**Exhibit 15: US monthly oil production in 48 lower states (Jan 1974-Aug 2024)**



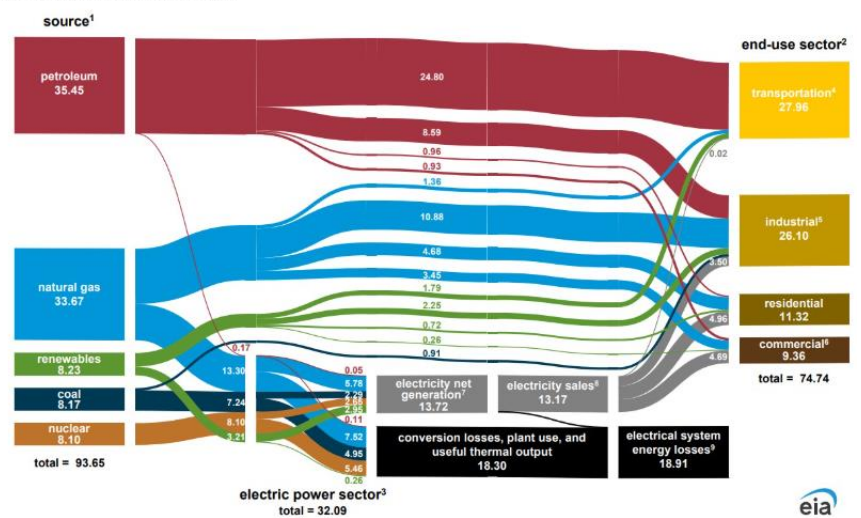
Sources: EIA

**From a net importer to a net exporter since 2019.** The increase in energy production over the last two decades has turned the US into the world's largest crude oil and natural gas producer today and from a net energy importer to a net energy exporter starting in 2019.

US net energy imports in 7M1974 were about 6.8 quads while US exported a net total of about 5.0 quads in 7M2024, mainly driven by the growing exports of crude oil and petroleum products and liquefied natural gas (LNG) over the last 15 years.

**Exhibit 16: US energy consumption by source and sector flow diagram, 2023**

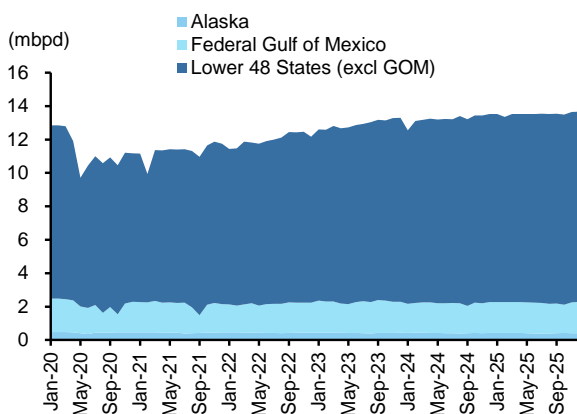
U.S energy consumption by source and sector flow diagram, 2023  
quadrillion British thermal units (quads)



Sources: EIA

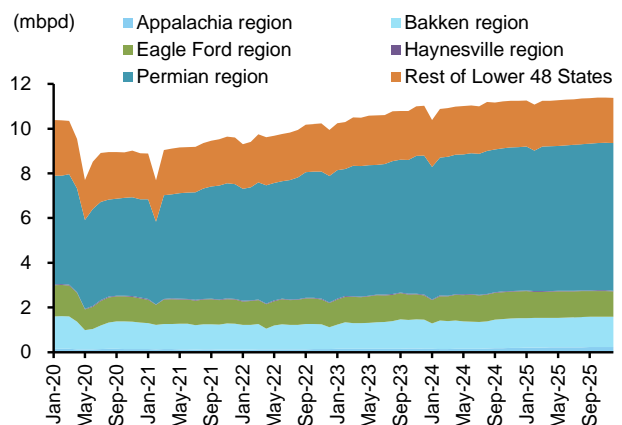
Since 2010, US has greatly increased its oil productions, rising from only 1mbpd in 2010 to 11.24mbpd in November 2024. Combined with oil productions from the Gulf of Mexico (GOM) and Alaska, total US crude oil production now reached 13.44mbpd and total liquid production hit 20.59mbpd as of November 2024.

**Exhibit 17: US crude oil production by GOM and 48 states**



Sources: EIA

**Exhibit 18: US shale oil productions by areas**



Sources: EIA

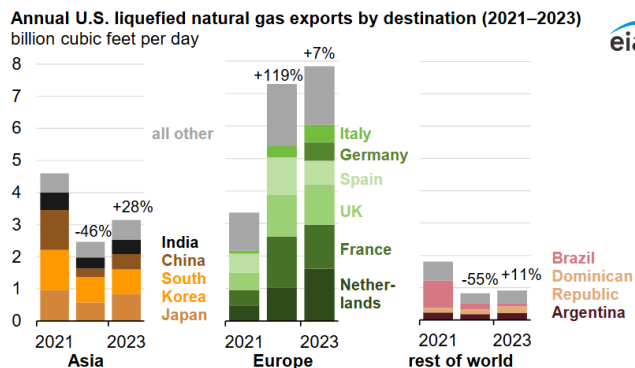
## Gas market is now completely dominated by US

Not only does US dominate global oil market but also seize the leading position in global gas market. Despite the supply constraint by Biden's executive order to freeze the new license for LNG terminals, US has boosted its LNG export capacity. US exported more LNG than any other country in 2023, exporting averaged 11.9b cubic feet per day (bcfcd) or equivalent to 89.2tpa, up 12% y-y (+1.3bcfcd), according to EIA (1 ton of LNG = 0.1334bcfcd).

LNG exports from Australia and Qatar—the world's two other largest LNG exporters—each ranged from 10.1bcfcd (75.7tpa) to 10.5bcfcd (78.7tpa) annually in 2020-23, according to data from Cedigaz. Russia and Malaysia were the fourth- and fifth-highest LNG exporters globally over the last five years (2019–23). In 2023, LNG exports from Russia averaged 4.2bcfcd (31.5tpa), and exports from Malaysia average 3.5bcfcd (26.2tpa).

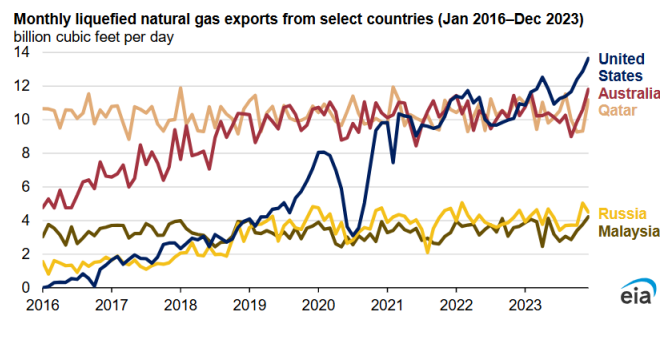
US LNG exports increased in 1H23 after Freeport LNG returned to service in February and ramped up to full production by April. Relatively strong demand for LNG in Europe amid high international natural gas prices (due to the ban on Russian gas and oil by EU) supported increased US LNG exports in 2023. US LNG exports set monthly records at 12.9bcfcd in November 2023, followed by 13.6bcfcd in December 2023. EIA estimates that utilization of US LNG export capacity averaged 104% of nominal capacity and 86% of peak capacity across the seven US LNG terminals operating in 2023.

