THE INFLUENCE OF PRICE EARNING RATIO (PER), DEBT OF EQUITY RATIO (DER), AND RETURN ON ASSET (ROA) ON PRICE BOOK VALUE (PBV)

(Case Study on State-Owned Enterprises in The Energy and Mining Sector Listed on The Indonesian Stock Exchange)

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ABSTRACT

In the last five years, the world's economic and business conditions have experienced many challenges and trials. The first is the occurrence of cases of the corona infectious disease which then spread to become a pandemic and also the occurrence of conflicts or wars in several countries. The recent regional wars or conflicts have had a significant impact on the energy and mining sectors, both in the region and throughout the world. This research aims to analyze the influence of Price Earning Ratio (PER), Debt of Equity Ratio (DER) and Return on Assets (ROA) on Price Book Value (PBV) in Indonesian State-Owned Companies in the energy and mining sector listed on the Indonesian Stock Exchange. The data in this research is secondary data in the form of quarterly financial data for the period 2019-2023. The approach in this research is quantitative descriptive. The research results show that 1). Price Earning Ratio (PER) has a positive but not significant effect on PBV. 2). Debt of Equity Ratio (DER) has a positive but not significant effect on PBV. 3). Return on Assets (ROA) has a positive and significant effect on PBV listed on the Indonesian Stock Exchange. Price Earning Ratio (PER), Debt of Equity Ratio (DER) and Return on Assets (ROA) jointly influence the Price Book Value (PBV) of Indonesian State-Owned Companies in the energy and mining sectors listed on the Indonesian Stock Exchange.

Keywords: *PER, DER, ROA, PBV.*

1. INTRODUCTION

In the last five years, the world's economic and business conditions have experienced many challenges and trials. The first is the occurrence of cases of the infectious corona disease which then spread into a pandemic. The impact of the COVID-19 pandemic on the economy and business is very significant and extensive. Here are some of the main impacts, namely Travel restrictions, business closures, and a decline in consumer activity caused by the pandemic led to a decline in overall economic activity. Many sectors, such as tourism, hospitality and the entertainment industry, have been directly affected. Increase in Unemployment, Supply Chain Disruptions, Decline in Revenue and Profits, Shifts in Consumption and Consumer Behavior, Changes in Government Policy. The impact of the COVID-19 pandemic on the economy and business is still developing, and it is important to continue to monitor developments and adapt business strategies to the changes that occur.

The corona pandemic has not yet passed but there is a regional conflict between Russia and Ukraine which of course also has a big impact on the business world. The war between Russia and Ukraine has had a complex and diverse impact on businesses, both in the region and around the world. Some of the impacts include: First, the armed conflict between Russia and Ukraine creates political and economic uncertainty in the region. This can disrupt investments, trade and overall business activities. Second, war could disrupt global supply chains because the region is the main route for trade in goods between Europe and Asia. These disruptions can cause delivery delays and increased logistics costs for the businesses involved. Third: Political and security uncertainty caused by war can reduce investors' interest in investing in the region. This can slow down economic growth and infrastructure development. Fourth: Ukraine is the main transit route for natural gas and oil supplies from Russia to Europe. Conflicts in the region could disrupt energy supplies, causing price increases and energy market instability. Fifth: War between Russia and Ukraine could trigger broader geopolitical tensions in the region. This can affect political stability and security, as well as the overall business climate.

The recent regional wars or conflicts have had a significant impact on the energy and mining sectors, both in the region and throughout the world. Some of the impacts include: Energy Supply Disruptions where Ukraine is an important transit route for natural gas and oil supplies from Russia to Europe. Conflicts in the region could disrupt energy supplies, causing uncertainty in energy supplies and prices on global markets. These disruptions could impact energy availability and production costs for businesses that depend on fossil fuels. Increase in Energy Prices, namely Uncertainty in energy supplies caused by conflict can cause an increase in energy prices, especially in European regions which depend on energy imports from Russia. This price increase can affect operational costs for businesses in various sectors, including manufacturing, transportation and hospitality. And disruptions in raw material supplies due to conflict can disrupt the supply of mineral and metal raw materials from the region. Ukraine is an important producer of several raw materials, such as iron ore, manganese and titanium. Disruptions in the production and export of these raw materials could impact global manufacturing industries that depend on these supplies.

2. RESEARCH METODOLOGY

This research is quantitative descriptive research. The quantitative approach is a research process, hypothesis or prediction of results, empirical data, data analysis, and data conclusions until the final results are written using aspects of measurement, calculation, formulas and numerical data, or statistical calculations (Rukmining, et al. 2020).

The object of research is the State-Owned Enterprise (Indonesian State Company) in the energy and mining sector which is listed on the Indonesian Stock Exchange, namely PT. Perusahaan Gas Negara, Tbk. (PGAS), PT. Bukit Asam (PTBA), PT. Elnusa, Tbk. (ELSA), PT. Aneka Tambang Indonesia, Tbk (ANTM) and PT. Timah, Tbk. (TINS).
The data used in this research is secondary data taken from quarterly financial reports (20 quarters) from 2019-2023 (5 five years).

