

COMPARISON OF SHARES IN PT ALAMTRI RESOURCES INDONESIA AND PT BUKIT ASAM

Bryen Hery Keene¹, Emily Yulnina Atama², Rozzaqiyah Nur Rosyidah³,
Anindya Putri Inaayah⁴, Muhammad Zaky Adriel⁵

^{1,2,3,4,5} Management, Trisakti School of Management

202380019@stietrisakti.ac.id¹, 202380022@stietrisakti.ac.id²,
202380033@stietrisakti.ac.id³, 202380048@stietrisakti.ac.id⁴,
202380098@stietrisakti.ac.id⁵

*Corresponden author: Bryen Hery Keene 202380019@stietrisakti.ac.id

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ABSTRACT

This study aims to analyze and compare the stock performance of PT Bukit Asam (PTBA) and PT Adaro Energy (ADRO).

The research employs a quantitative approach, utilizing numerical data analysis to support decision-making. The indicators used include expected return and standard deviation as performance metrics for the two companies.

The results indicate that the expected return for PTBA is and for PT Adaro is Additionally, the study highlights the deviation and standard deviation values for each company. Based on these findings, it is concluded that the company with the lowest expected return is This study provides valuable insights for assessing the risk and potential returns of investing in these two companies

The analysis of PT Alamtri Resources Indonesia (ADRO) for the period 2020-2024 shows an average expected return of 0.17362%. This figure provides an overview of the potential profits from investing in ADRO shares. The standard deviation is 2.952%. This indicates the level of risk associated with investing in ADRO stock. The higher the standard deviation, the greater the likelihood of experiencing a loss.

Analysis of the performance of PT Bukit Asam (PTBA) for the period 2020-2024 shows an average expected return of 0.10262%, this means that on average, investors can expect a return of 0.10262% per year from investing in PTBA shares during the period. The standard deviation is 0.02506. This result indicates that the risk level of investing in PTBA shares is relatively stable during the observation period..

INTRODUCTION

The stock market is one of the important indicators in assessing the economic health of a country. In Indonesia, the energy sector, particularly companies engaged in coal mining, has a significant role in the national economy. PT Bukit Asam (PTBA) and PT Adaro Energy (ADRO) are two major companies operating in this sector. The stock performance of these two companies is of concern to many investors and analysts, given the fluctuations in coal prices that can affect their profitability and market value. Therefore, it is important to analyse and compare the stock

performance between these two companies to provide deeper insights for stakeholders.

Issues related to the stock performance of PTBA and ADRO include external factors such as commodity prices, government policies, and global market conditions. In addition, internal factors such as company management, business strategy, and technological innovation also contribute to stock performance. Previous research shows that the stock performance of mining companies is strongly influenced by the dynamics of the coal market and energy policies implemented by the government. For example, research by Sari and Rahardjo (2020) found that rising coal prices significantly positively affect the stock performance of mining companies in Indonesia.

The literature review shows that many studies have been conducted to analyse the stock performance of mining companies, but there are still few that specifically compare the performance between PTBA and ADRO. Research by Putra (2021) revealed that although the two companies have different business models, both showed good performance in a certain period. However, a more in-depth comparison of the factors that influence their stock performance is still needed to provide a clearer picture.

The purpose of this study is to analyse and compare the stock performance between PT Bukit Asam (PTBA) and PT Adaro Energy (ADRO) in a certain period. This research is expected to contribute to investors in making investment decisions as well as providing recommendations for companies in improving their performance in the stock market. Thus, this research is not only relevant for academics, but also for practitioners in the investment world.

LITERATURE REVIEW

DEFINITION OF CAPITAL MARKETS

Capital Market is a market that functions in an organized manner where there are activities related to the trading of securities, stocks, debt, bonds, and other securities that are determined by the government or private companies by using commissioners, underwriters, and intermediaries. As can be seen from the analysis of the capital market above, it is clear that the capital market is also one of the ways businesses look for investors by offering their prices to the general public.

Meaning of capital market, as defined by Law no. 8 of 1995, is any activity related to securities and offerings generally, public companies related to securities that are involved, and professional organizations and associations related to securities. In other words, the capital market is the relationship between investors (those who own money) and businesses or government agencies that require money through the trading of financial instruments (shares, bonds, rights issues, and so on) (Suratna, 2022)

STOCK

According to Nurin Hafizah, et al. (2019) Stocks are a sign of capital participation of a person or business entity in a company or limited liability company. A person or organization that owns shares is called a shareholder. In daily stock

trading activities, stock prices fluctuate, either increasing or decreasing. The formation of stock prices occurs due to demand and supply for the shares. The profit obtained by investors will be achieved if investors are able to carry out good analysis in determining the issuer and the right time to make purchase and sale transactions. Therefore, the development of methods in terms of fundamental analysis (growth investing and value investing) and technical analysis (classical and modern) continues to develop to this day (Setiadi, 2022)

STOCK TYPE

Preferent Stock

Preferred shares are securities that prove their owners have more rights than ordinary shareholders. As preferred shareholders, they do not have voting rights in the General Meeting of Shareholders (GMS). However, preferred shareholders are entitled to precedence when distributing company profits (dividends) which are fixed and fixed in amount (fixed income) compared to ordinary shareholders. (Suratna, 2020).