**Exhibit 19: US LNG exports by destinations**



Sources: EIA

**Exhibit 20: US is the world's largest LNG exporter in 2023**



Sources: EIA

Similar to 2022, Europe (including Türkiye) remained the primary destination for US LNG exports in 2023, accounting for 66% (7.8bcfcd) of US exports, followed by Asia at 26% (3.1bcfcd) and Latin America and the Middle East with a combined 8% (0.9bcfcd).

In 2023, Europe (EU-27 and the UK) continued to import LNG to compensate for the loss of natural gas previously supplied by pipeline from Russia. Europe's LNG imports capacity continued to expand, and we expect it will increase by more than one-third between 2021 and 2024.

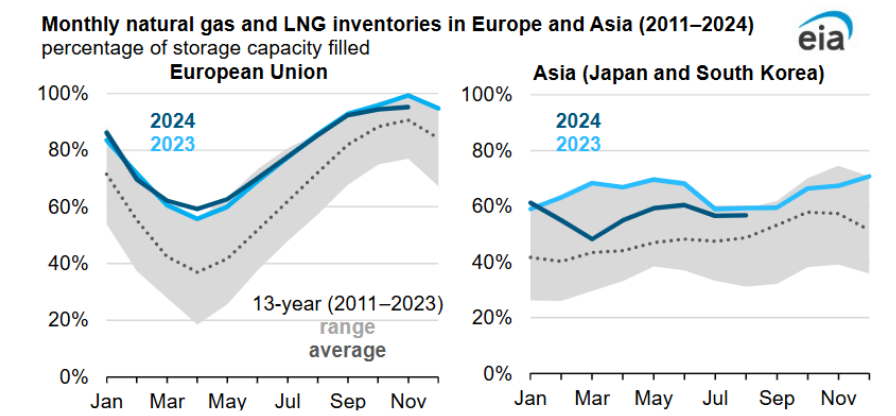
The countries that imported the most US LNG were the Netherlands, France, and the UK, with a combined 35% (4.2bcfcd) of all US LNG exports. LNG imports increased in the Netherlands after the Gate LNG regasification terminal was expanded and two new floating storage and regasification units (FSRUs) were commissioned. Germany began importing LNG in 2023 when three new FSRUs were commissioned. We expect another four terminals (three of which are FSRUs) to come online between 2024 and 2027.



In Asia, Japan and South Korea each received 0.8bcf/d of LNG exports from US, the fourth- and fifth-highest US LNG export volumes by country in 2023. Japan, China, and India increased LNG imports from US by a combined 0.6bcf/d y-y. The Philippines and Vietnam started importing LNG in 2023; the Philippines imported LNG cargoes from US only in October and November 2023.

In Latin America, US LNG exports to Brazil continued to decline in 2023 as Brazil continued to primarily use hydropower for electricity generation. US LNG exports to Brazil peaked in 2021, when the country experienced its worst drought in more than 90 years.

### Exhibit 21: Monthly LNG inventories in Europe and Asia in 2011-24



Sources: EIA

**US still adds more LNG capacity in 2024.** We expect limited LNG capacity additions to come online this winter. Most of the new LNG export projects are in US, including the first of seven mid-scale trains at Corpus Christi LNG Stage 3 (an expansion of the existing Corpus Christi LNG facility), Plaquemines LNG Phase 1 (consisting of 18 mid-scale trains), and additional capacity at Freeport LNG achieved through engineering and operational optimization. The combined nominal capacity of these US LNG export projects is 1.7bcf/d.

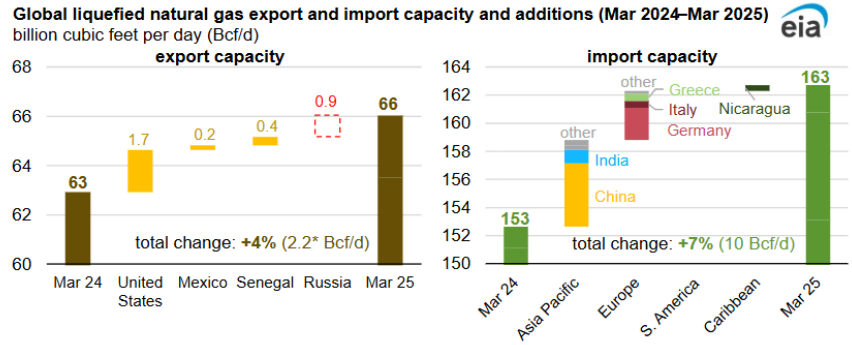
**Russia’s LNG production and exports suffered from sanctions.** Other markets are also adding LNG export capacity. In Mexico, a new LNG export facility on the east coast—Fast LNG Altamira—shipped its first cargo in August 2024 and reached full production capacity in October. A new LNG export project offshore Senegal and Mauritania is on track to start LNG production by the end of 2024. After shipping several cargoes, Russia’s Arctic-2 LNG export facility shut down in October mainly because of sanctions and may not produce LNG during the upcoming winter.

**LNG price may increase in coming winter.** The last two winters in the Northern Hemisphere were exceptionally mild, keeping global natural gas markets well supplied and balanced at relatively low prices. Prices going into this winter are only slightly higher than 2023 at the same time based on current forward natural gas and LNG prices in Europe and Asia.

If weather remains mild this winter as in the past two winters, EIA expects a relatively stable global supply-demand balance with prices similar to the previous two winters. But if Europe and Asia experience colder temperatures this winter than in the past two years or other operational and market risks materialize, global supply-demand balances could tighten, leading to elevated natural gas prices and potential price spikes.

US became the world's largest LNG exporter in 2023 and will be the key supplier to global LNG markets. EIA forecasts that US LNG exports will average 13.7bcf/d (102.7tpa) in the 2024–25 winter, up 8% (+1.0bcf/d) y-y as new and expanded projects come online in the next several months.

**Exhibit 22: US has continued to ramp up its gas productions**

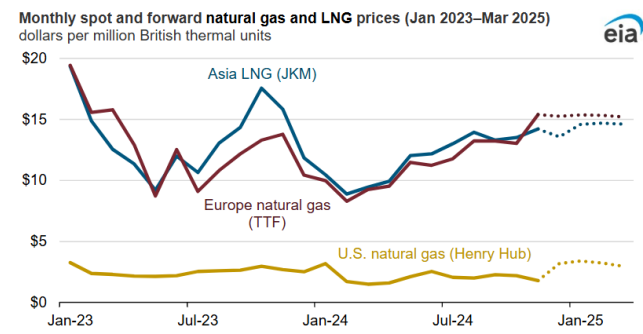


Sources: EIA

**China is the world's largest natural gas and LNG importer.** LNG consumption in East Asia, particularly in China, remains a key factor with potentially large implications for global supply-demand balances. LNG consumption in Japan—the world's second-largest LNG importer—has declined every winter during the past four winters. Japan's consumption fell by 18%, or -2.7bcf/d (-20.2tpa), between the winter of 2020–21 and 2023–24 and should continue to decline in the future.

