International Conference on Business Economics, Social Sciences & Humanities

Economic Growth As A Moderating Variable In Firm Value Determination : Evidence From Property and Real Estate Sub Sector Companies Listed on IDX

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Abstract. This study aims to analyze economic growth as a moderating variable in firm value determination of the property and real estate sub-sector companies listed on the IDX. The independent variables used in this study are Return on Assets (ROA), Long Term Debt to Assets Ratio (LTDAR), Dividend Payout Ratio (DPR), and Sales Volume. Firm value in this study is proxied by Market Value Added (MVA). This study uses a quantitative approach and secondary data. The population of this study was 48 property and real estate sub-sector companies listed on the Indonesia Stock Exchange in 2012-2018, the sample selection was carried out by purposive sampling method so that a sample of 17 companies was obtained. The analytical method used is Moderated Regression Analysis (MRA). The results show that ROA and sales volume have a partial effect on firm value, LTDAR and DPR partially have no effect on firm value. The moderating variable used can strengthen the relationship between X and Y. The economic growth variable cannot moderate the ROA, LTDAR and DPR variables on firm value and can only moderate the sales volume variable on firm value.

1. Introduction

In general, every industry has several goals, namely short-term and long-term goals. The short-term goal of a company is nothing but profit-oriented or obtaining maximum profit by utilizing existing resources, while the long-term goal of a company is to increase the value of the company and increase the prosperity of its shareholders [1]. Every company is required to increase the value of its company, because the value of the company is a factor that will be considered by investors to invest their capital [2]. Firm value is an investor's perception of the company's level of success which is often associated with stock prices. The movement of shares in the property, real estate and building construction sectors is very volatile and even tends to decline compared to stocks from other sectors. Property and real estate stock index in 2018 was at -9.64% [3]. This figure makes the property and real estate sector one of the 5 sectors that have the lowest position during the period 2017 to 2018. The ups and downs of stock prices can show how the performance and company value of the sector in a certain period.

The value of the company that is often seen by investors can be reflected in the financial performance of a company. Profitability is the company's ability to generate net income from activities carried out by the company in an accounting period [1]. One of the ratios that measure the level of company profitability is return on assets (ROA). This ratio measures how much profit the company

PROCEEDING BOOK
The 4th International Conference on Business, Economics, Social Sciences, and Humanities 2021
ISBN: 978-623-95562-1-1

will receive by using all existing assets. Companies that have a high ROA will attract investors to invest, and this reflects a good company value [4]. This is supported by research conducted by AA Ngurah Dharma Adi Putra and Putu Vivi Lestari [2], Casmira S [5], and Wiharjo [6], which states that ROA has an effect on firm value. Every increase in the company's financial performance must be supported by sufficient capital, the source of capital that can be used is debt. Leverage is the use of fixed costs in an effort to increase profitability [7]. Long-term debt to assets ratio (LTDAR) is a ratio that measures how much debt can finance fixed assets. The higher the LTDAR ratio, the greater the company's ability to add assets to the company's activities. There is a positive influence between leverage and firm value, so that if the company has a high leverage ratio, it will give a positive signal for its firm value. This is supported by research conducted by I Nyoman Agus Suwardika and I Ketut Mustanda [8]. Based on the theory of Myron Gordon and John Lintner in 1963 which was named The Bird In The Hand, investors prefer dividends to capital gains. Because investors prefer predictable returns over capital gains that do not necessarily increase in the future [9]. One of the ratios used to measure the rate of return on dividends is the dividend payout ratio (DPR). A high percentage of dividend distribution will make investors more interested in investing in the company and will increase the value of the company. This is supported by research conducted by AA Ngurah Dharma Adi Putra and Putu Vivi Lestari [2], Ni Kadek Rai Prastuti dan Gede Merta Sudiartha [10]. In addition, things that will reflect a good company value are seen from the size of the sales volume. Sales volume is the result of sales activities in an effort to achieve the goal of achieving maximum profit [11]. High sales volume indicates the company's revenue will be high. Due to the large sales volume, companies and investors will pay attention to the level of company productivity during one operating period. If the sales volume increases, the company's level of profitability will also increase, thus having an impact on the value of the company [12].

Not only the company's financial performance as described above, the value of the company can also be influenced by external factors. One of the external factors that can affect the company's financial performance is economic growth. Economic growth is a process of economic development that can be seen from several periods. This economic growth reflects changes in a country's economy from period to period [13]. Economic growth is an increase in the long-term capacity of the country concerned to provide various economic goods for its population [14]. If we look at the time span of 2012 – 2018, economic growth in Indonesia has not experienced a significant development. The year 2012 was the highest economic growth rate of 6.19% [15]. When economic growth increases, people's purchasing power also increases. This is because the level of gross national product which is one of the indicators of economic growth has also increased. This increase in purchasing power will affect the level of company productivity, so that economic growth conditions in a country can strengthen or weaken the value of the company.

