Research Department
Mazen AlSudairi, CFA, CMT
Tel +966 11 836 5468, mazen.alsudairi@alrajhi-capital.com

Key Theme

Oil market balance to sustain with current OECD inventory levels hovering around 7.7% of the global demand, slightly lower than pre-covid levels

As per our analysis, shale companies require US$52/bbl in 3Q2023 to meet their opex and capex needs as well as financing burden and tax obligations

Oil prices to average in the range of $US75-85/bbl in 2024

Overall, oil market to be relatively more balanced in 2024 considering the OPEC demand outlook and expected OECD inventory levels

Oil Market Update

Fundamentals are back and more

- ***Oil market balance is expected to improve*** *as OECD inventories continue to be steady around Jan'23 levels (shown in Fig. 2 below) and have not surged sharply despite the record high production from US shale oil producers. This resilience can largely be ascertained to the disciplined implementation of the voluntary output cut by OPEC+. Furthermore, it is worth noting that although OECD inventory levels have not declined in 2023 yet they are steady around pre-covid levels. Meanwhile, the total world consumption witnessed a gradual uptick to 101.08 mmbpd in 2023 vis-à-vis 99.16 mmbpd in 2022 despite economic concerns.*
- ***Rise in non-OPEC oil supply*** *has been apparent over the past one year. A large proportion of the incremental supply has come to the market from countries like US, Canada and other non-OECD countries. Moreover, the record high oil supply in the US has been steered by non-conventional sources rather than conventional means with the former contributing to about 70% of the incremental supply (Fig. 9). As per our analysis the cash breakeven oil price level for shale companies used in our report stands at US$52/bbl in 3Q2023 (Fig. 4). Given the connection between supply and healthy breakeven levels, 2024 will be a pivotal year in determining the non-OPEC oil supply.*
- ***The Permian basin is driving majority of the growth, but the pace of incremental supply is slowing down****. The contribution of the Permian basin in the overall US non-conventional oil production remains high at 60% (vs. 1/3rd in 2015), but the y-o-y pace of growth is demonstrating slowdown from 500 kb/d in Dec'22 to 300kb/d in Dec'23 (Fig. 7). Owing to the uncertainties surrounding the rate of growth in supply, there exists room for potential upside in oil prices.*
- *Overall, we expect oil prices to be relatively more stable in 2024 averaging in the band of US$75-85/bbl assuming disciplined growth in supply underpinned by OPEC's proactive stance. We iterate that 2024 will be a real test for supply by shale oil producers.*

Demand-Supply Outlook- The OECD inventory levels inched up slightly in 2023 to 2,843 mbbls (versus 2,767 mbbls in 2022) albeit it remained stable around pre-covid levels. On the other hand, the average global demand witnessed a gradual recovery post-covid with consumption averaging at 101.08 mmbpd in 2023 as per EIA. Projected data from the EIA suggests global consumption to spur to the levels of 102.47 mmbpd in 2024 indicating a 1.3 mmbpd growth in consumption metrics. Countries like China, Japan and some Asian countries may be major drivers of the expected consumption uptick.

Additionally, a back of the envelope calculation with the expected demand trajectory implies that if current inventory levels were to sustain (EIA expectations: 2820 mbbls for 2024), then the market may still not be oversupplied and move towards becoming more balanced in 2024. Accordingly, as per our calculations OECD inventory as a % of global demand may improve to 7.5% in 2024.

US Non-conventional Production Construct- The Permian basin's dominance in US non-conventional production is clearly evident with a steady rise in contribution from approximately one-third in Dec'15 to 62% in Dec'23. However, on a monthly basis, the pace of growth in absolute production is slowing down y-o-y. Delving deeper, in Dec'22 the Permian region produced 0.5 mmbpd incremental oil as compared to Dec'21. The pace of incremental production has witnessed a significant slowdown as of Dec'23 with an y-o-y additional production of 0.3 mmbpd (Fig. 7). Moreover, production levels in the Bakken region are still lower than pre-covid levels despite witnessing a gradual recovery. In our view, the positive correlation with oil prices might narrow down for shale oil producers as we believe that the current production levels are non-sustainable. Recently, the Occidental CEO also emphasized that the oil market could potentially be heading towards a supply crunch from 2025 onwards.