Common Stock

Common shares are securities that serve as proof of ownership of a company. The owner of this share is entitled to receive a portion of the income (dividends) from the company and is willing to bear the risk of losses suffered by the company. (Suratna,2020).

Blue Chip Stocks

Blue chip stocks are common stocks of highly reputable companies. Often the company is a leader in an industry, has stable revenues, and is consistent in paying its bills. These stocks usually have a high value and it is rare for the shareholders to dispose of their shares. This is why blue chips stocks are favored in trading on the stock exchange. People are looking for these stocks because they are clearly profitable. But that doesn't mean blue chips stocks are always expensive. (Suratna,2020).

Growth stocks

Growth stocks are stocks that are predicted in the future to potentially provide an increase in dividend distribution. There are two types of growth stocks: well-known and lesser-known. Well-known growth stocks are stocks that have high revenue growth considering they are leaders in an industry and have a high reputation. Lesser-known growth stocks are stocks from companies that are not leaders in the industry, but have growth stock characteristics. (Suratna, 2020).

Income stocks

Income stocks are stocks of an issuer that is able to pay higher dividends than the average dividends paid in previous years. Owners of this stock will get dividends that continue to increase in the future. (Suratna,2022).

CONCEPTUAL FRAMEWORK

John W. Creswell (2020) in his book *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* defines a conceptual framework as a structure that maps and describes the relationships between research variables in a more organized form. According to Creswell, a conceptual framework aims to provide clear direction for research by helping researchers identify and clarify relevant concepts.

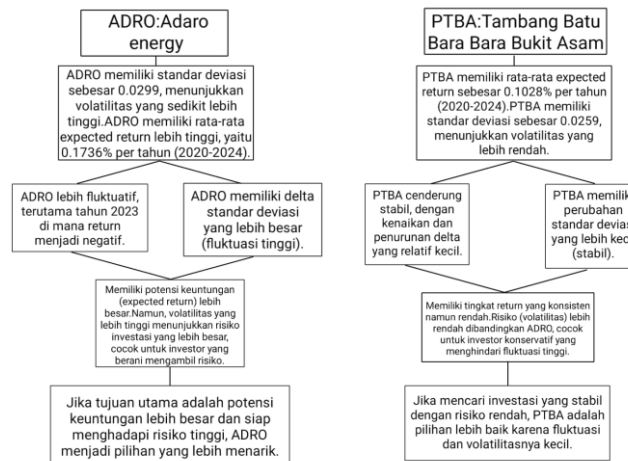


Figure 1. Conceptual Framework

METHODOLOGY

The method contains the type of method or type of approach used, description of qualitative and/or quantitative data, data collection procedures, data analysis procedures, and methods used to solve problems. This section explains in detail about the research conducted. This research was conducted at PT Adro Energy Indonesia Tbk. And PT Bukit Asam Tbk, both companies are listed on the Indonesia Stock Exchange (IDX).

In this study using secondary data sources. Secondary data sources are information collected from a variety of different existing sources. Examples of secondary data sources are books and magazines, company records or documents, government publications on economic indicators, industry analysis conducted by medical professionals, websites, the Internet, data from censuses, statistical summaries, databases, company annual financial reports, etc (Sekaran & Bougie, 2019; Kothari, 2004; Saunders et al., 2019).

Quantitative Data: This data includes numbers from financial statements, such as balance sheets, income statements, and cash flows. Quantitative data is used to calculate relevant financial ratios, such as liquidity, profitability, and solvency ratios.

Expected Return

Expected Return in the context of stocks refers to the average estimate of the return that an investor expects from investing in a particular stock over a period of time.

