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The Effect of DER and ROE on PBV in Construction and Building Sub-Sector Companies Listed on the IDX for the Period 2012-2016

Berry Izzah Antika [1]
[1] Sekolah Tinggi Ilmu Ekonomi, Jakarta, Indonesia

Corresponding Author: Berry Izzah Antika, Email: berryaja28@gmail.com

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ABSTRACT

This study uses a quantitative method with an explanatory research type. The type of explanatory research is a study that aims to explain the causal relationship between one variable that affects other variables through Hypothesis testing. This study is used to test the concept in the Hypothesis on the effect of Debt to Equity Ratio (DER), Return on Equity (ROE) on Market to Book Value (PBV) in Construction Sector Companies listed on the Indonesia Stock Exchange for the period 2012-2016. Debt to Equity Ratio (DER) affects Price to Book Value (PBV) because DER reflects how much of the company is financed by debt. Return on Equity (ROE) is a ratio that shows how much net profit the company generates from each unit of shareholder equity. ROE is used by investors to assess the efficiency of the company in managing its own capital to generate profits.

INTRODUCTION

In the rapid development of the capital market recently, companies going public are competing to achieve their main corporate goals, which are no longer just to maximize profits but also to maximize the company's value. The higher the value of the company, the more prosperous its owner will be (Laksitaputri, 2012). The stock condition of the construction sub-sector issuers is predicted to be a favorite choice next year along with the rampant construction of government infrastructure projects. Looking at the sectoral index, the movement of the construction and property index throughout this year has indeed experienced a correction due to pressure in the property sector. Based on data from the Financial Services Authority (OJK), throughout the year (as of September 30, 2017), the construction property sector index experienced a correction of 3.41% (Savithri, 2017).

Robertus Yanuar, Head of Research Reliance Securities, projects that the construction sector will be the driving force behind the IHSG throughout 2018. This is because many infrastructure development projects will be completed this year and next year. Meanwhile, Riska explained that this year the construction sector has indeed started to climb, but in terms of sectoral index it is still being corrected because the property sector is in the red. Meanwhile, for next year's projection, the construction and property sector index will rise, boosted by the movement of construction issuers. Construction is capable of being a driver that can rise by 5% - 7%, while for property it is around 3%.

To achieve the company's value, investors generally hand over its management to professionals (Hasnawati, 2005:67). Company value can basically be measured through several aspects, one of the measures or proxies used is Price to Book Value (PBV) which is used to determine how far the company is able to create company value against the amount of capital invested, the higher the ratio the more successful the company is in creating value for shareholders. PT Waskita Karya Tbk (WSKT) has cash/cash equivalents of IDR 9.1 trillion. PT PP Tbk (PTPP) has cash/cash equivalents of IDR 6.5 trillion. Meanwhile, PT Adhi Karya Tbk (ADHI) has the smallest cash/cash equivalents, which is IDR 2.24 trillion.

Therefore, various efforts must be made to maintain cash flow such as by issuing bonds. Currently, several construction issuers are aggressively seeking funding, either through rights issues or by offering bonds (BEI, 2017). There are several factors that affect the company's value, one of the factors that is thought to affect the company's value is the debt to equity ratio (DER). The results of Hoque et.al. (2014) research found that DER has a significant positive effect on the company's value.

In addition to the DER factor, Return on Equity (ROE) is also thought to affect the company's value, as found by Triagustina (2013) that return on equity has a significant positive effect on the company's value. Languju et al (2016) also found that ROE has a significant and positive effect on the company's value. However, Wahyuningsih & Widowati (2016) found that ROE has a significant and negative effect on the company's value. Meidiawati & Mildawati (2016) found that ROE had no significant effect on company value.

LITERATURE REVIEW

Capital Structure

Martono & Harjito (2002:240) explain that capital structure is a comparison of a company's long-term funding as seen from the comparison of long-term debt with total equity. Therefore, in fulfilling the funding needs of a company must seek efficient funding alternatives. Efficient funding will occur if the company has an optimal capital structure. Based on these opinions, basically the capital structure is the company's permanent financing which consists of long-term debt, common stock and preferred stock.

