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Profitability and Stock Return: Does Capital Structure Mediating This Association?

Fauji Sanusi

Universitas Sultan Ageng Tirtayasa, Indonesia

Corresponding Author: fauji.sanusi@untirta.ac.id[*)]

Keyword: P*rofitability, Capital Structure, Stick Return, Mediating Role.*

Abstract: This study investigates whether profitability contribute to increase stock returns. Further, current study also examines the mediating role of firm's capital structure on the relationship. Using 14 companies with 126 firm-years observations from listed manufacturing industry from 2009-2017 and rely on path analysis, this study finds that profitability has a significant positive effect on stock returns, but it has no significant effect on DER. In addition, we also evidence that DER has no significant effect on stock return. Therefore, current study document the importance of profitability to create the best market performance without rely heavily on capital structure. The implication of this study is that it is essential for managers to create a sustainable profitability which has possibility to effect firm performance, as the performance may affect capital market perception through the stock price.

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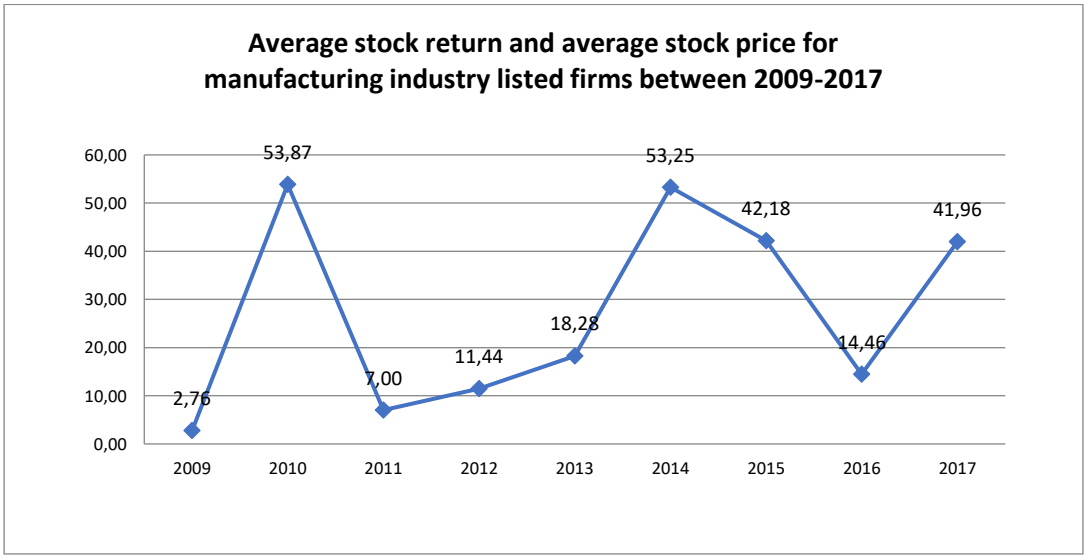
Introduction

Securities trading transactions in various forms, such as stocks and bonds trading, has been attractive trading activities for both investors and potential investors. Investors, both individuals and institutional, who have excess funds generally invest in securities to obtain profits, called as return, in the future. There are several kinds of returns, such as realized returns and expected returns. Hartono (2022) suggest that return is the result obtained from investments made by investors in the company during a certain period.

Prior studies confirm that stock returns are influenced by the stock price in the current period, and stock prices are affected by the company's performance. Stock prices can be influenced by external and internal factors of the company. External factors such as high inflation rates, deposit interest rates, changes in exchange rates, political issues, and others. Internal factors such as company conditions, changes in management, and financial performance are reflected in financial ratios, including liquidity ratios, solvency, activity, market assessment and profitability. Signaling theory developed by Ross (Ross 1977) suggests that when a company has good performance and financial reports, it will give a positive signal to the capital market about company prospects in the future. The implication is that higher profitability will give a positive signal to investors, indicating good prospect in the future and cause stock prices price become higher. As a result, it also may increase stock returns. Following this theory, previous empirical works examine the association between profitability and firm's stock performance and support the signally theory fundamental concept regarding the relationship between firm's performance and stock price.

