


# The Use of the Enterprise Discounted Cash Flow Method in Determining the Intrinsic Price of Stock a Case Study at PT. Aneka Tambang, Tbk 2017-2023 Period

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Article Info	ABSTRACT
<b>Keywords:</b> Intrinsic Value, Enterprise DCF, Free Cash Flow to Firm, WACC, PT. Aneka Tambang Tbk.	This study aims to determine the intrinsic value of PT Aneka Tambang Tbk (ANTM) shares using the Enterprise Discounted Cash Flow (DCF) method during the period from 2017 to 2023. The Enterprise DCF method is a fundamental valuation approach that calculates the company's value based on historical free cash flows, which are then discounted to their present value using the Weighted Average Cost of Capital (WACC). This research uses a descriptive quantitative approach with historical data and no forward-looking projections to ensure the objectivity and validity of the valuation results. The findings show fluctuations in the intrinsic value of ANTM shares during the 2017–2023 period, reflecting macroeconomic dynamics and other factors. By comparing the intrinsic value and the market price of ANTM shares, this study concludes that the stock was undervalued in 2019 and 2023, and overvalued in 2017 and 2018. This study emphasizes the importance of fundamental analysis based on historical data as a basis for conservative and data driven investment decision-making.
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## INTRODUCTION

Based on research from the Indonesia Stock Exchange (2023), the number of listed companies reached 900 in 2023. This trend reflects growing confidence in the potential expansion of the Indonesian capital market, both from domestic and foreign investors. Furthermore, the Jakarta Composite Index (JCI) also showed a positive trend, reflecting sensitivity to economic conditions. As Darmadji & Fakhruddin (2006) noted, fluctuations in large-cap stocks have a greater impact on the JCI than small-cap stocks.

In this context, the Indonesian capital market demonstrates solid resilience to various challenges, both caused by global and domestic dynamics. Although the Indonesian capital market shows an overall positive trend, there is a discrepancy between market prices and the intrinsic value of companies, indicating that the market is not yet fully fundamentally efficient. This is consistent with the semi-strong form of efficient markets framework, which should reflect fundamental information in stock prices. However, in reality, many stocks are still overvalued and undervalued, influenced by market sentiment and investor speculative

behavior (Hendrawan, R., & Hasan 2020).

The development of the Indonesian capital market's performance over the past five years can also be observed through the movement of the Jakarta Composite Index (JCI), which reflects the accumulated price changes of all stocks listed on the Indonesia Stock Exchange. The JCI is a key indicator for assessing macromarket stability and growth. To more clearly understand these dynamics, the following graph shows the JCI's movement from 2017 to 2023:



**Figure 1.** Movement of the Composite Stock Price Index 2017-2023

Source: [www.idx.id](http://www.idx.id) (processed data)

Based on Figure 1.1, the Jakarta Composite Index (JCI) rose from 5,500 in 2017 to 7,272.80 by the end of 2023, with an average annual growth rate of 6.16%. Despite facing global pressures such as the COVID-19 pandemic and commodity price volatility, the Indonesian capital market continues to demonstrate solid resilience (OJK 2023). However, the phenomenon of mismatches between market prices and a company's intrinsic value is still frequently found, indicating that the market is not yet fully fundamentally efficient. Within the framework of a semi-strong form of efficient market, fundamental information should be reflected in stock prices. In fact, many stocks are still overvalued or undervalued due to the dominance of investor sentiment and speculative behavior (Hendrawan & Hasan, 2020).

To address these issues, a valuation method is needed that can objectively reflect a company's true value. One frequently used approach is Enterprise Discounted Cash Flow (Enterprise DCF). This method utilizes a company's free cash flow (FCFF) and then discounts it using the annual Weighted Average Cost of Capital (WACC). Compared to conventional valuation methods such as PER and PBV, the DCF approach is considered more comprehensive because it takes into account the company's actual financial dynamics and risks (Khanafi, M., & Kautsar 2024).

This study aims to analyze the use of the Enterprise DCF method in calculating the intrinsic price of PT Aneka Tambang Tbk (ANTM) shares during the 2017–2023 period. This study was conducted retrospectively, based on historical data, and did not use forward-looking assumptive projections, thus providing a more realistic and empirical valuation approach (Noerman 2024). Theoretically, this study is expected to contribute to the

development of financial management science, particularly in historical cash flow-based valuation methods. Practically, the research results can serve as a reference for investors in making more measured investment decisions and for company management in developing financing and business expansion strategies.

## Literature Review

### Financial Grand Theory related to Capital Markets & Stock Investment

The grand theory underlying this research is the Efficient Market Hypothesis (EMH) (Fama, 1970), which states that stock prices reflect all available information. However, recent research shows that developing markets like Indonesia are not yet fully efficient (Putra & Saputra, 2020; Novitasari, D., & Kurniawan, 2019), so market anomalies and investor behavior still provide profit opportunities. abnormal, especially in commodity-based stocks such as ANTM.