This includes possible gains from an increase in the share price as well as dividends that may be received ;

$$\text{Total Stock Return} = \frac{(P_1 - P_0) + D}{P_0}$$

P_0 = Harga saham awal

P_1 = Harga saham akhir

D = Dividen

Standard deviation

Standard deviation measures how far the values in a dataset (in this case, stock prices) deviate from the average (mean) of the dataset

$$s = \sqrt{\frac{\sum y^2 - \frac{(\sum y)^2}{n}}{n - 1}}$$

Price earning ratio

The price-to-earnings ratio is the ratio of stock price to earnings per share. The price-to-earnings ratio is a metric that is often used as a benchmark for the ratio of market price per share to earnings per share.

$$\text{PER} = \frac{\text{Market price per share}}{\text{Earning per share}}$$

Book value

The price to book value ratio is used to determine whether the price of a share of a company is cheap or expensive. The ratio is based on the company's book value.

$$\text{PBV} = \frac{\text{Price of Stock}}{\text{Book Value}}$$

Variance

Variance is a measure of a data set that shows slight deviations from the average. The more diverse the data, the more accurate the average value. In statistics, variance is used to highlight certain significant differences between each data point and its mean value.

$$\sigma^2 = \frac{\sum (X - \mu)^2}{N};$$

$$s^2 = \frac{\sum (X - \bar{X})^2}{n - 1}$$

RESULTS AND DISCUSSION

Table 1.1 Calculation Results for the Company PT. Alamtri Resources Indonesia (ADRO)

PT. ALAMTRI RESOURCES INDONESIA (ADRO)				
Year	Expected Return	Delta Expected Return	Standard Deviation	Delta Standard Deviation
2020	0,0705%		0,0377	
2021	0,2696%	0,1991%	0,0266	-0,0111
2022	0,2781%	0,0085%	0,0290	0,0024
2023	-0,0694%	-0,3475%	0,0231	-0,0059
2024	0,3193%	0,3887%	0,0312	0,0081

In 2020, PT Alamtri Resources Indonesia (ADRO) began its journey amidst a challenging situation. The expected return on investment was only 0.0705%, which is quite a small number. The year could be likened to walking on a rocky road. The company faced high risks, with a standard deviation of 0.0377. This shows that the company's performance was far from stable. However, despite the cautious start, this year became the basis for better steps in the future.

Entering 2021, ADRO seemed to find new momentum. The expected return jumped significantly to 0.2696%, indicating that the company started to find the right strategy to survive and grow amidst market conditions that may start to improve. The 0.1991% increase in returns compared to the previous year is evidence of a major improvement in operations and performance. Not only that, the company also managed to significantly lower its risk, with the standard deviation dropping to 0.0266. This year was a year of optimism, where ADRO showed that it was able to navigate the challenges well.

However, like the spinning wheel of life, ADRO's journey in 2022 was not as bright as the previous year. While fixed returns increased to 0.2781%, this increase was only 0.0085% compared to the previous year, indicating that the growth momentum started to slow down. Risk also increased slightly again to 0.0290, signaling that the company faces more uncertainty in the market. This year is a transitional period, where companies are trying to maintain stability amidst market dynamics that may become more complex.

The year 2023 was a difficult year for ADRO. The company recorded a negative return of -0.0694%, a figure that reflects a loss or decline in investment value. This was the lowest point in the company's five-year journey. The -0.3475% drop in returns compared to the previous year shows the immense pressure ADRO is under, both from internal and external factors. Although risk decreased slightly to 0.0231, this was not enough to make up for the poor performance this year. Like a runner

who stumbles in the middle of the track, ADRO faces a tough test to get back on its feet.

However, the spirit to rise is always there. The year 2024 became the year of revival for ADRO. Returns jumped sharply to 0.3193%, being the highest in the last five years. The increase of 0.3887% compared to the previous year showed a remarkable recovery. However, as recovery is often accompanied by new challenges, risk also increased to 0.0312, signaling that there is still a long way to go to full stability. This year was a symbol of ADRO's resilience, which was able to bounce back from the downturn and record a positive performance again.

Table 1.2 Calculation Results for the Company PT. Bukit Asam (PTBA)

PT. BUKIT ASAM (PTBA)				
Year	Expected Return	Delta Expected Return	Standard Deviation	Delta Standard Deviation
2020	0,1484%		0,0368	
2021	0,0219%	-0,1265%	0,0221	-0,0148
2022	0,2176%	0,1957%	0,0232	0,0011
2023	0,0069%	-0,2107%	0,0261	0,0029
2024	0,1183%	0,1114%	0,0171	-0,0090

In 2020, PTBA started the journey with a higher return than ADRO, which was 0.1484%. This year was a pretty good start for PTBA, although the risks faced were also quite high with a standard deviation of 0.0368. PTBA seems to start its journey at a more stable pace than ADRO.

However, in 2021, PTBA faced a big challenge. Returns plummeted to 0.0219%, with a decrease of -0.1265% compared to the previous year. This year has been a stressful year, where the company seemed to be tossed around by a big storm. Even so, PTBA managed to reduce the risk to 0.0221, showing that the company is still trying to maintain stability amidst the decline in performance.