3. RELATED RESEARCH/LITERATUR REVIEW

Price Earnings Ratio (P/E Ratio) is an important measure in fundamental stock analysis. It measures the relationship between the stock price per share and the earnings per share reported by the company. According to Eugene F. Brigham and Joel F. Houston in their famous book "Fundamentals of Financial Management (2019)," the Price Earnings Ratio (P/E Ratio) has some significant importance in investment analysis:

1. P/E Ratio helps investors assess stock valuations and compare them with other stocks or market indexes. This helps investors determine whether a stock is being priced fairly, too expensive, or too cheap.
2. P/E Ratio can provide clues about market expectations regarding a company's future profit growth. If the P/E Ratio is high, this may indicate that the market believes the company has bright growth prospects.
3. P/E Ratio allows investors to compare valuations between stocks in the same industry. This helps investors assess whether a stock is cheaper or more expensive compared to its competitors in the same industry.
4. P/E Ratio can be used as a tool in making investment decisions. For example, if a stock's P/E Ratio is lower than the industry average, this may be a signal to buy the stock.
5. P/E Ratio can reflect market sentiment towards a stock or industry. A high P/E Ratio may indicate that the market is bullish on the stock, while a low P/E Ratio may indicate bearish sentiment.

However, Brigham and Houston also reminded that the P/E Ratio should not be the only factor in making investment decisions. This should be considered together with other fundamental factors, such as earnings growth, the company's financial position, industry risks, and overall market conditions.

According to James C. Van Horne (2012), a financial expert known for his work in the field of financial management, the Debt to Equity Ratio (DER) has several significant interests in corporate financial analysis:

1. DER helps in evaluating the capital structure of a company by comparing the amount of debt the company has with its equity. This gives an idea of how much a company relies on external funding (debt) compared to internal funding (equity).
2. DER provides an indication of the level of financial risk of a company. Companies with high DER tend to have higher financial risk because large debt obligations can increase pressure on interest payments and debt principal payments.
3. DER is also used by lenders and financial institutions to evaluate the creditworthiness of a company. Companies with low DER tend to be considered safer and creditworthy because they have fewer debt obligations that they must manage.
4. DER allows comparison between companies in the same industry or similar sectors. This helps in assessing whether a company has a healthy capital structure relative to its competitors.
5. DER can be used as a tool in making investment decisions. Investors may consider DER as a factor in assessing the risk of investing in a company.
6. DER also helps management in long-term financial planning. By paying attention to DER, management can make the right decisions about how to manage the company's capital structure to achieve the set financial goals.

While DER is a useful tool in financial analysis, it is important to note that no single measure provides a complete picture of a company's financial health. Therefore, DER should always be considered together with other financial factors in conducting a comprehensive analysis.

Aswath Damodaran (2001) provides several reasons why Return on Assets (ROA) is an important measure:

1. ROA helps in assessing how efficiently a company uses its assets to generate profits. The higher the ROA, the more efficient the company is in utilizing its assets to generate profits.

2. ROA can provide an indication of company growth and productivity. If ROA increases over time, this can indicate that the company is successfully increasing its productivity or managing its assets better.
3. ROA allows investors to compare financial performance between companies in the same industry. It helps in assessing whether a company is performing better or worse than its competitors.
4. ROA is an indicator of a company's financial health. A high ROA indicates that the company is able to generate greater profits with the assets it owns, while a low ROA may indicate problems in the use of assets or inefficient operations.
5. ROA is used by investors to evaluate investment potential in a company. Companies with high ROA tend to be more attractive to investors because they show good financial performance.

However, Damodaran also notes that ROA must be considered together with other factors in conducting a comprehensive investment analysis. This includes considerations about capital structure, industry risk, earnings growth, and overall market conditions.

4. RESULTS AND DISCUSSION

Based on the results of data processing carried out with the SPSS version 25 program, the following multiple linear regression results were obtained:

Table 1. Result of Regresion Analysis

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	.962	.152	
	PER	.001	.001	.108
	DER	.016	.086	.019
	ROA	.040	.009	.478

Source : data is processed (2024)

Based on the results of table 2 coefficients, the following regression equation is obtained:

$$Y = 0.962 + 0.001X1 + 0.016X2 + 0{,}040X3 + e$$

From the equation above it can be interpreted as follows:

1. The constant value (a) is 0.962 (positive), meaning that the variables Price Earning Ratio (PER) (X2), Debt to Equity Ratio (DER) (X1), and Return On Assets (ROA) (X3) have fixed or constant values , then Price to Book Value (PBV) (Y) is 0.962.
2. Price Earning Ratio (PER)) decreases by one unit, the Price to Book Value (PBV) will decrease by 0.001 units. The regression coefficient is positive, meaning that there is a unidirectional relationship between Price Earning Ratio (PER) and Price to Book Value (PBV).
3. Debt to Equity Ratio (DER) Ratio (DER) decreases by one unit, so Price to Book Value (PBV) will decrease by 0.016 units. The regression coefficient is positive, meaning that there is a unidirectional relationship between Debt to Equity Ratio (DER) and Price to Book Value (PBV).
4. Return On Assets (ROA) ROA) decreases by one unit, the Price to Book Value (PBV) will decrease by 0.040 units. The regression coefficient is positive, meaning there is a unidirectional relationship between Return On Assets (ROA) and Price to Book Value (PBV).

