


## The Effect Of Capital Structure On Stock Returns In Banking Companies Listed On The Indonesia Stock Exchange

Roro Anindita Widyastuti

Pelita Harapan University

Article Info	ABSTRACT
<p><b>Keywords:</b> Capital Structure, Market to Book Ratio, Return on Assets, Size, Liquidity, Earnings per Share, Share Return.</p>	<p>Investing in banking stocks in the Indonesian capital market requires understanding not only the conditions and mechanisms of the capital market, benchmark interest rates, and banking performance, but also considering the capital structure in investment analysis that can affect stock returns. This study aims to analyze the impact of capital structure on the stock returns of banking companies in Indonesia on the Indonesia Stock Exchange (IDX) from 2013 to 2022. The results of statistical regression show a negative influence of capital structure on stock returns, as well as a positive influence of ROA and liquidity on stock returns. However, market-to-book ratio, size, and earnings per share do not affect stock returns. This research provides additional insights to investors and prospective investors in banking stocks on the IDX as considerations in investment decisions.</p>
<p>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license</p> 	<p><b>Corresponding Author:</b> Roro Anindita Widyastuti Pelita Harapan University <a href="mailto:anindita.widyastuti@gmail.com">anindita.widyastuti@gmail.com</a></p>

### INTRODUCTION

In the current business landscape, there is intense competition among companies to attract investor interest in investing or buying shares in their company, including banking institutions. This is supported by various corporate actions in the banking sector aimed at increasing their book value, which can attract investors as a sign of business expansion efforts. The primary function of financial institutions such as banks is to mediate disputes between lenders and borrowers. Therefore, it is important for banks to operate effectively on both large and small scales (Rachman et al., 2019). Improved performance, both effectively and efficiently, will drive investor interest in allocating investments to banking stocks, which could potentially result in increased stock prices and returns. Consequently, companies strive to significantly enhance their performance. Good performance of a company is reflected in a positive company value, influencing stock prices, and generating returns for shareholders. The improvement in company performance is expected to lead to an increase in stock returns for investors due to an increase in stock prices (Yani & Santosa, 2020).

According to Iryanto (2014), one of the facilitators for improving performance is the availability of capital used to achieve significant profits. The movement of stock returns in the banking sector is often influenced by market sentiment. However, investors often do not consider a bank's capital structure when deciding on investments that could affect the bank's stock returns. Thus, the capital structure has not yet become a primary consideration in stock

analysis. On the other hand, the capital structure plays a crucial role in determining financial health and business performance, referring to the combination of debt and equity, as well as other funding sources that managers use to finance the company (Al Salamat & Mustafa, 2016).

The capital structure of a company affects its stock returns in several ways. First, the level of debt in a company's capital structure can affect its stock returns. High levels of debt can lead to higher financial risks, which in turn can result in higher return expectations for shareholders because debt holders have priority over equity holders in the event of default or bankruptcy. Conversely, low levels of debt may come with lower expected returns. Furthermore, market conditions, especially stock returns, can influence a company's capital structure decisions. For example, during periods of high stock returns, companies may be more inclined to issue equity and reduce their debt.

Returns are the primary metric used by investors in determining the profitability of a stock. When deciding how much money to put into the stock market, investors look for the most promisingly profitable companies (Dwinanto et al., 2019). In this regard, besides market conditions, interest rates, and banking performance, investors need to consider the capital structure of companies when conducting investment analysis in Indonesia. Wherein the capital structure reflects a company's decision on the proportion between debt and equity, considering that debt, besides improving performance and expanding the company, can also potentially bring down the company (Mburu, 2017). This research aims to examine the extent to which the capital structure can significantly influence stock returns and thus affect future investor decisions.

## **Literature Review and Hypothesis Development**

### **Capital Structure and Stock Returns**

Capital structure, which encompasses debt and equity, is an essential tool for any business looking to finance its operations. Managers in various companies have access to a variety of funding sources, which they can utilize in various ways (Tjong & Kurniawan, 2021). According to Andani et al. (2023), the leverage ratio comparing debt to equity is one way to evaluate a company's financial structure. The capital structure, in theory, represents an optimal combination of debt and equity in practice within a company (Mburu, 2017). Stock return refers to the investor's profit from their investment (Bintara, 2020).

