SECTOR UPDATE

THAILAND ENERGY



Kick two birds with one stone

- A series of US actions 2nd sanction on Russian energy, Ukraine's cut on Russian gas, and US shale oil & gas production growth decline – will boost oil & gas prices
- Expect oil price to USD80-85/bbl and spot LNG price to USD15-17/mmbtu in 1Q25
- PTTEP, BCP, and SPRC are top picks

A series of US-led actions to ruin Russian revenues from fossil fuels

On 10 Jan-25, US Department of State imposes a 2nd sanction, the harshest sanctions yet on Russia's oil industry, to ban traders in Europe and Asia, over 180 shadow vessels, many traders, and two major oil firms. This follows 1) Ukraine's cut on Russian pipeline gas on 1 Jan-25; 2) US shale oil production growth slowdown; 3) Trump's threatening tariff hike if EU won't buy more US LNG. Hence, oil price rose over 7% since then as market expects the sanctions would severely disrupt Russian oil exports to India and China -the biggest buyers of Russian crude. The sanctions could also give Trump more leverage in future negotiations as he tries to end the war in Ukraine.

Russian revenues from fossil fuels jumps in Nov to Dec-24

In 2024, Russian revenue from fossil fuels saw a 5% drop y-y on a 6% y-y decline in sales volume. The revenue from crude oil exports rose by 6% y-y despite a 2% y-y dip in export volume, hinting a rebound in the price of Russian oil. A 9% y-y increase in revenues from pipeline gas thanks to a 18% y-y rise in export volume. In December 2024, Russian revenues from fossil fuel exports rose 4% m-m to €652m per day, the first rise in two months, while revenue from pipeline gas were hit the highest point since December 2022 just before the expiration of the 5-year deal of gas transmission via pipelines in Ukraine, which earned Russia €5.8b annually.

Exxon-led consortium propels Guyana to a new star

India's import of Russian oil in Nov-24 plummeted 55% y-y to its lowest point since Jun-22 as India attempted to diversify its oil supplies away from Russia to Guyana, a new major non-OPEC oil producer, whose its 10M24 oil production hit 0.61kbpd (18.56m bbls monthly) at Stabroek Block (ExxonMobil 45%, Hess 30%, CNOOC 25%), combining outputs from 3 projects (Liza 1, Lizqa 2, and Payana) and is projected to sustain production level at 0.66kbpd. US Energy Information Administration (EIA) forecasts that Guyana will increase its oil productions to over 0.8mbpd in 2025.

Ukraine's gas cut is strategically disastrous to Ukraine, not Russia

In Dec-24, Russian pipeline gas revenue grew 19% m-m with revenues (€104m per day) reaching the highest since Dec-22 on 17% rise in volumes, the highest since May-22. There was a significant 12% m-m rise in revenues from seaborne oil products to €194m per day. It is no doubt that why Ukraine decided to NOT renew the gas pipeline deal with Russia, aiming to curb Russia's growing revenues from gas (-€5.8b, 0.24% GDP in 2023) at the expense of Ukraine's loss (€1.1b, 0.56% GDP).

US moves to pressure Russia and China

We think oil price could hit USD80-85/bbl and spot LNG at USD15-17/mmbtu in 1Q25 as solid demands for heating in northern hemisphere, supply cuts on Russian oil and gas, and US shale oil production growth slowdown, will tighten global oil & gas market. US strategic moves to boost prices of oil & gas clearly aim to ruin Russian energy revenues and raise China's energy expenses, thanks to US weaponizing energy.

Analyst

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Oil & gas price rises on energy war game

US weaponized energy now begins

On 10 Jan-25, US Department of State imposes a 2nd sanction, the harshest sanctions yet on Russia's oil industry, to ban traders in Europe and Asia, over 180 shadow vessels, many traders, and two major oil firms.

This follows three strategic actions implemented by US

1) Ukraine's cut on Russian pipeline gas on 1 Jan-25;

2) US shale oil production growth slowdown;

3) Trump's threatening tariff hike if EU won't buy more US LNG.

Hence, oil price rose over 7% since then as market expects the sanctions would severely disrupt Russian oil exports to India and China -the biggest buyers of Russian crude. The sanctions could also give Trump more leverage in future negotiations as he tries to end the war in Ukraine.