Global sentiments- With receding global concerns, demand sentiments may improve in the later half of 2024 as monetary policies start to tilt towards an accommodative stance. Besides, the level of supply may be under check with regards to the OPEC+ decision to extend the voluntary output cut until 1Q2024. On the other hand, the decelerating growth in incremental oil production in US (especially, the Permian basin) also raises question on the supply levels going forward. However, the Global manufacturing PMI suggests cautiousness in demand at the current juncture.

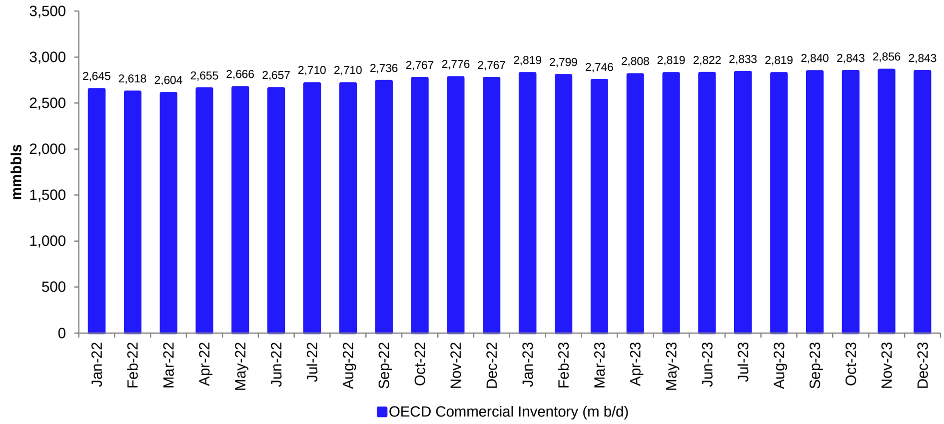
Conclusion- Taking cognizance of the probable supply-demand evolution, we expect the sanity in the oil market to prevail with oil prices averaging in the range of US$75-85/bbl in 2024. Nevertheless, economic outlook and stability outside the US and GCC countries continues to be uncertain. Overall, 2024 may see a relatively more balanced oil market as compared to 2023 as far as the OECD inventory levels are concerned.

Figure 1 **OECD inventory levels as a % of average global demand (2018-2024E)**

	2018	2019	2020	2021	2022	2023	2024E*
OECD Commercial inventories (mbbls)	2,859	2,876	3,028	2,640	2,767	2,843	2,820
Average OECD consumption (m b/d)	47.7	47.7	42.0	44.8	45.7	45.9	46.1
% of average OECD consumption	16.4%	16.5%	19.7%	16.1%	16.6%	17.0%	16.8%
Average global oil demand (m b/d)	100.0	100.9	91.6	97.1	99.2	101.1	102.5
OECD inventory as a % of global demand	7.8%	7.8%	9.1%	7.4%	7.6%	7.7%	7.5%

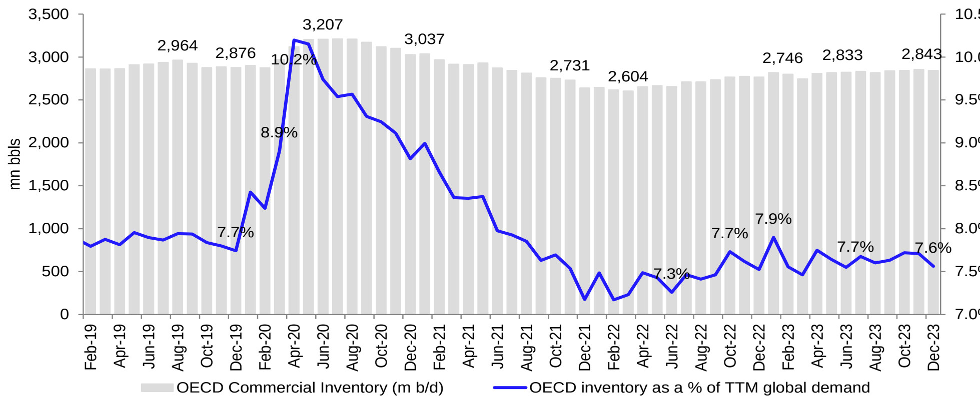
Source: EIA, Al Rajhi Capital;

