Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration
2023, 31(2), 1693.

DOI: 10.46585/sp31021693
editorial.upce.cz/SciPap

Determinants of LQ45 Stock Return in Indonesia

Mahirun Mahirun

Universitas Pekalongan, Faculty of Economics and Business, Indonesia

Abstract

This study aims to test and analyze the effect of capital structure, profitability, investment opportunity set, firm value, earnings per share, and dividend policy, on stock returns. Our research uses regression analysis to determine and analyze the influence of independent variables on dependent variables. The objects in this study are companies incorporated in LQ45 for the period 2013 - 2021. The reason for choosing LQ45 is because it is a type of index used to measure the price performance of stocks that have high liquidity and large market capitalization and are supported by good firm fundamentals. The results of the study found that the capital structure with indicators debt to equity ratio has a significant negative effect on stock return. Profitability with indicators return on equity and investment opportunity set with indicators price earnings ratio have a positive and significant effect on stock return. While other findings from our study are firm value with price to book value indicators, profitability from the investor's point of view represented by earning per share indicators, and dividend policy with dividend payout ratio indicators have no effect on stock return.

Keywords

Stock return, Capital structure, Profitability, Investment opportunity set, Firm value, Earning per share, Dividend policy

JEL Classification

B26, G32, I22, O16, P45

Introduction

Stock return is the return received by investors on their investment in companies that issue shares. The number of investors who buy shares will increase the stock price and stock returns. There are 2 types of stock returns, namely yield or dividends and capital gains (losses). Yield is a component of return that reflects the cash flow or income that can be obtained periodically from an investment (Tandelilin, 2017), If investors invest in stocks, the amount of return is shown as the amount of dividends we get, while capital gain (loss) is an increase (decrease) in the price of securities that can provide profits (losses) for investors.

Factors that affect stock returns consist of micro factors and macro factors. Micro factors exist in the company itself in the form of profitability ratios, book value per share, debt to equity ratio, market ratio, earnings per share, and other financial ratios. As for macro factors, namely factors that come from outside the company in the form of inflation, general domestic interest rates, foreign exchange rates and the company's economic conditions. Modigliani & Miller (1958) introduced the proposition that the expected return on capital will continue to increase along with the increase in the capital structure of the company. In theory, the capital structure contains risk, because the higher the capital structure, the risk of capital owners also increases. This is because the owners of capital have to face the uncertainty of future cash flows, so that the rate of return on the capital they invest becomes higher (Penman et al., 2007). The high level of the company's capital structure can increase the possibility of default on the debt. The movement of the capital structure of companies incorporated in the LQ45 index during the period 2013 to 2021 is presented in Figure 1.

The average stock return of LQ45 companies during the period 2013 - 2021 shows that it reached 10.30%, while the average capital structure in the same period reached 2.23x. There is an interesting phenomenon where the stock return experienced a very sharp decline in 2015 which reached minus 16.76%, and although it experienced a very significant increase until 2018 which reached 41.11%, it then experienced a decline over a period of 3 years until 2021 which reached minus 6.04%. while the capital structure tends to be stable over the past 9 years, and only increased in 2021 which reached 3.57 x of the total capital owned by the company.

Corresponding author:
Mahirun Mahirun, Universitas Pekalongan, Faculty of Economics and Business, Indonesia
Email: mahirun@yahoo.com

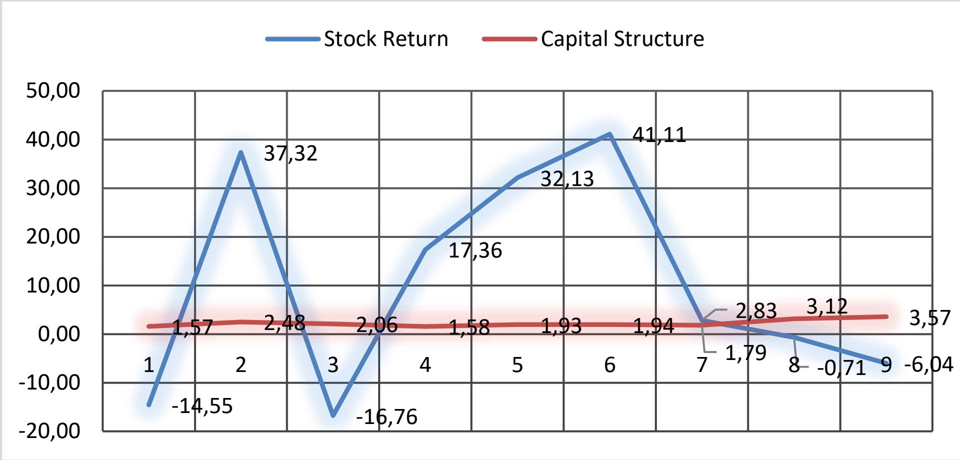

Fig. 1. Graph of Capital Structure and Stock Return of LQ45 Companies.

Based on this phenomenon, it becomes very interesting for us to examine further based on trade off theory, the relationship between capital structure and stock return, because the data shows that stability in funding policy does not directly improve shareholder welfare in the form of an increase in stock return. Our study focuses more on internal factors in the analysis of financial statements in relation to stock return, with the argument that these factors are controllable and controlled by the company so that they can provide benefits and benefits for interested parties. Another argument, by using internal factors, can be used by investors in obtaining information to determine investment decisions to be taken.

Literature Review

Trade Off Theory

In practice, the use of 100% debt is difficult to find and this is opposed by the trade-off theory. In fact, with large debt, the higher the burden that must be borne by the company, such as bankruptcy costs, agency costs, higher interest expenses and so on. Therefore, this theory states that the optimal capital structure is achieved when there is a balance between the benefits and sacrifices of using debt (Brigham & Davies, 2007). Trade-off theory is expressed by Myers (2001) "the firm will go into debt up to a certain level of debt, where the tax savings (tax shields) from additional debt are equal to the cost of financial distress". The trade-off theory determines the optimal capital structure which includes factors such as taxes, agency fees and financial distress costs by maintaining market efficiency assumptions and symmetrical information as a form of balance between the benefits and costs of using debt. The optimal interest rate is achieved when the tax shelter reaches the maximum amount against the cost of financial distress.