The year 2022 was a turning point for PTBA. Returns jumped sharply to 0.2176%, showing that the company managed to get out of the previous pressure and find new momentum. The increase of 0.1957% compared to the previous year is evidence of a strong recovery. Risk was also maintained at 0.0232, reflecting that the company was able to maintain a balance between returns and volatility.

However, PTBA's journey was not always smooth. The year 2023 was another difficult year, with returns falling drastically to 0.0069%. A decline of -0.2107% compared to the previous year shows that the company faced major challenges, both in terms of market and operations. Risk increased to 0.0261, reflecting higher

uncertainty. The year served as a reminder that the journey to success is always fraught with obstacles.

Ultimately, 2024 was a year of revival for PTBA. Returns increased to 0.1183%, with an increase of 0.1114% compared to the previous year. More proudly, risk dropped significantly to 0.0171, showing that the company managed to manage uncertainty very well. This year is a symbol of PTBA's success in maintaining stability amidst the recovery.

Table 2. ADRO and PTBA Stock Calculation From 2020-2024

	ADRO	PTBA
Expected Return 2020-2024	0,1028%	0,1736%
Standard Deviation 2020-2024	0.0259	0,0299

In the five-year time span from 2020 to 2024, PT Alamtri Resources Indonesia (ADRO) and PT Bukit Asam (PTBA) have had a dynamic investment journey. If we look at their performance on average, ADRO appears to have a higher expected return than PTBA, which is 0.1736% versus 0.1028%. This difference suggests that overall, ADRO provided greater potential returns to its investors over the five-year period.

However, an investment journey is not only about potential returns, but also about the risks that must be faced. In this case, ADRO has a standard deviation of 0.0299, slightly higher than PTBA which recorded 0.0259. This standard deviation reflects the level of volatility or risk faced by both companies. This means that while ADRO provides higher returns, investors should also be prepared for greater fluctuations than if they invested in PTBA.

If we analogize these two companies like two marathon runners, ADRO is the faster but sometimes unsteady runner, often encountering rocky roads. On the other hand, PTBA is the slower but more consistent runner, stepping carefully to avoid obstacles on the way.

Conclusion

In the five-year period from 2020 to 2024, the investment journey in two major companies, PT Alamtri Resources Indonesia (ADRO) and PT Bukit Asam (PTBA), provides an interesting picture of the dynamics of managing performance and risk amidst changing market challenges. Each company has its own uniqueness, both in terms of potential returns and risks that must be faced.

PT Alamtri Resources Indonesia (ADRO):

ADRO has recorded fluctuating expected returns over the past five years. In 2020, its return was 0.0705%, which shows a relatively stable start although not yet significant. Then, the company showed a sharp increase in 2021 with returns reaching 0.2696%, which was also the biggest jump in the five-year span. This increase may reflect ADRO's success in capturing the market opportunities that existed at the time.

However, not all years were smooth sailing. In 2023, ADRO recorded a significant drop to -0.0694%, which was the lowest return in the five years. This decline can be assumed to be the impact of external challenges, such as commodity price fluctuations, policy changes, or internal operational challenges. However, by 2024, ADRO managed to bounce back with the highest return of 0.3193%, demonstrating the company's ability to adapt and recover from adversity.

In terms of risk, ADRO had the highest standard deviation in 2020 at 0.0377, indicating a high level of volatility at the beginning of the period. Over time, the risk decreased in 2021 to 0.0266, but rose again in 2024 to 0.0312. This fluctuation pattern shows that while the company is able to increase its returns, the risks it faces cannot be ignored.

PT Bukit Asam (PTBA):

In contrast to ADRO, PTBA showed a more stable performance despite its lower returns on average. In 2020, PTBA recorded a return of 0.1484%, which was higher than ADRO in the same year. However, this return experienced a significant drop in 2021 to 0.0219%, reflecting either pressure in the market or operational constraints.

PTBA's revival momentum came in 2022, with returns surging to 0.2176%, the highest value the company achieved over five years. However, similar to ADRO, PTBA also faced a difficult year in 2023, with returns plummeting to 0.0069%, the lowest value during the period. In 2024, PTBA managed to show signs of recovery with returns reaching 0.1183%, although not as high as in previous years.

In terms of risk, PTBA shows better risk management than ADRO. PTBA's standard deviation tends to be lower and stable, with the highest value in 2020 of 0.0368 and the lowest value in 2024 of 0.0171. This reflects PTBA's ability to maintain its performance stability amidst the challenges.

Overall, ADRO offers higher potential returns than PTBA, but with greater risk. PTBA, on the other hand, despite its lower return, shows better stability, making it a more conservative choice for investors who prioritize risk management.

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