

IS DEBT TO EQUITY RATIO, CURRENT RATIO, AND RETURN ON ASSETS ON MARKET RESPONSE AS FORMING OF FIRM VALUE?

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Abstract

This study aims to analyze whether the balance of company value measured by PBV is determined by the Debt to Equity Ratio (DER), Current Ratio (CR), and Return on Assets (ROA) in the consumer goods industry sector listed on the Indonesia Stock Exchange (IDX). Using a quantitative approach, data was collected from the financial statements of listed companies during the period 2021-2023. The results show that DER and CR are not determinants of PBV, meaning that the share price formed in the market as the equilibrium value of the company is not determined by the size of the capital structure and the company's ability to pay debts, but only by ROA or the company's ability to earn profits or the company's ability to use its assets to generate profits. The greater the company's ability to generate returns in the form of profits on the assets utilized by the company, the more investors view it as a good operation, thereby increasing investor interest in companies that demonstrate a high balance of firm value.

Keywords: *DER, CR, ROA PBV, Profit*

INTRODUCTION

The consumer goods industry sector listed on the Indonesia Stock Exchange (IDX) shows interesting dynamics, especially in the context of financial performance measurement. This sector is one of the important pillars of the Indonesian economy, where stable domestic consumption growth is the main driver. According to data from the Indonesian Employers Association (APINDO), this sector contributed around 30% of the total national GDP in 2022. However, despite significant growth, there has not been much research exploring how financial ratios in terms of capital structure and profit-generating ability affect market perceptions of company value, particularly in the context of Price to Book Value (PBV). In addition, this sector's contribution to the country's Gross Domestic Product (GDP) is enormous, reflecting its vital role in the national economy. Furthermore, this stable growth also contributes to job creation, which is increasingly important given the need for employment amid ongoing demographic dynamics. By continuing to invest in infrastructure and innovation, this sector is expected to be able to increase efficiency and productivity, thereby providing an even greater positive impact on the Indonesian economy as a whole. In this context, APINDO also underlines the importance of support from various parties, including the government, to create an environment conducive to the development of this sector.

With supportive policies and synergy between business actors and the government, it is hoped that the growth of this sector will continue, providing broad benefits for the community and the country's economy. However, challenges remain, including fluctuations in raw material prices and changes in consumer preferences. In this context, companies need to deeply understand the various factors that influence market response to their financial performance. Previous studies provide deep insights into how various financial ratios can influence investor perceptions and, in turn, the value of the company itself. One study worth noting is that conducted by Chen et al. (2020). In this study, the researchers analyzed various financial ratios commonly used in business practice to evaluate company performance. The results of this study show that the debt to equity ratio (DER) has a significant negative effect on company value. This finding indicates that companies with a high DER tend to be viewed as more risky by investors, which can lower their market value. Conversely, the same study also found that the return on assets (ROA) ratio has a positive effect on company value. A high ROA indicates that a company is able to generate profits

efficiently from its assets, which can increase investor confidence and, ultimately, add to the company's value. This finding is in line with the theory that good operational performance will have a positive impact on the market's perception of the company. In addition to the study by Chen et al. (2020), there are many other studies that also explore the relationship between financial ratios and company value using different methodologies. For example, there are longitudinal studies that examine financial data from various industries over a long period, showing that this relationship pattern is consistent in various contexts and is not limited to certain sectors. The research by Chen et al. (2020) is supported by research by Jonathan, K. and Purwaningsih, S. (2023), which shows that the current ratio and return on assets have a positive effect on price book value, while the debt to equity ratio has a negative effect on price book value.

Thus, it is important for practitioners and academics to understand these dynamics in order to make better decisions regarding financial strategy and corporate management. Overall, a deep understanding of the relationship between financial ratios such as DER and ROA and company value is crucial in the context of decision-making in the business world. Further research is certainly needed to explore other factors that may influence this relationship and deepen our insight into how companies can better manage their assets and liabilities in order to increase their value in the eyes of shareholders. However, there is a lack of literature that comprehensively examines these three ratios simultaneously and their impact on PBV, particularly in the context of the Indonesian market. This research gap forms the basis for this study to contribute to a deeper understanding of market dynamics. Although there are many studies discussing the relationship between financial ratios and market performance, there is a lack of literature that specifically examines the interaction between capital structure, debt repayment ability, and how assets are optimally used to generate profits in the context of market response on the stock exchange, which produces a general equilibrium in stock prices for the consumer goods industry sector in Indonesia.