Companies that tend to have relatively high financing indirectly bear a significant burden, leading to an imbalance between capital structure and stock returns. According to research conducted by Kholifah (2021), an imbalanced stock return leads to investors avoiding capital investment. A study by Acheampong et al. (2014) examined the effect of financial leverage on stock returns of five manufacturing companies in Ghana for the period (2006-2010). The results showed a significant negative impact of financial leverage on stock returns. Similarly, research by Wahyudi (2022) using regression models demonstrated that capital structure employing leverage has a negative impact on stock returns.

The relationship between capital structure and stock returns has also been studied previously by Chandra et al. (2019) in pharmaceutical companies in Indonesia, which found

that capital structure does not affect stock returns. Based on the literature review, the author formulates the hypothesis: H1. Capital structure has a negative effect on stock returns.

### **Market to Book Ratio and Stock Returns**

Research by Nguyen et al. (2021) states that the Market to Book Ratio is a financial market evaluation metric representing the return on every currency invested in book value. One way to measure a company's success through its stock price is by looking at the difference between the book value per share and its market value. If a company's market value is lower than its book value, then the Market to Book Ratio is high. A corporation's stock is undervalued in the market when the Market to Book Ratio is high. There is little chance for investors to profit when a company's stock has a low market value.

This is supported by research by Anh & Gan (2020), which states that the market-to-book ratio generally inversely correlates with future equity, and extremely high or low ratios do not affect stock returns but are useful for evaluating a company's book value. Future equity correlates negatively with the market-to-book ratio, and investor expectations are at their highest when the ratio is very high (Sarwendhi & Samekto, 2014).

Justina (2017) asserts that the market-to-book ratio is a useful predictor of a company's success and has a negative impact on stock returns. Stock returns tend to be low when the market-to-book ratio is high, indicating poor company performance. Conversely, research by Tjong & Kurniawan (2021) suggests that the market-to-book ratio is not the sole factor considered by investors when purchasing stocks, proving that it does not affect stock returns. Based on the literature review, the author formulates the hypothesis: H2. Market to Book Ratio has a negative effect on stock returns.

### **Firm Size and Stock Returns**

To determine the magnitude of market opportunities obtained by a company, one aspect relates to firm size and stock returns. In the study by Mohammed et al. (2022), it is assumed that larger companies will have lower return expectations from investors and vice versa, which can be measured using the logarithm of the market value of the company at the end of the fiscal year. Because larger companies often have more assets and tend to have higher stock returns, Pradiana (2019) argues that company size can be a good indicator of a company's chances of acquiring large assets. Similarly, Ariesa et al. (2020) found that the larger a business, the more likely its stock price will be higher due to the influence of company size on stock price increases.

However, Setiyono & Amanah (2016) found that larger companies do not substantially affect stock returns in a beneficial way. Size, they argue, is irrelevant to investors because it does not affect future company earnings. This is supported by research by Khadka & Khadka (2023) on non-financial companies in Nepal, which states that company size does not significantly affect stock returns, but exchange rates and inflation do. Based on the literature review, the author formulates the hypothesis: H3. Firm size has a positive effect on stock returns.

### **Profitability and Stock Returns**

A company's profitability can be determined by calculating its Return on Assets (ROA) over a certain period. This metric measures how efficiently a company uses its assets

(Dwinanto et al., 2019). Another goal of profitability ratios is to provide an overview of how well a company's management handles its money (Nurkhaleeda, 2022). This means that a company's ability to generate profit will result in investors receiving high returns. Here, return on investment (ROI) means profitability. Increasing Return on Assets (ROA) indicates that a company is utilizing its assets to generate net profit after tax, which in turn indicates that the company is becoming more profitable and thus obtaining higher returns (Dewi, 2019).

Saputra (2022) explained in his research that ROA does not affect stock returns. Research by Atidhira & Yustina (2017) tested the relationship between capital structure and stock returns with a sample of fifty listed companies. The findings of this study indicate otherwise, namely that profitability ratios and company size have a statistically insignificant negative influence on stock returns.

This is supported by research by Ekanayake & Indrani (2023) on manufacturing companies in Sri Lanka, which found that profitability (ROA) has a positive effect on stock returns, allowing investors to obtain sufficient information on company performance through profitability for investment decisions. Based on the literature review, the author formulates the hypothesis: H4. ROA has a positive effect on stock returns.

#### **Liquidity and Stock Returns**

Stock liquidity typically refers to how quickly a particular security can be traded in the market to prevent losses or gain profits (Chiang & Zheng, 2015). The extent to which a business can meet its obligations using assets easily converted into cash depends greatly on its liquidity. Research by Lestari (2022) indicates that investors view companies with high liquidity favorably. This is because investors perceive these companies as capable of meeting their short-term financial commitments, even when faced with business constraints, and as yielding high and well-regarded stock returns. Consequently, such companies become attractive to investors.