### Signaling Theory

According to Spence (1973), companies can send signals to the market through policies or strategic announcements. Recent research by (Haryanto, S., & Arifin 2020) and (Dewi, IGAAP, & Widanaputra 2016) shows that ANTM's dividend announcements, financial reports, and corporate actions influence investors' perceptions of stock prospects. Positive signals such as increased profits or new mining projects can drive share prices higher. Operational definition: Signals are measured from ANTM's corporate actions and official publications (annual reports, earnings releases, corporate actions).

### Understanding Capital Markets

The capital market is a system that connects parties needing capital with investors, facilitating the trading of securities and other financial instruments (Rahmadana 2021). The capital market serves as a meeting place for investors and issuers, where issuers seek long-term funding through securities such as stocks and bonds. According to Law No. 8 of 1995, the capital market encompasses Public Offerings and Securities trading.

### Understanding Enterprise Discounted Cash Flow (Enterprise DCF)

Enterprise Discounted Cash Flow (Enterprise DCF) is a valuation method used to determine a company's intrinsic value by taking into account the company's historical cash flows over a given period. These historical cash flows are then discounted to their present value using the Weighted Average Cost of Capital (WACC), which reflects the relevant cost of capital based on existing financial data, not future projections.

This method differs from the traditional Discounted Cash Flow method, which typically only considers the cash flows that shareholders will receive. In the context of Enterprise DCF, the calculated cash flows include all cash flows generated by the company, both those received by shareholders and creditors, based on historical data recorded in the company's financial statements. Thus, Enterprise DCF provides a more comprehensive picture of the company's overall value, relying on actual data without including future estimates or projections (Damodaran, 2012).

## RESEARCH METHODS

This research uses a quantitative descriptive approach. The quantitative approach was chosen because this research focuses on the analysis of numerical data, such as financial statements and historical stock prices of PT Aneka Tambang Tbk. The descriptive approach is used to systematically, factually, and accurately describe the process of assessing the intrinsic value of a company's shares using the Enterprise Discounted Cash Flow (Enterprise DCF) method. This approach helps analyze whether the current stock market price is in line with its intrinsic value and provides a better understanding for investors in making investment decisions based on the calculation of fair value of shares.

The object of this study is PT Aneka Tambang Tbk (ANTM), a mining company listed on the Indonesia Stock Exchange (IDX). This study aims to observe and analyze the company's financial statements and stock prices for the period 2017 to 2023. The study was conducted from September 2024 to February 2025, covering sufficient time to collect the necessary historical data and perform calculations based on available information. The data analysis technique in this study uses the Enterprise Discounted Cash Flow (Enterprise DCF) method to determine the intrinsic price of PT Aneka Tambang Tbk shares.

## RESULTS AND DISCUSSION

The determination of the discount rate in this study is done by calculating the Weighted Average Cost of Capital (WACC). The WACC value reflects the weighted average cost of capital of the company's funding structure consisting of equity and debt. This value is used as a discount rate in the valuation process using the FCFE-based Enterprise DCF approach. 1. WACC Components: The WACC calculation considers: (a.) Market value of equity (E) (b.) Market value of debt (D) (c.) Cost of equity ( $R_e$ ) (d.) Cost of debt after tax ( $R_d \times (1 - T_c)$ ) (e.) Capital structure (E/V and D/V).

**Table 1.** Results of Equity Value Calculation

Tahun	Harga Saham Yang Beredar (outstanding shares)	Harga Saham Saat Ini (Harga Penutupan) (Rp)	Nilai Pasar Ekuitas (E) (Rp)
2017	24,030,764,300	625.00	15,019,227,687,500
2018	24,030,764,300	765.00	18,383,534,689,500
2019	24,030,764,300	840.00	20,185,842,012,000
2022	24,030,764,300	1,985.00	47,701,067,135,500
2023	24,030,764,300	1,705.00	40,972,453,131,500

Source: Processed data, 2024

**Table 2** Market Value of Debt (D) Period 2017-2023

No.	Tahun	Total Utang (Rp)
1	2017	11,519,420,212,000
2	2018	11,478,702,721,000
3	2019	11,635,516,806,000
4	2022	9,919,860,000,000
5	2023	11,685,659,000,000

Source : Annual Financial Report of PT Aneka Tambang Tbk

**Table 3** Cost of Equity (Re) – CAPM Period 2017-2023

Tahun	Rf (%)	Rm(%)	$\beta_i$	Re (CAPM) (%)
2017	0.0456	0.1999	0.5630	0.1325
2018	0.0042	(0.0254)	1.3480	(0.0357)
2019	0.0042	0.0170	1.7270	0.0263
2022	0.0042	0.0409	1.2290	0.0493

Source: Data processed from BI, IDX, and investing.com

**Table 4** Calculation of Weighted Average Cost of Capital (WACC)

Tahun	Re (desimal)	Rd (desimal)	Tarif Pajak (Te)	$Rd \times (1 - Te)$	WACC (%)
2017	0.1325	0.0527	0.6996	0.0158	8.19%
2018	(0.0357)	0.0409	0.3090	0.0282	(1.11%)
2019	0.0263	0.0193	0.7178	0.0054	1.88%
2022	0.0493	0.0384	0.2673	0.0281	4.57%
2023	0.0591	0.0184	0.2015	0.0147	4.93%