What do cause US to pursue sanctions and supply cut actions?

In 2024, Russian revenues from fossil fuels witnessed a 5% y-y drop on a 6% dip in the volumes of exports. Revenues from crude oil exports rose 6% y-y even a 2% reduction in export volumes due to the higher price of Russian oil. A 9% y-y increase in revenues from pipeline gas along with a 18% rise in gas export volumes further strengthened Russian fossil fuel revenues in 2024. (see Exhibit1)

In December 2024, Russia's monthly fossil fuel export revenues saw a 4% m-m rise to \in 652m per day, the first rise in two months. Revenues from pipeline gas were the highest since December 2022.

US strategic action#1: Ukraine's cut on Russian pipeline gas on 1 January 2025 onwards is in response to Russian surging gas revenues. The 5-year Russia-Ukraine deal expired at the end of 2024 and earned Russia €5.8b in pipeline gas exports to the EU in the most recent year.

US strategic action#2: Trump's threatening tariff hike on EU to import more LNG from US is in response to Russia's massive 30% y-y rise in LNG exports and Russia's becoming the largest exporter of LNG to France.

US strategic action#3: slowdown in production growths of shale oil and gas is intended to boost the prices of crude oil and spot LNG simultaneously. After many years of over 1mbpd production growths, in 2025, for the first time in five years, US hinted to the market that its production growths for shale oil and gas will be lower than the past 5-year average.

All three actions aggregately sent the signals to the market that global oil & gas supplies will tighten while demand growth remain healthy, resulting in the higher prices of oil and gas.



Russia's stronger revenues from fossil fuels in 4Q24 may lead to US series of actions to curb Russian revenue growth from energy.

For the second straight month Russian revenues from pipeline gas grew by a massive 19% rise in December 2024. The monthly revenues €104m per day were the highest since December 2022. Volumes of pipeline gas exports also rose by 17% in December 2024, the highest since May 2022. (see Exhibit1)

We believe the recent move by Ukraine to not renew the gas transmission contracts with Russia after a 5-year deal expired at the end of 2024, which earned Russia \in 5.8b in pipeline gas exports to the EU in the most recent year. There was a significant 12% month-on-month rise in Russian revenues from seaborne oil products, to \in 194m per day.

A lower price cap of USD30/bbl is still well above Russia's production cost, which averages USD15/bbl, but would have slashed Russia's oil export revenue by 25% (\in 76b) from the start of the sanctions in December 2022 until the end of December 2024. In December 2024 alone, a USD30/bbl price cap would have slashed Russian revenues by 25% (\in 2.9b).

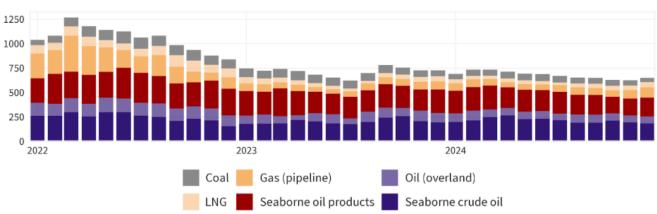


Exhibit 1: Russia's fossil fuel export revenue

Million EUR per day

Sources: Centre for Research on Energy and Clean Air (CREA)

China remained the largest buyer of Russian fossil fuels in December 2024, accounting for 37% (\in 5.5b) of Russia's monthly export earnings from the top five importers. Crude oil comprised 68% (\in 3.7b) of China's imports from Russia. There was a 10% m-m rise in Russian revenues from exports to China in December 2024, chiefly due to a 96% increase in revenues from oil products (\in 376m) and a 45% increase in revenues from pipeline gas (\in 706m).

Turkey remained the second highest importer of fossil fuels from Russia for a second straight month, contributing 23% (\in 3.3b) to Russia's monthly export earnings from its top five importers. Turkey's imports also saw a 15% m-m increase — chiefly due to a 15% surge in imports of coal and a 62% rise in imports of pipeline gas.

India was the third highest buyer of Russian fossil fuels in December 2024, contributing 20% (\in 3b) to Russia's monthly export earnings from its top five importers. After a sharp drop in November, India's crude imports from Russia returned to the norm, recording a 57% m-m rise. These were their highest imports of Russian crude in the final quarter of the year.

