Available online at:
https://jurnal.integrasisainsmedia.co.id/index.php/JISSB
Journal Integration of Social Studies and Business Development
Volume 1 Number 2: 121-126
DOI: 10.58229/jissbd.v1i2.121

Stock Valuation of PT Indika Energy Tbk: Impact of Net Zero Emission Transition

Mohammad Rusyad Salim*[1], Erman Arif Sumirat[2], Subiakto Sukarno[3]
School of Business and Management, Institut Teknologi Bandung, Indonesia[1,2,3]
Email: mohammad_salim@sbm-itb.ac.id

Abstract

Climate change drives countries and the private sector to reduce their emission. Investors are becoming aware of sustainability issues and are more likely to prioritize companies demonstrating strong ESG. Adapting to this condition, coal mining companies in Indonesia are improving their ESG performance, one of which is PT Indika Energi Tbk (INDY). As one of the biggest mining companies in Indonesia, INDY has carried out sustainability initiatives and made it one of the companies with the best ESG scores compared to its competitors. However, Indika Energy's good ESG performance was not followed by its good stock performance. This phenomenon initiated the author to analyze how the business transition to low-carbon and Net Zero Emission (NZE) development by INDY will affect the stock valuation. The valuation was based on the Discounted Cash Flow (DCF) method, forecasting ten years of future financial statements considering the company's past performance and strategy. The evaluation was conducted under the Business-As-Usual (BAU) and the NZE Transition Scenario. The author also calculates relative valuations to achieve a more thorough and robust assessment of company value. Based on the DCF method, the intrinsic value of INDY is Rp 2,899 and Rp 2,726 per share for BAU and the NZE Transition Scenario, respectively, while the market price of a share is 1,910 as of the end of Jun-23, which indicated that current share price is undervalued. Therefore, it is recommended that investors buy INDY stock at the current price. The results also showed that the company's diversification strategy did not increase the value of its shares. This outcome might be attributed to the lack of strong incentives from the government or the capital market for supporting sustainable business practices. The company should take the initiative to increase the value, optimize capital structure, and assess assets.

Keywords: Business Diversification; ESG; Net Zero Emission; Stock Valuation.

A. INTRODUCTION

The ESG generally will positively impact the company's financial performance and stock value. A report by Morningstar showed that 27% of the firm's ESG indexes outperformed comparable non-ESG indexes in 2022, while 78% of companies in ESG indexes outperformed their non-ESG counterparts over five years. However, while the corporate ESG performance disclosure appears to be linked to higher financial performance, this is not true for all industries, including coal mining.

The coal mining industry is a cornerstone of Indonesia's economic landscape, wielding substantial influence over the nation's growth trajectory and energy dynamics. Nineteen coal mining companies in Indonesia are listed on the Indonesia Stock Exchange (IDX). From those listed companies, the five biggest companies by revenue in 2022 are PT Adaro Energy Indonesia Tbk (ADRO), PT Dian Swastika Sentosa Tbk (DSSA), PT Bayan Resources Tbk (BYAN), PT Indika Energy Tbk (INDY), and PT Indo Tambangraya Megah Tbk (ITMG).

INDY, established in 2000, is an energy company that originally focused on coal resources. Over time, INDY has transformed into a diversified energy company in Indonesia with a portfolio of energy, logistics infrastructure, minerals, green business, and digital businesses. Aligning with Indonesia's commitment to achieving NZE by 2060, INDY has two main aspirations, i.e., achieving net NZE in 2050 and increasing the non-coal revenue mix to 50% by 2025 (INDY press release, 2021). These aspirations become the main driver of INDY to expand its business portfolio to non-coal sectors.

In Indonesia's coal mining industry, INDY stands out as a role model of responsible and sustainable practices, which has earned it the award with the lowest ESG risk rating score among other Big Five coal mining companies. The ESG Risk Ratings measure a company's exposure to industry-specific material ESG risks and how well a company is managing those risks. According to Company ESG Risk Ratings (the lower, the better) by Sustainalytics, INDY's ESG Risk Rating Score is 34.9. This figure is quite good for mining companies in

* Corresponding author

Indonesia compared to other big five coal mining companies that have an ESG Risk Rating Score of more than 43.