The modern capital structure theory was first discussed by Modigliani & Miller (1958), they provided evidence that the choice between debt and equity financing has no significant impact on the value of the firm, therefore, the firm's management need not worry about the proportion of debt and equity because in the case of a perfect capital market, the combination of debt and equity is very similar to each other. However, the theorem is not relevant to Modigliani and Miller which is based on restrictive assumptions that do not exist in reality. Several capital structure concepts put forward by several experts include the following:

Traditional Approach

According to Sjahrial (2008:179), those who adhere to the traditional approach are of the opinion that in perfect capital market conditions and without taxes, the company's value can be changed by changing its capital structure. However, after a certain leverage ratio, the cost of debt and the cost of equity increase. The traditional approach suggests that there is a change in the optimal capital structure and an increase in the total value of the firm by using a certain amount of debt.

Operating Income or Net Operating Income (NOI) Approach

The NOI approach assumes that investors have different reactions to a company's use of debt. This means that if the company uses more debt, then the shareholders will get a smaller share of the profit. Therefore, the level of profit required by the capital owners themselves will increase as a result of the increasing risk of the company.

Modigliani and Miller Approach (MM Approach)

Martono & Harjito (2013: 262-263) said Franco Modigliani and MH Miller (abbreviated MM) opposed the traditional approach by offering a justification for the behavior of a constant level of corporate capitalization. MM argued that the total risk for all shareholders does not change even though the company's capital structure changes.

Trade-Off Theory

The trade-off theory of capital structure suggests that debt is beneficial to a firm because interest is tax deductible, but debt also incurs costs associated with actual and potential bankruptcy. The optimal capital structure is at a balance between the tax benefits of debt and the costs associated with bankruptcy. This is also called the balance theory.

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Pecking Order Theory

The pecking order theory states that companies tend to choose funding that comes from within rather than from outside the company. The company will only use external funding sources if internal sources are insufficient. This is not because the company has a low debt ratio target, but because the company requires little external funding sources. Companies that are less profitable will tend to have greater debt because internal funds are insufficient and debt is the main source of external funding.

Agency Theory

The agency cost theory begins with the agency problem that occurs in a company. Company management is an agent of shareholders and shareholders as owners of the company. In order to perform its functions properly, management must be given adequate incentives and supervision. Supervision can be done through ways such as auditing financial statements and limiting management activities, forming an organizational structure that can limit management from making decisions. Supervision activities require costs called agency costs.

Profitability

Profitability is a description of management performance in managing a company (Petronila & Muklasin 2003). The measure of profitability can be measured in various ways, namely: operating profit, net profit, rate of return on investment or assets and rate of return on owners. Angg (1997) stated that the profitability ratio or rentability ratio shows success in generating profits. Kusnawati (2005) said that profitability is the company's ability to generate profits in the future and is an indicator of the company's operational success. Horne & John (2005) said that the profitability ratio shows profitability in relation to sales (gross profit margin and net profit margin), and profitability in relation to investment, namely return on assets (ROA) return on equity (ROE). ROA is a comparison of net profit with the total assets of the company. While ROE is a comparison between net profit after tax with equity that will be invested by shareholders in the company. Return on Equity (ROE) is the rate of return on equity of the company's owners, which is reflected in the company's net assets. The increase in the ROE ratio over several years reflects the increase in the company's net profit, and can be used as an indicator of the increase in the company's value, which also results in an increase in the share price, which also means an increase in the company's value.

Company Value (Firm Value)

Khumairoh et al. (2016) stated that the purpose of establishing a company is to increase the company's value or the company's growth. The company's growth that is easily seen is the high assessment from external companies of the company's assets and the growth of the stock market. The company's value can be reflected through the stock price. The higher the stock price means the higher the rate of return to investors and that means the higher the company's value is related to the company's objectives, which is to maximize shareholder prosperity (Gultom & Syarif, 2008). A company is an organization that combines and organizes various resources with the aim of producing goods or services for sale (Salvatore, 2005). The main purpose of a company according to the theory of the firm is to maximize the wealth or value of the company (Salvatore, 2005). This means that by maximizing the value of the company also means maximizing the prosperity of shareholders.

The value of a company depends not only on its ability to generate cash flows, but also on the operational and financial characteristics of the acquired company. According to Husnan (2000), company value is the price that prospective buyers are willing to pay if the company is sold. Meanwhile, according to Keown et al. (2000), company value is the market value of the company's outstanding debt and equity securities. Several quantitative variables that are often used to estimate company value according to Keown et al. (2000) are as follows: (1) Book Value. Book value per share (BVS) is used to measure shareholders' equity for each share, and the value of BVS is calculated by dividing the total shareholders' equity by the number of shares outstanding; (2) Appraisal Value.

