Mirae Asset Sekuritas Indonesia Rizkia Darmawan rizkia.darmawan@miraeasset.co.id Akbar Hidayat akbar.hidayat@miraeasset.co.id



INCO IJ · Nickel

Vale Indonesia

1Q24 result fell short of estimates due to a still-elevated costs

| (Downgrade) Hold | | Target price IDR4,240 | | Upside 5.0% | Current price (7/5/ IDR4,040 | 24) |
|-------------------------|-------|------------------------|------|--------------------------------|--|------|
| JCI Index | 7,253 | Market cap (IDRbn) 42, | ,581 | Shares outstanding (mn) 10,540 | Free Float (%) | 10.0 |

Report summary

Results fell short of estimates due to a still-elevated cash cost and a loss in the fair value adjustment

INCO booked 1Q24 revenue of USD230mn (-22% QoQ), which was relatively in line with our/consensus estimates. The decline in revenue was driven by a 12% QoQ decrease in sales volume and an 11% QoQ decrease in ASP. Notably, INCO's production for the quarter was also 5% lower compared to the previous quarter.

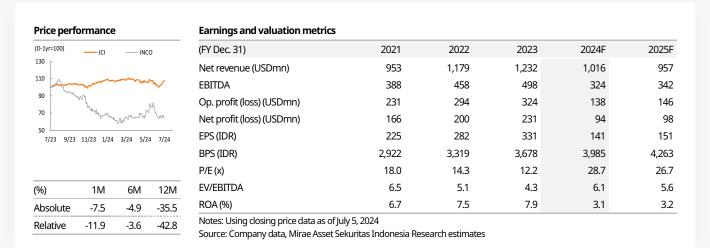
INCO's cash cost increased by 1% QoQ to USD 9,590/ton, a figure approximately 10% higher than our estimate. Combined with the decline in ASP, INCO's cash margin for the quarter decreased by 36% QoQ, falling more than 40% from our initial estimate.

Overall, INCO reported EBITDA of USD56mn (-43% QoQ), with an EBITDA margin of ~24% (-9.2 ppt QoQ). Coupled with the loss on fair value adjustment from KNI, INCO's 1Q24 net profit was USD6mn (-88% QoQ). Overall, the result fell short of our/consensus expectations, with a run rate of ~4%.

Downgrade recommendation to Hold with a lower TP of IDR4,240/share

We have fine-tuned our 2024F forecasts for INCO to better reflect its recent performance. Our adjusted estimates resulted in an overall adjustment of EBITDA to USD324mn (-17%) and net profit to USD94mn (-34%). Factoring in these adjustments, we downgrade our recommendation for INCO to **Hold**, with a lower **TP** of **IDR 4,240/share**.

Key data

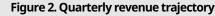


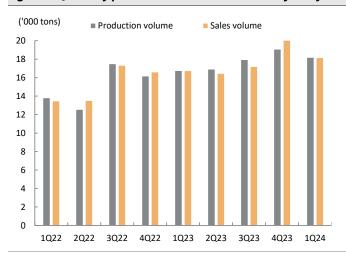
1Q24 result review

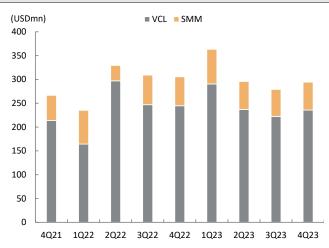
Revenue declined as expected

As of 1Q24, INCO's revenue stood at USD230mn (-22% QoQ). This figure was relatively in line with our/consensus estimates. The decline in revenue was driven by several factors, including a 12% QoQ decrease in sales volume to 18,175 tons and an 11% QoQ decrease in ASP to USD 12,651/ton, following the downslide of LME nickel prices, which also went down by ~4% during the period. Of note, INCO's production for the quarter was also 5% lower compared to the previous quarter at 18,199 tons.