Stock Return

Return is the result obtained from investment activities. According to Hartono (2017). Stock returns are the results obtained from investment results, in general, investors make investments to get a return (rate of return) in return for the funds that have been invested and their willingness to bear the risks involved in the investment. Stock Return is also defined as the expected rate of return on investments invested in stocks or several groups of stocks through a portfolio (Acheampong et al., 2014). Stock returns can be in the form of dividends, which are company profits received by investors in cash, shares, or property, and capital gains, which are the difference between the purchase price and the sale price (Alexander & Destriana, 2013).

Capital Structure Theory

A firm's capital structure and capitalization are determined by its funding policy, which includes two main components, namely long-term debt and equity. The manager's decision in determining the capital structure is to balance the cost of debt and the cost of equity, minimizing the effect of both on the value of the company (Jensen & Meckling, 1976). Therefore, the purpose of determining the capital structure is to achieve the minimum cost of capital so that the value of the company increases, although this will be difficult for the company to pursue, because there is no theory that explains the optimal capital structure. The capital structure shows the balance between the firm's debt and equity, and how the firm balances the two. The optimal capital structure is also defined as a capital structure that can provide maximum firm value with a certain level of risk or can minimize overall costs in managing the functions contained in the firm (Umdiana & Claudia, 2020).

Hypotheses for capital structure and stock return

Debt to Equity Ratio shows the composition to the amount of debt owned by the company. Investors in the risk averse category tend to avoid stocks with a high level of risk or prioritize investment security. Angulo-ruiz et al.

(2018) in his research shows that companies with high growth performance tend to have low leverage levels. Research on DER on stock returns shows that an increase in this ratio will reduce returns due to a high debt burden (Izuddin, 2021). Debt used in company operations will generate interest expense. The interest expense incurred on financial transactions indicates that companies with less total debt have more stable financial performance. The results of DER research negatively and significantly affects the stock return (Acheampong et al., 2017, Izuddin, 2021, Endri et al., 2019, Edison et al., 2019b, Asikin et al., 2021, and Kasir & Kartika, 2021), and there are also those whose effect of DER on stock return is negative although not significant (Dinova & Herawati, 2019, Martina et al., 2019, Alfiyah & Lubis, 2021, and Digdowiseiso, 2023), while the positive and significant effect of DER on stock return is obtained from the findings of Yandra & Alfarisi (2019), while there are also research results that find DER has a positive but insignificant effect on stock returns (Anggraini & Wijayanto, 2021). Based on this, the first hypothesis proposed is:
H1: Debt to equity ratio has a negative effect on stock return.

Hypotheses for profitability and stock return

Profitability is the ability to generate profits from sales, total assets, and also own capital (firm profits). The better the profitability ratio of a firm, the better the profit the firm gets (Pioh et al., 2018). The profitability ratio is also used in providing a measure of the effectiveness of a firm's management, then the various results of the profitability ratio will be an evaluation of the firm in the future. The profitability ratio also has objectives and benefits for parties with an interest in the firm. ROE as an indicator of profitability can illustrate the extent to which the company is able to manage and optimize existing equity or capital to obtain profit or profit (Kartika et al., 2022). The higher the ROE, the stronger the position of the company owner, and vice versa, the lower this ratio, the weaker the position of the company owner (Yoewono & Setiawan Tasrih, 2022). The results of the study found that ROE has a positive and significant effect on stock return (Martina et al., 2019, Anwar & Rahmalia, 2019, Setyarini et al., 2020, Rahmani et al., 2020, Alfiyah & Lubis, 2021, Mudzakar et al., 2021, Kartika et al., 2022), Meanwhile, other studies have found that although ROE has a positive effect, it is not significant (Anggraini & Wijayanto, 2021, and Nadyayani & Suarjaya, 2021), and even Badruzaman (2020) found that ROE has a negative and significant effect on stock returns. Based on this description, the second hypothesis proposed is:
H2: Return on equity has a positive effect on stock return.

Hypotheses for investment opportunity set and stock return

Investment decisions are defined as a combination of assets in place and future investment options with positive net present value (Myers, 1977). Furthermore, Myers introduced the Investment Opportunities Set (IOS), so the company's prospects can be estimated from the investment opportunity set (IOS). IOS is defined as a combination of assets in place and future investment options with positive net present value (Gaver & Gaver, 1993). Investment Opportunities Set (IOS) is the value of the company whose amount depends on the expenses set by management in the future, which at this time are investment choices that are expected to generate large returns. Myers & Majluf (1984b) developed a framework to determine the relationship between financing and investment in conditions where the company has better information than investors. The results of the study found that PER has a positive and significant effect on stock returns (Edison et al., 2019a, Endri et al., 2019, Setyarini et al., 2020, Mudzakar & Wardanny, 2021, Kartika et al., 2022, and Yoewono, 2022), and another study found that PER has a positive although insignificant effect on stock returns (Anwar & Rahmalia, 2019, and Ariawan et al., 2023). Based on this description, the third hypothesis proposed is:
H3: Price earnings ratio has a positive effect on stock return.

Hypotheses for firm value and stock return

Firm value is a certain condition that has been achieved by a firm as an illustration of public trust in the firm after going through a process of activities for several years, namely since the firm was founded until now. Increasing firm value is an achievement, which is in accordance with the wishes of the owners, because with the increase in firm value, the welfare of the owners will also increase, and this is the task of the manager as an agent who has been given the trust by the owners of the firm to run the firm. To increase firm value, the manager's policy will be very decisive in achieving optimal results. Therefore, managers must be able to determine policies that can effectively increase firm value, Normatively, the purpose of the firm financial management is to increase the firm value, which is reflected in the market price of its shares (Fama, 1978, and Walker & Mark, 2000). The results of the study found that PBV has a significant positive effect on stock return. (Acheampong et al., 2014, Martina et al., 2019, Yandra & Alfarisi, 2019, and Wulandari & Herawati, 2020), There are also research results that PBV has a positive effect even though it is not significant (Digdowiseiso & Fadillah, 2020). Another study found a significant negative effect of PBV on stock returns (Dinova & Herawati, 2019). Based on this, the fourth hypothesis proposed is:
H4: Price to book value has a positive effect on stock return.