This study attempts to examine and confirm whether the signally theory is supported to explain the association between profitability and stock price for manufacturing industry in Indonesia capital market. Current study chooses manufacturing industry to investigate such relationship because this industry suffers from unstable stock return during time period of this study examination. Figure 1. describe how fluctuation occur between 2009-2017



Source : www.idx.co.id 2019 (authors modification)

Figure 1. describe how fluctuation occur between 2009-2017

Based on the above data, the average stock price and average stock return for companies in manufacturing sector experience fluctuations. It means that average stock return and price are probably sensitive to several factors exist in (out) the capital market or, even, firm's financial condition. As suggested by prior studies and explained by signally theory, profitability may become an essential determinant for stock price. In addition, this study considers profitability as important factors to influence the stock price because firm profitability can provide information to shareholders or investors about how much profit the company can obtain and how it associates to stock returns.

Another established theory which explains the association between profitability and stock price is the tradeoff theory. It suggests that companies with high profitability will use debt because they can benefit from lower income taxes than not using debt. Investors also assume that companies that have high debt and profits indicate that the company has good prospects so that it will increase stock prices and increase stock returns. However, prior empirical studies documents mix findings on the effect of profitability on stock returns. Nazilah et al (Nazilah and Amin 2018), Khan et al (Khan et al. 2013) and Carlo (Carlo 2014) found that there is a positive effect between profitability on stock re

turns. However, Lestari et al (Lestari, Andini, and Abrar 2016), Susilowati and Turyanto (Susilowati and Turyanto 2011) and Arista and Astohar (Arista and Astohar 2016) evidenced that profitability has no effect on stock returns.

From the description above which explain that there are inconsisten results of research on the effect of profitability on stock returns, the researchers are interested in conducting studies that can bridge the mix result in literature by developing a new model including capital structure as intervening variables.

Signaling Theory

The signal theory is intended to cover up the occurrence of asymmetric information to investors about company profitability through dividend policy. Profitability is considered as the basis for determining dividend policy (Dewasiri et al. 2019). Signaling theory developed by Ross (Ross 1977) suggests that companies with a good performance will deliberately provide signals to the market, thus the market is expected to be able to distinguish between the good and the bad companies (Hartono 2022).

Trade Off Theory

Optimal leverage level can be determined at a point of relationship between capital structure and firm value. Furthermore, this theory finds that the optimal capital structure is achieved if the present value of the debt tax shield is equal to the present value of the costs due to debt (Harjito 2011). The risk of company bankruptcy will occur if the company experiences financial distress, and if financial difficulties continue to occur, the company must bear costs as a result of excessive use of debt (Chandra et al. 2019).

Stock Return

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Return is the level of profit enjoyed by investors on an investment they make. Every investment, both short term and long term, has the main goal of getting a profit which is referred to as stock return, both directly and indirectly. Actual returns can be measured in various way including total returns, relative returns, cumulative returns, and adjusted returns. Total return is the overall return on investment in a certain period. The components of total return are capital gain/loss and dividend yield.

Firm value is influenced by three policies in the field of financial management which include investment decisions, financial decisions and dividend policies (Chandra et al. 2019). If the company is able to optimize the three policies properly, it will increase if the company can increase the value of the company. Increasing the value of the company will increase stock prices and dividends as an element of forming stock returns.

Stock return can be formulated as follows :

$$Return = capital\ gain\ (loss) + \ dividend\ yield$$

$$Return = \frac{P_t - P_{t-1} + D}{P_{t-1}}$$

Click or tap here to enter text.