Figure 1. Quarterly production and sales volume trajectory







Source: Company data, Mirae Asset Sekuritas Indonesia Research

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Cash cost was flat, but cash margin was hit by the decline in ASP

In light of maintaining cost efficiency, INCO adjusted its energy mix for smelters, increasing HSFO consumption by 13% QoQ to 33.2 barrels/ton amid a 6% decrease in the average price per barrel to USD 77.5. On the other hand, coal consumption was reduced by approximately 22% QoQ to 3.4 tons/ton of nickel matte (from 5.3 tons/ton of nickel matte). Note that INCO has the flexibility to switch between HSFO, diesel, and coal as energy sources for its smelter operations. As a result, INCO was able to maintain its cash cost relative to the previous quarter, with only a slight increase of 1% QoQ to USD 9,590/ton. Note that despite this, INCO's cash cost was ~10% higher than our estimate. Combining the decline in 1Q24 ASP to USD 12,651/ton and a cash cost of USD 9,590/ton, INCO's cash margin for the quarter was down by 35.6% QoQ to USD3,061/ton, more than 40% lower than our initial expectations.

Table 1. Inco's 1Q24 energy production costs

| | | 1024 | 4023 | 1Q23 | chg. (%, QoQ) | chq. (% YoY) |
|----------|-------------------------------------|-------|-------|------|---------------|--------------|
| | Volume/unit production (barels/ton) | 23 | 21 | 33 | 13 | -30 |
| HSFO | Average price per barrel (USD) | 86 | 91 | 78 | -6 | 10 |
| B: 1 | Volume/unit production (litres/ton) | 1,015 | 1,018 | 909 | 0 | 12 |
| Diesel | Average price per barrel (USD) | 0.8 | 0.9 | 1.0 | 5 | 6 |
| <u> </u> | Volume/unit production (ton/ton) | 6.4 | 5.3 | 3.4 | -22 | 14 |
| Coal | Average price per barrel (USD) | 177 | 198 | 422 | -11 | -20 |

Source: Company data Mirae Asset Sekuritas Indonesia Research

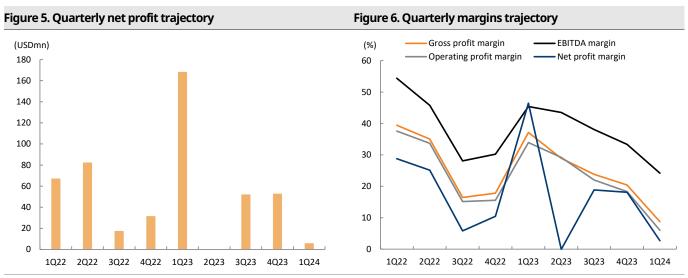
Figure 3. Quarterly ASP, cash cost, and cash margin trajectory Figure 4. Quarterly cost of revenue trajectory ■ Fuels and lubricant Supplies (USD/ton) - Cash cost —— Cash margin (USDmn) ■ Employee costs Depreciation 300 Others Contractor services 25,000 250 20,000 200 15,000 150 10,000 100 5,000 50 0 1022 2022 3022 4022 1023 2023 3023 4023 1024 1022 2022 3022 4022 1023 2023 3Q23 4023 1024

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Flat costs and loss from fair value adjustment led to earnings miss

Overall, due to lower ASP, sales volume, and relatively flat cash costs, INCO reported EBITDA of USD56mn (-43% QoQ), with an EBITDA margin of 24% (-9.2 ppt QoQ). This fell short of our/consensus estimates, with a run rate of 14.3% and 16.0%, respectively. Due to the fair value adjustment of a derivative asset related to its additional participating right in the investment in PT Kolaka Nickel Indonesia (KNI), which drove INCO's other income down to -USD5mn due to declining benchmark nickel prices, INCO's 1Q24 net profit stood at USD6mn (-88% QoQ). This figure translates to a net profit margin of 3%, which contracted by ~15ppt QoQ. Overall, the result failed to meet our/consensus expectations, with a run rate of ~4%.