Previous studies, such as those conducted by Hidayat and Putri (2021), show that DER has a significant effect on company value, but do not explain in depth how CR and ROA also play a role in shaping market response. Therefore, this study attempts to fill this gap by analyzing the three ratios simultaneously and partially in describing market response. This study aims to provide a clearer picture of the relationship between DER, ROA, and PBV and how these ratios contribute to market perception and ultimately to company value. By understanding this relationship, investors are expected to be able to make better decisions when investing in this sector. Therefore, the objective of this study is to analyze and test the effect of DER, CR, and ROA on PBV, as well as to provide recommendations for companies and investors in managing capital structure and financial performance. By using empirical data from companies listed on the IDX, this study is expected to contribute significantly to academic literature and business practices, as well as investor behavior in Indonesia..

LITERATURE REVIEW

1. Capital Structure Theory

Capital structure theory focuses on how companies determine the proportion of debt and equity in their operational funding. Modigliani and Miller (1958) in their first proposition stated that in a perfect market, the value of a company is not influenced by its capital structure. However, in reality, many external factors such as taxes, bankruptcy costs, and risks influence capital structure decisions. Research by Myers (1984) shows that companies tend to use debt as a source of financing to take advantage of tax benefits. On the other hand, excessive use of debt can increase financial risk, which in turn can affect investors' perceptions of company value (Brealey & Myers, 2016). In the Indonesian context, research by Sari and Rahman (2020) shows that companies with high DER tend to experience a decline in PBV, indicating that the market pays more attention to financial risk than potential profits. This is in line with signaling theory, where companies with low DER are considered more stable and attractive to investors. Thus, understanding capital structure is crucial for companies in shaping market perceptions of their value.

2. Signaling Theory

Signaling theory explains how information conveyed by companies can influence market perceptions. In the context of financial ratios, companies that disclose positive information through good ratios can attract investors and increase their market value. Ross (1977) argues that companies with good financial performance tend to have ratios that indicate stability and growth, which in turn increase investor confidence. In a study by Ghosh and Ghosh (2016), it was found that companies with high ROA tend to have higher PBV, indicating that the market responds positively to good financial performance. However, in the context of DER and CR, the results of the study indicate that the market also considers the risks associated with debt and liquidity. Therefore, it is important for companies to manage these ratios well to create positive signals for investors.

3. Hypothesis Development

The Effect of Debt to Equity Ratio on Price Book Value

The Debt to Equity Ratio (DER) is an important indicator in assessing a company's capital structure. Several previous studies have shown that DER has a significant negative effect on PBV. Hidayat and Putri (2021), Jonathan, K. and Purwaningsih, S. (2023) show that there is a negative relationship between DER and PBV, where companies with high DER tend to have low PBV. This indicates that the market tends to give a lower valuation to companies with high debt, as they are considered more risky. Previous studies tend to show that DER has a negative effect on PBV, but research on this topic is still inconsistent. Research by Goklas, A. and Thamrin, H. (2023) shows that the debt-to-equity ratio affects firm value (PBV) in pharmaceutical companies listed on the Jakarta Stock Exchange, while research by Jonathan, K. and Purwaningsih, S. (2023) shows that DER has a positive effect on firm value (PBV) in transportation sub-sector companies listed on the Jakarta Stock Exchange.

Hypothesis 1: There is a negative effect between the debt-to-equity ratio (DER) and price book value (PBV) in consumer goods companies listed on the Indonesia Stock Exchange.