However, INDY's good ESG performance was not followed by its good financial and stock performance. INDY's main goals, i.e., achieve net NZE in 2050 and increase the non-coal revenue mix to 50% by 2025, were announced in 2021. According to the IDX stock chart, INDY stock performance within the January 2021 – June 2023 period is the lowest compared to other Big Five companies. INDY's share price increase was only 9.83%, far behind its competitors, ranging from 51.89% to 933.59%.

INDY case shows that good ESG performance does not always result in good financial and stock performance. The correlation between ESG and financial performance is unclear whether there is a positive, negative, or no association (Brooks & Oikonomou, 2018). While some studies documented a positive association (Kumar & Firoz, 2022; Gholami et al., 2022), others reveal a non or negative relationship (Clacher & Hagendorff, 2012). These inconclusive results likely stem from the underlying ESG data and the varying methodologies applied (Giese et al., 2019).

Finally, according to (Damodaran, 2021), ESG factors impact a company's financial performance, reputation, and risk profile. Hence, it will influence enterprise value. When conducting a business valuation considering Environmental, Social, and Governance (ESG) factors, a crucial initial step involves identifying pertinent risks and opportunities inherent in the company's business model. This process often entails referencing ESG ratings, corporate sustainability reports, and analysts' assessments as valuable information sources. The impact of the identified factors on the operating business, financing, and cash flow should then be assessed and quantified for each company on a case-by-case basis.

INDY's business diversification strategy is expected to significantly impact its overall operations, influencing its financial performance projection and valuation. In order to assess the effect of this diversification strategy on the company's value, it is essential to conduct a comprehensive company valuation that incorporates both quantitative and qualitative aspects. As part of its strategic approach, the research will specifically analyze how INDY's transition towards low-carbon and NZE development will shape its valuation. Finally, the conclusion can be drawn whether the current stock price is undervalued or overvalued based on possible scenarios, and the recommendations action can be developed for both investors and the company itself.

B. RESEARCH METHOD

The study utilizes a mix of qualitative and quantitative research methodologies to provide a comprehensive analysis of the company's intrinsic value. Qualitative research aims to assess the company's external environment and internal strengths and weaknesses, which also determines the company's financial projections. Quantitative research involves financial analysis, modelling, and company valuation to estimate the value of INDY. Integrating both approaches enables a robust evaluation of the company's valuation and provides valuable recommendations for investors and the company itself. The data collection process should ensure the utilization of credible and reliable information. To achieve these objectives, the author relies on a combination of secondary data sources, including company annual reports, company sustainability reports, market research, literature, and textbooks related to the research.

This research will emphasize company valuation as a result of the NZE transition. The study aims to assess the company's valuation by incorporating financial modelling techniques to forecast revenue and costs based on relevant independent variables. The primary quantitative data analysis revolves around Discounted Cash Flow (DCF) valuation, utilizing Free Cash Flow to Firm (FCFF) and the Multiplier Model. The author will use mathematical modelling to forecast revenue and cost from other independent variables (if any) for the financial modelling. For company valuation, the most appropriate methods for INDY valuation are DCF valuation based on FCFF and the multiplier model.

C. RESULTS AND DISCUSSION

This research assesses the impact of INDY's transition towards low-carbon and NZE development on the company's valuation. Two distinct scenarios will be developed for this evaluation: the Business-As-Usual (BAU) scenario and the NZE Transition Scenario. Under the BAU scenario, the assumption is that INDY will maintain its primary focus on the coal business, with minimal growth in the non-coal sector. Conversely, the NZE Transition Scenario posits that INDY will progressively phase out its coal business and prioritize the growth of its non-coal business operations, ultimately working towards achieving the NZE target.

