

## Factors Determinant of Share Prices: Empirical Study on Islamic Capital Market

Sutrsino

Universitas Islam Indonesia, Daerah Istimewa, Yogyakarta, Indonesia

**Abstract:** The purpose of financial management is to maximize the welfare of the owners, one of which is measured by the share price. This study aims to examine the factors that determine stock prices. Stock prices measured by the year-end closing price while the factors thought to influence the stock price is profitability as measured by Return on Assets (ROA), Return on Equity (ROE) and Earnings Per Share (EPS). The share price was also allegedly affected by the Dividend Per Share (DPS) and Debt to Equity Ratio (DER). This research is a case study in the Islamic capital market stocks that are listed on the list of Islamic stocks. Samples taken as many as 106 companies with a purposive sampling method with the provisions of the company that makes a profit and pay dividends. Equipment using multiple linear regression analysis with SPSS. The results showed profitability as measured by EPS and ROE significantly affect stock prices while the ROA has no effect on stock prices. Dividend per share is also positive and significant effect on stock prices while DER no significantly influence stock prices.

**Key words:** Return on assets, return on equity, earning per share, dividend per share, debt to equity ratio

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### INTRODUCTION

Capital market is a financial institution that is vital in the economy of a country. The company that needs funds can mobilize them through capital market by issuing stock or bond. Investors can take advantage of capital market to make earnings by investing their funds. Investment in stock is a good means to earn high earnings in addition is beneficial to maintain liquidity (Tandon and Mallhotra, 2013). In investing, the investors require careful considerations so it needs to find information in the capital market that is relevant in the context of investment decision making (Muksal, 2015). Not all information in the exchange is relevant to the needs of investors, so it needs to have information that best suits the needs. One of the relevant information in making investment decisions in stock market is the stock price. The stock price has fluctuated widely in accordance with the demand and supply position of the stock.

Stock price is often used as an indicator of firm value as the rise in stock price will increase stockholder wealth. Fluctuation in stock price is influenced by two factors, i.e., fundamental and technical factors (Haque and Faruquee, 2014). Fundamental factors are the factors that come from the company issuing stock. If condition of the company issuing the stock is good, stock price will be high as investors believe that the issuer will be highly profitable. Technical factors are the factors that come from outside the company and are often referred to macro factors, such as interest rates, inflation, the dollar exchange rate, economic policy, political climate, or other macro factors.

Fundamental analysis gives investors possibility to assess stock price by considering the issuer performance especially who is associated with stock price. Stock price will increase if the amount of demand for stock by the investors increases. Investors will invest in stock which gives expectation of an increase in profits in the future, such as the profits earned by the company and shared dividend.

Company's profitability becomes the investors consideration in investing because with high profitability, there is an expectation that the shared dividend will also be high, so that it will increase the stock price. Sharif *et al.* (2015) found a positive and significant effect between the profitability measured by ROE and EPS on stock prices in Bahrain. Almunani (2014) and Uddin *et al.* (2013) also found that Earning Per Share (EPS) had positive and significant effect on stock prices. Investors also viewed the profitability measured by ROE and ROA in buying the stock. The findings of Haque and Faraquee (2013) and Muksal (2015) also supported it which found the profitability measured by ROA had a positive effect on stock prices. The findings of Naveed and Ramzan (2013) also supported that ROE affected stock prices.

The profits obtained by a company will be used to provide compensation to the owners in the form of dividend and a portion will be used for development of the company or will be retained. The number of dividends paid encourages investors to buy shares so it will increase the stock prices. Srinivasan (2012), who examined public companies in India found Dividend Per Share (DPS) had a positive and significant effect on stock prices.

Similarly and Sukhija (2014) and Sharif *et al.* (2015) also found a positive and significant effect between Dividend Per Share (DPS) and stock prices.