The appraisal value of a company can be obtained from an independent appraisal company. The appraisal value will also be useful in certain situations such as in financial companies, natural resource companies or for an organization operating at a loss; (3) Stock Market Value. The market value approach is one of the most frequently used in valuing large companies.

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RESEARCH METHODS

This study uses a quantitative method with an explanatory research type. The type of explanatory research is a study that aims to explain the causal relationship between one variable that affects another variable through Hypothesis testing (Cooper & Schindler, 2011:141). This study uses data from construction sector companies listed on the Indonesia Stock Exchange for 5 years (2012-2016). This study is used to conduct a concept test in the Hypothesis on the effect of Debt to Equity Ratio (DER) and Return on Equity (ROE) on Market to Book Value (PBV) in Construction Sector Companies listed on the Indonesia Stock Exchange for the period 2012-2016. Population is a collection of all elements that are the center of the research object (Supomo & Indriarto 2002). The population for testing the hypothesis in this study is all companies included in the construction and building sub-sector listed on the Indonesia Stock Exchange from 2012 to 2016. The sampling technique used was purposive sampling. This technique selects a specific target group to obtain information. Samples are determined for certain types of groups that can provide the information needed because the group is the only party that has the information or because the group is in accordance with the criteria set by the researcher. The type of data in this study uses secondary data, namely data that is available on the Indonesia Stock Exchange (www.idx.go.id), in this case financial reports. The data used are performance reports of companies that have been registered and published during 2012 to 2016. The data sources in this study are secondary data obtained from the official website of the Indonesia Stock Exchange. The analysis method used to test the hypothesis in this study is multiple regression, classical assumption test, and descriptive statistics are also used to provide an overview of the variables in this study. In addition, hypothesis testing is carried out, namely the t-statistic test and the simultaneous F-statistic test and the coefficient of determination to assess the feasibility of the regression model in this study. To conduct the test, the researcher used the SPSS program version 24.00.

RESULTS AND DISCUSSION

Hypothesis Testing

Partial Parameter Significance Test (t-Significance Test)

The t-statistic test is used to determine the influence of an independent variable individually in explaining the variation of the dependent variable (Ghozali, 2013:98). The level of significance (α) used is 5% (0.05). The criteria for accepting and rejecting the hypothesis are based on the significance value of the p-value. If the p-value (significance) > α, then the alternative hypothesis of the study is rejected. Conversely, if the p-value is greater (<) than α, then the alternative hypothesis in the study is neither rejected nor accepted (Ghozali, 2013:99).

The results of the partial hypothesis test can be seen in the following table.

Table 1. Statistical Test Results

Coefficients [a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	113,883	52,557		2,167	,038
	DER	,343	,285	,188	1,205	,237
	ROE	4,290	1,550	,432	2,769	,009

a. Dependent Variable: PBV

Source: SPSS Results

Hypothesis 1

The first hypothesis was conducted to determine whether there is an influence between the DER variable and PBV in construction companies listed on the IDX for the period 2012-2016. The hypothesis proposed is as follows:

Ho1 : DER does not have a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

Ha1 : DER has a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

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Based on table 1 above, it can be explained that the DER variable obtained a t-value of 1.205 and a significant value of 0.237. A significant value greater than 0.05 (0.617 > 0.05) indicates that Ho1 is accepted and Ha1 is rejected. These results indicate that DER does not have a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

Hypothesis 2

The second hypothesis was conducted to determine whether there is an influence between the ROE variable and PBV in construction companies listed on the IDX for the period 2012-2016. The hypothesis proposed is as follows:

Ho2 : ROE does not have a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

Ha2 : ROE has a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

Based on table 1 above, it can be explained that the ROE variable obtained a t-value of 2.769 and a significant value of 0.009. A significant value smaller than 0.05 (0.009 < 0.05) indicates that Ho2 is rejected and Ha2 is accepted. These results indicate that ROE has a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