This study aims to determine how the influence of ROA, LTDAR, DPR, Sales Volume, Economic Growth on Firm Value, and how economic growth as a moderating variable in determining firm value. This research was conducted on property and real estate sub-sector companies listed on the IDX. The test method used in this research is Moderated Regression Analysis (MRA). The results showed that ROA and sales volume had a partial effect on firm value, LTDAR and DPR partially had no effect on firm value. The economic growth variable cannot moderate the ROA, LTDAR and DPR variables on firm value and can only moderate the sales volume variable on firm value.

2. Research Method

The research method used in this study is a quantitative approach method. The type of data used is secondary data and is a cross section and time series data. The data used are in the form of financial statements of property, real estate and building construction companies listed on the Indonesia Stock Exchange for the period 2012-2018. From a total population of 48 companies, researchers used 17 samples for 7 years which were selected based on purposive sampling, and totaled 119 financial statements. And data collected from www.idx.co.id and the company's official website. The data in this study were processed using SPSS 21.

The dependent variable is the variable that is the main concern of the researcher or is also called the main research variable [16]. The dependent variable (dependent) used in this study is Firm Value (Y) measured using the Market Value Added (MVA) ratio. The independent variable is the variable that affects or is the cause of the change or the emergence of the dependent (bound) variable [16]. The independent variables in this study are ROA, LTDAR, DPR, and sales volume. Moderating variables are variables that have a strong dependence effect on the relationship between the dependent and independent variables, where the presence of this variable will change the initial relationship between the independent and dependent variables [16]. The moderating variable used in this study is economic growth.

To test the relationship between the independent variable, the dependent variable, and the moderating variable, multiple linear regression analysis was used, the regression equations are described as follows:

$$FValue = a + \beta_1 ROA + \beta_2 LTDAR + \beta_3 DPR + \beta_4 SVol + \varepsilon \quad (1)$$

To test the relationship between the independent and dependent variables in which there were factors that strengthened or weakened (moderating variables). The test used moderated regression analysis (MRA), the regression equations are described as follows:

$$FValue = a + \beta_1 ROA + \beta_2 LTDAR + \beta_3 DPR + \beta_4 SVol + \beta_5 EG + \beta_6 ROA\varepsilon * EG + \beta_7 LTDAR * EG + \beta_8 DPR * EG + \beta_9 \quad (2)$$

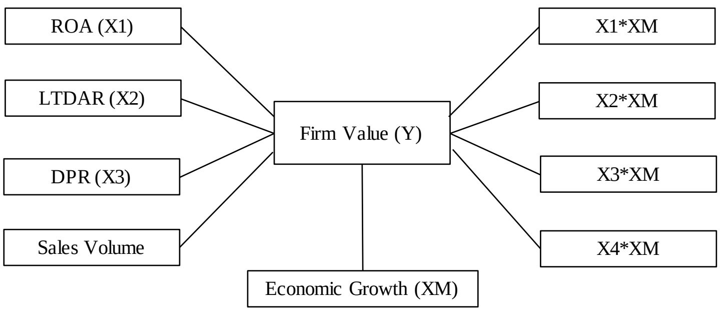

Figure 1. Research model

3. Results and Discussions

4. Result

4.1.1. Result Model I

Table 1. Partial t-test results Model I

Coefficients[a]

Model		*Unstandardized Coefficients* B	*Unstandardized Coefficients* *Std. Error*	*Standardized Coefficients* Beta	T	Sig.
1	(*Constant*)	-113638569252436	17327836818050		-6.558	.000
	ROA	703274787035	172494281427	.299	4.077	.000
	LTDAR	68161377640	58865770250.	.093	1.158	.249
	DPR	7097528532	13810116265	.036	.514	.608
	Sales Volume	4079294905092	525010213871	.602	7.770	.000
	Economic Growth	43675923309	1478326464081	.002	.030	.976

a. Dependent Variable: Firm Value

ISBN: 978-623-95562-1-1

Based on the results of the partial significance test (t test) show that :

a. The ROA variable gets the t-count and t-table values of 4.08 > 1.98137, with a significance value of 0.000 or <0.05, meaning that H0 is rejected. H1a is accepted. So it can be said that partially ROA has an effect on company values.
b. The LTDAR variable gets the t-count and t-table values of 1.15 < 1.98137, with a significance value of 0.25 or > 0.05, meaning that H1b is rejected. So it can be said that the LTDAR variable has no effect on firm value partially
c. The DPR variable has a t-count and t-table value of 0.51 < 1.98137 with a significance value of 0.61 or > 0.05, meaning that H1c is rejected. So it can be said that partially the DPR variable has no effect on Firm Value.
d. The Sales Volume variable gets t-count and t-table values of 7.77 > 1.98137, with a significance value of 0.000 or <0.05, meaning that H1d is accepted. So it can be said that partially sales volume has an effect on firm value.