Stock price is also affected by the issue of the magnitude of the corporate debt to another party measured by Debt to Equity Ratio (DER). DER shows the composition of debt and equity. The greater DER shows the greater the corporate risk as the debt will bear fixed burden, i.e., interest. Arshad *et al.* (2015) assumed that DER had a negative impact on stock prices. Sharif *et al.* (2015) also assumed that there was a negative effect between debt ratio and the changes in stock prices. Sulia (2013) who examined the company in Indonesia found no effect between debt to equity ratio in the stock prices.

### Literature review

**Theoretical review and hypotheses stock price:** The stockholders assign manager to manage company with the expectations of improving their wealth. The rising stock prices can measure the wealth of the owners (Brigham *et al.*, 2007). Similarly, the investors who buy stocks of the company also expect from capital gain if they sell the stocks in addition to gain the profits from dividend. Thus, the rise in stock prices is very important for the management to enhance corporate value.

Demand and supply of the buyers and sellers of stocks strongly influence the stock prices in secondary market. Fundamental and technical factors affect the amount of demand and supply of stock (Sutrisno, 2012). Fundamental factors are related to policies and strategies adopted by the company's management as well as financial performance. Because they come from internal sources, these fundamental factors can basically be controlled by the company. For example, the amount of profits from the company can adjust the number of dividends distributed and demonstrate the company's prospects in the future. While technical factors are external factors that cannot be controlled by the company, such as government policies, political conditions, changes in interest rates and other external factors.

**Profitability:** One indicator of the company grow and develop is the ability to make profits. With profits, the company can compensate the owners in the form of dividends and enlarge its business by retaining some profits. Investors need information related to profitability for the decision making of stock purchase. Several indicators can measure the company's profitability such as Return on Equity (ROE), Return on Assets (ROA), earning per share (EPS) and other measures of profitability.

Return on Equity (ROE) is the profits obtained from equity, because from the formulation, ROE is obtained from profits after tax divided by equity. The owner or stockholder is very concerned with ROE, because the owners will obtain the profits in the form of dividends. Sharif *et al.* (2015) found the affects ROE on stock prices. Similarly, Haque and Faraque (2013) find a positive and significant effect between ROE and stock prices. Subiyantoro and Andreani (2004) who studied the capital market in Indonesia also found a positive effect between ROE and stock prices. So, the first hypothesis in this study is:

- H<sub>1</sub>: Return on Equity (ROE) has a positive effect on stock prices

Profitability can also be measured by Return on Assets (ROA), i.e., the ability of company to generate profits with all the assets owned by the company. This ratio divides profits before interest and taxes by total assets. Investors can use this information in making decision of the stock purchase, due to the large profits expects stock price will rise. Subiyantoro and Andreani (2004) also examined the effect of ROA variable on stock prices although, the results were not significant. Muksal (2015) found a positive and significant effect between ROA and stock prices. Haque and Faraquee (2013) also found a positive and significant effect on stock prices. From the description, the second hypothesis proposed is:

- H<sub>2</sub>: Return on Assets (ROA) has a positive effect on stock prices

Earning Per Share (EPS) is also a measure of profitability by dividing the profits after tax by the number of stock. The larger the EPS, the greater the profits for the owners. The greater the amount of earning per share will attract investors to buy the company's shares. Tandon and Maholtra (2013) found a positive and significant effect between EPS and stock prices. Similarly, Chowdhury and Chowdhury (2010) in Bangladesh and John and Muthusamy in India also found the same thing. In Indonesia, Darmawan and Asmara (2008) also found the effect of EPS on stock prices. Based on that, the hypothesis is made:

- H<sub>3</sub>: Earning Per Share (EPS) has a positive effect on stock prices

**Dividend policy:** Dividend is the share of profits distributed to stockholders as compensation for their investment. Investors invest their funds to buy stock in the expectation of obtaining the benefits of dividends, so