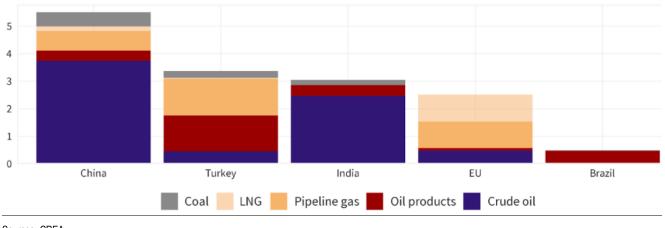


India's import volumes of crude oil surged to a 4-month high in December 2024, even as Russian crude volumes fell to their lowest since November 2022 — the second straight month for India. As private refiners have entered into long term contracts with Russian companies, the volume of Russian crude on the spot market has reduced. State refineries which purchase on the spot market have diversified to other sources, leading to the drop in volumes.

The EU was the fourth largest buyer of Russian fossil fuels in December 2024, their imports accounting for 17% (\in 2.5b) of the top five purchasers. LNG comprised the largest share of the EU's purchases of Russia's fossil fuels (39%), followed by pipeline gas (38%).

Brazil bought €493m of Russian fossil fuels in December 2024, which consisted of oil products (€480m) and coal (€12.8m).

Exhibit 2: China, Turkey, and India are top 3 buyers of Russian fossil fuels in 2024



Top-5 regions | Billion EUR

Sources: CREA

Exhibit 3: Russian sales (EU ban to Dec-24)

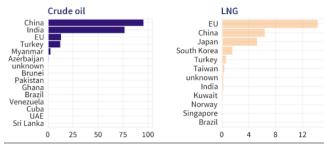
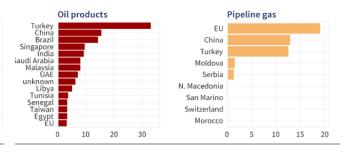


Exhibit 4: Russian sales (EU ban to Dec-24)



Sources: CREA

Sources: CREA



Russia benefits from refinery technical constraints

US strategic moves to boost prices of oil & gas clearly aim to ruin Russian energy revenues and raise China's energy expenses, thanks to US weaponizing energy

Exhibit 5: Guyana is 3rd biggest non-OPEC oil producer

Crude oil production in Guyana and select non-OPEC countries, average annual change (2020–2023) thousand barrels per day

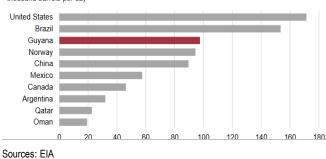


Exhibit 6: Refining loophole delivered USD3.9b tax revenue to Russia in 2024

Six refineries in India & Turkey | Thousand tonnes | January 2022 to December 2024





eia

Refinery loophole highly favors Russian energy exports. The refining loophole, which allows non-sanctioning countries to import Russian oil, refine it, and export the refined products to sanctioning countries, continued boosting Russia's crude export revenues in 2024.

In 2024, sanctioning countries' imported €15.8b of oil products from six refineries in India and Turkey. An estimated €6.6b of this was refined from Russian crude. An estimated €6.1b of Russian crude oil was used by these six refineries to create products for sanctioning countries.

Sanctioning countries' imports of refined oil products from these refineries using Russian crude has generated \in 3.9m in tax revenues for Russia, financing its war on Ukraine. In 9M24, the loophole saw a 10% y-y increase, as India and Turkey became bigger players in the refined oil market. A significant drop in India's Russian crude imports in 4Q24 saw the yearly figures drop by 6% y-y.

The EU is the biggest importer of oil products from the above countries' refineries, with, on average, 14% of their total production targeted towards exports for the bloc. Over a fifth of these refineries' total exports were directed to the EU in 2024, during which India became the largest exporter of oil products to the bloc.