Hypotheses for earning per share and stock return

EPS is the profit investors get from each share and is a ratio often used in annual reports and given to holders.

EPS is a form of profit from each share given to shareholders. The greater the EPS value, the higher the profit that can be generated by the company and of course, the more the welfare of shareholders will increase. The level of ups and downs of EPS from year to year is an important measure in knowing whether or not the work done by the company's shareholders is good. A high EPS value provides high returns to shareholders and vice versa. The results of the study found that EPS has a significant positive effect on stock return (Putranto, 2014, Endri et al., 2019, Martina et al., 2019, Badruzaman, 2020, Rusdianto et al., 2020, N. Sari & Astini, 2020, Paweroi, 2021, dan Ariawan et al., 2023). Meanwhile, other studies have found a positive but insignificant effect of EPS on stock returns (Amogha & Suresh, 2019, Anwar & Rahmalia, 2019, dan Mudzakar & Wardanny, 2021). There is also research that results in the effect of EPS on stock return is negative but insignificant (Digdowiseiso, 2023). Based on this, the fifth hypothesis proposed is:

H5: Earning per share has a positive effect on stock return.

Hypotheses for dividend policy and stock return

Black & Scholes (1974) shows a firm whose dividend payout increases hopes that there will be an increase in its stock price. This is a response due to dividend payments, and it is hoped that the market will give confidence that this indicates that the firm has income in the future. Dividends can help provide good information about the firm's management to the capital market (Myers & Majluf, 1984a), so it can be said that dividends can be viewed as a signal to the firm's prospects (Miller & Rock, 1985). The results of the study found that DPR has a significant positive effect on stock returns (Riawan, 2016, Asrini, 2020, and Surya, 2021). Another finding is that DPR has a positive and insignificant effect on stock returns (Kartika et al., 2022). What is very different from previous research is that DPR has a negative and significant effect on stock return (Arramdhani & Cahyono, 2020, dan Cahyaningrum & Wijayanti, 2022), Also, the results of research with the results of DPR have a negative and insignificant effect on stock return (Hermuningsih et al., 2022). Based on this, the sixth hypothesis proposed is:

H6: Dividend payout ratio has a positive effect on stock return.

Methods

Data Collection and Sources

Our study uses secondary data, and data sourced from financial reports of LQ45 for the period 2013 to 2021 from IDX. The data in this study is panel data which is the type of data that is a combination of cross-sectional data and time series data, and therefore according to (Gujarati, 2003), the method of analysis is a combination of time series data analysis and cross-sectional data analysis. In this study to answer research questions used multiple regression, and stock return is depended variable. The total population in this study is 450 companies, and those that qualify as samples amount to 290 firms. After we tested the classical assumptions, the final data we used amounted to 254 firms, by eliminating data that did not meet the classical assumption test requirements of 36 firms.

Empirical Model and Variable Measurement

The focus of the study is on empirical testing of variable integration related to the stock return involving capital structure, profitability, investment opportunity set, firm value, earning per share, and dividend policy. The model of the empirical study is presented in figure 2.

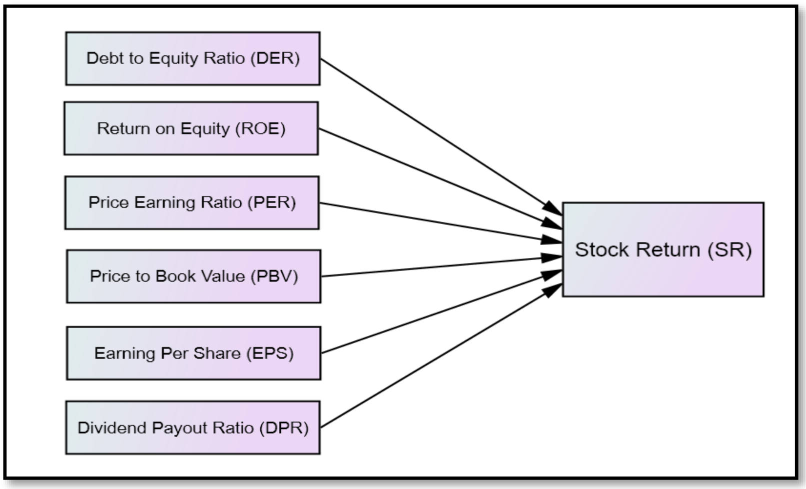

Fig. 2. Empirical Model Research.

Both structures formed in figure 1 are structure states the causal relationship of variables DER, ROE, PER, PBV, EPS, DPR with Stock Return variable. In other words, based on both structures, there are structural equations formed:

$$\text{Stock Return} = \beta_1\text{DER} + \beta_2\text{ROE} + \beta_3\text{PER} + \beta_4\text{PBV} + \beta_5\text{EPS} + \beta_6\text{DPR} + \varepsilon_1 \quad (1)$$

where:
DER debt to equity ratio,
ROE return on equity,
PER price earning ratio,
PBV price to book value,
EPS earning per share,
DPR dividend payout ratio.

Stock return is used as an indicator of the realized return enjoyed by investors who invest their funds in company shares, while the capital structure uses the debt to equity ratio indicator (Acheampong et al., 2017, Endri et al., 2019, Edison et al., 2019b, Dinova & Herawati, 2019, Yandra & Alfarisi, 2019, Mahirun, 2019, Martina et al., 2019, Alfiyah & Lubis, 2021, Anggraini & Wijayanto, 2021, Izuddin, 2021 Asikin et al., 2021, Kasir & Kartika, 2021, and Digdowiseiso, 2023). Profitability using the return on equity indicator (Martina et al., 2019, Anwar & Rahmalia, 2019, Setyarini et al., 2020, Rahmani et al., 2020, Badruzaman, 2020, Alfiyah & Lubis, 2021, Mudzakar et al., 2021, Kartika et al., 2022, and Mahirun et al., 2023), price earnings ratio is often used as a proxy of investment opportunity set (Ruhani et al., 2018, Anwar & Rahmalia, 2019, Edison et al., 2019a, Endri et al., 2019, Setyarini et al., 2020, Mudzakar & Wardanny, 2021, R. Sari, 2021, Kartika et al., 2022, Yoewono, 2022, and Ariawan et al., 2023). Firm value used proxy price to book value (Acheampong et al., 2014, Dinova & Herawati, 2019, Martina et al., 2019, Yandra & Alfarisi, 2019, Wulandari & Herawati, 2020, Digdowiseiso & Fadillah, 2020, Qureshi, 2020, and R. Sari, 2021). Earnings per share is used as an indicator of profitability from the investor's point of view (Putranto, 2014, Endri et al., 2019, Martina et al., 2019, Amogha & Suresh, 2019, Anwar & Rahmalia, 2019, Badruzaman, 2020, Rusdianto et al., 2020, N. Sari & Astini, 2020, Paweroi, 2021, Mudzakar & Wardanny, 2021, Ariawan et al., 2023, and Digdowiseiso, 2023). Dividend policy uses the dividend payout ratio proxy (Riawan, 2016, Arramdhani & Cahyono, 2020, Asrini, 2020, Surya, 2021, Cahyaningrum & Wijayanti, 2022, Kartika et al., 2022, and Hermuningsih et al., 2022).

