



Fundamental Analysis of Financial Statements of Nickel Mining Companies Listed on the Idx for the Period 2020–2025

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ABSTRACT

This study aims to examine the fundamental financial performance of two nickel mining companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2025 period, namely PT Aneka Tambang Tbk (ANTM) and PT Vale Indonesia Tbk (INCO). The ratios analysed include Return on Equity (ROE), Earnings per Share (EPS), Debt to Equity Ratio (DER), Price Earnings Ratio (PER), and Price to Book Value (PBV). The approach used is quantitative descriptive with secondary data in the form of officially published annual financial reports. The sample was selected using a simple random sampling method from the population of nickel mining issuers on the IDX. The results show that ANTM achieved a strong profitability recovery in 2025 with an ROE of 20.42%, EPS of Rp299.98, and DER of 43.53%. INCO maintained a conservative capital structure (DER of 20.57%) with an EPS of Rp120.04 and ROE of 2.74% in 2025, reflecting operational cost pressures amidst the expansion of downstream projects. This finding is consistent with signalling theory and agency theory that the financial ratio profile reflects fundamental signals for investors in the commodity sector, which is highly sensitive to global price cycles.

INTRODUCTION

Indonesia is one of the world's largest nickel producers, contributing approximately 48.6% of total global nickel production in 2022 (Statista, 2024). This strategic position makes the nickel sector the backbone of national exports and a major focus for investors in the Indonesian capital market. Global nickel demand continues to rise, driven by its vital role in the electric vehicle (EV) battery industry as a key cathode component (Arif, 2023). This encourages Indonesia to not only pursue production volume but also to increase added value through mineral downstreaming policies.

Since 2020, the Indonesian government has banned the export of raw nickel ore and mandated domestic refining. This downstreaming program has resulted in a surge in the export value of processed nickel products, from USD 11 billion in 2020 to USD 33.8 billion in 2022 (Directorate General of Minerals and Coal, 2024). However, a surplus of nickel supply has pushed global prices to their lowest level since 2021, around USD 16,000 per ton (CNBC Indonesia, 2024).

This dynamic has a direct impact on the performance of nickel issuers on the IDX. Meanwhile, the number of Indonesian capital market investors continues to surge, from 3.87 million SID in 2020 to 20 million SID by the end of 2025 (Indonesia Stock Exchange, 2025), yet fundamental analysis literacy among retail investors remains relatively low. Investors generally use financial ratios such as Return on Equity (ROE), Earnings per Share (EPS), Debt to Equity Ratio (DER), Price Earnings Ratio (PER), and Price to Book Value (PBV) as the basis for investment assessment (Brigham and Houston, 2010).

Several previous studies have examined the relationship between financial ratios and stock performance in the mining sector. Abdullah, Rachma, and Marlinah (2022) demonstrated that ROE, EPS, and DER significantly influence the stock prices of mining companies on the Indonesia Stock Exchange (IDX). Halimatus and Hadi Santoso (2023) demonstrated that financial performance influences the stock prices of mining issuers in the metals and minerals sector on the IDX. Rahmawati (2023) found that PBV and ROE had a significant positive effect, while DER had a negative effect on stock prices.

However, several research gaps remain unanswered. First, no study has specifically analysed the fundamental performance of nickel issuers during the post-full downstreaming period (2020–2025), encompassing three distinct phases: the pandemic (2020–2021), the commodity supercycle (2022), and price normalisation (2023–2025). Second, a six-year longitudinal comparative analysis across nickel issuers on the IDX is not yet available.

The urgency of this research rests on three factors. First, the transformation of the nickel industry due to downstreaming policies requires updated financial performance analysis to reflect current conditions. Second, the rapid growth of retail investors requires accurate fundamental analysis. Third, the high volatility of global nickel prices makes internal financial ratio analysis crucial to complement external analysis.

This study aims to analyse the fundamental financial performance of PT Aneka Tambang Tbk (ANTM) and PT Vale Indonesia Tbk (INCO) during 2020–2025, and compare the performance patterns of both as a reference for investors and academics.