Profitability

Profitability is a ratio that measures the effectiveness of management in generating profits derived from relationships with sales and investments. Higher profitability ratio indicates company ability to obtain high profits, Fahmi (2014: 80). One of the profitability ratios is Return on Equity (ROE), which can be measured using following formula:

$$ROE = \frac{EAT(Earning\ After\ Tax)}{Shareholder's\ Equity}$$

Capital Structure

Weston and Copeland in Fahmi (2014: 184) explain that the capital structure or the capitalization of the firm is the permanent financing represented by long-term debt, preferred stock and shareholder's equity. One of the ratios that can be used to measure capital structure is the Debt to Equity Ratio (DER), which is a comparison between total liabilities and equity to measure how much a company is able to pay off its debts using its own capital, which can be measured using following formula:

$$DER = \frac{Total\ Liabilities}{Shareholder's\ Equity}$$

Source: Fahmi (Fahmi 2014, 184)

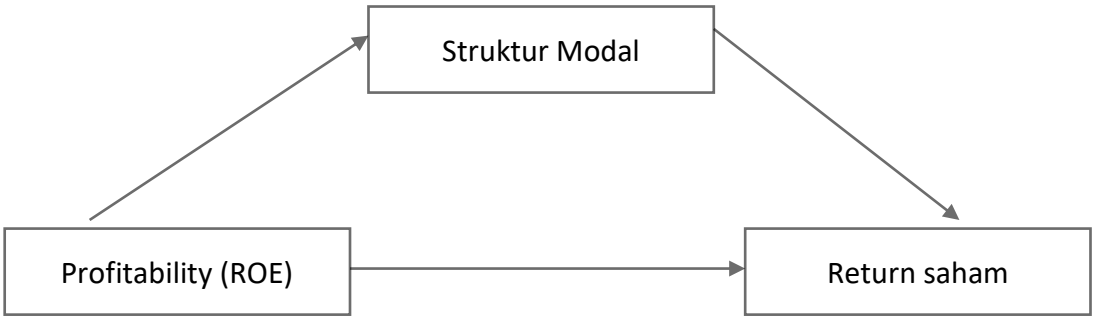
Conceptual Framework

This study present research framework as describes in figure 2. Direct relationship between profitability (ROE) and stock returns. Capital Structure (DER) play a role as mediating variable.

Profitability and Stock Return

According to Chrisna (2011: 34) in Hutami (Hutami 2012) an increase in ROE is usually followed by an increase in the company's stock price. The higher the ROE, the better the company's performance in managing its capital to generate profits for shareholders. So that investors are interested in buying these shares, which in turn increases stock prices and increases stock returns. In accordance with the results of research belonging to Nazilah et al (Nazilah and Amin 2018), Khan et al (Khan et al. 2013) and Carlo (Carlo 2014) that there is a significant positive effect between profitability on stock returns.

H1: Profitability has positive association with stock return.



Source: Autor

Figure 2. Research Framework

Profitability and Capital Structure

In accordance with the trade-off theory, companies with high profits tend to use debt or external funding to meet their capital needs. By using corporate debt, it can reduce its income tax because the amount of income is reduced by debt interest costs, so that the greater the profit the company has, it will increase its debt to obtain these tax benefits. according to the results of research belonging to Hadianto and Tayana (Hadianto and Tayana 2010), Wijaya and Utama (Wijaya and Utama 2014) that there is a significant positive effect on profitability on capital structure.

H2: Profitability has positive association with capital structure

Capital Structure and Stock Return

In accordance with the trade-off theory, investors assume that with a high level of debt, the company is in a condition to develop its business, and this is indicated by the

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company's ability to return profits to shareholders. So that investors are increasingly interested in the company's shares, that way the stock price will rise and have an impact on increasing stock returns. Provided that the benefits derived from using debt are greater than the risks, the company can still use debt. In accordance with the research results of Susilowati and Turyanto (Susilowati and Turyanto 2011), Affinanda and Yuyetta (Affinanda, Nur, and Yuyetta 2015) and Nazilah et al (Nazilah and Amin 2018)that there is a significant positive effect of capital structure on stock returns.

H3: Capital Structure has positive association with stock return

Capital Structure as Intervening Variable.

When a company has a high level of profitability, it means that the company can make profits from its own capital (shares) effectively and efficiently so that it has larger reserves of retained earnings, companies with high profits will tend to distribute it as dividends or keep it as retained earnings. According to the Trade Off Theory, companies with high profitability will use debt because to get the benefits of income tax which is smaller than not using debt. Investors also assume that companies that have high debt and profits indicate that the company has good prospects so that it will increase stock prices and increase stock returns.