Results

Descriptive Statistics

On average, the stock return data in Indonesia reaches 39.86% x with the highest stock return value is 133.58% and the lowest is 0.28% While for DER, the average is 2.52x with the highest DER is 57.40x and the lowest is 0.15x (Table 1).

Table 1. Descriptive Statistics.

Variable	Minimum	Maximum	Mean	Std. Deviation
Debt to Equity Ratio	0.15	57.40	2.52	5.61
Return on Equity	-31.52	121.22	15.49	13.09
Price Earnings Ratio	-3.66	335.32	21.73	25.30
Price to Book Value	4.43	84534.00	8779.25	10588.19
Earnings Per Share	0.43	58.48	3.36	5.65
Dividend Payout Ratio	-24.00	4819.90	496.44	741.35
Stock Return	0.28	133.58	39.86	23.06

Source: *Data processed from the results of SPSS*

Pearson correlation matrix

Table 2 shows the Pearson correlation matrix among the variables, obtain the results of all variables are not correlated. The highest correlation coefficient is 85.10% between EPS and ROE and shows a positive correlation. while the lowest correlation is minus 14.60% between DPR and PER which indicates a negative correlation.

Table 2. Pearson correlation matrix.

Variable	Debt to Equity Ratio	Return on Equity	Price Earnings Ratio	Price to Book Value	Earnings Per Share	Dividend Pay-out Ratio	Stock Return
Debt to Equity Ratio	1						
Return on Equity	-0.099	1					
Price Earnings Ratio	-0.107	0.030	1				
Price to Book Value	-0.036	0.034	0.017	1			
Earnings Per Share	-0.088	0.851**	0.214**	0.048	1		
Dividend Payout Ratio	-0.087	0.118	-0.146*	0.051	-0.004	1	
Stock Return	-0.218	0.253**	0.231*	0.168*	0.176*	0.136*	1

Source: Data processed from the results of SPSS

Classical Assumption Test Results

The classical assumption test as a regression requirement (Table 3) results in a normality test of normally distributed data, there is no autocorrelation in the autocorrelation test results, there are no symptoms of multicollinearity of all variables in the multicollinearity test, and all variables do not experience heteroscedasticity disorders in the heteroscedasticity test.

Table. 3. Classical Assumption Test Results.

Classical Assumption Test	Result			Conclusion
Normality Test	Kolmogorov-Smirnov Z		1,028	0,241 > 0,05 (Data is normally distributed)
	Asymp. Sig. (2-tailed)		0.241	
Autocorrelation test	Run Test (Durbin-Watson)		2.162	dl :1.7235 du : 1.8354 dw = 2.162 4 – dw > du (no autocorrelation)
Multicollinearity Test		Tolerance	VIF	VIF value < 10 and Tolerance value > 0,01 (there is no multicollinearity problem)
	Debt to Equity Ratio	0.967	1.034	
	Return on Equity	0.237	4.224	
	Price Earnings Ratio	0.853	1.173	
	Price to Book Value	0.939	1.065	
	Earnings Per Share	0.228	4.379	
	Dividen Payout Rato	0.891	1.122	
Heteroscedasticity Test	Rank Spearman	t	Sig.	Sig > 0,05 (all variables do not experience heteroscedasticity disorder)
	Debt to Equity Ratio	-0.545	0.587	
	Return on Equity	-0.742	0.459	
	Price Earnings Ratio	-0.642	0.522	
	Price to Book Value	1.297	0.196	
	Earnings Per Share	1.438	0.152	
	Dividen Payout Rato	0.829	0.408	

Source: Data processed from the results of SPSS

Regression Analysis Test Result

The fit model test found that all data in the study can be used to predict the dependent variable, because the significance level is below 0.05 (Table 4).

Table 4. Model Fit Test Results.

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	13161.809	7	1880.258	4.000	0.000b
1	Residual	115629.935	246	470.040		
	Total	128791.744	253			

Source: Data processed from the results of SPSS

The test results of the influence of each variable on the stock return variable using the regression test are shown in Table 5.

Table 5. Regression Analysis Test Result.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.740	3.597		7.711	0.000
	Debt to Equity Ratio	-0.688	0.265	-0.167	-2.593	0.010
	Return on Equity	0.759	0.230	0.431	3.300	0.001
	Price Earning Ratio	0.187	0.063	0.205	2.982	0.003
	Price to Book Value	-9.223E-006	0.000	-0.004	-0.065	0.949
	Earning Per Share	-1.018	0.542	-0.249	-1.878	0.062
	Dividend Payout Ratio	0.003	0.002	0.099	1.476	0.141

Source: Data processed from the results of SPSS

The equation obtained from table 5 with the dependent variables stock return (SR) is:

Stock Return = -0.167(DER) + 0.431(ROE) + 0.205(PER) - 0.004(PBV) + 0.249(EPS) + 0.099 (DPR) (2)

Sig = 0.010(DER) 0.001(ROE) 0.003(PER) 0.949(PBV) 0.062(EPS) 0.141 (DPR) (3)

Testing the effect of capital structure on stock return

Based on the test results, we found that the capital structure variable with the DER indicator has a significant negative effect on stock returns. This is in accordance with the trade-off theory which states that corporate debt decision making must consider the benefits and costs (Myers, 2001). The benefits of being in debt will be obtained when the benefits are greater than the costs incurred. Our study supports the results of research stating that DER has a significant negative effect on stock returns (Acheampong et al., 2017, Izuddin, 2021, Endri et al., 2019, Edison et al., 2019b, Asikin et al., 2021, and Kasir & Kartika, 2021). However, our study does not support research that states the effect of DER on stock returns is negative although not significant (Dinova & Herawati, 2019, Yandra & Alfarisi, 2019, Martina et al., 2019, Alfiyah & Lubis, 2021, and Digdowiseiso, 2023), and a review of the findings of Yandra & Alfarisi (2019) which found a significant positive effect of DER on stock return, as well as Anggraini & Wijayanto (2021) which suggests an insignificant positive effect of DER on stock return.