Source: Company data, Mirae Asset Sekuritas Indonesia Research

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Table 2. INCO's 1Q24 key financial and operational highlights

(USDmn)

| | • | | | | |
|--------------------------|--------|--------|--------|---------------|---------------|
| | 1Q23 | 4Q23 | 1Q24 | Chg. (%, QoQ) | Chg. (%, YoY) |
| Revenue | 363 | 294 | 230 | -21.9 | -36.7 |
| COGS | 228 | 234 | 210 | -10.4 | -8.1 |
| Gross profit | 135 | 60 | 20 | -66.6 | -85.1 |
| Opex | 12 | 6 | 6 | 1.0 | -46.3 |
| EBITDA | 165 | 98 | 56 | -43.4 | -66.3 |
| Operating profit | 123 | 54 | 14 | -74.4 | -88.8 |
| Finance income/costs | 102 | 29 | -6 | -120.5 | -105.7 |
| Other income | -9 | -10 | 1 | -109.5 | -110.1 |
| Profit before income tax | 217 | 73 | 9 | -87.9 | -95.9 |
| Income tax expenses | 48 | 20 | 3 | -86.5 | -94.5 |
| Net profit | 169 | 53 | 6 | -88.4 | -96.3 |
| | | | | | _ |
| Margins | | | | | |
| Gross profit margin | 37.2 | 20.4 | 8.7 | -11.7 | -28.4 |
| EBITDA margin | 45.4 | 33.4 | 24.2 | -9.2 | -21.2 |
| Operating profit margin | 33.9 | 18.3 | 6.0 | -12.3 | -27.9 |
| Net profit margin | 46.5 | 18.1 | 2.7 | -15.4 | -43.8 |
| | | | | | |
| Operational data | | | | | |
| Production volume (tons) | 16,769 | 19,084 | 18,199 | -4.6 | 8.5 |
| Sales volume (tons) | 16,758 | 20,673 | 18,175 | -12.1 | 8.5 |
| ASP (USD/ton) | 21,672 | 14,239 | 12,651 | -11.2 | -41.6 |
| Cash cost (USD/ton) | 11,830 | 9,487 | 9,590 | 1.1 | -18.9 |
| Cash margin (USD/ton) | 9,842 | 4,752 | 3,061 | -35.6 | -68.9 |
| S . C . L . M. A . C . | | | | | |

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Table 3. INCO's 1Q24 result run rate

(USDmn)

| Run rate | 1Q24 Actual (a) | FY24F MASI (b) | FY24F Consensus (c) | (a)/(b) (%) | (a)/(c) (%) | 5-years avg run rate (%) | Comment |
|------------------|-----------------|----------------|---------------------|----------------|----------------|-----------------------------|----------------|
| Revenue | 230 | 1,016 | 976 | 22.6 | 23.5 | 22.0 | Inline/ Inline |
| EBITDA | 56 | 389 | 347 | 14.3 | 16.0 | 21.0 | Below/ Below |
| Operating profit | 14 | 202 | 169 | 6.8 | 8.2 | 16.1 | Below/ Below |
| Net profit | 6 | 143 | 143 | 4.3 | 4.3 | 23.1 | Below/ Below |

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Forecast adjustments

We have fine-tuned our 2024F forecasts for INCO. Our adjusted estimates primarily involve changes to its cost of revenue. Our adjustments have resulted in an EBITDA of USD324mn (-17%) and a net profit of USD94mn (-34%).

Table 4. Summary of forecast revision

| | FY24F | | |
|--------------------|----------|-------|--------------|
| Financials (USDmn) | Previous | New | Change (%) |
| Revenue | 1,016 | 1,016 | 0.0 |
| Gross Profit | 229 | 164 | -28.3 |
| EBITDA | 389 | 324 | -16.8 |
| Net Profit | 143 | 94 | -34.2 |
| Margins (%) | Previous | New | Change (ppt) |
| Gross Margin | 22.8 | 16.2 | -6.6 |
| EBITDA margin | 37.6 | 31.9 | -5.7 |
| Net Margin | 14.9 | 9.3 | -5.7 |

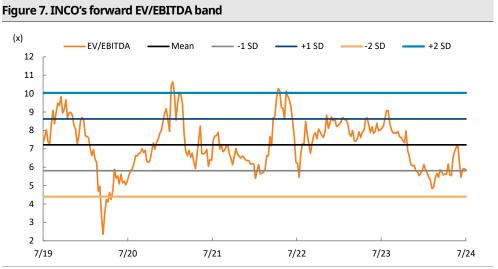
Source: Mirae Asset Sekuritas Indonesia Research

Downgrade recommendation to Hold with a TP of IDR4,240/share

Based on our adjusted forecast, we downgrade our recommendation for INCO to Hold with a lower TP of IDR 4,240/share. This TP is based on 2024F EV/EBITDA multiples of 6.5x (-0.5 SD of INCO's 5-year average EV/EBITDA).