Exhibit 7: Guyana is now a key global oil producer

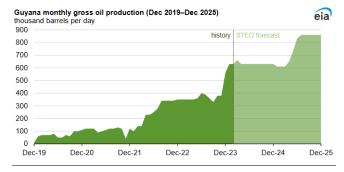
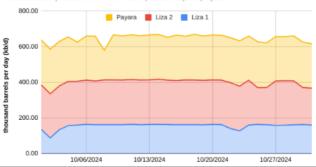


Exhibit 8: Stabroek Block produces average 0.65kbpd

Chart shows oil production at ExxonMobil-operated Guvana projects



Sources: EIA

Sources: Oilnow.com

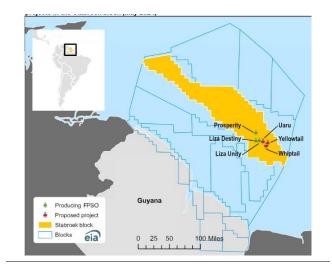


Guyana emerges as US strategic energy weapon

Led by two US energy companies ExxonMobil and Hess (7%% stake combined), we believe US has now deployed the oil productions from Guyana as its strategic weapon against Russia and China. The oil productions of US (21mbpd), Canada (5mbpd), and Guyana (3mbpd) combined account for around 1/3 of global oil supply, rivalling the productions of OPEC.

Guyana's oil production has been produced from a single Stabroek bloc, currently operating three producing projects. India's import of Russian oil in Nov-24 plummeted 55% y-y to its lowest point since Jun-22 as India attempted to diversify its oil supplies away from Russia to Guyana, a new major non-OPEC oil producer, whose its 10M24 oil production hit 0.61kbpd (18.56m bbls monthly) at Stabroek Block (ExxonMobil 45%, Hess 30%, CNOOC 25%), combining outputs from 3 projects (Liza 1, Lizqa 2, and Payana) and is projected to sustain production level at 0.66kbpd. US EIA forecasts that Guyana will increase its oil productions to over 0.8mbpd in 2025.

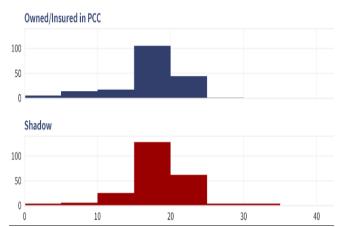
Exhibit 9: Guyana's Stabroek Block



Sources: CREA

Exhibit 10: Ages of vessels carrying Russian crude oil & products

Number of voyages in each age category in December 2024 | By ownership and insurance status



Sources: CREA



Russia escaped sanctions handsomely

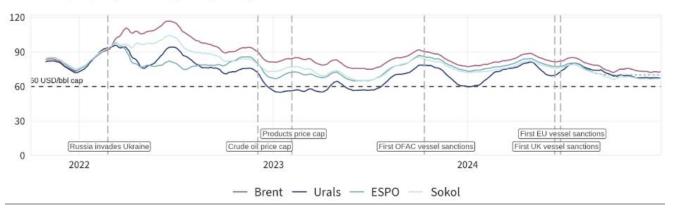
In December 2024, the average Urals spot price stayed at the same level and remained above the price cap, trading at USD67.49/bbl. The price of the East Siberia Pacific Ocean (ESPO) and Sokol blends of Russian crude oil, primarily associated with sales to Asian markets, remained at the same level in December 2024.

The discount on Urals-grade crude oil increased 12.6% m-m to an average of USD5.25/bbl compared to Brent crude oil. The discount on the ESPO grade narrowed by a massive 30.59% and to an average of USD2.69/bbl, while the discount on the Sokol blend narrowed by 8.96% to USD6.06/bbl.

Throughout this period, vessels owned or insured by the G7+ countries continued to load Russian oil in all Russian port regions where average exported crude oil prices remained above the price cap level. These cases call for further investigation by enforcement agencies for breaches of sanctions.

Exhibit 11: Russian and Brent oil prices over time

Price of oil (USD/bbl) with 30 day rolling average



Sources: Oilprice.com, tradingeconomics.com

In December 2024, 36% of Russian seaborne crude oil and its products were transported by tankers subject to the oil price cap. The remainder was shipped by 'shadow' tankers and was not subject to compliance with the oil price cap policy.

82% of Russian oil transportation by shadow vessels. 'Shadow' tankers transported 82% of the total volume of Russian seaborne crude oil, while tankers owned or insured in countries implementing the price cap accounted for 18% of the total value of Russian crude exported in December 2024.

'Shadow' tankers transporting oil products handled 40% of Russia's total volume of products. The remaining volume was shipped by tankers subject to the price cap policy.