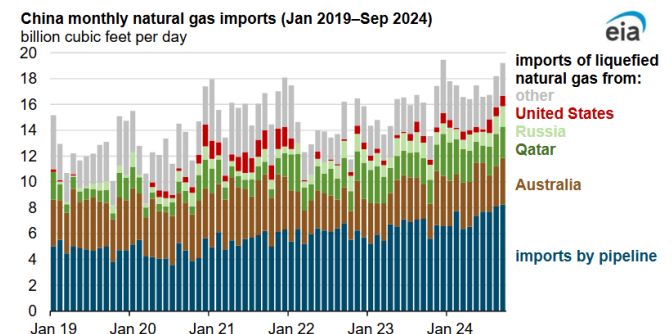
LNG imports in South Korea—the world's third-largest LNG importer—have been relatively flat, varying by 0.2bcf/d to 0.5bcf/d during the past four winters.

**Exhibit 23: Global natural gas market will be tighter**



Sources: EIA

**Exhibit 24: China monthly natural gas imports**



Sources: Global Trade Tracker

China—the world's largest LNG importer in 2023—imports LNG using long-term contracts and spot market arrangements. China's regasification capacity is set to expand by 2.8bcf/d in 2024 winter, mostly in southern China, which is not directly affected by winter demand patterns.

In 2024, China's LNG imports during low seasonal demand in September and October set all-time monthly records, which could indicate LNG stockpiling ahead of the upcoming winter. China increased its pipeline imports by 1.0bcf/d (+15%) in January–September 2024 compared with the 2023 annual average.

### Gas supply is less risky than oil supply for China

Unlike oil which China heavily relies on the imports from Middle East and Russia, China’s gas supply depends much more on Russia rather than US LNG. The increase in gas supply to China came mainly from Russia via the Power of Siberia 1 pipeline, which continues to ramp up to full production, with a target to reach 3.7bcf/d in export flows by 2025.

In 2023, 7%, or 2.6bcf/d, more natural gas was consumed in China than in 2022, after a decline of 1.1% y-y in 2022 when economic growth was slower, mainly due to China’s zero-COVID policies, leading to a reduction in natural gas consumption.

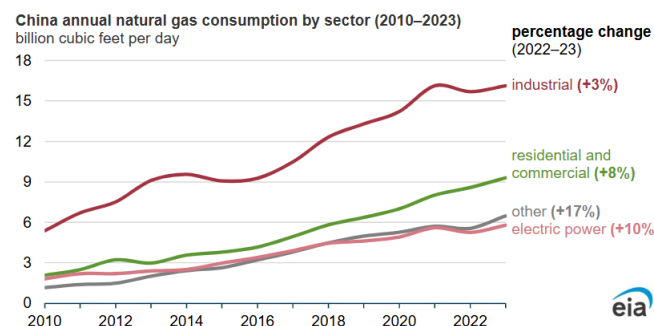
In 2023, annual natural gas consumption increased in all economic sectors within China, with residential and commercial consumption increasing by 8%, or 0.7 Bcf/d, and electric power consumption increasing by 10%, or 0.5 Bcf/d. Residential and commercial natural gas consumption in China has grown every year since 2014, almost tripling from 3.6 Bcf/d in 2014 to 9.3 Bcf/d in 2023, as more customers switched from coal to natural gas for home heating. In the electric power sector, additional economic activity and new natural gas-fired capacity increased consumption.

Domestic natural gas production in China provided 58% of its natural gas supply in 2023, averaging 21.7 Bcf/d, an increase of 6% (1.2 Bcf/d) from 2022. Domestic production has grown by more than 1.0 Bcf/d every year since 2017, mainly from discrete natural gas reservoirs and associated natural gas from oil production. Production from low-permeability formations, such as tight gas, shale, and coal-bed methane, has also increased and averaged 8.6 Bcf/d in 2023. China’s 14th Five-Year Plan (2021–25) set a domestic natural gas production target of 22.3 Bcf/d by 2025, most of which was met in 2023.

The US Gulf Coast (USGC) is experiencing record diesel flows to Northwest Europe as favorable freight rates and strong refinery production boost the Transatlantic trade. As summer ends, diesel flows from the USGC to NWE and the Mediterranean are reaching unprecedented levels. In July, the USGC-NWE/Med diesel trade hit a record with 10.6mbpd transported across the Atlantic and August surpassed that figure with 12.5m barrels

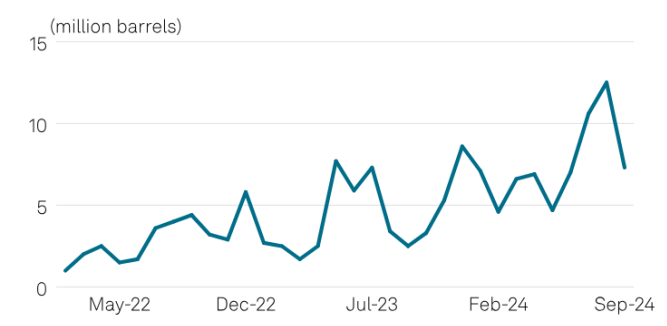
This comes as Brazil struggles with fluctuating diesel imports amid a summer fuel frenzy. Russia has been the primary supplier to Brazil since 2022. However, the USGC has strengthened exports to Brazil in the summer months. Despite the surge, market sources caution that the USGC’s rise may be temporary, as local demand in Brazil shifts. Russian diesel continues to dominate the Brazilian diesel market, accounting for over three-quarters of Brazil’s imports.

**Exhibit 25: China’s natural gas consumption by sector (2010-2023)**



Sources: S&P Global Commodity Insights, China National Bureau of Statistics, and China Energy Statistics Yearbooks

**Exhibit 26: US Gulf Coast exports a record high diesel to Europe**

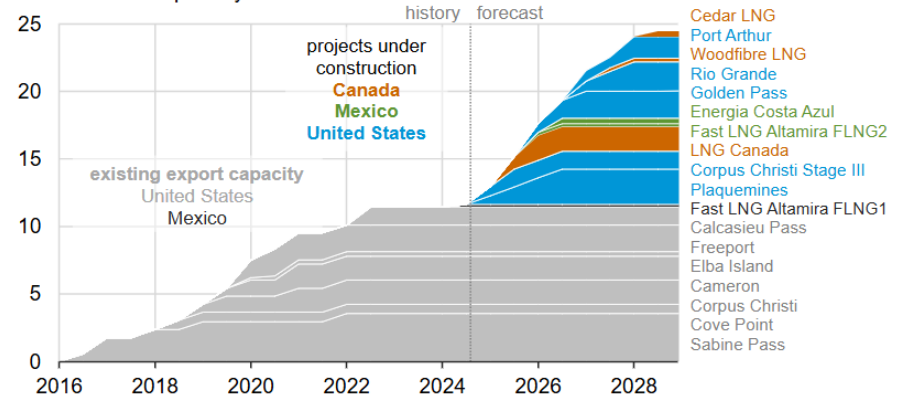


Sources: Commodities at Sea



**Exhibit 27: North America, mostly US, LNG export capacity in on track to more than double by 2028E**

**North America liquefied natural gas export capacity by project (2016–2028)**  
billion cubic feet per day



Sources: EIA

**Energy is now US great weapon.** The situation of global LNG market clearly reflects US as the world’s dominant player with strongest bargaining power to command high LNG prices while increase export volume simultaneously. North America’s LNG export capacity, mostly US, is projected to more than double by 2028E, according to EIA.