Although we anticipate limited upside potential for INCO in the near term, pending the completion of its future projects, we remain optimistic about the development of these projects. WE think INCO is poised to serve the needs of Indonesia's nickel industry downstream, particularly projects supporting the EV supply chain.

Investment risks include: 1) delays in project execution, 2) further declines in nickel prices and volatility in fuel and energy prices, and 3) changes in government regulation.



Source: Mirae Asset Sekuritas Indonesia Research

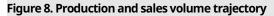
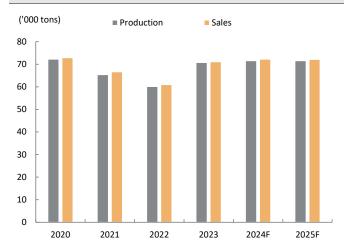
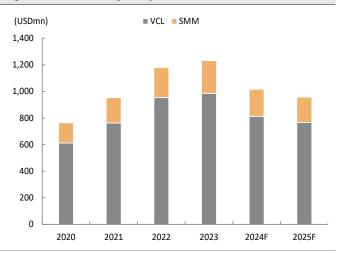


Figure 9. Revenue trajectory



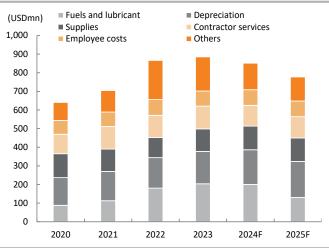


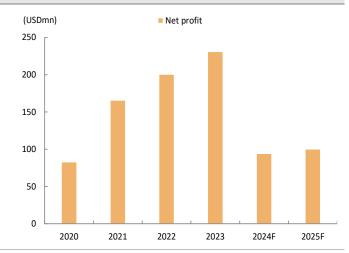
Source: Company data, Mirae Asset Sekuritas Indonesia Research

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Figure 10. Cost of revenue trajectory

Figure 11. Net profit trajectory



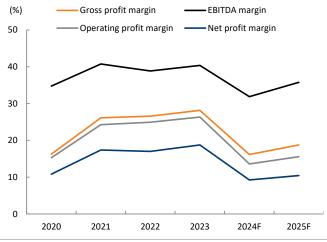


Source: Company data, Mirae Asset Sekuritas Indonesia Research

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Figure 12. Margins trajectory

Figure 13. Forward EV/EBITDA band





Source: Company data, Mirae Asset Sekuritas Indonesia Research

Source: Company data, Mirae Asset Sekuritas Indonesia Research

Vale Indonesia (INCO IJ)

Income statement (summarized)

| zirconne statement (sammi | ai izca, | | | |
|---------------------------|----------|-------|-------|-------|
| (USDmn) | 2022 | 2023 | 2024F | 2025F |
| Revenue | 1,179 | 1,232 | 1,016 | 957 |
| Cost of sales | 866 | 885 | 851 | 778 |
| Gross profit | 314 | 347 | 164 | 179 |
| Operating expenses | 20 | 23 | 26 | 31 |
| EBITDA | 458 | 498 | 324 | 342 |
| Interest income/expense | 4 | 6 | 8 | 8 |
| Pretax profit | 276 | 308 | 121 | 128 |
| Income taxes | 75 | 77 | 27 | 28 |
| Minority interest | 0 | 0 | 0 | 0 |
| Net profit | 200 | 231 | 94 | 100 |
| | | | | |
| Margin (%) | | | | |
| Gross margin (%) | 26.6 | 28.2 | 16.2 | 18.8 |
| EBITDA margin (%) | 38.8 | 40.4 | 31.9 | 35.8 |
| Operating margin (%) | 24.9 | 26.3 | 13.6 | 15.6 |
| Net margin (%) | 17.0 | 18.7 | 9.3 | 10.5 |
| | | | | |
| Growth (%) | | | | |
| Revenue | 23.7 | 4.5 | -17.6 | -5.8 |
| Cost of sales | 22.9 | 2.2 | -3.8 | -8.7 |
| Gross profit | 26.0 | 10.7 | -52.7 | 9.2 |
| Operating expenses | 11.5 | 14.9 | 15.7 | 16.6 |
| EBITDA | 17.9 | 8.6 | -34.9 | 5.7 |
| Net profit | 20.9 | 15.2 | -59.3 | 6.4 |
| | · | | | |