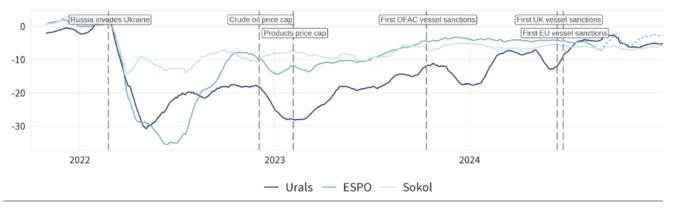
In December 2024, 420 vessels exported Russian crude oil and oil products, of which 234 were 'shadow' tankers. 30% of these 'shadow' tankers were at least 20 years or older. The oldest tanker transporting Russian oil in December 2024 was 54 years old.

Older 'shadow' tankers transporting Russian oil and petroleum products across EU Member States' exclusive economic zones, territorial waters, or maritime straits raise environmental and financial concerns due to their age, questionable maintenance records, and insurance coverage.

Their insurance potentially lacks sufficient protection & indemnity (P&I) coverage to cover the cost in the event of an oil spill or catastrophe. In the case of accidents, coastal countries may bear the financial brunt of the cleanup, not to mention the repercussions of damage to their marine ecology. The cost of clean-up and compensation resulting from an oil spill from tankers with dubious insurance could amount to over €1b for the coastal country's taxpayers.

Exhibit 12: Discount of Russian oil prices to Brent over time

Discount of oil (USD/bbl) with 30 day rolling average



Sources: Oilprice.com, tradingeconomics.com

In December 2024, €174m of Russian oil underwent ship-to-ship (STS) transfers in EU waters. 63% of these transfers were facilitated by tankers covered by G7+ insurance. STS transfers of Russian oil severely undermine sanctions by allowing Russia to evade sanctions and price caps by splitting the cargo to multiple buyers and mixing lower-priced Russian oil with non-Russian oil. The 'shadow' tankers, which averaged 17 years old, conducted environmentally dangerous ship-to-ship transfers totaling €65m in EU waters.

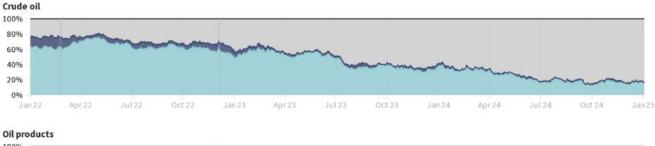


Exhibit 13: The growth of "shadow" tankers reduces G7+ shipping industry's leverage over Russia Fossil fuel shipment departures from Russia

By ship ownership / insurer

30-day running average

Owned and / or insured in EU & G7 📕 Insured in Norway 📗 Others 📕 Unknown

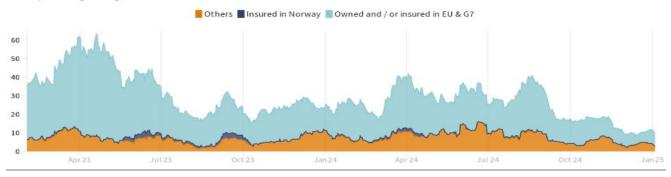




Sources: CREA

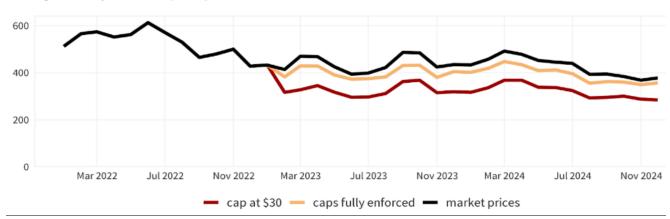
Exhibit 14: Ship-to-ship transfer of Russian crude oil and oil products in EU waters

By arrival date since the start of EU/G7 ban on refined oil products | By ship ownership / insurer 30-day running average



Sources: CREA

Exhibit 15: Russia's seaborne oil export revenue with enhanced price caps



Pricing scenario | Million EUR per day

Sources: CREA



A playbook to "kill" Russia energy income

Russia's fossil fuel export revenues have fallen since the sanctions were implemented, subsequently constricting Russia's ability to fund the war. However, much more now have been done to limit Russia's export earnings and constrict the funding of Russia's war chest. This includes lowering the oil price cap, increasing monitoring and enforcement of sanctions, and banning unsanctioned fossil fuels such as LNG and pipeline fuels that are legally allowed into the EU.