THEORETICAL FRAMEWORK

Signaling Theory

Signalling theory was first proposed by Spence (1973) and developed in the context of corporate finance by Ross (1977). This theory states that internal parties in a company have more complete information than external investors, thus financial reports serve as signals to the market. An increasing ROE or decreasing DER is a positive signal of a company's financial condition (Putri, Budiyanto, and Triyonowati, 2023). In the context of this research, the financial ratio trends of ANTM and INCO during 2020–2025 are viewed as a series of signals that shape investor perceptions of the prospects of both issuers.

Agency Theory

Jensen and Meckling (1976) explained the relationship between principals (shareholders) and agents (management). Agency conflicts arise when management's interests are not aligned with those of shareholders. A high DER may reflect management's preference for more aggressive leverage, which poses risks to shareholders, particularly during adverse market conditions (Ridho and Rismawandi, 2024). Monitoring through financial ratios is a relevant control mechanism for management behaviour in this comparative study.

Efficient Market Hypothesis (EMH)

Fama (1970) argued that in a semi-strong form efficient market, stock prices reflect all available public information, including financial statements. Variations in the PBV and PER of the two issuers during the study period reflect how the market reflects and responds to changes in company fundamentals amidst global nickel price dynamics.

Definition of Research Variables

Return on Equity (ROE) measures the level of net profit from a company's equity, formulated as net profit divided by total equity (Hery, 2015). Earnings per Share (EPS) is the profit allocated to each outstanding share (Sari and Sukardi, 2025). The Debt to Equity Ratio (DER) measures the proportion of debt to equity, reflecting the company's dependence on external financing (Oktaviani, Mursalini, and Sriyanti, 2023). The Price Earnings Ratio (PER) shows the comparison of market price to EPS, reflecting investor expectations of profit growth. Price to Book Value (PBV) compares market price to book value per share to assess the relative valuation of a stock.

Empirical Review

Abdullah, Rachma, and Marlinah (2022) examined the effect of financial performance on the stock prices of mining companies listed on the Indonesia Stock Exchange (IDX) and found that ROE, EPS, and DER simultaneously had a significant effect. This study serves as an important reference because it directly used a sample of mining issuers listed on the IDX with the same ratios as this study.

Halimatus and Hadi Santoso (2023) analyzed the influence of financial performance on stock prices in the metals and minerals mining sector on the IDX and found that profitability is the primary determinant of stock prices in this sector. This finding is relevant because it focuses specifically on the metals and minerals subsector, which includes nickel issuers.

Rahmawati (2023) examined the effect of EPS, PER, PBV, ROE, and DER on the stock prices of companies in the transportation subsector. The results showed that PBV and ROE had a significant positive effect, while DER had a significant negative effect on stock prices. Although different sectors, the patterns of influence of these ratios provide a useful comparative framework.

Suratman and Wibowo (2022) demonstrated that EPS, DPS, and ROE had a significant positive effect on the stock prices of mining companies listed on the Indonesia Stock Exchange (IDX) during the 2017–2020 period, with EPS as the most dominant variable. Tiara, Malikah, and Hariri (2020) confirmed similar findings for the 2016–2019 period. Both studies underscore the central role of EPS as a profitability signal that the market responds most to.

This research differs from previous studies in its longer and more recent coverage period (2020–2025), encompassing three distinct industry phases. It focuses specifically on two nickel issuers with audited data through 2025 and provides an in-depth comparative analysis that integrates three key theories.

METHODS

This study uses a quantitative descriptive method to examine and describe the company's fundamental financial condition based on official financial report data. This approach was chosen because it provides objective and systematically measurable information regarding the company's financial performance through relevant ratios (Sa'adah, 2021; Sugiyono, 2019).

This study does not focus on statistical hypothesis testing, but rather aims to provide a systematic overview of ROE, DER, EPS, PER, and PBV ratios to describe the profitability, solvency, and stock valuation of two issuers comparatively over six years. Data are sourced from annual financial reports officially published to the IDX.