Balance sheet (summarized)

| Dalance Sheet (Sammanizea) | | | | |
|----------------------------|-------|-------|-------|-------|
| (USDmn) | 2022 | 2023 | 2024F | 2025F |
| Current Assets | | | | |
| Cash | 634 | 699 | 721 | 756 |
| Account receivables | 141 | 102 | 100 | 94 |
| Inventories | 156 | 156 | 172 | 157 |
| Others | 59 | 77 | 50 | 47 |
| Non-current assets | | | | |
| Prepaid taxes | 42 | 52 | 47 | 44 |
| Fixed assets | 1,550 | 1,696 | 1,850 | 1,917 |
| Others | 77 | 146 | 62 | 58 |
| Total assets | 2,658 | 2,926 | 3,002 | 3,074 |
| Current liabilities | | | | |
| Account payable | 116 | 141 | 135 | 123 |
| Accrued expense | 28 | 34 | 27 | 24 |
| ST financials | 2 | 6 | 3 | 4 |
| Others | 30 | 37 | 30 | 28 |
| Non-current liabilities | | | | |
| LT financials | 0 | 0 | 0 | 0 |
| Others | 128 | 145 | 148 | 137 |
| Total liabilities | 303 | 361 | 343 | 316 |
| Capital stock | 136 | 136 | 136 | 136 |
| Additional paid in capital | 278 | 278 | 278 | 278 |
| Retained earnings | 1,941 | 2,150 | 2,244 | 2,344 |
| Minority interest | 0 | 0 | 0 | 0 |
| Total equities | 2,355 | 2,565 | 2,659 | 2,759 |

Key valuation metrics/ratios

| | | 2024F | 2025F |
|----------|---|---|--|
| 14.3 | 12.2 | 28.7 | 26.1 |
| 1.2 | 1.1 | 1.0 | 0.9 |
| 8.0 | 7.1 | 10.6 | 9.8 |
| 282 | 331 | 141 | 155 |
| 3,319 | 3,678 | 3,985 | 4,266 |
| 0 | 0 | 0 | 0 |
| 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 0.0 | 2,819.2 | 0.0 |
| 23.7 | 4.5 | -17.6 | -5.8 |
| 17.9 | 8.6 | -34.9 | 5.7 |
| 27.1 | 10.4 | -57.4 | 7.8 |
| 20.9 | 15.2 | -59.3 | 6.4 |
| 8.3 | 12.1 | 10.1 | 10.1 |
| -5.6 | -5.7 | -5.0 | -5.0 |
| -7.5 | -6.3 | -6.3 | -6.3 |
| 7.5 | 7.9 | 3.1 | 3.3 |
| 8.5 | 9.0 | 3.5 | 3.6 |
| 5.7 | 4.8 | 5.3 | 5.9 |
| 0.0 | 0.0 | 0.0 | 0.0 |
| Net cash | Net cash | Net cash | Net cash |
| | 1.2 8.0 282 3,319 0 0.0 23.7 17.9 27.1 20.9 8.3 -5.6 -7.5 7.5 8.5 5.7 0.0 | 1.2 1.1 8.0 7.1 282 331 3,319 3,678 0 0 0.0 0.0 23.7 4.5 17.9 8.6 27.1 10.4 20.9 15.2 8.3 12.1 -5.6 -5.7 -7.5 -6.3 7.5 7.9 8.5 9.0 5.7 4.8 0.0 0.0 Net cash | 1.2 1.1 1.0 8.0 7.1 10.6 282 331 141 3,319 3,678 3,985 0 0 0 0.0 0.0 0.0 0.0 0.0 2,819.2 23.7 4.5 -17.6 17.9 8.6 -34.9 27.1 10.4 -57.4 20.9 15.2 -59.3 8.3 12.1 10.1 -5.6 -5.7 -5.0 -7.5 -6.3 -6.3 7.5 7.9 3.1 8.5 9.0 3.5 5.7 4.8 5.3 |

Source: Company data, Mirae Asset Sekuritas Indonesia Research estimates

Cash flow statement (summarized)