Figure 2 **OECD Inventory levels**



Source: EIA, Al Rajhi Capital

Figure 3 **Monthly OECD inventory level as a % of global demand**



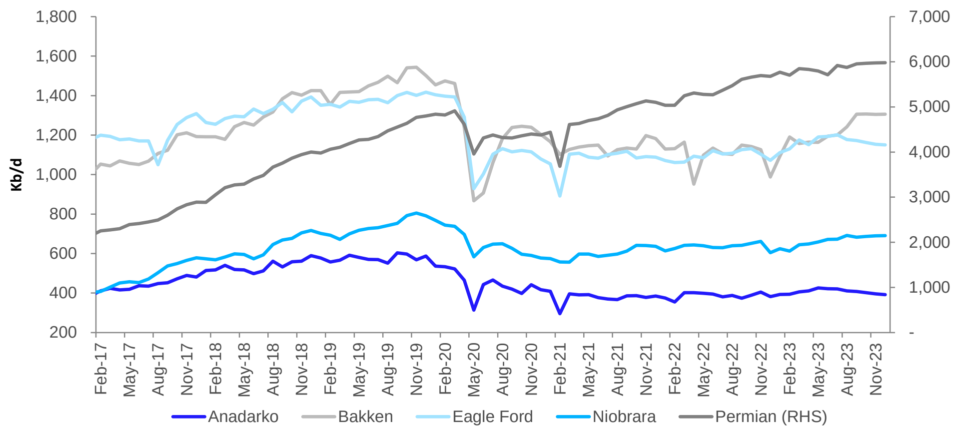
Source: EIA, Al Rajhi Capital

Figure 4 **Cash required per barrel for major US Shale oil producers (US$/bbl)- for FCF less interest and tax expenses to be NIL**

	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Weight *
Diamondback Energy	47	51	54	54	39	44	52	51	51	22%
Pioneer natural Resources	48	64	45	45	50	53	52	59	51	31%
Chord Energy^	45	25	154	32	30	40	51	64	61	8%
EOG Resources	37	39	27	90	55	55	63	58	52	39%
Weighted average**	**43**	**50**	**44**	**66**	**48**	**51**	**56**	**57**	**52**	

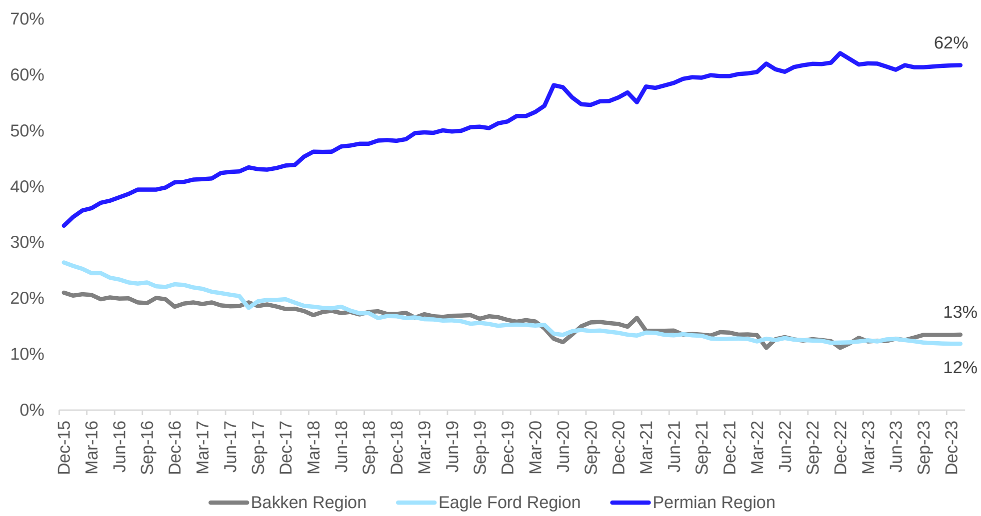
Source: Company data, Bloomberg, Al Rajhi Capital. * Weights are based on production. ** Calculated based on weighted average production of major shale producers under our sample. ^ New entity formed in Q2 2022 post-merger between Oasis Petroleum Inc. and Whiting Petroleum Corp.