The population of this study was all nickel mining companies listed on the Indonesia Stock Exchange (IDX). Based on IDX data, there were eight issuers operating in the nickel ecosystem during the 2020–2025 period. Sampling was conducted using a simple random sampling method, meaning each member of the population has an equal chance of being selected as a sample, without considering any specific characteristics (Sugiyono, 2019). Of the eight issuers in the population, two issuers were selected as samples with a total of 12 observation data (2 companies × 6 years): PT Aneka Tambang Tbk (ANTM) and PT Aneka Tambang Tbk (INCO). The minimum requirements met by both selected samples were being listed on the IDX main board consecutively during 2020–2025, and having published accessible annual financial reports for the entire study period.

RESULTS

The following presents the results of a fundamental analysis of the two samples based on official audited financial statements for the period 2020–2025. All ratios are calculated directly from the figures in the financial statements to ensure accuracy.

PT Aneka Tambang Tbk (ANTM)

Table 1. Financial Performance of PT. Aneka Tambang Tbk

Year	ROE	DER	EPS (Rp)	PER (x)	PBV (x)
2020	6.04%	66.70%	48	40	2.44
2021	8.93%	58.00%	77	3	0.26
2022	16.11%	41.90%	159	12	2.01
2023	9.88%	37.50%	128	13	1.31
2024	11.96%	38.30%	160	10	1.14
2025	20.42%	43.53%	300	10.50	2.14

Source: Processed data

ANTM demonstrated the most progressive profitability trajectory among the two issuers. ROE consistently increased from 6.04% (2020) to a peak of 16.11% (2022), then declined to 9.88% (2023) due to nickel price normalization, before surging to 20.42% (2025) thanks to a net profit of IDR 7.21 trillion, nearly double the 2024 profit of IDR 3.65 trillion (PT Aneka Tambang Tbk, 2026). It should be noted that ROE is calculated using profit attributable to owners of the parent entity (IDR 7.21 trillion) divided by the parent's owners' equity (IDR 35.30 trillion), rather than total consolidated equity, for methodological consistency.

ANTM's EPS grew from Rp48 (2020) to Rp300 (2025). The compound annual growth rate (CAGR) is 44.3% per year. This figure means that every year for five years ANTM's EPS grew by an average of 44.3% compounded, not meaning that the total five-year growth was 44.3%. The cumulative growth over five years is $(300 - 48) / 48 \times 100\% = 525\%$, while the CAGR of 44.3% is its annual geometric average. This growth is driven by operational efficiency in the gold segment which contributed sales of Rp66.83 trillion out of total revenue of Rp84.64 trillion in 2025.

In terms of capital structure, ANTM's DER declined consistently from 66.70% (2020) to 37.50% (2023), but rose again to 43.53% (2025) due to the withdrawal of new long-term loans amounting to IDR 6.25 trillion to fund strategic downstream investments. This DER increase is noteworthy, although the value of 43.53% is still considered moderate. A PBV valuation of 2.14 in 2025 reflects market appreciation of ANTM's profitability recovery. A PER of 10.50 indicates a relatively affordable valuation compared to the mining sector average.

PT Vale Indonesia Tbk (INCO)**Table 2. Financial Performance of PT Vale Indonesia Tbk.**

Year	ROE	DER	EPS (Rp)	PER (x)	PBV (x)
2020	4.10%	14.57%	137	37	1.51
2021	7.70%	14.78%	274	17	1.30
2022	8.51%	12.88%	331	21	1.80
2023	10.70%	14.09%	453	9	1.00
2024	2.11%	16.24%	95	38	0.85
2025	2.74%	20.57%	120.04	43.11	1.18

Source: Processed data (2026)

INCO exhibits a fundamentally different profile than ANTM. Its primary advantage is its capital structure conservatism, with a stable DER of 12–21% over six years, reaching 20.57% in 2025. This reflects minimal reliance on external debt and a significantly lower financial risk profile than ANTM.

INCO's ROE peaked at 10.70% (2023) and then declined significantly to 2.11% (2024) and 2.74% (2025). The decline in ROE in 2025 occurred despite a 32% increase in net profit to USD 76.06 million (equivalent to IDR 1.29 trillion) (Maybank Trade, 2026), due to an increased equity base due to the massive asset expansion at the Pomalaa and Bahodopi projects. EPS fell from a peak of IDR 453 million (2023) to IDR 120.04 million (2025) in line with the impact of expansion operating costs that have not yet fully generated revenue.