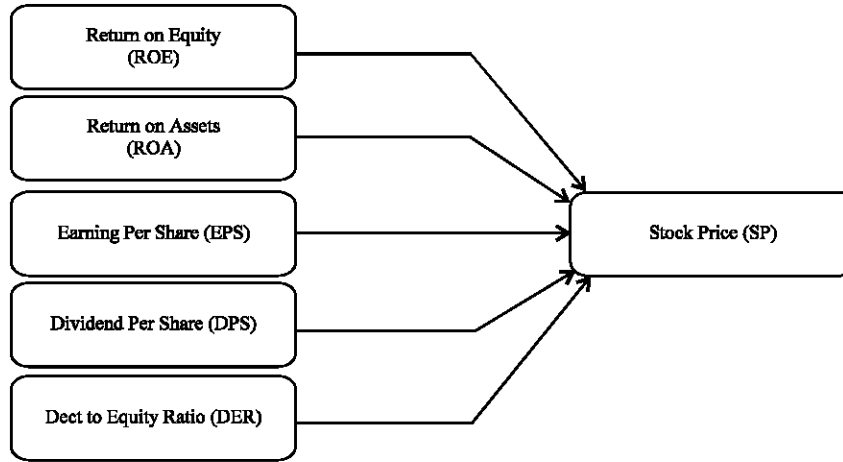


Fig. 1: The frame of research concept

the higher the dividend to stockholders, the greater the interest of investors to buy stocks. The profit paid as dividend per share is called Dividend Per Share (DPS), i.e., the ratio between dividend distributed by the number of stock. The higher the DPS, the greater the portion of dividend received by investors. Haque and Faruquee (2013) and Sukhija (2014) found a positive effect between DPS and stock prices. Similarly and Srinivasa (2014) and Arshad *et al.* (2015) also found a positive effect between DPS and stock prices. The research findings of Sulia (2013) in Indonesia also found the same thing, so the hypothesis can be taken:

- H<sub>4</sub>: Dividend Payout Ratio (DPR) has a positive effect on stock prices

**Financing policy:** One of the functions of financial management is a financing policy, finding source of funds at low cost and optimal composition (Brigham *et al.*, 2005). Financing policy generates Debt to Equity Ratio (DER), i.e., how much the company's assets financed with debt. The higher the DER demonstrates the greater corporate debt. Debt is one source of funds that has a big risk, because either the company gain profit or loss shall remain pay interest. Since, it is risky, then this DER information will affect the interest of investors to buy stock. High DER demonstrates the higher corporate risk, so the investors are likely not to buy the company's stock. Sharif *et al.* (2015) also assumed that the debt policy measured by Debt to Total Assets (DTA) had a negative effect on stock prices. Chowdhury and Chowdhury (2010) found a negative effect between

DER and firm value. Similarly, Joh and Muthusamy in India also found the same effect, so it can be hypothesized:

- H<sub>5</sub>: Debt to Equity Ratio (DER) has a negative effect on stock prices

**The framework research concept:** Based on background, reviews of the theory and hypothesis development, research conceptual framework can be made as follows Fig. 1.

## MATERIALS AND METHODS

**Population and samples:** This study was a case study on the companies in Islamic capital market, i.e., all stocks listed in Islamic Securities Listing (DES). Thus, the population in this study was all the stocks of companies listed in Islamic securities listing. The samples were the companies that in 2015 earned profits and gave dividend. After the selection, the samples of 106 companies were obtained.

**Variables and measurement:** In this study, there were two types of variables, i.e., dependent and independent variables. Dependent variables are the variables influenced by other variables, i.e., stock prices. Independent variables are the variables that affect other variables, in this study consisted of Return on Equity (ROE), Return on Assets (ROA), Earning Per Share (EPS), Dividend Per Share (DPS) and the Debt to Equity Ratio (DER). Here is the measurement of the variables of the study.

Table 1: Variable and measurement

Variable/Notation	Measurement
Stock Price (SP)	Closing price the end of year
Return on Equity (ROE)	EAT/Modal sendiri
Return on Assets (ROA)	EAT/Total asset
Earning Per Share (EPS)	EAT/Number of shares
Dividend Per Share (DPS)	Dividen Paid/EAT
Debt to Equity Ratio (DER)	Total Debt/Equity

**Analysis tool:** Multiple regression analysis will be used to test the hypothesis of the determinants of stock prices. The multiple regression equation is as follows Table 1.