In their study, Huang & Ho (2020) substantiated this by stating that the liquidity of companies in China positively influences stock returns because companies with high stock liquidity tend to have higher stock return rates in the future. Conversely, Setiyono & Amanah (2016) found that liquidity, measured using the current ratio, does not affect stock returns because, according to them, it is not a priority for investors when making investments. Based on the literature review, the author formulates the hypothesis: H5. Liquidity has a positive effect on stock returns.

#### **Earnings per Share and Stock Returns**

Calculated by dividing the net income from a reporting period by the total number of shares, earnings per share (EPS) represent the portion of a company's profit allocated to each ordinary share (Rashidul Islam et al., 2014). (Almira & Wiagustini, 2020) EPS reveals the profit projection for shareholders. Higher returns for investors are possible if a company's earnings per share (EPS) increase, which in turn boosts its stock price. According to Yunika et al. (2022), knowing whether the value of a company's EPS is rising or falling is crucial for prospective shareholders because strong stock returns are related to investor confidence and interest in the company.

According to research conducted by Yunika et al. (2022), a one-unit increase in nominal EPS indicates that the company is capable of returning investors' money for each existing share. An indicator of financial size that may reflect an increase in a company's profit, earnings per share (EPS) are used as basic information sources for investors. Demand for company stock increases in proportion to the value of earnings per share (EPS).

EPS in the study by Maryyam Anwaar (2016) showed a negative impact on stock returns. On the other hand, research by Tetteh (2020) on companies in India using regression models with variables such as DER, ROA, and EPS significantly influenced stock returns. Unlike Larasati (2022), which showed that EPS does not affect stock returns, proving the opposite of previous studies where capital structure and company performance did not affect stock returns. Based on the literature review, the author formulates the hypothesis: H6. Earnings per Share has a negative effect on stock returns.

## METHODS

From the literature review and hypothesis development above, the identified variable relationships in the research model are as follows:

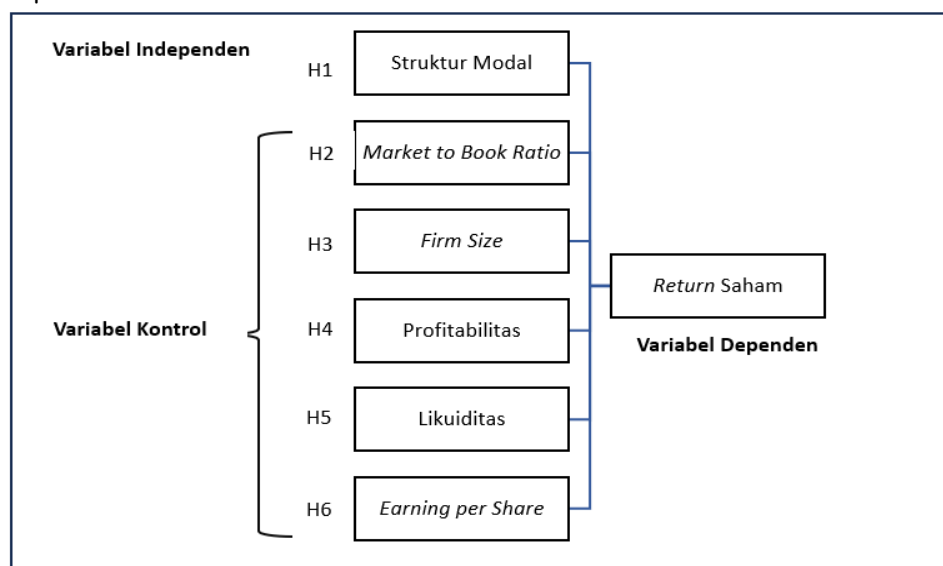


Figure 1. Research Model (Source: Al Salamat & Mustafa, 2016)

### Research Methodology

The research method employed is quantitative, depicting relationships between variables using numerical data as the outcome of the research. The sampling technique used is purposive sampling, where selected samples align with the research objectives, typically for quantitative research. The research data utilizes secondary data from the financial reports of companies with the following criteria: 1) Banking Companies Listed on IDX 2013-2022; 2) Companies with positive equity; and 3) Providing data during the pandemic in 2020-2021; 4) Excluding companies with no data since 2013. Based on this sampling method, a total of 27 banks in Indonesia were selected, providing a total of 216 samples used for this research.