Figure 5 **Permian Basin dominating activity in US Non-Conventional Oil Production landscape**



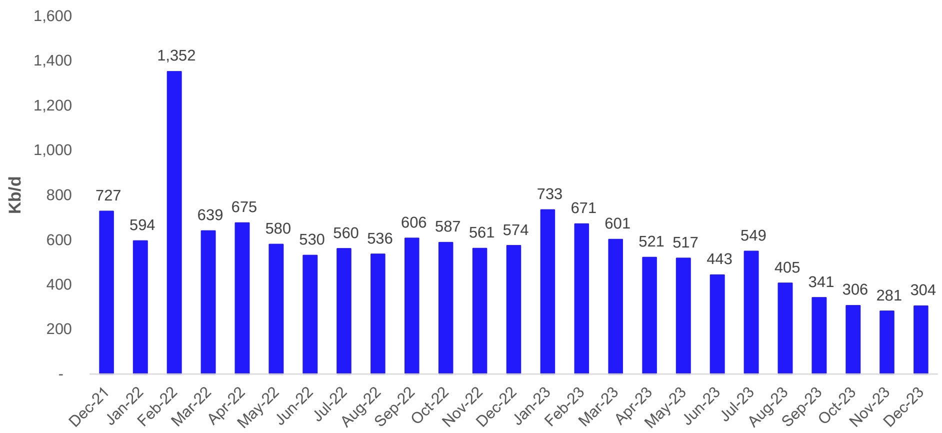
Source: EIA, Al Rajhi Capital

Figure 6 **Permian Region's progression to contributing a lion's share in US oil production mix**



