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Backdoor Listing of A Nickel Mining Company: *A Case Study of Global Company to an Indonesian Company*

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Abstract: *This study focuses on the feasibility and valuation of acquiring an Indonesian publicly listed nickel mining company—PT Central Omega Resources Tbk (DKFT)—as a backdoor listing strategy for The Great Company (TGC), a Chinese nickel precursor producer. By applying strategic analysis tools (PESTEL, SWOT, Porter's Five Forces) and a Discounted Cash Flow (DCF) model, the study estimates DKFT's fair value, reasonable acquisition premium, and key financial indicators such as NPV, IRR, PI, and payback period. Sensitivity and scenario analyses are conducted to evaluate the impact of critical factors such as nickel price, cost savings, and production volume on the project's value. Findings indicate a positive NPV of IDR 375.5 billion, IRR of 14.3%, and a payback period of 3.43 years under a WACC of 6.6%. The acquisition appears financially sound. However, price volatility and integration effectiveness remain key risks. The study concludes that the proposed acquisition is strategically and financially viable and recommends proceeding with the deal under reasonable premium assumptions and strong risk monitoring.*

Keywords: *Anickel Mining, Backdoor Listing, Valuation, Acquisition Premium*

1. Introduction

Globally, the total nickel resources exceed 350 million tons, with known reserves surpassing 130 million tons. Indonesia holds the largest nickel reserves globally, 55 million tons of nickel, accounting for 42% of the world's total nickel reserves (USGS, 2024). This huge reserve makes Indonesia the largest nickel reserve in the world, with its nickel deposits primarily consisting of laterite nickel ore, mainly found in areas such as Sulawesi and the Maluku Islands. Compared with magmatic sulfide deposits, laterite nickel ore has a lower nickel taste, but due to the huge reserves, it still has significant economic value. Global nickel mine production reached 3.6 million tons, with Indonesia contributing half of the output, amounting to 1.8 million tons (USGS, 2024). As the world's largest nickel-producing country, Indonesia plays a crucial role in meeting the world's nickel demand.

On the one hand, to enhance the domestic added value of nickel, the Indonesian government bans nickel ore export starting 2020, and requires nickel ore to be processed within Indonesia before export. This policy aims to encourage downstream players to build factories in Indonesia and increase the value of nickel ore. Achieving this goal requires substantial investment in the sector. On the other hand, under Indonesia's Government Regulation No. 96/2021, foreign entities are permitted to fully own mines upon acquisition but must dilute their ownership to 49% within a defined time frame, transferring majority control (51%) to domestic entities (Chen, Xiaorong; Ma, Shulei, 2024). Indonesia's nickel export ban has reshaped the investment strategy of Chinese entities. To secure stable nickel supply and profit, Chinese companies invest directly in Indonesian mines and smelters. However, policies, such as ownership reduction rules (GR 96/2021) force these companies to seek more flexible approaches to control the resource.[8]

Most of nickel is used in stainless steel production. According to the 2025 SHMET report, stainless steel production capacity remains excessive, which makes the price of nickel going down. While, with global warming and the increasing demand for carbon emission reductions, electric vehicles (EVs) are gaining attention. The most important part of EV is batteries, which make EV different from traditional vehicles.[1]

The Great Company Co., Ltd. (TGC, a fictional name) is currently the largest precursor supplier for

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new energy batteries, focusing on the new energy and new materials sector. Its main product is the Nickel-based precursor, which is a crucial raw material for the cathodes of electric vehicle batteries. TGC also supplies products to leading cathode and battery manufacturers. In 2020, TGC procured all nickel ores from external suppliers. Indonesia's nickel ore export policy disrupted supply stability. In 2021, to secure a stable supply, TGC began establishing nickel smelters in Indonesia.[9]

Owning mines through a public listed company can be a good choice. Firstly, the flexible equity transaction mechanisms of listed platforms enable rapid shareholding adjustments, allowing foreign investors to align with regulatory compliance through strategic equity restructuring. Secondly, the investor can remain in control of mines even if they only hold 49% shares. Thirdly, the company can realize asset securitization in Indonesia.

TGC needs to find the fair market value of DKFT and decide on a good purchase price premium. This involves checking the nickel market, the mine's reserves, and the company's licenses. There are few listed mining companies to choose from, and there are no clear rules for setting the premium. All of this makes it harder to set a fair and good price.