H4: *Capital Structure has ability to mediate the reassociation between profitability dan stock return*

Research Method

This study uses secondary data to examine all the hypnosis. I obtain data from BEI (Indonesian Stock Exchange) which cover 2009-2017 as observed years. This study uses 14 companies which fulfill all sample requirements and result in 126 firm-years Observations. Collecting all necessary data, this study will analyze the descriptive statistics, classic assumption test, path analysis, Sobel test and t test.

Result and Discussion

Descriptive Statistics

Current work uses 126 firm-year observations which represented by 14 companies. Maximum value of ROE, DER, and Stock Return are 323.60, 844.13, and 15.29 respectively, and min value of ROE, DER, Stock Return are 0.15, 15.35, and 0.10 respectively. The mean value and standard deviation of ROE, DER, Return Shares are 37.1080 and 43.84050 for ROE, 94.2887 and 95.78232, 54 for DER, and 0.4857 and 1.58654for stock return.

Classical Assumption

This study conducts the classical assumption test including the normality, multicollinearity, heteroskedasticity, and autocorrelation. The result shows that all the

classical assumption test are pass and the classical assumption problem is not an issue in this study. This study also run the linearity test and the result also pass this test.

Path Analysis

Profitabilitas and Capital Structur

Tabel 1. Output Model Summary Sub Struktur 1

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.012[a]	.000	-.015	30.18312

a. Predictors: (Constant), Profitability

b. Dependent Variable: capital structure

Source : Output SPSS 22.

standar *error* ($Ɛ_1$) capital structure dan equation for first path sub structur 1 :

$Ɛ_1$ = $\sqrt{1-R^2}$

$Ɛ_1$ = $\sqrt{1-0,000}$

$Ɛ_1$ = $\sqrt{1}$

$Ɛ_1$ = 1

Z_1 = a + P_2Z_1X+ $Ɛ_1$

DER = 57,994 + 0,051 ROE + 1

The effect of profitability on stock return with capital structure as mediating variables

Direct effect:

= P_1YX

= 0,016

Indirect effect:

= (P_2Z_1X) x (P_3YZ_1)

= (0,051) x (0,000)

= 0

Sum of effect:

= P_1YX + {(P_2Z_1X) x (P_3YZ_1)}

= 0,016 + {(0,051) x (0,000)}

= 0,016 + 0

= 0,016

Based on the calculation results above, it can be concluded that capital structure (DER) cannot mediate the relationship between profitability (ROE) on stock returns (RS), because the value of the multiplication result of the indirect effect is smaller than the magnitude of the value of the direct effect, which is equal to (0 < 0.016). The Sobel test shows that there is no significant mediating effect because the t value < t table (0 < 1.66901).

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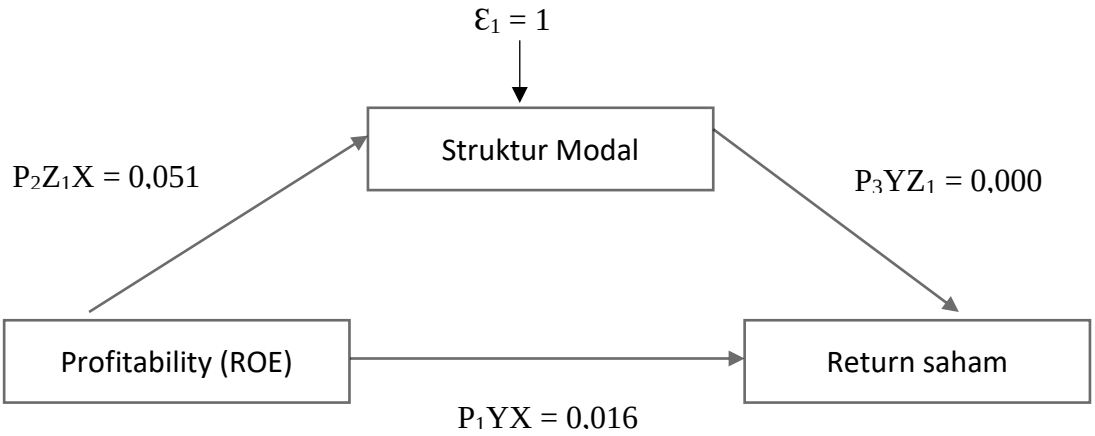