INCO's PBV of 1.18 (2025) indicates the market is placing a moderate premium over book value, reflecting expectations for the productivity of future expansion projects. A PER of 43.11 reflects high market expectations for INCO's earnings recovery following the completion of the HPAL project.

DISCUSSION

Profitability Analysis (ROE) Across Issuers

In terms of profitability, ANTM and INCO exhibit divergent patterns reflecting differences in business strategies. ANTM maintained an increasing ROE trend, peaking at 20.42% in 2025, driven by diversification into the gold segment, which provides more stable returns than pure nickel. This finding aligns with Abdullah, Rachma, and Marlinah (2022), who demonstrated that ROE has a significant positive effect on the stock prices of mining companies, and is consistent with signaling theory, which states that a high ROE is a positive signal to the market (Spence, 1973).

In contrast, INCO's ROE, which fell to 2.74% in 2025 despite a 32% increase in net profit, reflects a phenomenon explained by agency theory (Jensen and Meckling, 1976): aggressive management expansion through large capex investments that have not yet generated full revenues may not immediately benefit shareholders in the short term. This condition differs from the findings of Halimatus and Hadi Santoso (2023) who found profitability as the main determinant of stock prices in the metal mineral sector. In INCO, the market

appears to discount the decline in ROE by anticipating a long-term recovery, as reflected in the PER which remains high (43.11).

Financial Leverage Analysis (DER)

A comparison of DER reveals fundamentally different capital structure philosophies between the two issuers. INCO maintained a very low DER (12–21%) throughout the six years, reflecting conservative equity-based funding. This finding aligns with Rahmawati (2023) who found that DER negatively impacts stock prices; the higher the DER, the greater the risk perceived by investors. Within the agency theory framework, ANTM's increasing DER can be interpreted as a signal that management is choosing more aggressive leverage for expansion, which requires shareholder oversight. Nevertheless, a DER of 43.53% remains within a reasonable level for a large-scale mining company.

EPS Analysis as an Investor Signal

EPS is the indicator that most directly reflects a company's ability to provide economic benefits to shareholders (Sari and Sukardi, 2025). ANTM recorded significant EPS growth. This growth is consistent with the findings of Suratman and Wibowo (2022) and Tiara, Malukah, and Hariri (2020), which demonstrated that EPS is the most dominant variable influencing mining stock prices. INCO exhibits a different pattern. INCO's post-2023 EPS decline, accompanied by a high PER (43.11), indicates that investors anticipate an EPS recovery following the completion of the HPAL project, consistent with the semi-strong EMH (Fama, 1970), where the market has factored future prospects into prices.

Market Valuation Analysis (PBV and PER)

The market valuations of the two issuers reflect differing perceptions. ANTM's PBV of 2.14 (2025) indicates the market is willing to pay a premium of 2.14 times the book value per share (Rp1,468.88), reflecting strong growth expectations. This aligns with research by Rahmawati (2023), which demonstrated that PBV has a positive and significant effect on share prices.

INCO's PBV of 1.18 indicates the market is placing a moderate premium over its book value per share (Rp4,389.66), although lower than ANTM's. Research by Halimatus and Hadi Santoso (2023) shows that in the metals and minerals sector, valuations are highly dependent on commodity price prospects and the progress of expansion projects. INCO's PER of 43.11 indicates expectations of a significant profit recovery, as the market anticipates that the HPAL and Furnace 3 projects, completed in 2026, will drive a surge in EPS.

CONCLUSIONS AND RECOMMENDATIONS

Based on a fundamental analysis of ANTM and INCO during 2020–2025, three main conclusions can be drawn, namely PT Aneka Tambang Tbk (ANTM) showed the most progressive fundamental performance and reflected significant improvements in its capital structure. Besides that, PT Vale Indonesia Tbk (INCO) demonstrates superiority in terms of capital structure conservatism. Comparatively, ANTM is more suitable for a growth portfolio, while INCO is more suitable for a long-term defensive portfolio. This pattern is consistent with

the predictions of signaling theory, agency theory, and the EMH, which form the theoretical basis of this research

FURTHER STUDY

Expand the sample to all BEI nickel issuers, and add macroeconomic variables (LME nickel price, USD/IDR exchange rate).

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