ISSUE: In search of the fair market value to acquire a listed Nickle Mining Company DKFT and its absorbable Purchase Price premium.[10]

2. Analysis and Results

2.1 PESTEL Analysis

PESTEL helps identify macro factors that affect the choice of listing pathway. It supports making decisions that are more stable and forward-looking. It also helps identify risks and constraints in price negotiation, ensuring the acquisition price is reasonable.

As shown in Figure 1, The concept of PESTEL Analysis originated from the work Scanning the Business Environment, which includes Political, Economic, Social, Technological, Environmental and Legal factors. (Francis J. Aguilar, 1967)[11]

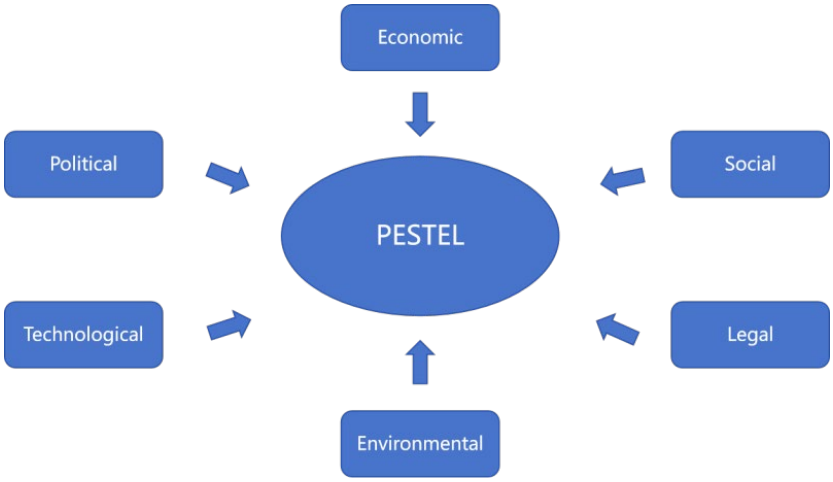

Figure 1: PESTEL Analysis Diagram

2.1.1 Political factor

Nickel is a key material for industry and for building a low-carbon society. It is used in steel and batteries. Research shows that 20 countries, including China, the United States, and Indonesia, make up 74% of the world's nickel trade (Sun, X. et al., 2024). This shows that production and trade are becoming more concentrated in fewer countries. In 2014, Indonesia banned nickel ore exports. This policy pushed investors to build nickel product factories in Indonesia. The aim was to increase the value of nickel within the country. The main traded products were nickel pig iron (NPI), nickel metal, stainless steel, and engineering products. After Trump's presidency, trade protectionism became stronger, adding uncertainty to global economic policies. The US imposed higher tariffs on Chinese goods. This forced many Chinese companies to expand overseas to avoid trade restrictions. As a result, more Chinese firms invested in Indonesia's nickel sector. This trend has further strengthened Indonesia's role in global nickel production and trade.[2]

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2.1.2 Economic factor

Economic growth is expected to be at 5.2% in 2025, making Indonesia still a good country to invest in. Commodity prices are influenced by global demand and supply, market expectations and global trade policy movements, including Trump's Tariff (MOF, 2025). Nickel resources are vital to Indonesia's economic development. According to the UN COMTRADE database, Indonesia's nickel export value in 2023 was USD 6.82 billion. According to the 2023 Indonesia export report by Tendata, nickel exports accounted for 2.6% of the country's total exports. In Indonesia, one of the key projects is the Indonesia Morowali Industrial Park (IMIP), spearheaded by Tsingshan Holding Group. The industrial park integrates processing, refining, and export facilities, making it a vital hub for nickel-related industries. Tritto (2023) reports that joint ventures between PT QMB New Energy Materials, IMIP, Japanese company Hanwa, and Huayue Nickel and Cobalt led to investments exceeding $2 billion.