Weighted Average Cost of Capital (WACC) determines the discount factor. The author assumes that the cost of capital remains the same between the BAU scenario and the NZE Transition Scenario due to the difficulty in determining the adjustment amount and the risk of double counting when integrating ESG factors (Bos, 2014). Using company financial statement and market data as of June 2023, The WACC for INDY is 12.88%.

Table 1. WACC Calculation

WACC Calculation	Value	Notes
Debt Weight	62.60%	Debt / (Debt + Equity)
Cost of Debt before tax	7.61%	Author analysis
Cost of Debt after tax	5.94%	Cost of Debt before tax x (1-Tax)
Equity Weight	37.40%	Equity / (Debt + Equity)
Cost of Equity	24.50%	Author analysis
WACC	**12.88%**	

Source: Processed Data, 2023

In modelling financial data, the author made reasonable assumptions based on the company's historical data, production capacity, mineral reserves, management target, and industry data. According to INDY, the coal business comprises the energy resources segment, while the non-coal business comprises energy services, logistics infrastructure, mineral, green business, and digital ventures segments. In the BAU scenario, the coal business is the main revenue stream, although the percentage decreased slightly over the year. In the NZE transition scenario, the coal business still dominates the company revenue but with a more significant reduction over the year. This figure is still far from INDY's target of achieving a 50% contribution to non-coal sector revenue by 2025. According to the author's analysis, this target is difficult to achieve unless there is business divestment in the energy resources segment.

Table 2. Coal and Non-coal Revenue Contribution

Scenario	Revenue Contribution	P. 2023	P. 2024	P. 2025	P. 2026	P. 2027	P. 2028	P. 2029	P. 2030	P. 2031	P. 2032
BAU	**Coal Business**	85.4%	82.2%	80.5%	79.0%	77.7%	77.0%	76.4%	75.7%	75.0%	74.3%
	Non-Coal Business	14.6%	17.8%	19.5%	21.0%	22.3%	23.0%	23.6%	24.3%	25.0%	25.7%
NZE Transition	**Coal Business**	84.0%	79.3%	76.1%	72.8%	69.7%	67.6%	65.6%	63.5%	61.5%	59.5%
	Non-Coal Business	16.0%	20.7%	23.9%	27.2%	30.3%	32.4%	34.4%	36.5%	38.5%	40.5%

Source: Processed Data, 2023

FCFF projection is developed by summing up EBIT after tax, depreciation, capital expenditure (capex), and delta working capital investment (WC Inv). To calculate EBIT, the author makes an income statement projection for the INDY business segment and its elimination value. Depreciation, capex, and delta WC Inv. are calculated based on its ratio to company sales. The ratio is calculated based on an average from the last five years. After ten years, the author also assumes that INDY's business will grow at a set growth rate forever after the forecast period. With this approach, terminal value can used to value the business in year 10. The discount factor for calculating discounted FCFF refers to the WACC figure in the previous calculation, which is 12.88%. The Present value of FCFF calculation for both scenarios is as follows:

Table 1. FCFF Projection for BAU Scenario

FCFF	P. 2023	P. 2024	P. 2025	P. 2026	P. 2027	P. 2028	P. 2029	P. 2030	P. 2031	P. 2032
Revenue	3219	2874	2845	2882	2954	3004	3058	3110	3164	3220
EBIT	420	344	329	343	349	355	360	366	371	377
EBIT (1-Tax)	328	268	257	268	272	277	281	285	289	294
Depreciation	138	138	138	138	138	138	138	138	138	138
Capex	302	302	302	302	302	302	302	302	302	302
Delta WC Inv	(110)	(34)	(3)	4	7	5	5	5	5	6
FCFF	**273**	**138**	**95**	**100**	**101**	**107**	**112**	**116**	**120**	**124**
Terminal Value										**1161**
PV FCFF	**242**	**108**	**66**	**62**	**55**	**52**	**48**	**44**	**40**	**383**