To statistically determine the influence of several independent factors on the dependent variable, quantitative data analysis is employed. Panel data is used for this purpose.

Simultaneously, Eviews is the program used for data analysis. Statistical regression is utilized to understand the relationship between dependent and independent variables using panel data regression analysis. A regression model is considered good if it meets the criteria of heteroskedasticity, multicollinearity, and normality. Therefore, it is essential to evaluate the basic assumptions of the regression model before using regression analysis to indicate valid or invalid correlations.

Normality testing is not entirely necessary to be considered BLUE (Best Linear Unbiased Estimator), and there are different perspectives on the necessity of this test. However, the research still conducts normality testing because the t-test and F-test rely on the assumption of normal distribution of errors. The purpose of normality testing is to determine whether the panel variables in the regression model follow a normal distribution. The data distribution of the regression model is assumed to be normal. By comparing the Jarque-Bera (JB) value, we can determine whether the distribution is normal. If the probability value is  $> 0.05$ , then the distribution is considered normal.

The research uses multicollinearity testing as part of the classical assumption test, in addition to normality testing. Multicollinearity cannot occur if there is only one independent variable. The purpose of multicollinearity testing is to determine whether the independent variables in regression are correlated. Independent variables should not be correlated in the appropriate regression model. There is no multicollinearity in the data because  $VIF < 10$  indicates no multicollinearity in regression.

Furthermore, heteroscedasticity testing is one of the most famous assumption tests. In most cases, heteroscedasticity testing is used on cross-sectional data, as panel data are more similar to the characteristics of cross-sectional data than time series data. A regression model that is homoscedastic or free from heteroscedasticity is considered of high quality. By regressing the absolute values, the Glejser test can be used to determine the absence of heteroscedasticity. When the probability value is less than 0.05, the null hypothesis ( $H_0$ ) is accepted, which will be a guide in drawing conclusions from the Glejser test.

After ensuring that the classical assumptions test is met, the determination coefficient is checked. Usually, a regression model is considered good when its R-squared value is in the range of 1. Strong groups consist of R square values  $\leq 0.75$ , moderate R square values  $\leq 0.50$ , and weak R square values  $\leq 0.25$ , according to Hair et al. (2014). Typically, the analysis is conducted simultaneously with R-squared in practice. With the T-test and F-test, hypotheses can be tested. Partial regression coefficient testing is the goal of the T-test. The T-test condition is that if the probability value  $< 0.05$ , it means that the independent variable affects the dependent variable.

To demonstrate that independent factors collectively influence the dependent variable, the F-test is used. The F-test needs to be conducted before attempting to evaluate the validity of the current hypothesis. When the F probability value is  $< 0.05$ , the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_a$ ) is accepted in the F-test. This indicates that independent factors collectively influence the dependent variable.

The research uses operational variables to explain the relationship between its variables. The relationship between variables in this study is measured through regression

data processing using Eviews. However, before regression analysis is performed according to the research methodology, the operational variables of the study are calculated using formulas to obtain regression test figures. The following are the formulas for each variable:

a. Stock return

data is sourced from [www.yahoofinance.com](http://www.yahoofinance.com) and calculated using the formula:

$$Return = \frac{Pi(t) - Pi(t-1)}{Pi(t-1)}$$

Where:

Pi (t): Price at time t

Pi (t-1): Previous price

b. Capital Structure (Independent Variable)

In calculating the capital structure, this research uses the leverage ratio obtained from annual financial reports, calculated through the following formula:

$$Leverage = \frac{Total Liabilitas}{(Total Liabilitas + Total Aset)}$$

c. Market to Book Rasio

This research uses MBR with data from annual financial reports, calculated using the formula:

$$MBR = \frac{Harga Saham Saat Ini}{Nilai Buku per Saham}$$

d. Firm Size (Control Variable)

Firm Size uses data from financial statements with the formula:

$$Size = Ln (Total Aset)$$

e. Profitability (Control Variable)