2.1.3 Social factor

Indonesia has about 279 million people. It's the fourth biggest country by population. This is roughly 3.5% of the world. Based on the 2020 census, Java Island has the most people, with 56% living there. Sumatra has 22%, and the rest live on other islands. Indonesia has many ethnic groups and cultures, making it a very mixed country. More than half of the people are Javanese and Sundanese. These two groups mainly live on Java Island. Due to its large population, Indonesia has huge potential for car sales. Many global car makers and dealers already operate here. This is also helping the growth of the electric vehicle industry. In September 2022, the Indonesian President issued a directive to speed up the use of electric vehicles, starting with all government vehicles. The government believes electric vehicles will help Indonesia reach net-zero emissions by 2060. Indonesia also aims for electric vehicles to make up 25% of all cars sold by 2030. As electric vehicles become more common, investment in the country is expected to grow.[3]

2.1.4 Technological factor

The nickel mining sector has seen technologies like HPAL (high pressure acid leaching), RKEF (Rotary Kiln-Electric Furnace) and OESBF (Oxygen-Enriched Side-Blown Furnace). HPAL is needed to process limonite and saprolite nickel ores into MHP (Mixed Hydroxide Precipitate). RKEF and OESBF process limonite and saprolite nickel ores into Nickel Matte. MHP and Nickel Matte can then be turned into precursor for electric vehicle batteries. These technologies help increase annual production in the nickel mining industry.

2.1.5 Environmental factor

Another big worry for Indonesia's booming nickel industry is the environmental damage it can cause. Right now, the RKEF process for nickel production uses a lot of energy and creates a lot of pollution from gas emissions. The HPAL process uses a lot of chemicals and reducing agents, creating toxic waste (Kalungi, P. et al., 2024). This air pollution can lead to breathing problems for people nearby. Polluted soil can hurt crops and impact food security and the local economy (Nasution, M.J. et al., 2024). Researchers are looking for cleaner and more energy-efficient ways to process nickel, like the OESBF method. If Indonesia's environmental rules get stricter in the future, companies may need to switch to greener smelting methods. This will raise their costs but help the environment in the long run.

2.1.6 Legal factor

All business operations in Indonesia are governed by the country's laws and regulations. Before restricting ore exports, the country aimed to attract foreign investors to develop nickel smelting and downstream industries domestically, thereby driving the growth of its domestic battery and electric vehicle sectors (Pandyaswargo, A.H. et al, 2021).[13]The Indonesian government has been strengthening its regulations on the mining industry, but the enforcement and transparency of these regulations still need improvement (Husnah et al., 2023). [12]

2.2 Porter's Five Forces Analysis of Nickel Mining in Indonesia

In Figure 2, Porter's Five Forces analysis provides a structured view of the competitive landscape and profit potential of Indonesia's nickel mining industry. It helps identify entry barriers and market structure to support the backdoor listing. It also clarifies how suppliers, customers, and substitutes impact profitability, such as price, cost, and volume. Additionally, it supports setting expected nickel selling prices by assessing industry attractiveness and risk.[7]

The Five Forces Analysis was introduced in the book Competitive Strategy: Techniques for

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Analyzing Industries and Competitors (Porter, 1980). Porter's model focuses on recognizing the competitive forces and their root cause that shape an industry's structure and profitability. The wide participation of both domestic and international enterprises results in a highly competitive environment among firms (Biantoro, R. A. et al., 2023).[14]