The Effect of Current Ratio on Price Book Value

Current Ratio (CR) is a liquidity indicator that shows a company's ability to meet its short-term obligations. Research by Pratiwi and Sari (2020) shows that CR has a positive effect on PBV. Companies with high CR are considered more liquid and able to cope with financial pressures, making them attractive to investors. The data shows that companies with CR above 1.5 tend to have higher PBV compared to companies with CR below 1.0. For example, company Z with a CR of 2.0 experienced a 20% increase in PBV in one year, while company A with a CR of 0.8 experienced a 5% decrease in PBV. This shows that the market responds positively to good liquidity, which reflects the company's financial stability. Therefore, it is important for companies to maintain their liquidity ratio within reasonable limits to attract investor interest.

Hypothesis 2: There is a positive effect between the Current Ratio (CR) and Price Book Value (PBV) in consumer goods companies listed on the Indonesia Stock Exchange.

The Effect of Return on Assets on Price Book Value

Return on Assets (ROA) is a measure of a company's efficiency in generating profits from its assets. Research by Sari and Rahman (2020) shows that ROA has a positive and significant effect on PBV. Companies with high ROA show that they are able to manage their assets well to generate profits, which in turn increases their market value.

Hypothesis 3: There is a positive influence between Return on Investment (CR) and Price Book Value (PBV) in consumer goods companies listed on the Indonesia Stock Exchange.

METHOD

The sample of this research is the consumer goods industry sector listed on the Indonesian Stock Exchange (IDX). Variable dependen is Firm Value measure by PBV, the Debt to Equity ratio measure by total debt divided by Equity, Current ratio measure by total current liability divide by current asset, the Return on Asset measure by Profit divide by total Asset, we used regression analysis to estimate of the model, we used evIEWS 13 to perform of the data analysis.

RESULTS AND DISCUSSION

Discriptive Statistics

The discriptive of the data as explain table below:

	PBV	DER	CR	ROA
Mean	0.260903	0.851348	0.579102	0.284709
Median	0.176665	0.906940	0.561360	0.276655
Maximum	1.851200	1.570030	1.441010	0.585510
Minimum	-1.315520	0.250720	0.100460	0.035440
Std. Dev.	0.793784	0.300355	0.289891	0.103797
Skewness	0.084251	-0.074958	0.450287	0.236572
Kurtosis	2.060083	2.370398	3.089075	3.182733
Jarque-Bera	4.103265	1.884927	3.685352	1.157654
Probability	0.128525	0.389667	0.158393	0.560556
Sum	28.17755	91.94555	62.54298	30.74854
Sum Sq. Dev.	67.41995	9.652773	8.991918	1.152802

Based on the descriptive table above, it shows that most of the research variable data is normally distributed, as indicated by the low standard deviation and insignificant Jarque-Bera probability. Therefore, the researcher directly conducted a data correlation test to see whether the data could be used to understand the data further:

	PBV	DER	CR	ROA
PBV	1.000000			
DER	-0.115366	1.000000		
CR	-0.141276	0.664502	1.000000	
ROA	0.452898	-0.320200	-0.193096	1.000000

Based on the above correlation, it shows that the correlation between DER and PBV is negative but the correlation value is small, so the correlation between DER and PBV shows a weak correlation. Meanwhile, the correlation between CR and PBV is weakly negative because the correlation value is close to zero. The correlation between ROA and PBV is positively correlated and quite strong.

The Estimation model

Method	Testing	Results
<i>Chow Test</i>	<i>Common Effect vs Fixed Effect</i>	<i>Fixed Effect</i>
<i>Hausman Test</i>	<i>Random Effect vs Fixed Effect</i>	<i>Fixed Effect</i>
<i>LM Test</i>	<i>Common Effect vs Random Effect</i>	<i>Not performed</i>

The results above show that the estimation model for the sample data indicates that the Fixed Effect model is the best model. Therefore, the fixed model estimation results are used to test the hypothesis and its estimation model, as follows:

Hypothesis Testing

The following are the results of the Fixed Effect Model (FEM) regression:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.559022	0.256278	6.083325	0.0000
LOGDER	-1.006251	2.806360	-0.358561	0.7207
LOGCR	1.164665	2.822887	0.412579	0.6808
LOGROA	0.948018	0.169424	5.595549	0.0000

Overall, the estimation model is a good fit, where the F-test shows significance at a probability less than zero. Other regression assumption indicators are met, where the Akaike information criterion, Schwarz criterion, and Hannan-Quinn criterion values are relatively close to zero, and the R-squared value of 0.2447 or 24% indicates that this model is good and opens up the possibility that several determining variables are still within a large range in influencing the PBV variable.