Profitability uses the ROA ratio, obtained from financial statements with the formula:

$$ROA = \frac{Net Income After Tax}{Total Aset}$$

f. Liquidity

This research uses the current ratio to measure liquidity, obtained from annual financial statements with the formula:

$$LIQ = \frac{Aset Lancar}{Utang Lancar}$$

g. Earnings per Share

EPS is derived from financial statement data using the formula:

$$EPS = \frac{Net Income After Tax}{Saham yang Beredar}$$

Furthermore, the impact between research variables is explained through the regression model equation in testing and understanding how the capital structure as an independent variable can affect the dependent variable measured using stock returns, as well as control variables that will deepen the results using market to book ratio, firm size, ROA, current ratio, and EPS. The regression model is described as follows:

$$RETURN_{i,t} = \beta_0 + \beta_1 STRUKTUR + \beta_2 MB + \beta_3 SIZE + \beta_4 ROA + \beta_5 LIQ + \beta_6 EPS$$

## RESULTS AND DISCUSSION

In this discussion section, the researcher will unravel the findings that have been calculated according to the methodology used in the research methodology above regarding the influence of capital structure on stock returns. The discussion will be conducted using classical assumption tests, coefficient of determination tests, T-tests, and F-tests.

Due to statistical requirements, multiple linear regression analysis using Ordinary Least Square (OLS) must include classical assumption tests. The accuracy of the OLS model can be ensured by conducting tests for normality, multicollinearity, and heteroskedasticity, three traditional assumptions. After passing these tests, the next step is to conduct coefficient of determination tests, T-tests, and F-tests to determine the influence of independent variables on the dependent variable.

### Normality Test

During research, one can use the Normality Test, which is a standard assumption test, to ensure whether data follows a normal distribution. The results of the normality test with a probability  $> 0.05$  indicate that the data follows a normal distribution. This function is important because many statistical methods require the assumption of normally distributed data. Therefore, the normality test is an important initial step in statistical data analysis. An explanation regarding the normality test is provided in the figure below:

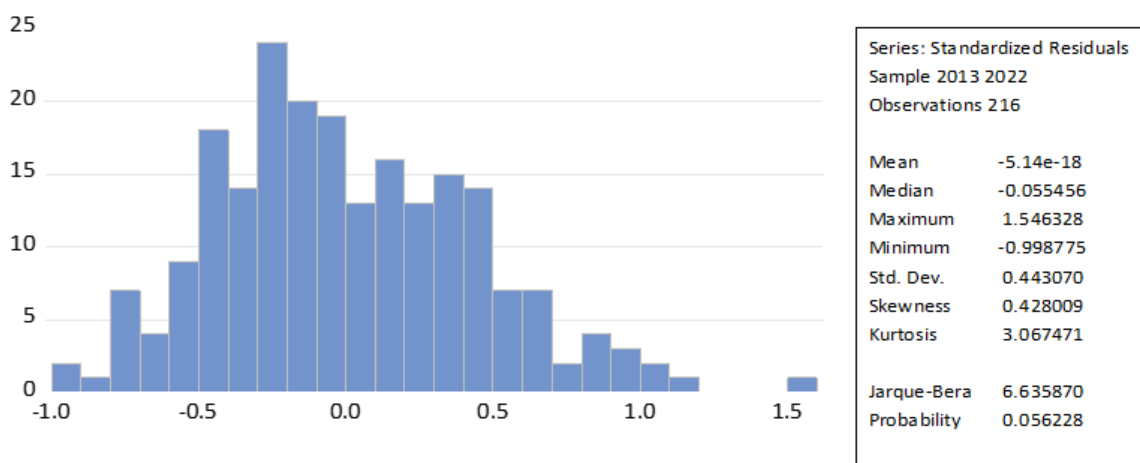


Figure 2. Normality Test

From Figure 2, it can be observed that the Probability value is  $0.056228 > 0.05$ , satisfying the normality test requirement with the research data distribution being normal. This research data is valid and acceptable, thus the research can proceed.

### Multicollinearity Test

The next examination is the multicollinearity test. The multicollinearity test is used to determine whether a variable experiences multicollinearity or not. Multicollinearity occurs when independent variables in the model are strongly correlated, causing issues in estimating regression parameter. Therefore, a research model is valid if it does not have multicollinearity, indicated by the VIF (Variance Inflation Factor) value  $\leq 10$  in the multicollinearity test. Further explanation regarding the multicollinearity test is provided in the figure below:

								Correlation
		RETURN	STRUKTUR	MB	SIZE	ROA	LIQ	EPS
RETURN	RETURN	1.000000	-0.280237	-0.108722	-0.119068	-0.068876	0.183444	-0.009640
STRU...	STRU...	-0.280237	1.000000	-0.220649	0.073484	-0.106575	-0.073144	-0.060814
MB	MB	-0.108722	-0.220649	1.000000	0.597442	0.407193	-0.203159	0.032232
SIZE	SIZE	-0.119068	0.073484	0.597442	1.000000	0.544418	-0.280381	0.005646
ROA	ROA	-0.068876	-0.106575	0.407193	0.544418	1.000000	-0.131684	0.082068
LIQ	LIQ	0.183444	-0.073144	-0.203159	-0.280381	-0.131684	1.000000	0.015183
EPS	EPS	-0.009640	-0.060814	0.032232	0.005646	0.082068	0.015183	1.000000

Figure 3. Multicollinearity Test

From Figure 3 above, the variables have VIF values  $\leq 10$ , indicating that the research regression model does not experience multicollinearity. In Figure 4, each variable of return on stock, capital structure, market to book ratio, size, ROA, liquidity, and EPS shows the correlation value between variables or VIF is still  $<10$ . Thus, based on these results, it is deemed valid and passes the classical assumption test to be further used in the research.

### Heteroskedasticity Test

After passing the multicollinearity test, the next step is to conduct the heteroskedasticity test. This is to examine whether the homoscedasticity assumption is met in the regression analysis. If heteroscedasticity exists, it can lead to inefficient and inconsistent estimates of regression parameters. Further explanation regarding the heteroskedasticity test is as follows:

Dependent Variable: RESABS  
 Method: Panel EGLS (Cross-section weights)  
 Date: 03/04/24 Time: 09:39  
 Sample: 2013 2022  
 Periods included: 9  
 Cross-sections included: 27  
 Total panel (unbalanced) observations: 216  
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.028051	5.367035	0.005226	0.9958
STRUKTUR	4.137486	8.557285	0.483505	0.6293
MB	8.50E-05	0.000217	0.392240	0.6953
SIZE	-0.121590	0.248223	-0.489841	0.6248
ROA	0.042195	0.075069	0.562086	0.5747
LIQ	0.497785	1.383707	0.359748	0.7195
EPS	0.001079	0.007672	0.140601	0.8883

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics			
Root MSE	0.913519	R-squared	0.004514
Mean dependent var	2.06E-18	Adjusted R-squared	-0.169560
S.D. dependent var	0.917715	S.E. of regression	0.992474
Sum squared resid	180.2558	F-statistic	0.025930
Durbin-Watson stat	1.509648	Prob(F-statistic)	1.000000

Unweighted Statistics			
R-squared	-0.001075	Mean dependent var	9.25E-18
Sum squared resid	183.1967	Durbin-Watson stat	1.458520

Figure 4. Heteroskedasticity Test

The study employs the Glejser test to determine whether the research model exhibits heteroskedasticity. If the significance value of all variables  $> 0.05$  in the heteroskedasticity test using the Glejser test, then the regression equation model does not show heteroskedasticity. By examining the Prob column for each variable in Figure 4, the results of the Glejser test can be observed. The test results indicate that there is no heteroskedasticity in any of the variables because the total Prob. F value is  $> 0.05$ . Since the research model is able to pass the traditional assumption test, it can be considered valid and can be used in further research.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.388470	1.645997	3.881215	0.0001
STRUKTUR	-9.392417	3.011922	-3.118413	0.0021
MB	-7.30E-05	7.04E-05	-1.037785	0.3007
SIZE	-0.109962	0.079958	-1.375242	0.1707
ROA	0.078414	0.022222	3.528597	0.0005
LIQ	0.779812	0.424717	1.836074	0.0480
EPS	-0.001304	0.002004	-0.650551	0.5162

Effects Specification			
Cross-section fixed (dummy variables)			
Weighted Statistics			
Root MSE	0.442044	R-squared	0.319393
Mean dependent var	0.141249	Adjusted R-squared	0.200379
S.D. dependent var	0.539780	S.E. of regression	0.480249
Sum squared resid	42.20695	F-statistic	2.683673
Durbin-Watson stat	1.457857	Prob(F-statistic)	0.000020

**Figure 4.** Coefficient of Determination, T-Test, and F-Test

### Coefficient of Determination (R-squared)

According to (Ghozali, 2016), R-squared explains the extent of dependent data from independent data ranging from 0 to 1. Based on the calculations in Figure 4, an R-squared value of 0.3193 is obtained. Only 31.9% of the data indicates an influence on the dependent variable; the remaining 69.1% is caused by factors beyond the scope of this study. Strong categories consist of R-squared values  $\leq 0.75$ , moderate categories with R-squared values  $\leq 0.50$ , and weak categories with R-squared values  $\leq 0.25$ , according to Hair et al. (2014). The coefficient of determination is 31.9%, thus still relevant in explaining the influence of independent variables on the dependent variable.