The US growing exports of both crude oil (3.4mbpd in November 2024) and LNG (102.7tpa in November 2024) doubtless expound why 1) the intensifying military conflicts in Middle East have limited impacts to crude and LNG prices; 2) US dollar could strengthen recently championed by US’ “self-petrodollarization” timely in place of Saudi Arabia’s petrodollar contract expiration.

**Exhibit 28: North America’s LNG export facilities**

**North America liquefied natural gas export facilities, existing and under construction (2016–2028)**



Sources: EIA

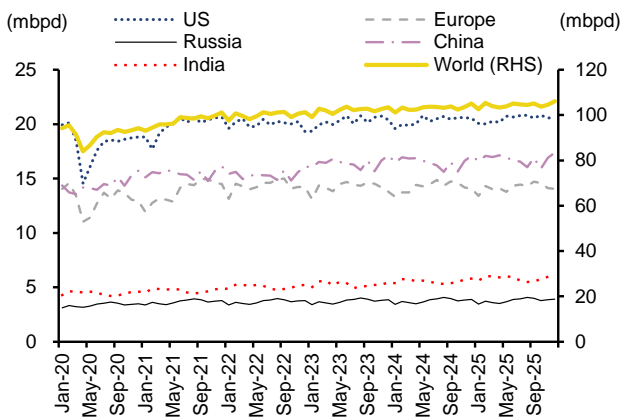


## Oil demand growth is now driven by India

Global oil consumption is now driven by India, which has emerged as the leading source of growth in global oil consumption in our forecast. Over 2024 and 2025, India accounts for 25% of total oil consumption growth globally. EIA expects an increase of 1.0mbpd in global consumption of liquid fuels in 2024E and 1.2mbpd in 2025E.

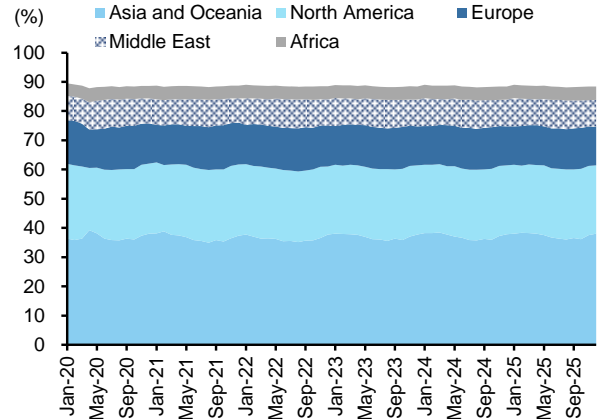
**Global oil inventories and prices.** EIA projects ongoing geopolitical risks and withdrawals from global oil inventories stemming from OPEC+ production cuts will place upward pressure on oil prices over the next few months, with the Brent crude oil price averaging USD78/bbl in 1Q25E. However, the strong global oil production growth means inventories will begin building in 2Q25E, reducing crude oil prices through the end of 2025E with a projected Brent price to fall to an average of USD74/b in 2H25E.

**Exhibit 29: Crude oil consumptions by key countries**



Sources: EIA

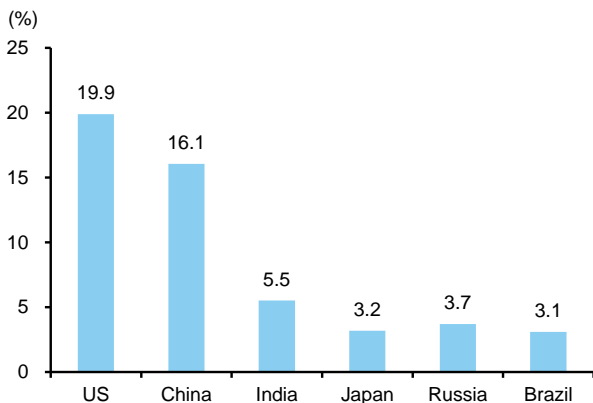
**Exhibit 30: Crude oil consumption shares by region (%)**



Sources: EIA

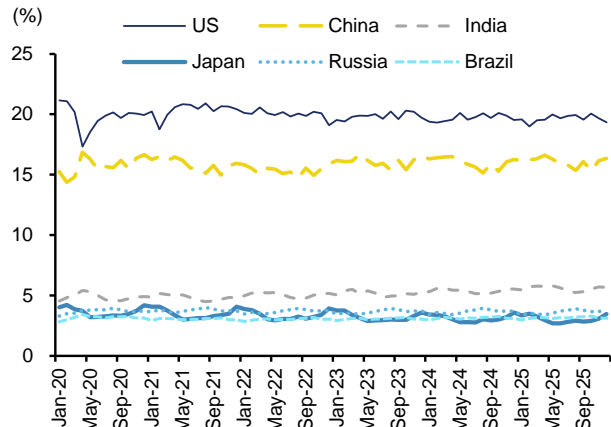
While US still is the world largest oil consumer at around 20mbpd, US is now a net exporter for both oil and gas, thereby completely transforming US energy power from the weakest link to the strong force. In contrast, China needs to rely on imports of crude oil and gas, as China is now the world's largest importer of oil and gas, with 16.1mbpd of oil consumption, and 13mbpd of oil import, mostly from OPEC, Russia, and North Africa producers.

**Exhibit 31: Crude oil consumption shares by key consumers in November 2024**



Sources: EIA

**Exhibit 32: Crude oil consumption shares by key oil consumers in 2020-2025E**



Sources: EIA

# Refinery outlook remains bleak

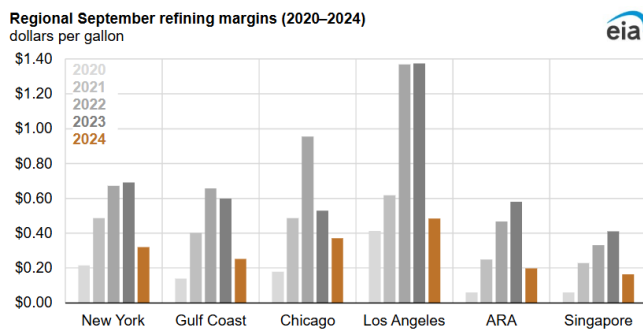
## GRM falls to multi-year seasonal lows in September

Refinery margins for petroleum refiners across the world are shrinking, indicating reduced profitability from refining crude oil and selling petroleum products. Declining margins are the result of relatively weak demand for petroleum products even as global refining capacity increases.

Global refinery margins, measured by the 3:2:1 crack spread, have been less than their five-year (2019–23) averages since the spring and dropped even more in the late summer and early fall. The 3:2:1 crack spread is calculated by subtracting the price of 3 barrels of crude oil from the price of 2 barrels of gasoline and 1 barrel of distillate. In 2024, the September monthly average refinery margin fell to its lowest for the month since 2020, when there was significantly less transportation fuel demand because of pandemic-related reductions in travel.

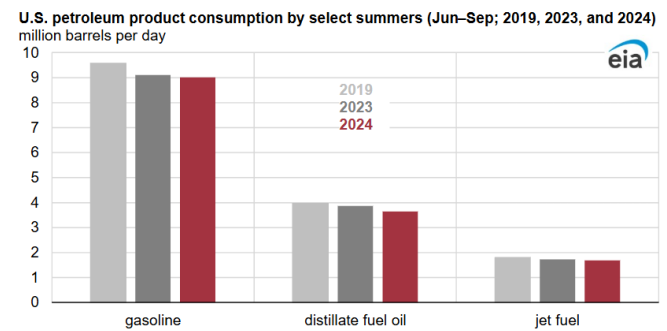
The recent drop in refinery margins is a departure from the past two years. Following the lows in 2020, decreases in US and global refinery capacity, the recovering petroleum product demand, supported stronger global and particularly US refinery margins.