Lower price cap to USD30/bbl (-USD30/bbl)

- Lower price cap of USD30/bbl, down from USD60/bbl, would have slashed A Russia's oil export revenue by 25% (€76b) from the start of the sanctions in December 2022 until the end of December 2024. In December 2024 alone, a USD30/bbl price cap would have slashed Russian revenues by 25% (€2.9 b).
- Lowering the price cap would be deflationary, reducing Russia's oil export prices and inducing more production from Russia to make up for the otherwise drop in revenue.
- Since introducing sanctions until the end of December 2024, thorough enforcement of the price cap would have cut Russia's export revenues by 8% (€25.11b). In December 2024 alone, full enforcement of the price cap would have reduced revenues by 6% (approximately €0.66b), based on CREA's estimate.

Restrict the growth of 'shadow' tankers & plug the refining loophole

Russia's reliance on tankers owned or insured in G7+ countries has fallen due to the growth of 'shadow' tankers. This subsequently impacts the coalition's leverage to lower the price cap and hit Russia's oil export revenues. Sanctioning countries must prevent Russia's growth in 'shadow' tankers that are immune to the oil price cap policy.

G7+ countries must also plug the widening refining loophole by banning the importation of oil products produced from Russian crude oil. This would enhance the impact of the sanctions by disincentivising third countries from importing large amounts of Russian crude and helping cut Russian export revenues. Banning the imports of oil products from refineries that process Russian crude oil would also lower the price of Russian oil, as they would struggle to find buyers or expand their market.

Tighter enforcement & monitoring

Enforcement agencies overseeing the sanctions must take proactive measures against violating entities, including insurers registered in price cap coalition countries, shippers, and vessel owners. Despite clear evidence of violations, agencies must do more to enforce penalties against shippers, insurers, or vessel owners. This information must be shared widely in the public domain. Penalties against violating entities increase the perceived risk of being caught and serve as a deterrent.

It is clear that all actions above are now implemented by US and its allies against Russia. While it is difficult to assess due to many unpredictable factors in response to the sanctions, we think more or less the second sanctions could jeopardize Russia's energy revenue and lead to China's swelling energy expense as China is the world's largest oil importer and the largest importer of Russian oil export.

PTTEP, SPRC and BCP are top picks for oil & gas sector. In the oil price uptrend in the next few months, we preferred PTTEP, BCP, and SPRC as three top picks in Thai energy sector.

IVL is the lone leader in Thai petrochemical sector. IVL will stand as the only top pick in Thai petrochemical sector given its proven track record of highly resilient earnings recovery and solid earnings growth in every past three upcycles.



Exhibit 16: Top picks – key information

| Company | Rec | Share | Target | Upside | Market | 3Y EPS | PE | | ROE | | PBV | | EV/EBITDA | |
|----------|------|--------|--------|--------|---------|-----------|-------|-----|------|------|-----|-----|-----------|-----|
| BBG | | Price | price | | Сар | CAGR | 24E | 25E | 24E | 25E | 24E | 25E | 24E | 25E |
| | | (LCY) | (LCY) | (%) | (USD m) | (%) | (x) | (x) | (%) | (%) | (x) | (x) | (x) | (x) |
| THAILAND | | | | | | | | | | | | | | |
| PTTEP TB | HOLD | 127.00 | 140.00 | 10 | 14,524 | 0.3 | 6.4 | 6.6 | 14.9 | 13.2 | 0.9 | 0.8 | 3.3 | 3.1 |
| SPRC TB | BUY | 6.15 | 9.40 | 53 | 762 | 249.5 | 14.6 | 7.0 | 4.9 | 9.5 | 0.7 | 0.6 | 8.6 | 4.8 |
| BCP TB | BUY | 33.25 | 36.00 | 8 | 1,402 | 3.7 | 12.9 | 5.1 | 4.9 | 11.7 | 0.6 | 0.6 | 7.0 | 6.2 |
| IVL TB | BUY | 22.80 | 33.00 | 45 | 3,720 | 223.1 | (5.9) | 9.8 | 4.6 | 9.2 | 0.9 | 0.9 | 5.2 | 7.0 |

* Price as of 14 January 2025

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 (target price* - current price) / 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.