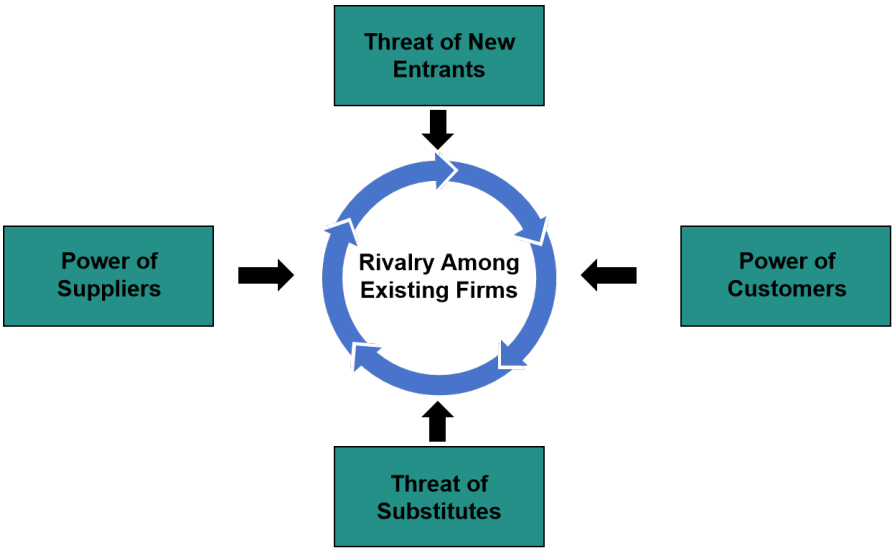

Figure 2: Porter's Five Forces Model

Threat of new entrants is low. The nickel mining industry has high exploration and development costs. It requires significant investment to establish and operate. Nickel deposits are usually in remote and hard-to-reach areas, which increases transportation costs. Governments also enforce strict regulations to protect the environment and ensure safety and fair labor practices. These factors together make it difficult for new companies to enter the nickel resource supply chain.

Bargaining Powers of Suppliers is moderate. On the one hand, limits on the Rencana Kerja dan Anggaran Biaya (RKAB) quotas and higher rainfall have made mining more difficult. As a result, supply is smaller than demand, which has pushed nickel ore prices higher. On the other hand, the Indonesian government has set a Harga Patokan Mineral (HPM) guidance price for nickel ore. At the same time, falling prices on the London Metal Exchange (LME) have cut into downstream profits.

Bargaining power of buyers is high. In the nickel mining industry, the bargaining power of buyers refers to their ability to negotiate favorable terms with sellers in the market. Several factors can influence this power, including the number and size of buyers, the availability of alternatives, the importance of the product to buyers, and their ability to switch to new suppliers. Buyers of nickel ore are mainly large smelters, such as Tsingshan Group. Because of their size and significance to sellers, these large buyers can negotiate better terms.[4]

The threat of substitutes is moderate. In Indonesia's nickel mining sector, several substitutes can play a role here. For example, stainless steel often steps in for nickel in making kitchen appliances and auto parts. In the electric vehicle (EV) industry, more automakers now prefer LFP batteries, which rely less on nickel. Aluminum and copper are also common alternatives, used in wiring, cables, and many types of equipment. Technology keeps moving forward, and new materials could take nickel's place in some uses.

Rivalry among existing firms is moderate. Companies in the sector compete to grow and capture a bigger market share. Local and foreign firms like PT Vale Indonesia Tbk, PT Timah Tbk, and PT Aneka Tambang Tbk all play a part in making Indonesia the world's top nickel producer. Competition is strong as more businesses enter the field and try to secure key assets. However, for big players, they come into this industry to secure long-term strategic positioning in the global EV market, like TGC. They may not need to compete with others. Overall, rivalry among existing firms is moderate.[15]

2.3 SWOT Analysis of TGC

The SWOT Analysis framework was first proposed by Albert Humphrey during his research at the Stanford Research Institute in the 1960s and 1970s. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats in Table 1.

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Table 1: SWOT Analysis of TGC

Internal environment	
Strengths (S)	Weaknesses (W)
▪ Global leader in NCM precursor with downstream customer base ▪ Experienced in nickel smelting projects in Indonesia ▪ Strong financial capacity to support equity acquisition and further investment	▪ Lack of local nickel mining management experience, may need to rely on local partners or consultants ▪ Limited control over resources; still needs to purchase nickel ore ▪ Limited experience with OJK and IDX compliance procedures
External environment	
Opportunities (O)	Threats (T)
▪ Indonesia has the world's largest nickel reserves with strong development potential ▪ Government promotes downstream industry and supports local processing and investment ▪ Growing investment in EV and green energy sectors in Indonesia	▪ The global economic downturn and intense industry competition are putting pressure on profit margins. ▪ Potential shifts in local government policies on nickel exports. ▪ Potential compliance risks related to land, environmental regulations, and taxation. ▪The development of alternative technologies has led to a decline in NCM sales.

(Data source: Author analysis)

Although TGC has advantages in capital and market shares of NCM, it lacks local mining operation experience and policy awareness in Indonesia. Facing regulatory challenges from OJK and IDX, TGC should establish a local compliance team early and hire professionals familiar with Indonesian law, environmental issues, and taxation to ensure smooth and legal acquisition and operation processes. TGC has limited control over nickel resources, should gradually strengthen resource access by acquiring IUP holders, signing long-term supply agreements, or joining joint mining projects, to reduce reliance on external ore purchases.[5]

2.4 WACC

If the goal is to assess how the acquisition affects the TGC's value, use the TGC's post-merger WACC as shown in Table 2. This is used to calculate the NPV of synergies or the added value to shareholders. Especially when the target will be fully integrated, it makes sense to use the new WACC.