Source: Processed Data, 2023

Table 2. FCFF Projection for NZE Transition Scenario

FCFF	P. 2023	P. 2024	P. 2025	P. 2026	P. 2027	P. 2028	P. 2029	P. 2030	P. 2031	P. 2032
Revenue	3274	2921	2887	2938	3028	3086	3146	3205	3268	3335
EBIT	428	345	326	337	341	344	348	352	358	363
EBIT (1-Tax)	334	269	254	263	266	268	271	275	279	283
Depreciation	138	138	138	138	138	138	138	138	138	138
Capex	302	302	302	302	302	302	302	302	302	302
Delta WC Inv	(104)	(35)	(3)	5	9	6	6	6	6	7
FCFF	**274**	**139**	**93**	**93**	**93**	**98**	**101**	**105**	**108**	**113**

Terminal Value	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1056**
PV FCFF	**242**	**109**	**65**	**58**	**51**	**47**	**43**	**40**	**36**	**348**

Source: Processed Data, 2023

Equity value, also known as market value of equity or market capitalization, represents a company's overall worth that belongs to its equity investors. To arrive at this figure, one can calculate the company's share price multiplied by the total number of outstanding shares. Another approach involves beginning with the Enterprise Value and deriving the Equity Value from it by subtracting debt and non-controlling interest, adding cash and marketable securities. In order to calculate the stock price valuation, the Equity value is divided by the number of shares. The Equity value per share calculation for both scenarios is as follows:

Table 3. Equity Value Per Share For BAU Scenario (in USD Mn)

	BAU	**NZE Transition**
Enterprise Value	1,100	$ 1,039
Less Debt	(1,097)	$ (1,097)
Less Non-Controlling interest	$ (150)	$ (150)
Add Cash and Marketable Securities	$ 1,155	$ 1,155
Equity Value	$ 1,007	$ 947
Number of shares	5,210,192,000	5,210,192,000
Equity value per share (Full amount)	$ 0.19	$ 0.18
Equity value per share (Full amount)	**IDR 2,899**	**IDR 2,726**

Source: Processed Data, 2023

Based on the DCF method, the intrinsic value is Rp 2,899 per share for the BAU Scenario and Rp 2,726 for the NZE Transition Scenario. Thus, it can be concluded that INDY's diversification strategy in achieving NZE has not been able to increase the value of the company's shares. This may occur due to the lack of strong incentives from the government or from the capital market for companies that support sustainable business practices so that the ESG-added value generated cannot cover the costs incurred in this initiative.

If it refers to the current market price, INDY's stock price is undervalued by both scenarios. Recall that as of June 23, the market price for INDY stock is Rp 1,910. Therefore, at this moment, the INDY stock is undervalued by 989 and 816 for the BAU scenario and NZE transition scenario, respectively. Based on the author's observations, the movement of shares of coal mining companies is strongly influenced by coal prices, which are currently declining.

Another method for stock valuation is relative valuation or price multiple. The fundamental ratios used are EV/EBITDA, ROE, PBV, and PER. The market cap and DER are also calculated to provide information on company size and capital structure. The price multiples analysis involves the big ten coal mining companies.