### RESULTS AND DISCUSSION

**Descriptive statistics:** After tabulating the data, so to determine the characteristics of the data, descriptive statistical analysis needs to be made to describe the research data thoroughly. From the data processing results by SPSS, the data of descriptive statistics were obtained as follow Table 2:

Table 2 shows a minimum sample company's stock price of Rp. 105 and a maximum of Rp. 45.350 with an average of Rp. 3,459. This means that there is a sample company whose stock price is already very high, i.e., PT. Unilever Indonesia Company (Tbk) while the lowest stock price is Pelayaran Nelly DwiPutri Company (Tbk). The profitability measured by ROE was minimum of 0.5% and maximum of 161% with an average of 15.24% while ROA was minimum of 0.20% and maximum of 45.80% with an average of 7.53%. While earning per share was minimum of Rp. 3 and maximum of Rp. 943 per share with an average of 144.19%.

The dividend shared and measured by Dividend Per Share (DPS) has a minimum value of Rp. 1 and a maximum of Rp. 645 with an average of Rp. 74.19. While, the Debt to Equity Ratio (DER) has a minimum value of 0.01 or 1% and a maximum of 702% which indicates that the company's debt was very high, compared with equity.

**Hypotheses test results:** Multiple regression analysis was used to test the hypotheses of the factors that affect stock prices and the results of hypotheses testing by SPSS were obtained as follow Table 3.

Based on Table 3, it can be concluded that the profitability measured by ROE has positive and significant effect on stock prices as indicated by the significance value of 0.002 that is smaller than the required significance level of 0.05. Similarly, the profitability measured by EPS indicates significance value of 0.000 that is smaller than the required significance level, so EPS has positive and

Table 2: Descriptive statistics

Variable	N	Min.	Max.	Mean	SD	Variance
SP	106	105	45.350	3459.6698	6022.89708	3.628E7
ROE	106	0.50	161.00	15.2387	19.54191	381.886
ROA	106	0.20	45.80	7.5292	7.05718	49.804
EPS	106	3.00	943.00	144.1887	215.49651	46438.745
DPS	106	1.00	645.00	74.1881	127.61111	16284.596
DER	106	0.01	7.02	1.0419	0.91139	0.831
Valid N (listwise)	106	-	-	-	-	-

Table 3: Result of hypotesis test

Model	Unstandardized coefficients		Standardized coefficients		
	B	SE	(β)	t- value	Sig.
Constant	-1182.625	715.126	-	-1.654	0.101
ROE	132.986	40.978	0.431	3.245	0.002
ROA	27.508	108.875	0.032	0.253	0.801
EPS	6.900	1.814	0.247	3.803	0.000
DPS	19.242	2.972	0.408	6.474	0.000
DER	-13.215	418.608	-0.002	-0.032	0.975

significant effect on stock prices. While the profitability measured by ROA has no significant effect as indicated by the significance value of 0.801 that is >0.05 of which required.

The dividend policy as indicated by the Dividend Per Share (DPS) is very meaningful to investors because DPS has positive and significant effect on stock prices as indicated by the significance value of 0.000 that is smaller than the significance level of 0.05. While the debt policy measured by Debt to Equity Ratio (DER) has no significant effect due to the significant value of 0.975 that is greater than the level of significance.

From the hypotheses testing results above, significant effect between the profitability measured by ROE and stock prices is found. These results show that investors are considering the benefits obtained by the company that will be distributed to the stockholders. According to Sutrisno (2012), Return on Equity (ROE) is a company's ability to earn profits with equity owned by the company. ROE is net profits after tax which is distributed to stockholders. The greater the profits means the better performance of company that allows the company to share dividend in large numbers. These results were consistent with the findings of Sharif *et al.* (2015) who conducted the research at Bahrain Capital Market. Haque and Raraquee (2013) who conducted research on Dhaka Stock Exchange also found that ROE had a positive effect on market prices. Similarly, Taani and Banykhaled (2011) also found a positive and significant effect of ROE on the stock prices.