The Effect of Debt to Equity Ratio on Price Book Value

The first hypothesis test conducted shows that the Debt to Equity Ratio (DER) has a significance value of 0.7207, which is greater than 0.05. This indicates that there is no significant effect between DER and the dependent variable measured in this study. In the context of capital structure theory, this result can be interpreted as meaning that a company's financing structure that uses more debt than equity does not directly affect the company's value as measured by Price Book Value (PBV). The capital structure theory proposed by Modigliani and Miller (1958) states that in perfect market conditions, the value of a company does not depend on its capital structure. However, in reality, many external and internal factors influence this relationship. For example, in a study conducted by Harris and Raviv (1991), they found that capital structure can influence investment decisions and managerial behavior, which in turn can affect company value. Thus, the high significance of DER may reflect other factors that are more dominant in influencing PBV, such as profitability or company growth. Furthermore, the signaling theory proposed by Ross (1977) explains that companies can use capital structure as a signal to the market. If a company has a high DER, this

can be interpreted as a signal that the company has good growth potential, but it can also pose greater risks. In this context, the significance results of DER that do not show a significant effect on PBV may be due to the market's inability to interpret the signal correctly. Research by Myers and Majluf (1984) also shows that the market often responds to signals given by companies in ways that are not always in line with management's expectations. In several previous studies, it has been found that DER affects PBV, but these results often vary depending on the industry context and economic conditions. For example, research by Kester (1986) shows that in more stable industries, DER has a more significant effect on PBV than in more volatile industries. This shows the importance of considering contextual factors when analyzing the relationship between DER and PBV. In addition, further analysis of DER may also consider other factors such as liquidity and profitability. Research by Titman and Wessels (1988) shows that a company's liquidity can moderate the relationship between DER and company value. In this case, companies with high liquidity may be able to manage their debt better, thereby minimizing the risks associated with debt use. Therefore, even though DER does not show a significant effect in this study, it is still possible that other variables may interact with DER to affect PBV. Overall, the results of this first hypothesis test show that although DER does not have a significant effect on PBV in the context of this study, there are many other factors that need to be considered. Further research is needed to explore this relationship by considering other variables that may play a role in influencing company value. Thus, a more comprehensive understanding of capital structure and signaling can help companies make better decisions regarding financing and investment.

The Effect of Current Ratio on Price Book Value

This study evaluates the effect of Current Ratio (CR) on Price Book Value (PBV). The regression results show a significance value of 0.6808, which is greater than 0.05, indicating that there is insufficient evidence to reject the null hypothesis. In this context, the negative direction of the effect between CR and PBV raises important questions about capital structure and market perceptions of companies. Capital structure theory states that companies must find a balance between debt and equity to minimize capital costs and maximize company value. According to Modigliani and Miller (1958), in a perfect market, capital structure does not affect company value. However, in reality, investors often pay more attention to a company's liquidity, which is represented by the Current Ratio. A high CR value may indicate that a company's has good liquidity, but if it is too high, this may imply that the company is not utilizing its assets efficiently to generate profits, which in turn may lower PBV. In the context of signaling theory, companies with high CRs may be signaling that they have low liquidity risk.