### T-Test

The influence of each independent variable on the dependent variable can be determined by using partial or individual testing of independent variables. Figure 4 shows the T-test as follows:

1. The probability value of the STRUCTURE variable is  $0.0021 < 0.05$ , indicating that the STRUCTURE variable has a negative effect on the RETURN variable.
2. The probability value of the MB variable is  $0.3007 > 0.05$ , indicating that the MB variable does not affect the RETURN variable.
3. The probability value of the SIZE variable is  $0.1707 > 0.05$ , indicating that the SIZE variable does not affect the RETURN variable.
4. The probability value of the ROA variable is  $0.0005 < 0.05$ , indicating that the ROA variable has a positive effect on the RETURN variable.
5. The probability value of the LIQ variable is  $0.0480 < 0.05$ , indicating that the LIQ variable has a positive effect on the RETURN variable.
6. The probability value of the EPS variable is  $0.5162 > 0.05$ , indicating that the EPS variable does not affect the RETURN variable.

### F-Test

To test the influence of each independent variable on the dependent variable simultaneously, an F-test is used. To determine whether independent factors affect the dependent variable, Eviews data is processed using an F-test. Figure 4, displaying the data processing results, shows a significant value of 0.000020 (Sig 0.000020 < 0.05). In other words, you need to prove that the dependent variable is indeed influenced by independent and control factors simultaneously, and the regression equation you obtain is accurate.

### Hypothesis Testing

Classical assumption testing is conducted to determine whether the research data has passed the test or not, so that hypothesis testing can be performed subsequently to answer whether the hypothesis is proven or not. The results of hypothesis testing are presented in Figure 4 of the T-Test with explanations as follows:

#### **Hypothesis 1: Capital structure has a negative effect on stock returns.**

The T-test result shows a probability value of 0.0021, which meets the requirement of a probability value <0.05 with a coefficient of -9.392417. The negative coefficient value means that the capital structure has a negative effect on stock returns, indicating that ROA affects stock returns in banking companies listed on the BEI. Thus, if the capital structure calculated using leverage increases, an increase in capital structure/leverage can be interpreted as increased debt usage to finance the company's operations or investments, resulting in a decrease in stock returns. In line with Wahyudi (2022) and Ellidianto et al. (2021) on agricultural sector company stocks in BEI, stating that capital structure will affect stock returns inversely or negatively. Different types of company stocks but yielding the same test results indicate that capital structure is an indicator that will affect company stock returns and investor sentiment in Indonesia. The research is theoretically supported and from literature review by Acheampong et al. (2014), explaining that investors will see an inverse relationship between capital structure and stock returns, where an increase in company leverage or capital structure will cause a decrease in stock returns, this hypothesis is accepted.

#### **Hypothesis 2: Market to Book Ratio has a negative effect on stock returns.**

The result of the T-test shows a probability value of the market to book ratio of  $0.3007 > 0.05$ , which is higher than the required probability value <0.05. The market to book ratio does

not affect stock returns. According to Tjong & Kurniawan (2021) in the Kompas 100 Index companies and Septasari (2016) in banking companies, the market to book ratio does not affect stock returns because many external aspects influence stock returns in these companies, such as monetary policies, sentiments, macroeconomics, and other global conditions.

On the other hand, other research by Justina (2017) states differently, investors with market to book ratio indicators look inversely at stock returns when making investments. So, if investors want to get high stock returns, then their market to book ratio should be low because a high market to book ratio signifies a low market value compared to its book value. The difference in these results may occur due to differences in the types of stock sectors and the years of data collection in the research, so this hypothesis cannot be accepted.

**Hypothesis 3: Firm size has a positive effect on stock returns.**

The T-test result shows a probability value for firm size of  $0.1707 > 0.05$ . This indicates that the size of a company does not have an influence on its stock returns. According to Setiyono & Amanah (2016) regarding stocks in the property and real estate industry, the size of a company does not impact its stock returns because the size of a company cannot accurately predict its profitability. They argue that a company's expansion is not solely determined by its size or asset value. Poor asset management by a company can negatively impact its operational activities and overall performance.