Testing the effect of profitability on stock return

The findings of our research profitability with ROE indicator have a positive and significant direction on stock returns. This proves that a high level of ROE provides a positive information signal for the increase in returns that will be enjoyed by investors, with reference to the theory introduced by Spence (1973). The signal given is a means of extending control and describing any movement so as to provide feedback to the signal sender (Connelly et al., 2011). Our findings provide clear support for the results of studies that find that ROE has a significant positive effect on stock returns (Benedicta & Lusmeida, 2015, Martina et al., 2019, Anwar & Rahmalia, 2019, Setyarini et al., 2020, Rahmani et al., 2020, Alfiyah & Lubis, 2021, Mudzakar et al., 2021, and Kartika et al., 2022). However, it does not support research that finds ROE has a positive but insignificant effect on stock returns (Anggraini & Wijayanto, 2021 and Nadyayani & Suarjaya, 2021), and the study of Badruzaman (2020) which found that ROE has a negative and significant effect on stock return.

Testing the effect of investment opportunity cost on stock return

Investment opportunity cost represented by PER has a positive effect on stock return. Investment opportunities available to companies are considered by investors to be able to provide the company's growth rate, which ultimately provides returns for shareholders in the form of returns. The results of the study provide support for studies that provide the same results, namely PER has a positive effect on stock return(Edison et al., 2019a, Endri et al., 2019, Setyarini et al., 2020, Mudzakar & Wardanny, 2021, Kartika et al., 2022, and Yoewono, 2022), However, it does not support research that finds PER has a positive although insignificant effect on stock returns (Anwar & Rahmalia, 2019, and Ariawan et al., 2023).

Testing the effect of firm value on stock return

Our study found that firm value with PBV proxy has a positive but insignificant effect on stock return. It can also be interpreted that, PBV has no impact on firm value, and it can also be understood that high stock market value, in fact, does not always correlate positively with the return earned by shareholders. PBV in our study is not able to increase stock returns. This is due to the high PBV which reaches an average of 4.44x, which shows that the firms share price is higher than its intrinsic value, not offset by stock returns which on average are minus 2.13% so that it is less attractive to investors as an investment option. This also shows that the firms share price is overvalued by investors. Our results do not support research that finds that PBV has a significant positive effect on stock returns(Acheampong et al., 2014, Martina et al., 2019, Yandra & Alfarisi, 2019, and Wulandari & Herawati, 2020), and studies that find the effect of PBV on stock returns is positive although not significant (Digdowiseiso & Fadillah, 2020), also does not support studies that find a significant negative effect of PBV on stock returns (Dinova & Herawati, 2019).

Testing the effect of earning per share on stock return

Our finding is that EPS has no effect on stock return, because even though the direction of the influence is negative, it is not significant. The amount of EPS, which is a profitability ratio from the investor's point of view, was not able to increase stock return. This can be caused by the amount of EPS having a greater influence on dividend policy than on return. So, it can be ascertained that high EPS does not necessarily increase stock return because its stages do not directly affect stock prices. Our findings support the research conducted by while who found the effect of EPS is positive but not significant (Amogha & Suresh, 2019, Anwar & Rahmalia, 2019, and Mudzakar & Wardanny, 2021). However, it does not support studies that found that EPS has a significant positive effect on stock return (Putranto, 2014, Endri et al., 2019, Martina et al., 2019, Badruzaman, 2020, Rusdianto et al., 2020, N. Sari & Astini, 2020, Paweroi, 2021, and Ariawan et al., 2023), also does not support the findings of the negative but insignificant effect of EPS on stock return (Digdowiseiso, 2023).

Testing the effect of dividend policy on stock return

The study results show that the effect of dividend policy with DPR proxy has a positive effect on stock return insignificantly. The amount of DPR is not able to convincingly increase the stock return enjoyed by investors. Empirically, this is understandable, because stock returns that describe the acquisition of yield and dividends as stated by Tandelilin (2017) rarely used in empirical studies. The stock return used emphasizes more on the yield, namely the price change enjoyed by investors, with the argument that the purchase of shares is solely for the reason of obtaining profits, not for the purpose of controlling company ownership. Our test results support research conducted by Kartika et al. (2022), However, it does not support the test results which found that DPR has a significant positive effect on stock returns (Riawan, 2016, Asrini, 2020, and Surya, 2021) and also the results of the DPR test have a negative and significant effect on stock return (Arramdhani & Cahyono, 2020, and Cahyaningrum & Wijayanti, 2022), as well as test results that found that DPR has a negative and insignificant effect on stock return (Hermuningsih et al., 2022).

Discussion

This study aims to test and analyze the effect of capital structure, profitability, investment opportunity set, firm value, earnings per share, and dividend policy, on stock returns. The objects in this study are companies incorporated in LQ45 for the period 2013 - 2021. The results of the study found that the capital structure with indicators debt to equity ratio has a significant negative effect on stock return. The funding policy through debt must really be a concern by company management, because it has a real impact on reducing stock returns. The decline in stock returns must be anticipated because it will not only have an impact on investor interest in investing in the company, but can also cause the company to experience financial difficulties due to debt. From the investor's point of view, the investment in the company must consider the level of capital structure owned. This is done to be able to minimize the risks that may arise, so as to increase the profit from the shares purchased.