Coefficient of Determination Test

According to Ghozali (2018) The coefficient of determination (R^2) measures how well the model explains the influence of independent variables on the dependent variable. The coefficient of determination has a value between 0 and 1. A low R^2 value indicates that the capacity of the independent factors to explain the dependent variable is limited. A value close to one indicates that the independent variables provide almost all the information needed to predict the variance of the dependent variable. The following are the results of testing the coefficient of determination in this study:

Table 2. Results of Determination Coefficient Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,506 [a]	,256	,209	134,87820

a. Predictors: (Constant), ROE, DER

Source: SPSS Results

Based on the analysis results, the Adjusted R-Square value in the four models shows the influence of variables on Stock Returns. The Adjusted R-Square value is 25.6%, which shows that together Market Risk and Company Size affect Stock Returns.

Simultaneous Test (F Test)

The simultaneous significance test aims to determine whether all independent variables simultaneously affect the dependent variable. If the probability value is significant at the α = 5% level, then the independent variables simultaneously affect the dependent variable (Ghozali, 2013: 98). The hypothesis proposed is as follows:

Ho3 : DER and ROE do not have a positive effect on PBV in construction and building sub-sector companies listed on the IDX for the period 2012-2016.

Ha3 : DER and ROE together have a positive effect on PBV in construction and building sub-sector companies listed on the IDX for the period 2012-2016.

The results of the significant test together are as follows.

Table 3. Simultaneous Test Results (F Test)

ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.158	2	.079	1.415	.045 [b]
	Residual	2,958	53	.056		

ANOVA [a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Total	3.116	55			

a. Dependent Variable: RS
b. Predictors: (Constant), UK, Market risk

Source: SPSS Results

Based on Table 3, the calculated F value is 3.638 and the significant F value is 0.016. The significant value obtained is less than 0.05 (0.016 < 0.05), meaning that Ho3 is rejected and Ha3 is accepted. Thus, the results show that DER and ROE are proven to have a positive effect on PBV in construction companies listed on the IDX for the period 2012-2016.

Discussion

The effect of DER on PBV

Debt to Equity Ratio (DER) affects Price to Book Value (PBV) because DER reflects how much the company is financed by debt. A high DER indicates that the company uses debt for operations to generate profits, which ultimately increases the company's value and stock price (PBV). Previous research Widyastuti (2016) showed that DER has a significant effect on PBV. The results of the first hypothesis are based on research conducted by Lestari, et al. (2012), Putri (2014), and Widyastuti (2016) which stated that DER has a significant effect on company value. This result also contradicts the opinion of Rakhimsyah & Barbara (2011) who explained that a high DER will show a large debt value, a large debt can be used as capital to rotate the company's activities in order to obtain profits which will later increase the company's value.

The effect of ROE on PBV

Return on Equity (ROE) is a ratio that shows how much net profit a company generates from each unit of shareholder equity (Dewi & Wirajaya, 2013). ROE is used by investors to assess the efficiency of a company in managing its own capital to generate profits. The higher the ROE, the better the company's financial performance, which can increase investor confidence and have an impact on increasing stock prices. The increase in stock prices will increase the company's value as measured by the Price to Book Value (PBV) ratio. Previous studies (Dewi & Wirajaya, 2013; Dewi et al., 2014) showed that ROE has a positive and significant effect on PBV, meaning that an increase in ROE is followed by an increase in company value. The results of the second hypothesis support previous research conducted by Dewi & Wirajaya (2013), Dewi et al. (2014) which stated that ROE has a positive and significant effect on company value. The higher the ROE, the higher the investor's trust, so the higher the profit for shareholders and the impact on company value. The following will explain the conceptual definition and operational aspects of each variable.

Conclusion and Suggestions

Conclusion

Based on the results of the research that has been conducted, the following conclusions were obtained:

1. DER does not have a positive effect on PBV in construction and building sub-sector companies listed on the IDX for the period 2012-2016.
2. ROE has a positive effect on PBV in construction and building sub-sector companies listed on the IDX for the period 2012-2016.
3. DER and ROE together influence the PBV variable by 0.327 (32.7%), and 0.673 is influenced by factors outside this research.

Suggestion

From the results of the research that has been conducted, it is recommended to the company's management to increase the company's profit by making efforts to make efficiency on operational costs and expanding projects/market share so that the company's sales increase, thus the rate of return on shareholder equity can increase, which then has an impact on the company's value.

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