**Exhibit 33: GRMs by region in September 2024**



Sources: Bloomberg

**Exhibit 34: US petroleum consumption in summer 2019, 2023, and 2024**



Sources: EIA

Refinery margins have fallen in part because of relatively weak demand for petroleum products, particularly distillate fuel oil. In 2024, US product supplied of distillate fuel oil (the proxy we use for consumption) averaged 6% less than in 2023 and 8% than in 2019 from June through September, mostly due to declining manufacturing activity and the increasing use of biofuels in place of conventional, petroleum-based diesel fuels on the West Coast. Gasoline and jet fuel consumption were slightly below 2023 levels for the same months, and they both remain 6% below 2019 levels.

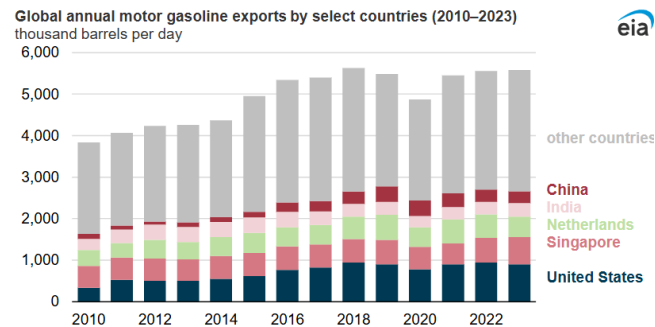
Outside of US, petroleum product demand has been weak due to slowing economic activity in China and Europe. In addition, increasing adoption of EV, biofuels, and LNG use in trucking is steadily reducing petroleum fuel consumption across much of Asia and Europe.

Refinery margins have also been under pressure due to new refining capacity abroad. Kuwait's 615,000bpd Al-Zour refinery reached full refining capacity early in 2024, Oman's 230,000bpd Duqm refinery has begun operations, and Nigeria's 650,000bpd Dangote refinery has been ramping up refining activity.

In response to low refinery margins, some global refiners have reduced refinery runs, and some in Europe have announced plans to close or reduce capacity. Although planned before the recent decline in refinery margins, LyondellBasell plans to close its 264,000bpd refinery in Houston, Texas, by 1Q25E.

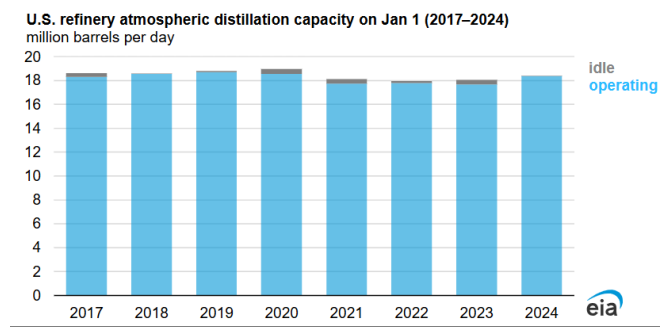
**US is the world's largest exporter of 0.9mbpd of gasoline in 2023.** US is now supplying over 16% of total global gasoline exports, with gasoline exports in 2023 averaged 0.9mbpd, or 10% of US domestic consumption and enough to fill up the tanks of over 1.5m SUVs per day, assuming an average tank size of 24 gallons. Other large gasoline exporters, including Singapore and the Netherlands, have never exceeded 0.7mbpd in gasoline exports. China and India have both added significant refining capacity since 2010 and have also increased gasoline exports.

**Exhibit 35: Global gasoline exports by key countries**



Sources: EIA

**Exhibit 36: US refinery capacity increases 2% in 2023**

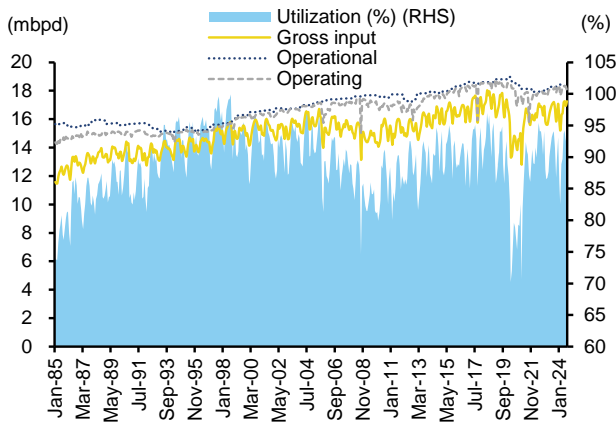


Sources: EIA

US operable atmospheric crude oil distillation capacity, our primary measure of refinery capacity rose by 2% (+0.324mbpd) in 2023, marking the second consecutive year of US refinery capacity growth. But the 18.4mbpd capacity as of 1Q24 remained slightly less than the record on 1 January 2020 of 19.0mbpd.

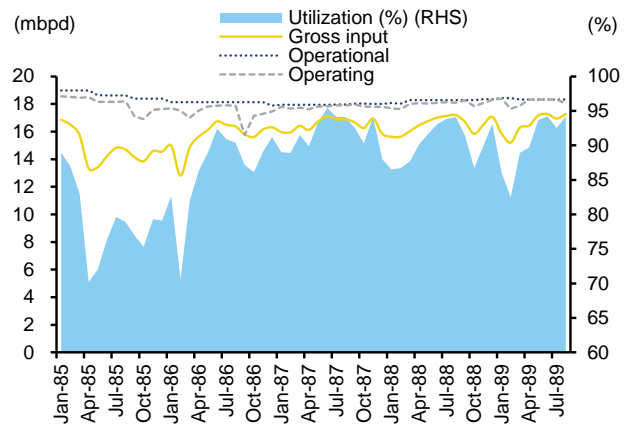
Much of the increase in US refining capacity in 2023 was due to a 0.24mbpd expansion project at ExxonMobil's Beaumont refinery in Texas, which brought the refinery's capacity to 0.609mbpd. Idle U.S. refinery capacity was at an all-time low in January 2024, and no facilities were reported completely idle for the second time since 2018.