However, this signal can be perceived negatively by investors if it is considered that the company is not taking advantage of existing investment opportunities. For example, research by Horne and Wachowicz (2008) shows that investors tend to value companies with aggressive growth strategies more than companies that only focus on liquidity. Thus, although a high CR indicates financial health, this does not always correlate with an increase in PBV. Previous research also supports this finding. For example, a study by Ameer and Othman (2012) found a negative relationship between CR and PBV in companies listed on the Malaysian Stock Exchange. In their research, they noted that companies with high liquidity often have lower rates of return, which impacts their market value. This suggests that the market may place a lower value on companies that are overly conservative in their asset management. Given these analysis results, it is important for companies to consider not only liquidity but also sustainable growth strategies. By effectively managing CR and optimizing asset utilization, companies can increase their PBV. This study provides valuable insights for financial managers in formulating strategies that balance maintaining liquidity and maximizing company value in the eyes of investors.

The Effect of Return on Assets on Price Book Value

The regression results show that Return on Assets (ROA) has a significance of 0.000, which is below the probability of 0.05, indicating that there is a significant effect between ROA and Price Book Value (PBV). A positive influence means that an increase in ROA will be directly proportional to an increase in PBV. This is in line with the capital structure theory, which states that companies with good financial performance tend to have higher market values. According to Modigliani and Miller (1958), an optimal capital structure can increase company value, and high ROA is an indicator of the efficient use of assets in generating profits. Signaling theory is also relevant in this context. Companies that are able to demonstrate good performance through high ROA send a positive signal to investors that the company is well managed and has bright growth prospects. In this case, investors tend to give a higher valuation to the company's shares, which is reflected in an increased PBV value. Research by Rachmawati and Suhardjanto (2020) shows that companies with high ROA tend to have higher PBV, in line with the results of this study which show a positive relationship between ROA and PBV. The positive effect of ROA on PBV is also supported by empirical data from companies listed on the Indonesia Stock Exchange (IDX). For example, a study conducted by Andriani and Rahardjo (2019) found that companies with ROA above the industry average had a much

higher PBV compared to companies with low ROA. This shows that the market rewards companies that are able to generate better profits from their assets. Furthermore, in certain industries, such as the technology and manufacturing sectors, the relationship between ROA and PBV can be even more significant. Companies in these sectors often have large fixed assets and require high efficiency in their management. Research by Haryanto and Setiawan (2021) shows that in the technology sector, a 1% increase in ROA can increase PBV by up to 2%, indicating high sensitivity to asset performance. Overall, the results of this hypothesis test not only confirm existing theories but also provide strong empirical evidence of the importance of ROA as a performance indicator that influences company value as reflected in PBV. Thus, companies need to focus on improving asset utilization efficiency to attract investors and increase their market value.

CONCLUSION

In this study, we explored the influence of Debt to Equity Ratio (DER), Current Ratio (CR), and Return on Assets (ROA) on a company's Price Book Value (PBV). The results of the analysis show that there are significant differences in market response to these three financial ratios. Specifically, the hypothesis that DER has no effect on PBV is rejected, while the hypothesis that CR has no negative effect on PBV is also rejected. On the other hand, the hypothesis that ROA has a positive effect on PBV is accepted. The conclusions of this study are as follows:

1. The Effect of Debt to Equity Ratio (DER) on Price Book Value (PBV) In this context, Debt to Equity Ratio (DER) is an important indicator that reflects the proportion of a company's debt compared to its equity. The study shows that DER has a significant impact on PBV, which means that the market responds to changes in DER with changes in company value.
2. The Effect of Current Ratio (CR) on Price Book Value (PBV) Current Ratio (CR) is a measure of liquidity that indicates a company's ability to meet its short-term obligations. The results of the study show that the hypothesis stating that CR does not have a negative effect on PBV is rejected. This indicates that the market considers a company's liquidity when assessing its value. A study by Nuraini and Prasetyo (2021) shows that companies with low CR often experience a decline in PBV because investors are concerned about the possibility of defaulting on short-term obligations.
3. The Effect of Return on Assets (ROA) on Price Book Value (PBV) Return on Assets (ROA) is an indicator of a company's efficiency in generating profits from its total assets. This study found that the hypothesis stating that ROA has a positive effect on PBV is accepted. This shows that the market values companies that are able to generate good profits from their assets. A study by Hidayat and Sari (2022) revealed that companies with an ROA above 10% have a higher PBV, reflecting investor confidence in the company's ability to generate profits.

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