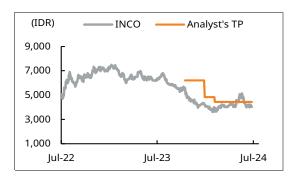
| , | | | | | |
|---------------------------------|------|------|-------|-------|--|
| (USDmn) | 2022 | 2023 | 2024F | 2025F | |
| Operating cash flow | | | | | |
| Net profit | 200 | 231 | 94 | 100 | |
| Depreciation | 143 | 126 | 134 | 140 | |
| Change in working capital | -45 | -8 | 87 | 1 | |
| Others | 0 | -5 | 5 | 0 | |
| Investment cash flow | | | | | |
| Capex | -173 | -271 | -289 | -207 | |
| Others | 0 | 12 | -12 | 0 | |
| Financing cash flow | | | | | |
| Change in financial liabilities | 1 | -1 | 4 | 1 | |
| Change in equity | 0 | 0 | 0 | 0 | |
| Dividend | 0 | 0 | 0 | 0 | |
| Others | 0 | -21 | 0 | 0 | |
| Increase (Decrease) in Cash | 125 | 63 | 23 | 35 | |
| Beginning Balance | 508 | 634 | 699 | 721 | |
| Ending Balance | 634 | 697 | 721 | 756 | |
| | | | | - | |

Appendix 1

Important disclosures and disclaimers

Two-year rating and TP history

| • | | | |
|--------------------------|------------|-------------|----------|
| Company | Date | Rating | TP (IDR) |
| Vale Indonesia (INCO IJ) | 7/8/2024 | Hold | 4,240 |
| | 5/28/2024 | Trading Buy | 4,500 |
| | 2/15/2024 | Trading Buy | 4,500 |
| | 2/6/2024 | Buy | 4,900 |
| | 1/8/2024 | Trading Buy | 4,900 |
| | 10/31/2023 | Buy | 6,300 |
| | 10/25/2023 | Trading Buy | 6,300 |



| Stock ratings | | Sector ratings | | | |
|---------------|--|----------------|--|--|--|
| Buy | Expected 12-month performance: +20% or greater | Overweight | Expected to outperform the market over 12 months | | |
| Trading Buy | Expected 12-month performance: +10% to +20% | Neutral | Expected to perform in line with the market over 12 months | | |
| Hold | Expected 12-month performance: -10% to +10% | Underweight | Expected to underperform the market over 12 months | | |
| Sell | Expected 12-month performance: -10% or worse | | | | |

Rating and TP history: Share price (—), TP (—), Not Rated (■), Buy (▲), Trading Buy (■), Hold (•), Sell (•)

- * Our investment rating is a guide to the expected return of the stock over the next 12 months.
- * Outside of the official ratings of PT Mirae Asset Sekuritas Indonesia, analysts may call trading opportunities should technical or short-term material developments arise.
- *The TP was determined by the research analyst through valuation methods discussed in this report, in part based on estimates of future earnings.
- *TP achievement may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

Disclosures

As of the publication date, PT Mirae Asset Sekuritas Indonesia ("MASID") and/or its affiliates do not have any special interest in the subject company and do not own 1% or more of the subject company's shares outstanding.

Analyst certification

The research analysts who prepared this report (the "Analysts") are certified to the Indonesia Financial Services Authority and are subject to Indonesian Capital Market regulations. They are neither registered as research analysts in any other jurisdiction nor subject to the laws or regulations thereof. Each Analyst responsible for the preparation of this report certifies that (i) all views expressed in this report accurately reflect the personal views of the Analyst about any and all of the issuers and securities named in this report; (ii) no part of the compensation of the Analyst was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report; and (iii) The report does not contain any material non-public information. Except as otherwise specified herein, the Analysts have not received any compensation or any other benefits from the subject companies in the past 12 months and have not been promised the same in connection with this report. Like all employees of MASID, the Analysts receive compensation that is determined by overall firm profitability, which includes revenues from, among other business units, the institutional equities, investment banking, proprietary trading, and etc. At the time of publication of this report, the Analysts do not know or have reason to know of any actual, material conflict of interest of the Analyst or MASID except as otherwise stated herein.