**Exhibit 37: US refinery utilization rate and capacity**



Sources: EIA

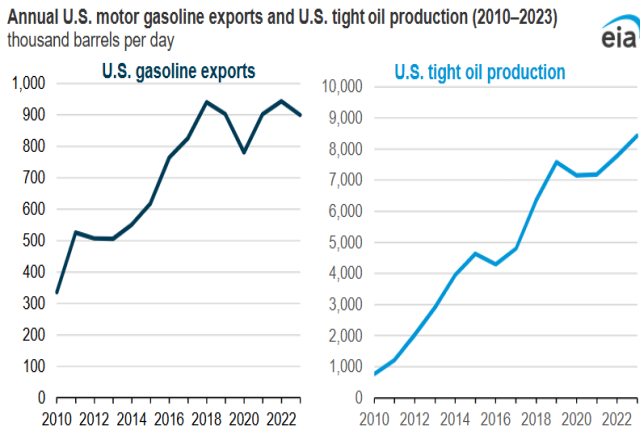
**Exhibit 38: US refinery utilization rate and capacity**



Sources: EIA

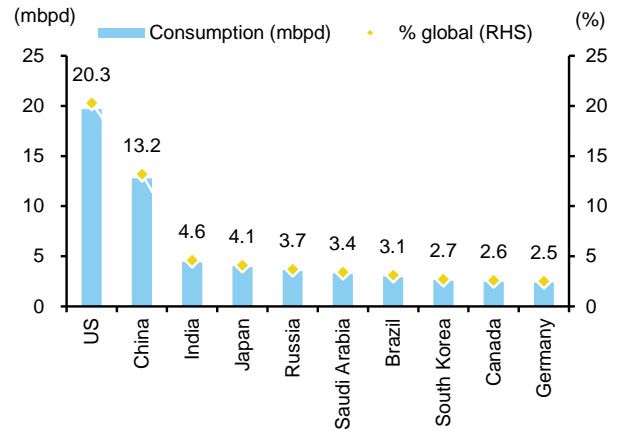
Strong refinery utilization rates in the US have bolstered production. Averaging 93% since early June, USGC refineries have been particularly robust, with production peaking at nearly 3mbpd in early July 2024. This has contributed to elevated US diesel inventories, averaging 112.9m barrels YTD in 2024.

**Exhibit 39: Rising US gasoline exports come from the growth in shale oil (tight oil) production**



Sources: EIA

**Exhibit 40: Top 10 country for oil consumption**



Sources: EIA



**US turns from importer to exporter of gasoline.** US was a net importer of gasoline for over a half century from 1961 to 2015. However, that trend changed during the past decade. The high volume of gasoline exports in recent years reflects longer trends in increasing US exports of refined products in general, which set records in 2022 and 2023.

Gasoline accounts for the third-largest share of US refined product exports, behind propane and distillate fuel oil. Unlike propane, which is primarily exported to Asia, the majority of US gasoline exports (over 0.5mbpd) go to Mexico, with the remainder going primarily to Central American and South American countries. Over 90% of US gasoline exports came from the US Gulf Coast.

The growth in US refined product exports reflects several factors, including

- 1) Higher US refinery capacity from 2010 to 2023
- 2) Rising production from existing refineries through increased utilization. Much of the increase in refinery capacity has led to higher gasoline yields because of added light crude (shale oil) oil processing units that process increasing volumes of light tight oil produced by hydraulic fracturing, or fracking.
- 3) Lower US gasoline consumption while increasing refinery capacity makes more gasoline available for export. US gasoline consumption in 2023 was flat compared with 2010 (and 0.4mbpd less than its peak in 2018)

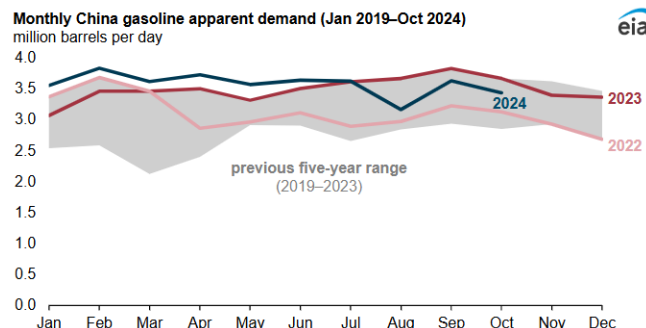
### China's shrinking demand for gasoline

Gasoline consumption in China has begun to fall in recent months amid increased sales of electric vehicles, slow economic growth, and population decline. EIA estimates gasoline consumption in China averaged 3.2mbpd in August 2024, down 14% y-y. The trend continued in September and October, which were down y-y but in 7M2024, more gasoline was consumed in China than the year before.

EIA hence revised down its forecast growth in consumption of petroleum and liquid fuels in China in 2024 and 2025, projecting 0.1mbpd in 2024 and 0.3mbpd in 2025, mostly driven by petrochemical feedstocks instead of transportation fuels, reflecting increased petrochemical manufacturing in the country.

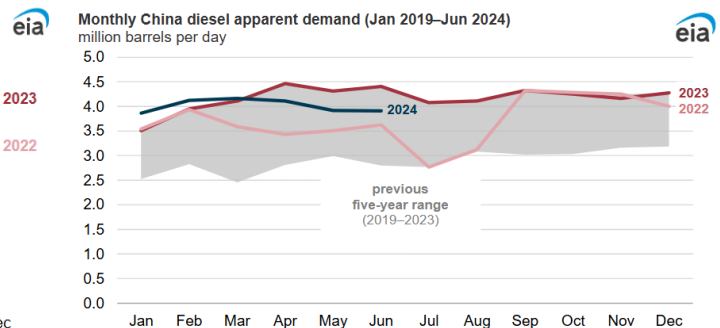
Combined sales of hybrid vehicles (HEV), plug-in hybrid electric vehicles (PHEV), and battery electric vehicles (BEV) were more than half of total passenger vehicle sales in China in October 2024, according to Bloomberg data. This share of sales is up from 40% in October 2023.

### Exhibit 41: Monthly China gasoline demand



Sources: China National Bureau of Statistics, China General Administration of Customs, Bloomberg, EIA

### Exhibit 42: Monthly China diesel demand



Sources: China National Bureau of Statistics, China General Administration of Customs, Bloomberg, EIA

Although increased BEV and PHEV sales are only one factor moderating recent gasoline consumption in China, continued market penetration of these vehicles could weigh on the future of gasoline consumption. In China, typically between 20m and 25m passenger vehicles are sold every year. In the future, depending on future sales trends and the number of internal combustion engines (ICE) decommissioned, BEVs and hybrids could make up a large portion of the total vehicle fleet in China, reflecting fundamental shifts that affect petroleum product consumption in China and hence global market.

In China, increased sales of BEV and hybrid vehicles, a declining population, and slower economic growth have limited growth in gasoline consumption. Based on the latest forecast from Oxford Economics, China's GDP is expected to grow by 4.1% in 2025, down from 6.7% GDP growth rate average from 2015 to 2019, before the COVID-19 pandemic. EIA estimates of diesel consumption in China totaled 3.9 million barrels per day (b/d) in June 2024, a decline of 11% from the same month last year and the largest year-over-year decline in consumption for any month since July 2021.

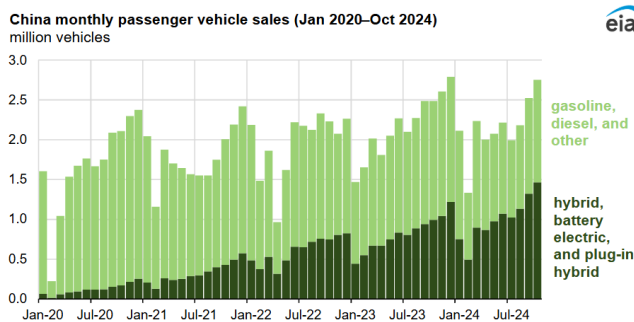
**Diesel demand fall on weak industrial activities**

From 2020 to 2022, China's government, businesses, and communities used social distancing and stay-at-home orders as the primary method to prevent the spread of COVID-19, which regularly disrupted travel and caused fluctuations in diesel consumption. After establishing another all-time high in 2023, diesel consumption began declining in the second quarter of 2024 due to two major factors—slowing economic activity, mostly because of a slowdown in building and housing construction, and the substitution of LNG for petroleum diesel fuel in heavy-duty trucks.