Table 4. Price Multiples for Big 10 Coal Mining Companies

Ratio	**Position**	**Market Cap**	**EV/ EBITDA (x)**	**ROE (%)**	**PBV (x)**	**PER (x)**	**DER (x)**
INDY	Jun-23	10.3 T	3.63 x	12.91%	0.51 x	3.15 x	1.27 x
BUMI	Jun-23	49.4 T	31.42 x	5.68%	1.16 x	20.09 x	0.54 x
ADRO	Mar-23	76.8 T	1.74 x	24.78%	0.72 x	2.78 x	0.39 x
PTBA	Mar-23	32.0 T	6.36 x	15.21%	1.08 x	6.87 x	0.56 x
BYAN	Mar-23	588.3 T	20.18 x	61.96%	19.83 x	27.02 x	0.39 x
DSSA	Mar-23	42.0 T	2.19 x	20.47%	0.84 x	3.92 x	0.95 x
ITMG	Jun-23	31.2 T	1.83 x	31.49%	1.16 x	3.29 x	0.24 x
GEMS	Mar-23	40.3 T	2.32 x	95.19%	3.38 x	2.93 x	0.75 x
BSSR	Mar-23	9.9 T	2.70 x	61.86%	2.46 x	3.50 x	0.76 x
HRUM	Jun-23	21.8 T	2.67 x	23.94%	1.22 x	4.80 x	0.16 x
Average		**90.2 T**	**7.50 x**	**35.35%**	**3.24 x**	**7.84 x**	**0.60 x**
Median		**36.2 T**	**2.69 x**	**24.36%**	**1.16 x**	**3.71 x**	**0.55 x**

Source: Processed Data, 2023

Notes:

a. INDY : PT Indika Energy Tbk
b. BUMI : PT Bumi Resources Tbk
c. ADRO : PT Adaro Energy Indonesia Tbk
d. PTBA : PT Bukit Asam Tbk
e. BYAN : PT Bayan Resources Tbk
f. DSSA : PT Dian Swastatika Sentosa Tbk

g. ITMG : PT Indo Tambangraya Megah Tbk
h. GEMS : PT Golden Energy Mines Tbk
i. BSSR : PT Baramulti Suksessarana Tbk
j. HRUM : PT Harum Energy Tbk

INDY has the second lowest market cap compared to its peers. Based on the table above, INDY's PBV and PER are below the industry average and median, indicating that the current INDY stock price is relatively low compared to others. However, INDY EV/EBITDA is higher than the median, indicating the Enterprise Value is relatively high compared to its EBITDA. Regarding ROE, INDY is also the second lowest, which means it has relatively low profitability. The DER ratio for INDY is also the highest, which indicates that its debt is relatively high compared to its equity. Using PER and EV/EBITDA big ten coal companies' median, share price for INDY based on relative valuation methods can be calculated as follows:

Table 5. Relative Valuation for INDY

Ratio	Value	Remarks
PER (x)	3.71 x	Peer median
Annualized Earning per Share	629.14	INDY Annualized 6M-2023
Price per Share	**2,334**	
PBV(x)	1.16 x	Peer median
Book Value per Share	3,884	INDY Jun-23
Price per Share	**4,505**	

Source: Processed Data, 2023

D. CONCLUSION

As of June 2023, INDY's market stock price was 1,910, deemed undervalued compared to its intrinsic value. Under the BAU scenario, the intrinsic value was calculated to be Rp 2,899 per share; under the NZE Transition Scenario, it was Rp 2,726 per share. The relative valuation using Price-to-Earnings (PER) and Price-to-Book Value (PBV) ratios also indicates that INDY's stock is undervalued. The intrinsic valuation results also showed that the company's diversification strategy did not increase the value of its shares. This outcome might be attributed to the lack of strong incentives from the government or the capital market for supporting sustainable business practices. The additional value generated from ESG (Environmental, Social, and Governance) initiatives might not have covered the costs incurred in pursuing these initiatives.

For investors, the current stock price of INDY presents an intriguing opportunity. With a share price of IDR 1,910 considered undervalued compared to its intrinsic value of IDR 2,899 per share under the BAU Scenario and IDR 2,726 per share under the NZE transition scenario, there is an opportunity for an increase in the stock price in the future. An undervalued stock often indicates that the market has not fully recognized the company's true worth, which could lead to significant gains once the stock's true value is realized. However, conducting thorough due diligence and seeking professional advice will help investors make informed investment decisions and maximize the potential for long-term returns.