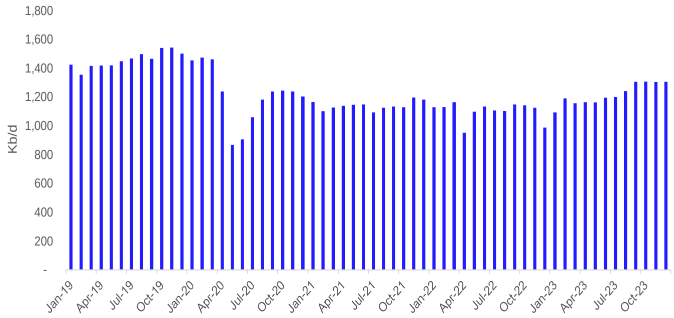
Source: EIA, Al Rajhi Capital

Figure 7 **Permian Basin monthly incremental oil production y-o-y (kb/d)**



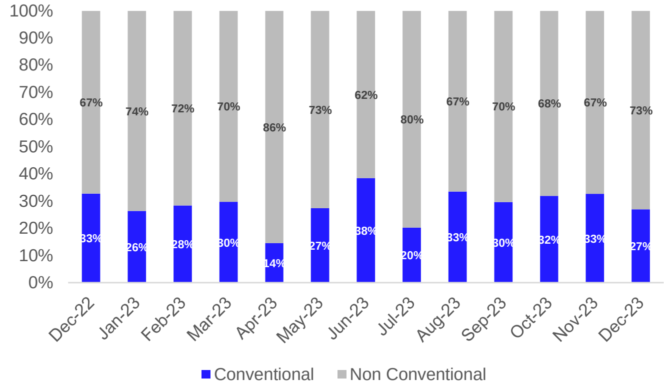
Source: EIA, Al Rajhi Capital

Figure 8 **Bakken Region (kb/d) Oil Production**



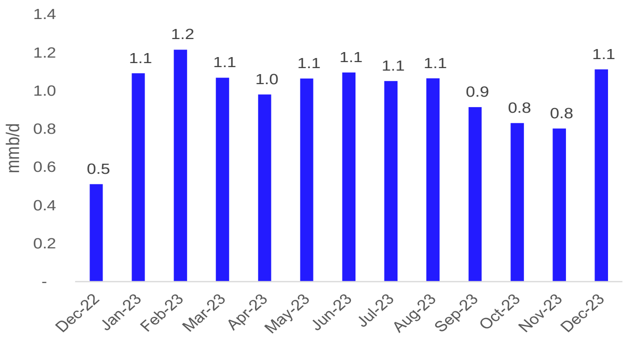
Source: EIA, Al Rajhi Capital

Figure 9 **Monthly US incremental oil production mix**



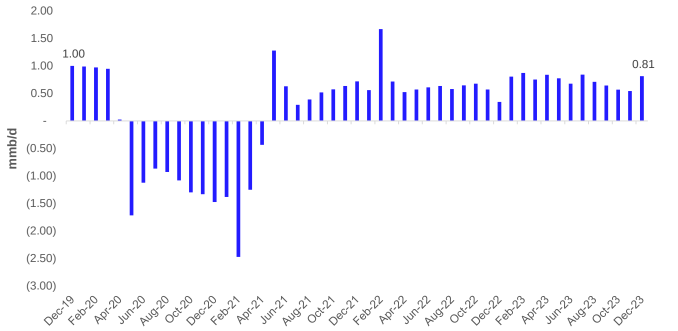
Source: EIA, Al Rajhi Capital

Figure 10 **US Incremental oil production y-o-y ***



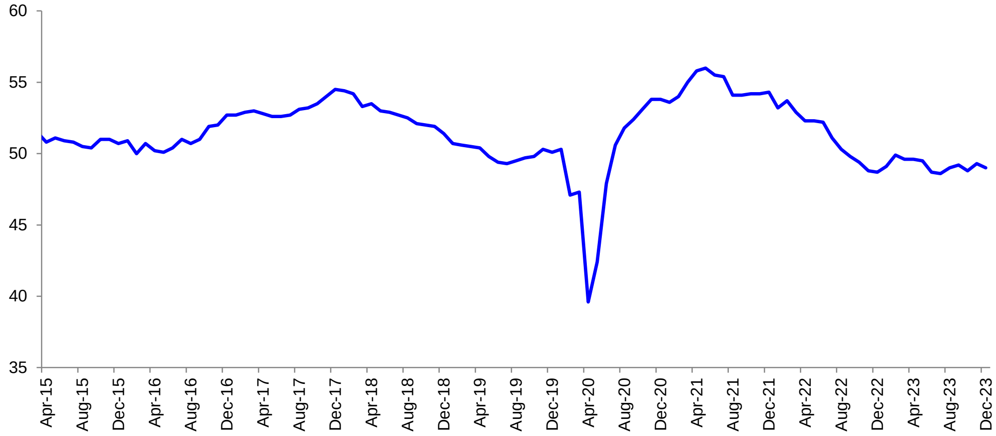
Source: EIA, Al Rajhi Capital; * Conventional + non-conventional

Figure 11 **US non-conventional incremental oil production y-o-y**



Source: EIA, Al Rajhi Capital

Figure 12 **JPM Global Manufacturing PMI**



Source: Bloomberg, Al Rajhi Capital

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by Al Rajhi Capital (Al Rajhi), a company authorized to engage in securities activities in Saudi Arabia. Al Rajhi is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to “major U.S. institutional investors” in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”).

Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through Al Rajhi.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority (“FINRA”) and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Additional Disclosures

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither Al Rajhi nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report’s preparation or publication, or any losses or damages which may arise from the use of this research report.

Al Rajhi may rely on information barriers, such as “Chinese Walls” to control the flow of information within the areas, units, divisions, groups, or affiliates of Al Rajhi.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States.

The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by Al Rajhi with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

No part of the content of this research report may be copied, forwarded or duplicated in any form or by any means without the prior consent of Al Rajhi and Al Rajhi accepts no liability whatsoever for the actions of third parties in this respect. This research document has been prepared by Al Rajhi Capital Company (“Al Rajhi Capital”) of Riyadh, Saudi Arabia. It has been prepared for the general use of Al Rajhi Capital’s clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Al Rajhi Capital. Receipt and review of this research document constitute your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this document prior to public disclosure of such information by Al Rajhi Capital. The information contained was obtained from various public sources believed to be reliable but we do not guarantee its accuracy. Al Rajhi Capital makes no representations or warranties (express or implied) regarding the data and information provided and Al Rajhi Capital does not represent that the information content of this document is complete, or free from any error, not misleading, or fit for any particular purpose. This research document provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other investment products related to such securities or investments. It is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person who may receive this document.