China's GDP grew 4.7% in 2023-2Q24, slightly lower than the government target of 5%. Although faster than most growth rates in developed economies in OECD countries, this China's GDP growth rate is several percentage points slower than China's growth rate in the years before the pandemic.

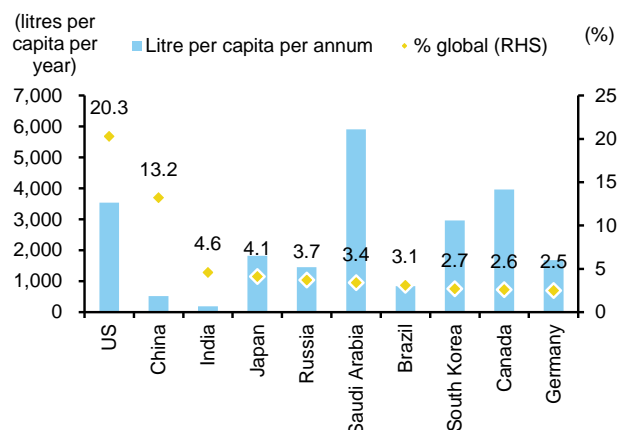
Consumption and investment indicators partially explain the slower growth rate. Although volatile around the pandemic years, changes in retail sales, housing prices, and producer prices in China all show slowing or declining activity in 2024. Slowdowns in trucking activity and construction correlate with reductions in China's diesel consumption because diesel consumption is linked with these economic activities. Oil consumption correlates with economic activity, and slower GDP growth could also be limiting gasoline consumption. In addition, China's population has begun to decline, which may reduce total miles driven and gasoline consumption.

**Exhibit 43: China monthly passenger vehicle sales (10M24)**



Sources: China Automotive Technology and Research Center, Bloomberg

**Exhibit 44: Oil consumption per capita per annum**



Sources: EIA

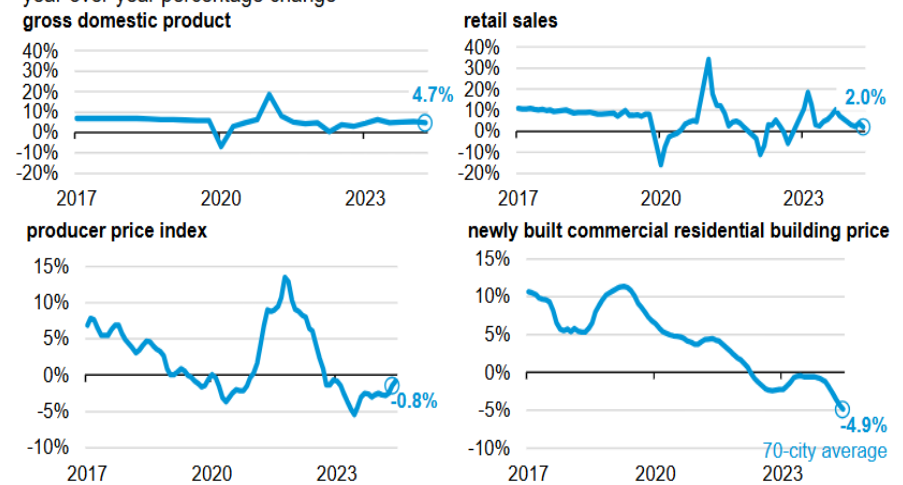
**LNG truck is curbing diesel demand in China.** Aside from less use of diesel because of slowing economic activity in the construction and property sectors, a small but growing share of China’s trucking fleet is using LNG instead of diesel for fuel. According to data and analysis from BloombergNEF, LNG truck sales have made up around 23% of total truck sales from 3Q23-3Q24. Although still small relative to the total truck fleet in China, the growing market share of LNG trucks is displacing some diesel consumption in the country.

EIA forecasts China’s petroleum and liquid fuels consumption will grow by about 0.3mbpd in 2024 and in 2025, slower than the 2015–19 average annual growth rate of 0.5mbpd.

**Exhibit 45: China’s economic indicators**

**China select economic indicators (Jan 2017–Jun 2024)**

year-over-year percentage change



Sources: China National Bureau of Statistics and Bloomberg

## Initiated on Underweight; top picks - SPRC BCP

We are bearish on net profit outlook of Thai energy sector, based on our y-y lower crude oil price assumptions of USD81/bbl in 2024, down to USD76/bbl in 2025E and USD75/bbl in 2026E on the growing oversupply outlook led by the production growths from US, Canada, and Mexico (UCM), and the continued rising spare capacity of OPEC+, which is necessary to offset the higher supply from UCM in order to support oil price above USD70/bbl.

Gross refining margin visibility similarly looks cloudy at best given the surging exports of gasoline and diesel from US and China, the structural decline in demands on the EV growth to substitute ICE cars, and the shift from diesel to LNG trucks globally. We project GRM to average USD6.5/bbl in 2024E, USD6.0/bbl in 2025E, and US14.0/bbl in 2026E.

Gas market outlook presents brighter view than oil market, given US is now completely dominating global gas and LNG market. The LNG price is projected to stay above USD11/mmbtu and likely to be in the range of USD12-15/mmbtu on higher demands in European and north Asia markets that are likely to outpace supply growth from US. We project Henry Hub gas prices to be USD2.2/mmbtu in 2024E, rising to USD2.9/mmbtu in 2025E and USD2.8/mmbtu in 2026E.

While we underweight energy sector, we prefer downstream refinery plays with diversification (BCP) and no chemical exposures (SPRC, BSRC) to chemical-refinery companies (TOP) as we are bearish on olefins and aromatics margin outlook.

We are neutral on PTTEP given its selling prices will be in the downtrend but will be partly offset by the volume growth. We are bearish on PTT's net profit outlook on PTT's structural weakness in strategic growth with recent failure in investments in EV plant (Arun Plus), PTT's structural deterioration in gas business including lower tariff on gas transmission volume (from all-in to separate charge basis), higher gas feedstock (single pool price), and lower revenue from LNG terminal (50% stake divestment in one terminal).