<u>Disclaimers</u>

This report was prepared by MASID, a broker-dealer registered in the Republic of Indonesia and a member of the Indonesia Stock Exchange; on behalf of MASID and its affiliated companies and is provided for information purposes only. Information and opinions contained herein have been compiled in good faith and from sources believed to be reliable, but such information has not been independently verified and MASID (including but not limited to the Analyst, respective employees who owns the expertise) makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness, or correctness of the information and opinions contained herein or of any translation into English from the Indonesia language or as to any information contained in this report or any other such information or opinions remaining unchanged after the issue thereof. In case of an English translation of a report prepared in the Indonesia language, the original Indonesian language report may have been made available to investors in advance of this report. The intended recipients of this report are sophisticated institutional investors who have substantial knowledge of the local business environment, its common practices, laws, and accounting principles, and no person whose receipt or use of this report would violate any laws or regulations or subject MASID or any of its affiliates to registration or licensing requirements in any jurisdiction shall receive or make any use hereof.

This report is for general information purposes only and is not and shall not be construed as an offer or a solicitation of an offer to effect transactions in any securities or other financial instruments. The report does not constitute investment advice to any person, and such person shall not be treated as a client of MASID by virtue of receiving this report. This report does not take into account the particular investment objectives, financial situations, or needs of individual clients. The report is not to be relied upon in substitution for the exercise of independent judgment. Information and opinions contained herein are as of the date hereof and are subject to change without notice. The price and value of the investments referred to in this report and the income from them may depreciate or appreciate, and investors may incur losses on investments. Past performance is not a guide to future performance. Future returns are not guaranteed, and a loss of original capital may occur. Please note that the graphs, charts, formulae, or other devices set out or referred to in this document cannot, in and of itself, be used to determine in deciding which securities to buy or sell, or when to buy or sell a securities. MASID, its affiliates, and their directors, officers, employees, and agents do not accept any liability (express or implied) for any loss arising out of the use hereof and howsoever arising (including, but not limited for any claims, proceeding, action, suits, losses, expenses, damages or costs) which may be brought against or suffered by any person as a result of acting in reliance upon the whole or any part of the contents of this report.

MASID may have issued other reports that are inconsistent with, and reach different conclusions from, the opinions presented in this report. The reports may reflect different assumptions, views, and analytical methods of the analysts who prepared them. MASID may make investment decisions that are inconsistent with the opinions and views expressed in this research report. MASID, its affiliates, and their directors, officers, employees, and agents may

have long or short positions in any of the subject securities at any time and may make a purchase or sale, or offer to make a purchase or sale, of any such securities or other financial instruments from time to time in the open market or otherwise, in each case either as principals or agents. MASID and its affiliates may have had, or may be expecting to enter into, business relationships with the subject companies to provide investment banking, market-making, or other financial services as are permitted under the applicable laws and regulations. In considering any investments you should make your own independent assessment and seek your own professional financial and legal advisors. Should you choose not to seek such advice, you should consider carefully whether the securities is suitable for you.

No part of this document may be copied or reproduced in any manner or form or redistributed or published, in whole or in part, without the prior written consent of MASID. The media is not allowed to quote this report in any article whether in full or in parts without permission from MASID For further information regarding company-specific information as it pertains to the representations and disclosures in this Appendix 1, please contact researchteam@miraeasset.co.id or +62 (21) 5088-7000.

Distribution

United Kingdom: This report is being distributed by Mirae Asset Securities (UK) Ltd. in the United Kingdom only to (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), and (ii) high net worth companies and other persons to whom it may lawfully be communicated, falling within Article 49(2)(A) to (E) of the Order (all such persons together being referred to as "Relevant Persons"). This report is directed only at Relevant Persons. Any person who is not a Relevant Person should not act or rely on this report or any of its contents. United States: MASID 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 report is distributed in the U.S. by Mirae Asset Securities (USA) Inc., a member of FINRA/SIPC, to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6(b)(4) under the U.S. Securities Exchange Act of 1934, as amended. All U.S. persons that receive this document by their acceptance hereof represent and warrant that they are a major U.S. institutional investor and have not received this report under any express or implied understanding that they will direct commission income to MASID or its affiliates. Any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Mirae Asset Securities (USA) Inc. Mirae Asset Securities (USA) Inc. accepts responsibility for the contents of this report in the U.S., subject to the terms hereof, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through MASID. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. persons absent registration or an applicable exemption from the registration requirements.