Table 2: The Variable of WACC Calculation

No	Variables	Value (Billion Rupiah)	Source
1	Interest of short term debt TGC	3%	Author's Assumption
2	Interest of long term debt TGC	5%	Author's Assumption
3	Short term debt of DKFT	459,477.49	Financial Statement
4	Long term debt of DKFT	1,234,051.76	Financial Statement
5	Target Short term loan/Long term loan	30%: 70%	Financial Statement TGC
6	Risk-Free Rate	1.7%	China's 10Y Bond Yield; June 4, 2025
7	Beta Stock	2.33	Guoxin Security; Dec, 2024
8	Equity Risk Premium	5.27%	Damodaran; January 9, 2025
9	Tax Rate	22.00%	Corporate Tax Rate
10	Target Equity/Debt	30%: 70%	Author's Assumption

Formula:

$$\text{WACC} = \frac{\text{Equity} * \text{Re} + \text{Debt} * \text{Rd} * (1 - \text{T})}{(\text{Equity} + \text{Debt})}$$

Where:

Re = Rf+ β (Rm-Rf)

Rd = Interest rate

T = tax rate

Rd = (short term loan* interest rate of short term loan + long term loan* interest of long term loan)/(short term loan + long term loan) = 30%*3% + 70%*5% = 0.9% + 3.5% = 4.4%

Re = Rf+ β (Rm-Rf) = 1.70%+2.33×5.27% =13.98%

WACC = 30%*13.98%+70%*4.4%*(1-22%) = 6.6%

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2.4.1 Free Cash Flow to the Firm (2025-2029)

In 2024, the world's nickel industry faced major challenges due to excess supply, especially from Indonesia. Despite this, there was optimism that nickel prices would stabilize or rise slightly in the future, especially with increasing demand from the electric vehicle (EV) sector. Nickel prices on the London Metal Exchange (LME) .fell to a record low in the last four years, at around US$15,328 per ton from Table 3 and Table 4.

Assumptions:

-No major changes in RKAB quota, 2,500,000 WMT, the production plan according to this, so reserve 14,343,336 WMT totally can support 5 years.[6]

-Not considering the decline in nickel grade due to reserve depletion.

-Account receivable and account payable will keep the same. Operation working capital won't change.

-Acquiring the DKFT can save 100,000 Million Rupiah per year for TGC.

-Other Cost of acquisition around 10% of transaction.

Table 3: Assumption in Income Statement

Account	2025 F	2026 F	2027 F	2028 F	2029 F
Revenue	2.00%	2.00%	2.00%	2.00%	2.00%
COGS	2.00%	2.00%	2.00%	2.00%	2.00%
Operating Expenses	2.00%	2.00%	2.00%	2.00%	2.00%
Tax Expense	22%	22%	22%	22%	22%

(Data source: Author's Analysis)

Table 4: Income Statement Projection

Account (Million Rupiah)	2025 F	2026 F	2027 F	2028 F	2029 F
Sales	1,490,410.01	1,520,218.21	1,550,622.57	1,581,635.02	1,613,267.72
COGS	(846,389.03)	(863,316.81)	(880,583.15)	(898,194.81)	(916,158.71)
Gross Profit	644,020.97	656,901.39	670,039.42	683,440.21	697,109.01
Operating Expenses	(261,373.39)	(266,600.86)	(271,932.87)	(277,371.53)	(282,918.96)
Operating Profit	382,647.58	390,300.54	398,106.55	406,068.68	414,190.05
Tax Expense (22%)	(84,182.47)	(85,866.12)	(87,583.44)	(89,335.11)	(91,121.81)
Net Income	298,465.12	304,434.42	310,523.11	316,733.57	323,068.24

(Data source: Author's Analysis)

As shown in Table 5, Free Cash Flow to the Firm = NET INCOME + Depreciation + Amortization - capital expenditure +/- Loan repayment +/- Working Capital Change (note: interest is charged as OPEX)

Table 5: Free Cash Flow to the DKFT

Account (Million Rupiah)	2025 F	2026 F	2027 F	2028 F	2029 F
Net Income	298,465.12	304,434.42	310,523.11	316,733.57	323,068.24
Depreciation	101,549.12	101,549.12	101,549.12	101,549.12	101,549.12
Amortization	29,858.22	29,858.22	29,858.22	6,204.46	0
Capital Expenditure	0	0	0	0	0
Change in Working Capital	0	0	0	0	0
Asset Residual Value	0	0	0	0	440,361.15
FCFF	429,872.46	435,841.76	441,930.45	424,487.15	864,978.51

(Data source: Author's Analysis)

If TGC buys 60% shares of DKFT, DKFT's market cap is 2.06 Trillion Rupiah, DKFT's share price 22 May 2025 is 388 Rupiah, 90 days average price is 209.85, market cap now is higher (Table 6).