Investors should seek financial, legal or tax advice regarding the appropriateness of investing in any securities, other investment or investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Investors should note that income from such securities or other investments, if any, may fluctuate and that the price or value of such securities and investments may rise or fall. Fluctuations in exchange rates could have adverse effects on the value of or price of, or income derived from, certain investments. Accordingly, investors may receive back less than originally invested. Al Rajhi Capital or its officers or one or more of its affiliates (including research analysts) may have a financial interest in securities of the issuer(s) or related investments, including long or short positions in securities, warrants, futures, options, derivatives, or other financial instruments. Al Rajhi Capital or its affiliates may from time to time perform investment banking or other services for, solicit investment banking or other business from, any company mentioned in this research document. Al Rajhi Capital, together with its affiliates and employees, shall not be liable for any direct, indirect or consequential loss or damages that may arise, directly or indirectly, from any use of the information contained in this research document.

This research document and any recommendations contained are subject to change without prior notice. Al Rajhi Capital assumes no responsibility to update the information in this research document. Neither the whole nor any part of this research document may be altered, duplicated, transmitted or distributed in any form or by any means. This research document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or which would subject Al Rajhi Capital or any of its affiliates to any registration or licensing requirement within such jurisdiction.

Disclaimer and additional disclosures for Equity Research

Disclaimer

This research document has been prepared by Al Rajhi Capital Company ("Al Rajhi Capital") of Riyadh, Saudi Arabia. It has been prepared for the general use of Al Rajhi Capital's clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Al Rajhi Capital. Receipt and review of this research document constitute your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this document prior to public disclosure of such information by Al Rajhi Capital. The information contained was obtained from various public sources believed to be reliable but we do not guarantee its accuracy. Al Rajhi Capital makes no representations or warranties (express or implied) regarding the data and information provided and Al Rajhi Capital does not represent that the information content of this document is complete, or free from any error, not misleading, or fit for any particular purpose. This research document provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other investment products related to such securities or investments. It is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person who may receive this document.

Investors should seek financial, legal or tax advice regarding the appropriateness of investing in any securities, other investment or investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Investors should note that income from such securities or other investments, if any, may fluctuate and that the price or value of such securities and investments may rise or fall. Fluctuations in exchange rates could have adverse effects on the value of or price of, or income derived from, certain investments. Accordingly, investors may receive back less than originally invested. Al Rajhi Capital or its officers or one or more of its affiliates (including research analysts) may have a financial interest in securities of the issuer(s) or related investments, including long or short positions in securities, warrants, futures, options, derivatives, or other financial instruments. Al Rajhi Capital or its affiliates may from time to time perform investment banking or other services for, solicit investment banking or other business from, any company mentioned in this research document. Al Rajhi Capital, together with its affiliates and employees, shall not be liable for any direct, indirect or consequential loss or damages that may arise, directly or indirectly, from any use of the information contained in this research document.

This research document and any recommendations contained are subject to change without prior notice. Al Rajhi Capital assumes no responsibility to update the information in this research document. Neither the whole nor any part of this research document may be altered, duplicated, transmitted or distributed in any form or by any means. This research document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or which would subject Al Rajhi Capital or any of its affiliates to any registration or licensing requirement within such jurisdiction.

Explanation of Al Rajhi Capital's rating system

Al Rajhi Capital uses a three-tier rating system based on absolute upside or downside potential for all stocks under its coverage except financial stocks and those few other companies not compliant with Islamic Shariah law:

"Overweight": Our target price is more than 10% above the current share price, and we expect the share price to reach the target on a 12 month time horizon.

"Neutral": We expect the share price to settle at a level between 10% below the current share price and 10% above the current share price on a 12 month time horizon.

"Underweight": Our target price is more than 10% below the current share price, and we expect the share price to reach the target on a 12 month time horizon.

"Target price": We estimate target value per share for every stock we cover. This is normally based on widely accepted methods appropriate to the stock or sector under consideration, e.g. DCF (discounted cash flow) or SoTP (sum of the parts) analysis.

Please note that the achievement of any price target may be impeded by general market and economic trends and other external factors, or if a company's profits or operating performance exceed or fall short of our expectations.

Contact us

Mazen AlSudairi, CFA, CMT
Head of Research
Tel : +966 11 836 5468
Email: alsudairim@alrajhi-capital.com

Al Rajhi Capital
Research Department
Head Office, King Fahad Road
P.O. Box 5561, Riyadh 11432
Kingdom of Saudi Arabia
Email: research@alrajhi-capital.com
Al Rajhi Capital is licensed by the Saudi Arabian Capital Market Authority, License No. 07068/37