According to the author's findings, the company's diversification strategy did not increase the value of its shares. However, this does not mean that INDY's diversification strategy must be stopped. The assumptions used in calculating the valuation are based on the current situation, where the ESG initiative of the company's business diversification has not been able to provide added value. Therefore, the authors recommend that companies continue diversifying their business, committing to ESG initiatives, optimizing capital structure, and assessing overall project returns to maximize firm value based on current conditions.

REFERENCES

Bos, Jeroen. (2014, November/December). Using ESG Factors for Equity Valuation. CFA Institute Magazine, 17. https://www.cfainstitute.org/-/media/documents/article/cfa-magazine/2014/cfm-v25-n6-5.ashx

Brooks, C. and Oikonomou, I. (2018). The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. The British Accounting Review. 50(1). 1-15. https://doi.org/10.1016/j.bar.2017.11.005

Clacher, I. and Hagendorff, J. (2012). Do announcements about corporate social responsibility create or destroy shareholder wealth? Evidence from the UK, Journal of Business Ethics, 106(3), 253-266. https://doi.org/10.1007/s10551-011-1004-9

Damodaran, Aswath. (2012). Investment Valuation (3rd ed.). Wiley Professional, Reference & Trade (Wiley K&L).

Damodaran, Aswath. (2015). Applied Corporate Finance, 4th Edition. John Wiley & Sons.

Damodaran, Aswath. (2021). The ESG Movement: The Goodness Gravy Train Rolls On!. Retrieved from https://pages.stern.nyu.edu/~adamodar/pdfiles/country/ESGShortNew.pdf

Gholami, A., Sands, J. and Shams, S. (2022). Corporates' sustainability disclosures impact on cost of capital and idiosyncratic risk. https://doi.org/10.1108/MEDAR-06-2020-0926

Giese, G., Lee, L., Melas, D., Nagy, Z., & Nishikawa, L. (2019). Foundations of ESG Investing: How ESG Affects Equity Valuation, Risk, and Performance. Journal of Portfolio Management, 45(5), 69-83. https://doi.org/10.3905/jpm.2019.45.5.069

PT Indika Energy Tbk. (2022). Annual Report 2022. Indika Energy. https://www.indikaenergy.co.id/wp-content/uploads/2023/03/2022-Annual-Report-1.pdf

PT Indika Energy Tbk. (2022). Sustainability Report 2022. Indika Energy. https://www.indikaenergy.co.id/wp-content/uploads/2023/03/Indika-Energy-Sustainability-Report-2022-5.pdf

Kumar, P. and Firoz, M. (2022). Does accounting-based financial performance value Environmental, Social and Governance (ESG) disclosures? A detailed note on a corporate sustainability perspective. Australasian Accounting, Business and Finance Journal. 16(1). 1-33. https://doi.org/10.14453/aabfj.v16i1.4

Lefkovitz, Dan. (2023). In a Period of Poor Performance for Sustainable Investments, Gender Equality and Renewable Energy Were Bright Spots. Morningstar Inc. Retrieved from https://indexes.morningstar.com/insights/analysis/blt2dc45febbf0bad6b/2022-morningstar-indexes-esg-risk-return-analysis

Leonardo, Alex. (2023). Indika Energy (INDY) Company Update: Sinarmas Sekuritas. Retrieved from https://financial.sinarmassekuritas.co.id/ download/research/230403_INDY_Update.pdf

Lodh, A. (2020). ESG and the cost of capital. MSCI. Retrieved from https://www.msci.com/www/blog-posts/esg-and-the-cost-of-capital /01726513589

Pribadi, A. (2021, November). Speaking at COP26, Energy Minister Gives Indonesia's Commitment to Net Zero Emission. Ministry of Energy and Mineral Resources. https://www.esdm.go.id/en/media-center/news-archives/speaking-at-cop26-energy-minister-gives-indonesias-commitment-to-net-zero-emission

PT Indika Energy Tbk. (2021, October). Indika Energy Perkuat Komitmen Menuju Netral Karbon. https://indikator.indikaenergy.co.id/momentum/indika-energy-perkuat-komitmen-menuju-netral-karbon/