Market Value of 60% shares = 2,060,000*60% = 1,236,000 Million Rupiah.

Initial Investment C0 = 1,236,000 * 1.1 = 1,359,600 Million Rupiah

Table 6: Free Cash Flow to the TGC

Account (Million Rupiah)	2025 June	2025 F	2026 F	2027 F	2028 F	2029 F
Initial Investment C0	(1,359,600.00)					
60% FCFF of DKFT		257,923.48	261,505.06	265,158.27	254,692.29	518,987.11
Cost Saving		100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
FCFF TGC	(1,359,600.00)	357,923.48	361,505.06	365,158.27	354,692.29	618,987.11

(Data source: Author's Analysis)

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2.4.2 NPV & IRR & PI & Payback Period Calculation

WACC = 6.6%

$$\text{Intrinsic Value}_{\text{DKFT}} = \sum \frac{\text{FCFF}_t}{(1+\text{WACC})^t} = 2{,}171{,}239.18 \text{ Million Rupiah}$$

Intrinsic Value of 60% Shares = 60% * 2,171,239.18 = 1,302,743.51 Million Rupiah

So the purchase price premiums = 1,302,743.51 Million Rupiah - 1,236,000 Million Rupiah = 66,734.51 Million Rupiah

It means acquire with a premium 66,734.51 Million Rupiah is reasonable in Table 7.

$$\text{NPV}_{\text{Acquisition}} = \sum \frac{\text{FCFF}_t}{(1+\text{WACC})^t} - \text{C} = 375{,}514.43 \text{ Million Rupiah}$$

Table 7: NPV, IRR, PI, Payback Period Calculation

NPV	375,514.43
IRR	14.30%
PI	1.28
Payback Period	3.78

(Data source: Author's Analysis)

It means acquisition premium shouldn't be higher than 375,514.43 Million Rupiah.

2.4.3 Risk Analysis - Tornado Diagram

Table 8: Variables for Tornado Diagram

Variable	Change Range	Minimum NPV	Base NPV	Maximum NPV	Negative Impact	Positive Impact
Price	±20%	-244,533.61	375,514.42	995,562.46	620,048.03	620,048.04
Cost Saving	-100%	-52,611.18	375,514.42	375,514.42	428,125.60	-
Volume	-10%	65,490.40	375,514.42	375,514.42	310,024.02	-
COGS	±10%	199,454.86	375,514.42	551,573.98	176,059.56	176,059.56
Approval time	+1	266,425.97	375,514.42	375,514.42	109,088.45	-
WACC	±2%	278,687.70	375,514.42	481,509.73	96,826.72	105,995.31
Operating Expenses	±10%	321,145.47	375,514.42	429,883.37	54,368.95	54,368.95
Tax	±1%	365,309.87	375,514.42	385,718.97	10,204.55	10,204.55

(Data source: Author's Analysis)

The table 8 above outlines the key variables and their respective ranges used in the tornado sensitivity analysis, along with the resulting NPV impacts. To provide a clearer comparison of each variable's influence, the tornado chart below ranks them by the magnitude of their positive and negative effects on project NPV (Figure 3).