In contrast, research by Ariesa et al. (2020) on manufacturing company stocks explains that firm size has a positive impact on stock prices. The larger the size of a company, the higher its stock price. The difference in these findings may be due to differences in the types of stock sectors and the years of data collection, thus resulting in different test outcomes. Based on these results, this hypothesis cannot be accepted.

**Hypothesis 4: ROA has a positive effect on stock returns.**

The T-test result shows a probability value for ROA of  $0.0005 < 0.05$ , indicating that ROA has a significant positive effect on stock returns with a coefficient of 0.078414. When ROA increases, stock returns also increase. This finding is supported by research on food and beverage company stocks which found that ROA is positively related to stock returns (Sholihah et al., 2017; Puspitadewi & Rahyuda, 2016). Although this research encompasses various stocks from different industries, it still shows that high ROA will yield significant profits for businesses, thereby increasing investor returns.

Furthermore, theoretical considerations and literature studies by Dewi (2019) and Atidhira & Yustina (2017) also mention that ROA, as a profitability indicator, is also an indicator for investors to invest in the stock market. Therefore, based on these results, this hypothesis is accepted.

**Hypothesis 5: Liquidity has a positive effect on stock returns.**

The probability value for liquidity (LIQ) is 0.0480 according to the T-test result, meeting the criterion of a probability value  $< 0.05$  with a coefficient of 0.779812. Liquidity has a positive effect on stock returns when the coefficient is positive and the probability is less than 0.05. Since an increase in a company's liquidity also leads to an increase in stock returns for investors, liquidity can be considered a primary indicator affecting stock returns on the BEI for

banking companies. Research conducted by Huang and Ho (2020) on the Chinese stock market suggests that investors may expect higher stock returns as a result of greater liquidity.

Another consideration from theory and literature studies by Novitasari & Bagana (2023) explains that demand for a company's stock will increase if its liquidity is strong because investors will be interested in buying more stock if its stock returns are higher. One way to view liquidity as a stock investment signal in Indonesia is by considering the increase in stock prices, resulting in higher stock returns, thus, this hypothesis is accepted.

**Hypothesis 6: Earnings per Share has a negative effect on stock returns.**

From the T-test, the probability value for EPS is  $0.5162 > 0.05$ . Stock returns are not influenced by EPS, as seen here. To ensure that investor stock returns are not affected by changes in EPS, the stock prices of banks on the BEI must remain stable. Maryuni and Suarjaya (2018) found that EPS has a positive effect on stock returns in their study on manufacturing company stocks on the BEI. This contradicts their findings. Therefore, investors are more likely to pay a premium for a company's stock if the earnings per share (EPS) are high, thus increasing the return on investment (ROI) for those investors.

However, the findings of this research are in line with the theory and literature study conducted by Larasati (2022), which states that EPS has a small impact on stock returns because it will not change the company's stock price. This could be because, besides different types of stocks and different data collection periods, there are many other factors that investors consider, such as macroeconomic conditions, the company's stock valuation, or its other performances. Based on these results, this hypothesis cannot be accepted.

## CONCLUSION

From the conducted research, the formulated hypotheses by the author can be summarized as follows: There is a negative influence of capital structure on stock returns in banking companies listed on the IDX from 2013 to 2022. This indicates that the capital structure can be considered by investors when investing in banking companies, affecting the stock returns they will obtain. Banking from 2013 to 2022, the market to book ratio has no significant effect on stock returns. Because investors' stock returns are not affected by changes in the market to book ratio, it explains that investors do not need to consider this ratio when investing in banking businesses. In banking companies on the IDX from 2013 to 2022, there is no correlation between the size of the bank and stock performance. This shows that investors should not consider the size of the bank when making stock investment decisions, as this factor does not significantly affect investors' stock returns. There is a positive influence of ROA on stock returns in banking companies on the IDX from 2013 to 2022. Investors use this to consider investing in banking companies because it shows that if banking companies experience an increase in ROA, stock returns increase. In banking from 2013 to 2022, liquidity affects stock returns. Investors may consider this when investing their money in banking organizations; this indicates that as the liquidity of a bank increases, investors' stock returns are expected to increase. For financial institutions traded on the IDX between 2013 and 2022, earnings per share (EPS) have no effect on stock returns. Investors do not consider earnings per share (EPS) when investing their money in banking companies because a decrease in EPS

will not affect their stock returns. Furthermore, to obtain more comprehensive results and contribute more significantly to further research, the researcher suggests further exploring this research by using monthly data, adding other variables, and extending the research period.

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