Hong Kong: This report is distributed in Hong Kong by Mirae Asset Securities (HK) Limited, which is regulated by the Hong Kong Securities and Futures Commission. The contents of this report have not been reviewed by any regulatory authority in Hong Kong. This report is for distribution only to professional investors within the meaning of Part I of Schedule 1 to the Securities and Futures Ordinance of Hong Kong (Cap. 571, Laws of Hong Kong) and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong to any person.

India: This report is being distributed by Mirae Asset Capital Markets (India) Private Limited ("MACM") in India to the customers based in India and is personal information only for those authorised recipient(s). MACM is inter alia a Securities and Exchange Board of India ("SEBI") registered Research Analyst in India and is not registered outside India. MACM and Mirae Asset, Korea are group entities. MACM makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained herein. The user assumes the entire risk of any use made of this information. This report has been provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. Recipient must read the entire Appendix 1 to the report carefully for Important Disclosures & Disclaimers.

All other jurisdictions: Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact MASID or its affiliates only if distribution to or use by such customer of this report would not violate applicable laws and regulations and not subject MASID and its affiliates to any registration or licensing requirement within such jurisdiction.

Mirae Asset Securities International Network

Mirae Asset Securities Co., Ltd. (Seoul)

One-Asia Equity Sales Team Mirae Asset Center 1 Building 26 Eulji-ro 5-gil, Jung-gu, Seoul 04539 Korea

Tel: 82-2-3774-2124

Mirae Asset Securities (USA) Inc.

810 Seventh Avenue, 37th Floor New York, NY 10019 IISΔ

Tel: 1-212-407-1000

Mirae Asset Securities (Singapore) Pte. Ltd.

6 Battery Road, #11-01 Singapore 049909 Republic of Singapore

Tel: 65-6671-9845

Mirae Asset Investment Advisory (Beijing) Co., Ltd

2401B, 24th Floor, East Tower, Twin Towers B12 Jianguomenwai Avenue, Chaoyang District Beijing 100022 China

Tel: 86-10-6567-9699

Ho Chi Minh Representative Office

7F, Saigon Royal Building 91 Pasteur St. District 1, Ben Nghe Ward, Ho Chi Minh City Vietnam

Tel: 84-8-3910-7715

Mirae Asset Securities (HK) Ltd.

Units 8501, 8507-8508, 85/F International Commerce Centre 1 Austin Road West Kowloon Hong Kong Tel: 852-2845-6332

Mirae Asset Wealth Management (Brazil) CCTVM

Rua Funchal, 418, 18th Floor, E-Tower Building Vila Olimpia Sao Paulo - SP 04551-060 Brazil Tel: 55-11-2789-2100

Mirae Asset Securities (Vietnam) LLC

7F, Saigon Royal Building 91 Pasteur St. District 1, Ben Nghe Ward, Ho Chi Minh City Vietnam

Tel: 84-8-3911-0633 (ext.110)

Beijing Representative Office

2401A, 24th Floor, East Tower, Twin Towers B12 Jianguomenwai Avenue, Chaoyang District Beijing 100022 China

Tel: 86-10-6567-9699 (ext. 3300)

Mirae Asset Capital Markets (India) Pvt Ltd

1st Floor, Tower 4, Equinox Business Park, LBS Marg, Off BKC, Kurla (West), Mumbai - 400 070 India

Mirae Asset Securities (UK) Ltd.

41st Floor, Tower 42 25 Old Broad Street, London EC2N 1HQ United Kingdom

Tel: 44-20-7982-8000

PT. Mirae Asset Sekuritas Indonesia

District 8, Treasury Tower Building Lt. 50 Sudirman Central Business District Jl. Jend. Sudirman, Kav. 52-54 Jakarta Selatan 12190 Indonesia

Tel: 62-21-5088-7000

Mirae Asset Securities Mongolia UTsK LLC

#406, Blue Sky Tower, Peace Avenue 17 1 Khoroo, Sukhbaatar District Ulaanbaatar 14240 Mongolia

Tel: 976-7011-0806

Shanghai Representative Office

38T31, 38F, Shanghai World Financial Center 100 Century Avenue, Pudong New Area Shanghai 200120 China

Tel: 86-21-5013-6392

Tel: 91-22-62661300 / 48821300