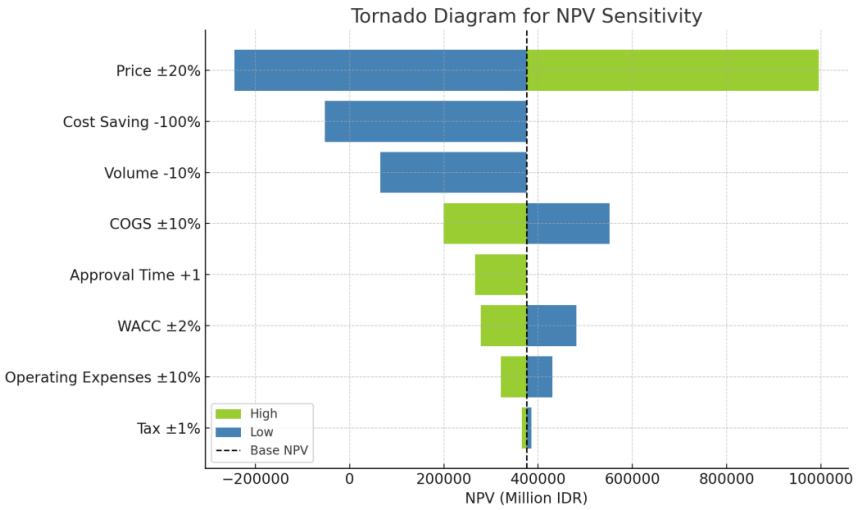

Figure 3: Tornado Diagram for NPV Sensitivity

(Data source: Author's Analysis)

The sensitivity analysis shows that price is the most influential factor affecting NPV. A ±20% change in price leads to a shift of over 620,000 IDR in project value. TGC should closely monitor market trends. Cost saving and volume are also key factors. If the expected cost savings fail to materialize, NPV could

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drop by more than 428,000 IDR. Similarly, a 10% decline in sales volume could reduce NPV by 310,000 IDR. To mitigate these risks, TGC should enhance operational efficiency and improve production processes. Variables like COGS and WACC show clear symmetrical effects, a ±10% change in COGS results in a ±176,000 IDR swing in NPV, while a ±2% shift in WACC affects NPV by roughly ±100,000 IDR. This suggests that controlling unit costs and securing low-cost financing are both crucial. TGC should manage costs carefully and seek to lower WACC by locking in long-term debt or improving its credit profile. A one-year delay in regulatory approval can still reduce NPV by over 100,000 IDR, underlining the importance of proactive coordination with regulators and early preparation of required documentation. Lastly, operating expenses and tax rate changes have a relatively minor effect on NPV, less than 55,000 IDR, indicating that the project remains financially resilient under moderate internal or policy-driven fluctuations.[16]

3. Conclusions

As shown in Table 9, this study evaluates the fair acquisition value of PT Central Omega Resources Tbk (DKFT), a listed Indonesian nickel mining company, by The Great Company (TGC), through a backdoor listing. Using a DCF model with a WACC of 6.6%, the enterprise value of DKFT is estimated at IDR 2,171.2 billion. Based on 60% ownership, the intrinsic value of the acquired shares is IDR 1,302.7 billion, while the current market value is IDR 1,236.0 billion. The following table encapsulates the critical valuation outcomes: This suggests that the acquisition maintains financial viability on the condition that the premium does not exceed IDR 375.5 billion.[17]

Table 9: Summary of DKFT Acquisition Valuation and Return Metrics

Item	Value (IDR Billion)
Market Value of 60% Shares	1236.0
DCF-derived Intrinsic Value of 60% Shares	1302.7
Reasonable Premium	66.7
Acquisition Cost (1.1x Market Value)	1359.6
Total FCFF to TGC (2025–2029)	2059.3
NPV to TGC	375.5
IRR	14.3%
Profitability Index (PI)	1.3
Payback Period	3.78 years

(Data source: Author's Analysis)

While the valuation results indicate that the acquisition is financially viable, several uncertainties may significantly affect the project's net present value (NPV) and internal rate of return (IRR). These results show that good risk management is essential. TGC should keep a close eye on nickel prices, as they have the biggest impact on project value. It should also prepare backup plans in case cost savings or production targets are not met. Delays in getting approvals can also reduce project returns, so early coordination with regulators is important. By understanding how each factor affects NPV, TGC can focus on the most critical risks and make better investment decisions (Table 10).

Table 10: Key Risk Variables and Impact on Project NPV

Variable	Impact Description
Nickel Price Volatility	±20% price swing changes NPV by ±IDR 620 billion.
Cost Savings Realization	Failure to achieve synergy reduces NPV by IDR 428 billion.
Production Volume Risk	A 10% drop in volume reduces NPV by IDR 310 billion.
COGS Variation	±10% COGS fluctuation impacts NPV by ±IDR 176 billion.
Approval Delay	1-year delay reduces NPV by IDR 109 billion.
Financing Cost (WACC)	±2% WACC change alters NPV by ~IDR 100 billion.
Opex & Tax Rate	Each ±10% change in Opex or ±1% in tax rate affects NPV < IDR 55 billion.