Hypothesis test
Partial testing (t test)

The T test is used to determine the relationship between independent variables individually (partially) influencing the dependent variable. The ttable obtained is 1,660, the following t test results can be seen in the coefficients table:

Table 2. Partial Test Results (T Test)

Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		6.340	.000
	PER	.108	1.169	.245
	DER	.019	.186	.853
	ROA	.478	4.591	.000

Source : data is processed (2024)

In Table 2 the coefficient can be seen from the results of partial hypothesis testing (t test) which can be explained as follows:

1. For the Price Earning Ratio (PER) (X1) variable, the value obtained is tcount (1.169) < ttable (1.660), namely tcount is smaller than ttable and (sig) = 0.245 is greater than the probability, namely 0.05 or 0.245 > 0.05. So it can be concluded that the hypothesis is rejected, the independent variable Price Earning Ratio (PER) (X1) partially has an insignificant effect on Price to Book Value (PBV) (Y).
2. The variable Debt to Equity Ratio (DER) (X2), obtained a tcount value of 0.186 with a ttable of 1.660, namely tcount is smaller than ttable (0.186 < 1.660) and (sig) = 0.853 is greater than the probability, namely 0.05 or 0.186 > 0.05. So it can be concluded that the hypothesis is rejected, the independent variable Debt to Equity Ratio (DER) (X2) has no significant effect on Price to Book Value (PBV) (Y).
3. Return on Assets (ROA) variable (X3), the value obtained is tcount (4,591) > ttable (1,660), namely tcount is greater than ttable and (sig) = 0.000 is smaller than the probability, namely 0.05 or 0.000 < 0.05 . So it can be concluded that the hypothesis is accepted, the independent variable Return on Assets (ROA) (X3) has a significant effect on Price to Book Value (PBV) (Y).

Simultaneous testing (f test)

The F test aims to determine the effect of variables together, namely the independent variable on the dependent variable. The Ftable obtained from two sides is 2.89.

Tabel 3. Simultaneous Test Results (F Test)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.419	3	2.806	8.767	.000[b]
	Residual	30.728	96	.320		
	Total	39.148	99			

Source : data is processed (2024)

From table 3 of the ANOVA, the Fcount value is 8,767 with an Ftable of 2.89. Thus Fcount (8,767) > Ftable value (2.89). And the significance level is 0.000 because sig < 0.05, the variables Price Earning Ratio (PER) (X1), Debt to Equity Ratio

(DER) (X2) and Return On Assets (ROA) (X3) have a positive effect simultaneously on Price to Book Value (PBV) (Y).

Testing the coefficient of determination (R2)
The Coefficient of Determination Test is used to measure the model's ability to explain variations in the dependent variable in the research. The results of the coefficient of determination test can be seen in the following table:

Table 4 Coefficient of Determination Test Results (R2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.464[a]	.215	.191	.56576

Source : data is processed (2024)

Based on table 5 of the Model Summary, it is known that the coefficient of determination (R2) is 0.215 (21.5%). This figure shows that the independent variables namely Price Earning Ratio (PER) (X1), Debt to Equity Ratio (DER) (X2) and Return On Assets (ROA) (X3) explain the dependent variable Price to Book Value (PBV) (Y) amounted to 21.5% while the remaining 78.5% was explained by other factors outside this model.

5. CONCLUSION

From the research results that have been obtained, several things can be concluded as follows:

1. The Price Earning Ratio (PER) variable has a positive but not significant effect on Price to Book Value (PBV) in State-Owned Enterprises (Indonesian State Companies) in the energy and mining sectors listed on the Indonesian Stock Exchange.
2. The Debt to Equity Ratio (DER) variable has a positive but not significant effect on Price to Book Value (PBV) in State-Owned Enterprises (Indonesian State Companies) in the energy and mining sectors listed on the Indonesian Stock Exchange.
3. The Return On Assets (ROA) variable has a positive and partially significant effect on Price to Book Value (PBV) in State-Owned Enterprises (Indonesian State Companies) in the energy and mining sectors listed on the Indonesian Stock Exchange.
4. The variables Price Earning Ratio (PER), Debt to Equity Ratio (DER) and Return On Assets (ROA) simultaneously influence Price to Book Value (PBV) in State-Owned Enterprises (Indonesian State Company) in the energy and mining sectors. listed on the Indonesian Stock Exchange.

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