Profitability with indicators return on equity and investment opportunity set with indicators price earnings ratio have a positive and significant effect on stock return. This explains the importance of companies having the ability to generate profits from various investments made and also looking for investment opportunities that generate positive net present value to increase shareholder prosperity. While the findings of firm value with price to book value indicators, profitability from the investor's point of view represented by earning per share indicators, and dividend policy with dividend payout ratio indicators have no effect on stock returns, this is interesting because it means that investments made by shareholders do not solely expect rewards in the form of returns, but there are other arguments that can be further examined for future research.

Our research only focuses on micro factors that exist in companies, so that further research can involve macro factors of companies that can be suspected of influencing stock returns such as inflation, interest rates, foreign exchange rates and economic conditions of the firm. On the other hand, the impact of the COVID-19 pandemic that occurred in the world and also Indonesia, can be considered for a separate study to calculate the company's stock return, because it is signaled to have a real impact on the research results.

Conclusion

The main finding of our study is that funding policy through DER is not able to increase stock returns, because what happens is the opposite, high levels of debt can reduce stock returns that will be enjoyed by investors. Company funding decisions must prioritize the trade-off theory, by considering the level of benefits that must be greater than the risks that must be borne because the Company is in debt (Myers, 2001), thus funding policies can increase stock returns (Yandra & Alfarisi, 2019). The variables that can increase stock returns according to our findings are return on equity and price earnings ratio which represent the investment opportunity set (IOS). This is understandable because these two ratios do have a direct impact on the company's ability to earn profits and create investment opportunities to increase firm value. A high ROE signals positive information for the increase in returns that will be enjoyed by investors (Spence, 1973). IOS is an investment choice in the future with a positive net present value (Gaver & Gaver, 1993) and is the firm value whose amount depends on the expenses set by management in the future, which at this time are investment choices that are expected to generate large returns. While price to book value, earning per share, and dividend payout ratio proved to have no influence on stock returns. Future studies to be more comprehensive need to include macroeconomic variables, such as inflation, interest rates, exchange rates, or other variables that are considered to affect stock returns.

Acknowledgement

We express our sincere appreciation to all those who have played a role in shaping the quality and depth of this research paper. In addition, we would like to thank the Universitas Pekalongan for providing encouragement, passion, and funding for the publication fee in the journal in which it was published. Your and the Institute's contributions have made a meaningful impact on this research, and we sincerely thank you all.

References

Acheampong, P., Agalega, E., & Shibu, A. K. (2014). The Effect of Financial Leverage and Market Size on Stock Returns on the Ghana Stock Exchange: Evidence from Selected Stocks in the Manufacturing Sector. *International Journal of Financial Research*, *5*(1). https://doi.org/10.5430/ijfr.v5n1p125

Acheampong, P., Agalega, E., & Shibu, A. K. (2017). The Effect of Financial Leverage and Market Size on Stock Returns on the Ghana Stock Exchange : Evidence from Selected Stocks in the Manufacturing Sector. *International Journal of Financial Research*, *5,* 125–134. https://doi.org/10.5430/ijfr.v5n1p125

Alexander, N., & Destriana, N. (2013). Pengaruh Kinerja Keuangan Terhadap Return Saham. *Jurnal Bisnis dan Akuntansi*, *15*(2), 123–132.

Alfiyah, F. N., & Lubis, I. (2021). Effect of Return on Equity and Debt to Equity Ratio to Stock Return. *Indonesian Financial Review*, *1*(1), 18–32.

Amogha, S., & Suresh, N. (2019). An Empirical Study of Financial Ratios Affecting Stock Returns in the Indian Stock Market. *Journal of Engineering and Applied Sciences*, *14*(3), 975–980.

Anggraini, R. D., & Wijayanto, A. (2021). The Influence of Fundamental Factors on Stock Returns with Exchange Rate as. *Management Analysis Journal*, *10*(3), 305–314.

Angulo-ruiz, F., Donthu, N., Prior, D., & Rialp, J. (2018). How does marketing capability impact abnormal stock returns ? The mediating role of growth. *Journal of Business Research*, *82*(March 2017), 19–30. https://doi.org/10.1016/j.jbusres.2017.08.020

Anwar, Y., & Rahmalia, L. (2019). The effect of return on equity , earning per share and price earning ratio on stock prices. *The Accounting Journal of BINANIAGA*, *4*(1), 57–66.

Ariawan, Susianto, T. E., & Mayndarto, E. C. (2023). Effect of Return On Assets (ROA), Earnings Per Share (EPS), and Price Earning Ratio (PER) on Share Prices of Companies in The Property and Real Estate Sector Listed On The IDX 2021-2022. *Jurnal Ekonomi*, *12*(2), 709–716.

Arramdhani, S., & Cahyono, K. E. (2020). Pengaruh NPM, ROA, DER, DPR Terhadap Return Saham. *Jurnal Ilmu dan Riset Manajemen*, *9*(4), 1–21.

Asikin, B., Afifah, E. S. N., Aldiba, H., & Kania, N. A. N. (2021). The Effect of Liquidity, Solvency, and Profitability on Stock Return (Empirical Study on Property , Real Estate , and Building Construction Companies Listed on The Indonesia Stock Exchange for the 2014-2017 Period). *Review of International Geographical Education*, *11*(5), 873–885. https://doi.org/10.48047/rigeo.11.05.83

Asrini, E. D. (2020). Entrepreneurship Bisnis Manajemen Akuntansi Pengaruh Earning Per Share dan Price Earning Ratio Terhadap Return Saham Dengan Kebijakan Dividen Sebagai Variabel Intervening. *Entrepreneurship Bisnis Manajemen Akuntansi (E-BISMA)*, *1*(2), 64–78.

Badruzaman, J. (2020). The Impact of Earning Per Share and Return On Equity on Stock Price. *Systematic Reviews in Pharmacy*, *11*(6), 1285–1289.