(Data source: Author's Analysis)

References

[1] USGS, Annual Publications Mineral Commodity Summaries: Nickel, USGS, 2024.
[2] Indonesia Government, GR No. 96 of 2021.
[3] Vivoda, V.; Matthews, R.; McGregor, N., A critical minerals perspective on the emergence of

ISSN 2616-5902 Vol. 7, Issue 7: 159-167, DOI: 10.25236/AJBM.2025.070721

geopolitical trade blocs, Resources Policy, 2024, Vol. 89, Article 104587.
[4] Sun, X.; Jiao, Y.; Hao, H.; Liu, Z.; Zhao, F., Physical and monetary characterization of global nickel flow network, Resources Policy, 2024, Vol. 94, Article 105130.
[5] Konewka, T.; Bednarz, J.; Czuba, T., Building a Competitive Advantage for Indonesia in the Development of the Regional EV Battery Chain, Energies, 2021.
[6] Sigit Hermawan; Yunita Afita Sari; Sarwenda Biduri; Duwi Rahayu; Ruci Arizanda Rahayu, Corporate Social Responsibility, Firm Value, and Profitability: Evidence from Pharmaceutical Companies in Indonesia and Malaysia, International Journal of Professional Business Review, 2023, Vol. 8 No. 1, ISSN: 2525-3654.
[7] Veza, I.; Abas, M.A.; Djamari, D.W.; Tamaldin, N.; Endrasari, F.; Budiman, B.A.; Idris, M.; Opia, A.C.; Juangsa, F.B.; Aziz, M., Electric Vehicles in Malaysia and Indonesia: Opportunities and Challenges, Energies, 2022.
[8] Husnah; Mochammad Fahlevi, How do corporate social responsibility and sustainable development goals shape financial performance in Indonesia's mining industry?, Uncertain Supply Chain Management, 2023, Vol. 11, pp. 1389–1394.
[9] Alkhatib, K.; Khazaleh, H.; Alkhazaleh, H.A.; Alsoud, A.R.; Abualigah, L., A New Stock Price Forecasting Method Using Active Deep Learning Approach, Journal of Open Innovation: Technology, Market, and Complexity, 2022.
[10] Schröder, M., Towards a new division of labour in Southeast Asia: Indonesian and Thai industrial policy and the electric vehicle value chain in ASEAN, International Journal of Automotive Technology and Management, 2024.
[11] Pandyaswargo, A.H.; Wibowo, A.D.; Maghfiroh, M.F.N.; Rezqita, A.; Onoda, H., The Emerging Electric Vehicle and Battery Industry in Indonesia: Actions around the Nickel Ore Export Ban and a SWOT Analysis, Batteries, 2021.
[12] Nasution, M.J.; Tugiyono; Bakri, S.; Setiawan, A.; Murhadi; Wulandari, C.; Wahono, E.P., The Impact of Increasing Nickel Production on Forest and Environment in Indonesia: A Review, Jurnal Sylva Lestari, 2024, Vol. 12 No. 3, pp. 549–579.
[13] Biantoro, R.A.; Rahadi, R.A., Stock Valuation and Financial Performance of nickel mining company in Indonesia (Case Study: PT Vale Indonesia Tbk), International Journal of Current Science Research and Review, 2023, Vol. 6 No. 2.
[14] Hanafi, M., Designing nickel smelter industry investment competitiveness policy in Indonesia through system dynamics model, Journal of Science and Technology Policy Management, 2024, Ahead-of-print.
[15] Bari, R.M.; Trihastuti, N.; Hananto, P.W.H., Indonesia's nickel export restriction policy: alternative environmental approach for Article XI:1 GATT justification, Journal of International Trade Law and Policy, 2023, Vol. 22 No. 1, pp. 15–32.
[16] Grahanusa Mediatama, Menilik Rencana Harum Energy (HRUM) di Bisnis Nikel Setelah Akuisisi IMI, kontan.co.id, 2023.
[17] Brealey, R.A.; Myers, S.C.; Allen, F., Principles of Corporate Finance (13th ed.), McGraw-Hill, 2020.