Source: Data processed from the results of CAPM calculations and corporate bond interest rates

The Weighted Average Cost of Capital (WACC) calculation for PT Aneka Tambang Tbk (ANTM) fluctuated during 2017–2023. In 2017, the WACC reached 8.19%, the highest during the analysis period, due to the high cost of equity (Re) of 13.25%. Conversely, 2018 recorded a negative WACC (–1.11%), as Re was also negative due to the impact of sharply declining market conditions. 2019 showed a recovery with a WACC of 1.88%, as the market improved. In 2022 and 2023, the WACC value was stable in the range of 4.57% to 4.93%, reflecting investor optimism and a capital structure dominated by equity. Despite the decline in tax rates, the impact of debt costs on WACC was relatively small due to the greater weighting of equity. In general, fluctuations in Re were the main factor in changes in WACC,

while debt costs were more stable. This emphasizes the importance of paying attention to market dynamics and investor expectations in assessing intrinsic value using the Enterprise DCF method.

This study analyzes the intrinsic price of PT Aneka Tambang Tbk (ANTM) shares for the 2017–2023 period using the Enterprise Discounted Cash Flow (Enterprise DCF) method, and compares it with the actual market price to determine the valuation condition (overvalued, undervalued, or fair value).

1. Development of Equity Value and Intrinsic Stock Price (2017–2023) The calculation results show significant dynamics:
  - (a) 2017 – The company's financial condition was at its weakest, with a negative equity value of Rp 21.74 trillion and an intrinsic value of –Rp 904.86 per share. This situation reflected a debt burden exceeding the company's value and unhealthy cash flow.
  - (b) 2018–2019 – The company began to recover. Equity value was positive and the intrinsic value rose significantly, reaching Rp 2,986.03 in 2019, indicating fundamental improvement, although fluctuations persisted.
  - (c) 2020–2021 – Not fully analyzed as it is considered an anomalous period due to the COVID-19 pandemic.
  - (d) 2022–2023 – Positive transformation. FCFE grew rapidly, terminal value increased, and intrinsic value peaked at Rp 8,026.02 in 2023. This reflects efficient cash flow management and capital structure. Overall, ANTM successfully transformed from a state of financial distress to a company with strong cash flow performance and a sharply increasing enterprise value.
2. Comparison with Market Price and Its Investment Significance The comparison between the intrinsic price and the market price of ANTM shares during the 2017–2023 period shows the following interesting dynamics:

**Table 5** Comparison of Intrinsic Price and Market Price of ANTM Shares and Fundamental Valuation Results for 2017–2023

Tahun	Harga Intrinsic Saham	Harga Actual Pasar	Valuasi Fundamental
2017	(904,86)	675,00	Overvalued ( <i>fiktif</i> )
2018	288,88	860,00	Overvalued
2019	2.986,03	915,00	Undervalued
2022	1.303,07	1.865,00	Overvalued <i>ringan</i>
2023	8.026,02	1.755,00	Undervalued

Source: Processed data, 2024

From the table, it can be concluded that in 2019 and 2023, PT Aneka Tambang Tbk (ANTM) shares were indicated to be undervalued, providing an attractive investment opportunity for investors. In both years, ANTM's stock market price was lower than its intrinsic value, indicating that the stock was trading below its true fair value. This

suggests the potential for higher price appreciation in the future if the market better values the company's fundamental performance. Investors who purchase shares at an undervalued price have the potential to profit when the market price adjusts to the higher intrinsic value.

Conversely, in 2017, 2018, and 2022, ANTM shares were identified as overvalued, with the market price exceeding its intrinsic value. In 2017, the market price was even lower than the calculated intrinsic value, indicating that the market did not reflect the company's true fundamentals and that the market price was not a viable investment. Similarly, in 2018 and 2022, although the price difference was not as large as in 2017, the market price remained higher than the intrinsic value, indicating that the stock was overvalued, making it less profitable to purchase at that time.

## CONCLUSION

The results of this study indicate that the Enterprise DCF method can help identify discrepancies between market prices and intrinsic share prices, enabling investors to make more rational investment decisions. ANTM shares were undervalued in 2019 and 2023, offering good buying opportunities, while in other years, the shares were overvalued, indicating that market prices do not always reflect their intrinsic value. Therefore, the application of the Enterprise DCF method allows for a more objective analysis of the fair value of shares, which is crucial for making more informed and data-driven investment decisions. The stock price of PT Aneka Tambang Tbk during the study period showed variations in valuation status reflecting a combination of fundamental and non-fundamental factors. Based on a comparison between the intrinsic price and the market price of ANTM shares in each year, it was found that ANTM shares were undervalued in 2019 and 2023, and overvalued in 2017, 2018, and 2022.

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