Benedicta, G. R., & Lusmeida, H. (2015). The Influence of Investment Opportunity Set (IOS) and Profitability Towards Stock Return on Property and Real Estate Firms in Indonesia Stock Exchange. *The 3rd International Multidisciplinary*

Conference on Social Sciences, 57–65.
Black, F., & Scholes, M. (1974). The Effects Of Dividend Yield And Dividend Policy On Common Stock Prices And Returns*. *Journal of Financial Economics 1*, *1*(1974), 1–22.
Brigham, E. F., & Davies, P. R. (2007). *Intermediate Financial Management*. Thomson Learning Academic Resource Ce.
Cahyaningrum, F., & Wijayanti, A. (2022). Pengaruh Faktor Keuangan Dan Nonkeuangan Terhadap B Return Saham Dengan Kebijakan Dividen Sebagai Variabel Mediasi. *INOVASI: Jurnal Ekonomi, Keuangan dan Manajemen*, *18*(2), 319–325. https://doi.org/10.29264/jinv.v18i2.10627
Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling Theory : A Review and Assessment. *Journal of Management*, *37*(1), 39–67. https://doi.org/10.1177/0149206310388419
Digdowiseiso, K. (2023). What Drives the Stock Returns ? Examining The Fundamental Factors on the Consumer Defensive Sector Companies. *QUALITY Access to Succes*, *24*(194), 177–186. https://doi.org/10.47750/QAS/24.194.21
Digdowiseiso, K., & Fadillah, N. (2020). The Effect of Quick Ratio (QR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), and Price to Book Value (PBV) On Stock Prices of Food and Beverage Companies in the Period. *Budapest International Research and Critics Institute-Journal*, *5*(2), 12067–12081.
Dinova, R. D. K., & Herawati, A. (2019). The Effect of Profitability, Capital Structure, and Corporate Value on Stock Return. *DIJEMSS*, *1*(2), 224–234. https://doi.org/10.31933/DIJMS
Edison, A., Suryana, & Arsalan, S. (2019a). Imbal Hasil Saham Sektor Properti dan Real Estate Bursa Efek Indonesia. *Jurnal Penelitian Adc Dalam Sistem Dinamis & Kontrol*, *11*(3), 700–711.
Edison, A., Suryana, & Arsalan, S. (2019b). Share Return on Sector Properties and Real Estate Indonesia Stock Exchange. *Journal of Adv. Research in Dynamical & Control System*, *11*(3), 700–709.
Endri, E., Dermawan, D., Abidin, Z., & Riyanto, S. (2019). Effect of Financial Performance on Stock Return : Evidence from the Food and Beverages Sector. *International Journal of Innovation, Creativity and Change*, *9*(10), 335–350.
Fama, B. E. F. (1978). The Effects of a Firm ' s Investment and Financing Decisions on the Welfare of its Security Holders. *The American Economic Review*, *68*(3), 272–284.
Gaver, J. J., & Gaver, K. M. (1993). Additional Evidence on the association between the investment opportunity set and Corporate Financing dividend and compensation. *Journal of Accounting and Economics*, *16*, 125–160.
Gujarati, D. N. (2003). *Basic Econometrics*. McGraw-Hill Higher Education.
Hartono, J. (2017). *Teori Portofolio dan Analisis Investasi* (11th ed.). BPFE.
Hermuningsih, S., Maulida, A., & Andriyanto, N. D. (2022). Pengaruh DER, ROA, dan DPR Terhadap Return Saham Sektor Utilitas, Infrastruktur, dan Transportasi. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *4*(3), 772–781. https://doi.org/10.47467/alkharaj.v4i3.725
Izuddin, M. (2021). The Impact Analysis of Fundamental Factors on The Return of Construction Company Shares. *International Journal of Economics, Management, Business and Social Science*, *1*(1), 22–30.
Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure Theory of the Firm : Managerial Behavior , Agency Costs and Ownership Structure. *Journal of Financial Economics*, *3*(4), 305–360.
Kartika, A., Handrijaningsih, L., TR, S. M., & Anisah. (2022). The Effect of Price Earning Ratio, Return On Equity, Debt to Equity Ratio, Firm Size, and Dividend Payout Ratio to the Stock Returns on Banks Listed in LQ45 Index 2015-2020. *Ilomata International Journal of Tax & Accounting*, *3*(4), 435–447.
Kasir, & Kartika. (2021). Pengaruh Return On Equity dan Debt Equity Ratio Terhadap Price Earning Ratio Pada Sektor Telekomunikasi. *Jurnal Riset Bisnis Dan Investasi*, *7*(1), 1–9.
Mahirun, M. (2019). Creation of Investment Opportunities through Increased Sales. *Quality Access to Succes*, *20*(171), 76–81.
Mahirun, M., Jannati, A., Kushermanto, A., & Prasetiani, T. R. (2023). Impact of dividend policy on stock prices. *Acta Logistica*, *10*(2), 199–208.
Martina, S., Sadalia, I., & Bukit, R. (2019). The Effect Of Quick RAtio, Debt To Equity Ratio, Earning Per Share, Price To Book Value And Return On Equity On Stock Return With Money Supply As Moderated Variables (Study of Banking Companies Listed on Indonesia Stock Exchange Period 2008 - 2017). *International Journal of Public Budgeting, Accounting and Finance*, *2*(3), 1–10.
Miller, M. H., & Rock, K. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance*, *XL*(4), 1031–1051.
Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, *48*(3), 261–297.
Mudzakar, M. K., Oktaviani, R. R., Fajari, M. S., Kresna, N. A., Yusuf, M., & Aliwahyudin, Y. (2021). The Effect of Debt to Asset Ratio and Return on Investment on Stock Price (Empirical Study on Coal Sub-Sector Mining Companies). *Review of International Geographical Education*, *11*(3), 1608–1612. https://doi.org/10.48047/rigeo.11.3.155
Mudzakar, M. K., & Wardanny, I. P. (2021). The Effect Of Return On Asset, Return On Equity, Earning Per Share, and Price Earning Ratio Toward Stock Return (Empirical Study Of Transportation). *Turkish Journal of Computer and Mathematics Education*, *12*(8), 387–392.
Myers, S. C. (1977). Determinants of Corporate Borrowing. *Journal of Financial Economics*, *5*, 147–175.
Myers, S. C. (2001). Capital Structure. *Journal of Economic Perspectives*, *15*(2), 81–102.
Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have*. *Journal of Financial Economics*, *13*, 187–221.
Nadyayani, D. A. D., & Suarjaya, A. A. G. (2021). The Effect of Profitability on Stock Return. *American Journal of Humanities and Social Sciences Research*, *5*(1), 695–703.
Paweroi, A. (2021). The Effect of Return On Equity, Earning Per Share, and Debt To Total Asset Ratio on Stock Price In Industry Listed on IDX. *Jurnal Inovasi Penelitian*, *1*(11), 1–6.
Penman, S. H., Richardson, S. A., & Tuna, İ. (2007). The Book-to-Price Effect in Stock Returns : Accounting for Leverage. *Journal of Accounting Research*, *45*(2), 427–467. https://doi.org/10.1111/j.1475-679X.2007.00240.x
Pioh, H. T., Tommy, P., & Sepang, J. L. (2018). Pengaruh Debt To Equity Ratio, Earning Per Share Dan Return on Asset