**Exhibit 46: Peers comparison**

BBG	Rec	Share price		Upside (%)	Market Cap (USD m)	3Y EPS CAGR (%)	PE		ROE		PBV		EV/EBITDA	
		Current (LCY)	Target (LCY)				24E (x)	25E (x)	24E (%)	25E (%)	24E (x)	25E (x)	24E (x)	25E (x)
<b>THAILAND</b>														
PTT TB	HOLD	32.25	35	9	26,765	(1.8)	8.5	8.8	9.4	8.5	0.8	0.7	5.7	5.7
PTTEP TB	HOLD	127.5	150	18	14,707	(1.6)	6.4	6.6	14.9	13.2	0.9	0.8	3.3	3.2
TOP TB	HOLD	37.25	41	10	2,418	(2.2)	6.7	5.2	9.2	7.6	0.4	0.4	6.4	6.4
BAFS TB	NA	12.4	NA	NA	230	(304.3)	32.6	19.1	4.5	7.4	1.4	1.5	11.2	9.8
SPRC TB	BUY	6.75	9.4	39	850	(100.0)	16.0	7.7	4.9	9.5	0.8	0.7	9.3	5.2
BCP TB	BUY	29.5	36	22	1,236	8.8	11.5	4.6	4.9	11.7	0.6	0.5	6.9	6.0
BSRC TB	BUY	7.35	8.5	16	739	(6.3)	25.5	16.9	3.5	5.1	0.9	0.8	37.0	25.1
PTTGC TB	NA	25	NA	NA	3,275	(263.9)	na	13.9	(5.7)	2.8	0.4	0.4	9.9	8.1
IRPC TB	NA	1.37	NA	NA	813	(190.1)	na	685.0	(5.2)	1.1	0.4	0.4	18.3	8.7
TASCO TB	NA	19.1	NA	NA	876	6.6	15.3	12.3	11.9	14.5	1.8	1.8	8.9	7.9
<b>Thailand avg</b>					<b>51,910</b>	<b>(1.5)</b>	<b>7.8</b>	<b>19.0</b>	<b>9.5</b>	<b>9.4</b>	<b>0.8</b>	<b>0.7</b>	<b>6.1</b>	<b>5.6</b>
<b>PAKISTAN</b>														
OGDC PA	NA	193.62	NA	NA	2,998	(8.6)	3.8	4.4	18.7	14.5	0.7	0.6	na	na
PPL PA	NA	163.85	NA	NA	1,605	na	na	na	na	na	na	na	na	na
<b>Pakistan avg</b>					<b>4,603</b>	<b>(18.4)</b>	<b>2.5</b>	<b>2.9</b>	<b>12.1</b>	<b>9.4</b>	<b>0.4</b>	<b>0.4</b>	-	-
<b>HONGKONG</b>														
883 HK	NA	17.04	NA	NA	108,257	4.1	5.2	5.2	20.5	18.3	1.0	0.9	2.4	2.4
386 HK	NA	4.17	NA	NA	98,883	4.9	8.0	7.3	7.1	7.5	0.6	0.5	5.6	5.3
857 HK	NA	5.54	NA	NA	194,382	(3.9)	5.7	5.7	10.7	10.2	0.6	0.6	3.5	3.5
2883 HK	NA	6.80	NA	NA	7,631	21.5	8.5	6.7	8.2	10.1	0.7	0.6	5.9	5.1
<b>Hongkong avg</b>					<b>409,154</b>	<b>1.6</b>	<b>6.1</b>	<b>6.0</b>	<b>12.4</b>	<b>11.7</b>	<b>0.7</b>	<b>0.7</b>	<b>3.7</b>	<b>3.6</b>
<b>INDONESIA</b>														
MEDC IJ	NA	1,125.00	NA	NA	1,782	(3.6)	4.7	5.5	18.4	14.9	0.8	0.7	3.8	4.0
ENRG IJ	NA	242.00	NA	NA	378									
<b>Indonesia avg</b>					<b>2,160</b>	<b>(2.8)</b>	<b>3.9</b>	<b>4.5</b>	<b>15.2</b>	<b>12.3</b>	<b>0.6</b>	<b>0.6</b>	<b>3.2</b>	<b>3.3</b>
<b>INDIA</b>														
ONGC IN	NA	252.20	NA	NA	37,559	4.3	6.9	6.9	16.4	13.3	1.0	0.9	4.9	5.4
OINL IN	NA	504.75	NA	NA	9,719	0.8	11.8	10.2	18.7	15.5	1.9	1.5	8.6	8.7
IOCL IN	NA	137.75	NA	NA	23,027	27.9	4.4	11.1	29.5	9.7	1.2	1.0	4.6	8.0
BPCL IN	NA	290.95	NA	NA	14,943	63.2	4.6	9.4	44.0	16.4	1.7	1.5	4.2	7.1
HPCL IN	NA	380.00	NA	NA	9,572	(212.8)	4.7	11.0	43.9	16.5	1.8	1.5	5.6	9.1
GAIL IN	NA	196.70	NA	NA	15,310	24.7	13.2	12.0	15.5	14.9	1.8	1.6	10.6	9.2
PLNG IN	NA	328.00	NA	NA	5,824	6.2	14.1	13.1	22.7	22.1	2.9	2.5	7.8	7.0
<b>India avg</b>					<b>115,954</b>	<b>21.7</b>	<b>7.5</b>	<b>9.7</b>	<b>25.2</b>	<b>14.1</b>	<b>1.5</b>	<b>1.2</b>	<b>6.0</b>	<b>7.3</b>
<b>JAPAN</b>														
1605 JP	NA	1,971.50	NA	NA	16,347	(6.8)	6.7	7.5	8.6	7.1	0.6	0.5	2.7	2.9
<b>Japan avg</b>					<b>16,347</b>	<b>(6.8)</b>	<b>6.7</b>	<b>7.5</b>	<b>8.6</b>	<b>7.1</b>	<b>0.6</b>	<b>0.5</b>	<b>2.7</b>	<b>2.9</b>
<b>TAIWAN</b>														
6505 TT	NA	41.95	NA	NA	12,282	na	25.6	15.1	4.8	na	1.2	na	13.8	8.7
<b>Taiwan avg</b>					<b>12,282</b>	<b>na</b>	<b>25.6</b>	<b>15.1</b>	<b>4.8</b>	<b>na</b>	<b>1.2</b>	<b>na</b>	<b>13.8</b>	<b>8.7</b>
<b>SOUTH KOREA</b>														
010950 KS	NA	58,100.00	NA	NA	4,684	(2.9)	52.4	9.3	1.9	7.7	0.8	0.7	10.0	6.1
<b>South Korea avg</b>					<b>4,684</b>	<b>(2.9)</b>	<b>52.4</b>	<b>9.3</b>	<b>1.9</b>	<b>7.7</b>	<b>0.8</b>	<b>0.7</b>	<b>10.0</b>	<b>6.1</b>
<b>AUSTRALIA</b>														
WDS AU	NA	24.39	NA	NA	30,088	(17.7)	9.5	14.5	9.4	6.2	0.8	0.8	3.8	4.0
STO AU	NA	6.59	NA	NA	13,905	5.4	10.7	10.9	8.4	8.0	0.9	0.8	5.2	5.0
<b>Australia avg</b>					<b>43,993</b>	<b>(14.5)</b>	<b>9.9</b>	<b>13.4</b>	<b>9.1</b>	<b>6.8</b>	<b>0.9</b>	<b>0.8</b>	<b>4.3</b>	<b>4.3</b>

\* Price as of 28 November 2024

Sources: Bloomberg, Globlex Research

## GENERAL DISCLAIMER

### Analyst Certification

Siriluck Pinthusoonthorn, Register No. 119539, Globlex Securities Public Company Limited

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## RECOMMENDATION STRUCTURE

### Stock Recommendations

Stock ratings are based on absolute upside or downside, which we define as  $(\text{target price}^* - \text{current price}) / \text{current price}$ .

- BUY:** Expected return of 10% or more over the next 12 months.  
**HOLD:** Expected return between -10% and 10% over the next 12 months.  
**REDUCE:** Expected return of -10% or worse over the next 12 months.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

\* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

### Sector Recommendations

- Overweight:** The industry is expected to outperform the relevant primary market index over the next 12 months.  
**Neutral:** The industry is expected to perform in line with the relevant primary market index over the next 12 months.  
**Underweight:** The industry is expected to underperform the relevant primary market index over the next 12 months.

### Country (Strategy) Recommendations

**Overweight:** Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Neutral:** Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

**Underweight:** Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.