Figure 3. Result from Path analysis

Discussions

Profitability and Stock Return (Hyphotesis 1)

The test results show the *t* count > *t* table value or 2.761 > 1.66940 and the significance value < α (0.05) or (0.008 < 0.05). Then the hypothesis H1 is accepted. Higer ROE value, will lead to higher stock return value. This means that an increased profitability indicates that the net profit is greater than the equity. This is in line with the Signaling Theory which suggest that an increase in company profits is a positive signal for investors, as they assume that the company's performance is in a good condition and will provide promising prospects in the future. This finding is in line with Nazilah et al (Nazilah and Amin 2018), Khan et al (Khan et al. 2013) and Carlo (Carlo 2014) which document a positive effect between profitability on stock returns.

Profitability and Capital Structure (Hyphotesis 2)

The test results show that the t value < t table or (0.093 < 1.66864) and the significance value < α (0.05) or (0.926 > 0.05). Profitability (ROE) has no effect on capital structure (DER), meaning that ROE has no on DER. This result is not in line with the trade-off theory which states that companies with high profits tend to use debt or external funding to meet their capital needs and to obtain tax benefits. The possible explanation from the no effect between profitability and capital structure is because abnormal DER ratio in certain firms cause high risk that this condition outperforms the benefit from having such so high ratio. Some prior studies also document similar finding on the relationship between profitability and capital structure (Junita and Lumbanraja 2019; Putri 2012; Seftianne and Handayani 2011).

Capital Structure and Stock Return (Hipotesis 3)

The test results show the calculated t value < t table value or (0.138 < 1.66940) and the significance value < α (0.05) or (0.891 > 0.05). A high DER value does not have a significant effect on stock returns. This result suggests that company with high DER has a large risk, causing investors choose not to invest on the company's shares. As a result, the stock price

will decrease as investor become less interest on investing in the company shares and stock returns may also decrease. This finding is in line with previous research (Budialim 2013; Farkhan and Ika 2012; Supadi and Amin 2012).

Capital Structure as Intervening Variable on the relationship between profitability and stock return (hyphoteisi 6)

Based on the results of the intervening test and the Sobel test described above, it shows that capital structure cannot mediate the effect of profitability on stock returns. Because there is no influence on the relationship between profitability on capital structure and capital structure on stock returns. As a result, this study cannot support the Trade Off Theory for manufacturing industry. As the characteristics of the sample use in this study, current work finds that some company has higher DER which probably has higher risk than other company in the same industry and the risk occur from having higher DER is outperform its benefit and may lead to the bankruptcy or financial destress. In addition, profitability condition of a firm also cannot affect the DER ratio. Investors see DER ratio as a risk because it can contribute as a function of risk for their investment. Consequently, investors will be less attractive to invest on firm's share and stock return will be lower.

Conclusion

Current study attempts to investigate whether profitability effect firm's stock returns. In adiition, this study also examines the mediating role of firm's capital structure on profitability and stock price relationship. This study uses path analysis to examine the research hypnosis and documents following results. Positive and significant relationship is documented for profitability and stock returns relationship in manufacturing sector companies listed on the IDX. In addition, current study can not evidence that profitability effect capital structure and also fail to show the mediating role of capital structure on the relationship beween profitability and stock return. Thus, current study suggests that potential investors who wish to invest are expected to pay attention to various fundamental factors such as the condition of the company's financial statements, one of the variables that can determine the condition of a good company is profitability. For managers, it is necessary to pay attention to the value creation of profitability and create a sustainability profitable firm as it may become a promising determinant to boost the stock return.

This study also suffers from several limitations. The study and examination of research hypothesis is only carried out in one sector, the manufacturing sector, so that the results will be different if tested on other sectors. Other researchers are expected to be able to test the data contained in other sectors and in the following period.

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