Terhadap Nilai Perusahaan Sub Sector Food and Beverages Di Bursa Efek Indonesia. *Jurnal EMBA*, *6*(4), 3018–3027.

Putranto, L. (2014). The Effect of Net Profit Margin (NPM), Return on Assets (ROA), and Earning Per Share (EPS) on Stock Prices on Real Estate and Property Companies Listed on IDX period 2011- 2013. *Journal of Article Approval Sheet*, 1–12.

Qureshi, M. M. (2020). Impact of Dividend, Earning, Book Value and Promoter's Ownership on Stock Price of Indian BSE Listed Indexed Firms. *The International Journal of Analytical and Experimental Modal Analysis*, *XII*(VIII), 98–104.

Rahmani, N. A. B., Maksum, A., Fachrudin, K. A., & Silalahi, A. S. (2020). Analysis of the Effect of Profitability on General Corporate Information and Forward-looking Information and its impact on the Company's Share Prices listed on the Indonesia Stock Exchange. *International Journal of Accounting & Finance in Asia Pasific*, *3*(3), 32–38. https://doi.org/10.32535/ijafap.v3i3.950

Riawan. (2016). Peran Profitabilitas dan Likuiditas Serta Dividen Payout Ratio Terhadap Return Saham. *Media Trend*, *11*(2), 131–140. https://doi.org/10.21107/mediatrend.v11i2.1446

Ruhani, F., Islam, M. A., Ahmad, T. S. T., & Quddus, M. R. (2018). Effects of Financial Market Variables on Stock Prices: A Review of the Literature. *Journal of Modern Accounting and Auditing, November*, *14*(11), 597–610. https://doi.org/10.17265/1548-6583/2018.11.002

Rusdianto, Hidayat, W., Tjaraka, H., Septiarini, D. F., Fayanni, Y., Utari, W., Waras, Indrawati, M., Susanto, H., Thahjo, J. D. W., Mufarokhah, N., Susetyorini, Elan, U., Samsi, N., Choiri, Syamsul, M., Widodo, M., Suyanto, H., Zainal, M., & Imanawati, Z. (2020). The Effect of Earning Per Share, Debt To Equity Ratio and Return On Assets on Stock Prices: Case Study Indonesian. *Academy of Entrepreneurship Journal*, *26*(2), 1–10.

Sari, N., & Astini, R. (2020). The Effect of Current Ratio , Debt to Equity Ratio , Return on Assets , And Earning Per Share on Stock Price of Conventional Taxi and Bus Companies Listed In Indonesia Stock Exchange. *International Humanities and Applied Sciences Journal*, *3*(1), 25–29. https://doi.org/10.22441/ihasj.2020.v3i1.03

Sari, R. (2021). The Multiple Regression Effect of Financial Ratio on the stock prices of State-Owned Enterprises. *Golden Ratio of Finance Management*, *1*(1), 25–32.

Setyarini, P. W., Mardiyati, U., & Dhalimunthe, S. (2020). Pengaruh Return on Equity (ROE) dan Price Earning Ratio (PER) Terhadap Return Saham LQ-45 di Bursa Efek Indonesia Tahun 2014-2017. *Jurnal Bisnis, Manajemen, Dan Keuangan*, *1*(2), 348–357.

Spence, M. (1973). Job Market Signaling*. *Quarterly Journal of Economics*, 355–374.

Surya, D. G. (2021). Kebijakan Deviden dan Dampaknya Terhadap Return Saham Perusahaan Perbankan dan Lembaga Keuangan Bukan Bank yang Terdaftar di Bursa Efek Indonesia. *CAPITAL : Jurnal Ekonomi Dan Manajemen*, *5*(September), 15–28.

Tandelilin, E. (2017). *Pasar Modal : Manajemen Portofolio & Investasi*. Yogyakarta : PT Kanisius. https://opac.perpusnas.go.id/DetailOpac.aspx?id=1139651

Umdiana, N., & Claudia, H. (2020). Analisis Struktur Modal Berdasarkan Trade-off Theory. *Jurnal Akuntansi : Kajian Ilmiah Akuntansi 7 (1)*, 52–70.

Walker, M. M., & Mark, M. (2000). Corporate Takeovers , Strategic Acquiring-Firm Objectives and Wealth. *Finance*, *29*(1), 53–66.

Wulandari, A. T., & Herawati, A. (2020). the Effect of Profitability, Capital Structure and Corporate Values on Return of Shares (Telecommunications Sub Sector in Indonesia Stock Exchange 2014-2018). *Dinasti International Journal of Digital Business Management*, *1*(1), 69–77. https://doi.org/10.31933/dijdbm.v1i1.102

Yandra, I. S., & Alfarisi, M. F. (2019). Influence of Fundamental Factors on Stock Return Listed in Jakarta Islamic Index. *Economica*, *8*(1), 51–59.

Yoewono, H. (2022). The Influence of Fundamental Factors and Systemic Risk onn Stock Return Moderated by Audit Quality. *Accounting and Finance Studies*, *2*(4), 241–261. https://doi.org/10.47153/afs24.5132022

Yoewono, H., & Setiawan Tasrih, A. A. (2022). The Influence of Fundamental Factors and Systemic Risk on Stock Return Moderated by Audit Quality. *Accounting and Finance Studies*, *2*(4), 241–261. https://doi.org/10.47153/afs24.5132022