Hypotheses test results also found a positive and significant effect between Earning Per Share (EPS) on stock prices. EPS showed the profits for per one share, so through the EPS information, investors know the possible profits will be shared. EPS is a very valuable information for investors, so the magnitude of EPS will affect

investors to buy stocks that will affect the demand for stocks. These results were consistent with the findings of Tandon and Malhotra (2013) who conducted research on New York Stock Exchange. Almumani (2014), who conducted research on Amman Capital Market and Uddin *et al.* (2013) in Bangladesh also found a positive and significant effect between EPS and stock prices. Similarly, Arshad *et al.* (2015), Sukhija (2014) and Muksal (2015) also found the same thing. Even Bhattarai (2016) found that the most influential factor on the stock prices was Earning Per Share (EPS).

From the third hypothesis, ROA evidently had no effect on stock prices. According to Sutrisno (2012), Return on Assets (ROA) is the company's ability to generate profits with all the assets owned by the company, so that the formulation is the ratio between profit after taxes and total assets. These hypothesis test results implied that investors prioritize more on the profits for the owners (ROE) compared with the profits for all assets (ROA). Investors do not utilize ROA information as their consideration in buying stocks. The findings supported the findings of Subiyantoro and Adreani (2004) who conducted research on hotel management services companies in Indonesia. Naveed and Ramzan (2013) also found no significant effect between ROA and banking stock prices in Karachi Stock Exchange. However, some researchers such as Muksal (2015) and Haque and Faraquee (2013) found a significant relationship between ROA dan stock prices.

The fourth hypothesis test results found the DPS effect on stock prices as well. The return expected by investors is from dividend and capital gain. The company that shares dividend is a choice for investors because with dividend, the company is giving a signal that the issuer has a good performance (Arifin, 2005). Thus, the higher the company provides DPS, the more it is showing good performance, so that it encourages investors to buy stocks whose impact will certainly raise the stock prices. The increase in stock prices will improve the owner's wealth, because they will earn capital gain if the stocks are sold. These findings supported the findings of Sulia (2013) who conducted research in Indonesia Stock Exchange. Sharif *et al.* (2015) and Srinivasan (2012) also found a positive and significant effect of DPS and stock prices. Similarly, Haque and Faruquee (2013) and Sukhija (2014) also found the same thing. Yet, Arshad *et al.* (2015) found no significant effect on the banking industry in Pakistan.

The hypothesis that indicates that DER has negative effect on stock prices was not proven. This shows that

the amount of the debt owned by the company does not affect the investors in investing in stock. Investors do not seem to pay attention to information of the company's debts but more concern with information relating to profitability, so the debt ratio does not affect the stock prices. The research findings of Muksal (2015) also found that DER had no effect on stock prices. Similarly, the findings of Sharif *et al.* (2015) also found that the debt ratio had no effect on stock prices. The findings of Ozlen (2014) also found the same thing.

## CONCLUSION

Based on the theoretical review, developing hypotheses and research findings, it can be concluded that the stock prices were more influenced by investors' profits expectation to the issuer. Profitability was the most important factor in influencing the stock prices, mainly the profits for the owners (ROE) and Earning Per Share (EPS). In addition, the expectation to receive dividend also greatly affected the investors indicated that DPS had a positive and significant effect on stock prices. The profitability measured by ROA did not affect the stock prices, means the investors more focused on the profits that go to stockholders (ROE). Similarly, the debt ratio of the company also not became a consideration for investors to buy stocks. So, DER had no effect on stock prices in this study.

The results of this study were expected to be used as a reference for investors in determining their policy to invest their funds in stocks, i.e., based on the relevant information that have effect on stock prices formation. In addition, the results of this study could also be used as a reference for subsequent writers and to develop a subsequent study by adding or subtracting the study variables.

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