Table 2. Uji F Model I

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	459397925113346400000000000	5	91879585022669280000000000	21.087	.000[b]
	Residual	492350776157150350000000000	113	4357086514665047000000000		
	Total	951748701270496700000000000	118			

a. Dependent Variable: Firm Value

b. Predictors: (Constant), Economic Growth , DPR, LTDAR, ROA, Sales Volume

Based on the results of the F test (simultaneous) in table 2 above, the value of sig. As much as 0.000 or <0.05 and Fcount Ftable (21.07 2.31), then H0 is rejected. Ha is accepted. As the basis for decision making, it is concluded that simultaneously the variables ROA (X1), LTDAR (X2), DPR (X3), Sales Volume (X4), and Economic Growth (XM) can affect Firm Value and significantly. This means that H0 is rejected, Ha is accepted.

4.1.2. Result Model II

Table 3. Partial t-test results Model II

Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	T	Sig.
		B	Std. Error	Beta		
1	(*Constant*)	-834155123078357	134438128266685		-6.205	.000
	ROA	4311200546772	2166117585969	1.830	1.990	.049
	LTDAR	-1285007844518	713265387816	-1.748	-1.802	.074
	DPR	152001813939	212503578595	.762	.715	.476
	Sales Volume	30193693402303	5101306546197	4.456	5.919	.000
	Economic Growth	132353672433382	24601448755626	6.260	5.380	.000
	ROA* Economic Growth	-682680335325	409352358413	-1.566	-1.668	.098
	LTDAR* Economic Growth	253268808424	135127093364	1.788	1.874	.064
	DPR* Economic Growth	-26056544600	39444998150	-.706	-.661	.510
	Sales Volume * Economic Growth	-4798157261514	936965039944	-6.586	-5.121	.000

a. *Dependent Variable*: Firm Value

Based on the t-test table, the second equation after the moderating variable shows that:

a. The interaction relationship between ROA (X1) and Economic Growth (XM) or (X1XM) variables is known that the significance level is 0.098 > 0.05 and the t-count < t-table is -1.668 < 1.98137. Thus, economic growth does not moderate ROA on firm value (not a moderator).

b. The interaction relationship between LTDAR (X2) and Economic Growth (XM) or (X2XM) variables, it is known that the significance level is 0.064 > 0.05, so it is not significant and the t-count < t-table is 1.874 < 1.98137. Thus, economic growth does not moderate LTDAR to firm value (not a moderator).
c. The interaction relationship between the DPR (X3) variable and Economic Growth (XM) or (X3XM), it is known that the significance level is 0.510 > 0.05, so it is not significant and the t-count < t-table is 0.661 < 1.98137. So, this economic growth does not moderate the DPR on the value of the company (not a moderator).
d. The interaction relationship between Sales Volume (X4) and Economic Growth (XM) or (X1XM) variables is known that the significance level is 0.000 < 0.05 so it can be said to be significant and the t-count > t-table is -5,121 > 1.98137. Thus, economic growth can moderate sales volume to firm value (pure moderator).

Table 4. Uji F Model II

ANOVA[a]

Model		*Sum of Squares*	Df	*Mean Square*	F	Sig.
1	*Regression*	5707738126368335000000000000	9	634193125152037100000000000	18.145	.000[b]
	Residual	3809748886336632400000000000	109	34951824645290205000000000		
	Total	9517487012704967000000000000	118			

a. *Dependent Variable*: Firm Value
b. *Predictors*: (*Constant*), ROA , LTDAR, DPR, Sales Volume, Economic Growth , ROA*Economic Growth , LTDAR*Economic Growth , DPR*Economic Growth , Sales Volume*Economic Growth .

Based on the results of the F test (simultaneous) in table above, the value of sig. of 0.000 or <0.05 and Fcount Ftable (18.145>2.31). As the basis for decision making, it can be concluded that simultaneously ROA (X1), LTDAR (X2), DPR (X3), Sales Volume (X4) variables can affect Company Value with Economic Growth as a moderating and significant variable.

Table 5. Coefficient of Determination Test (R^2)
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Model Summary[b]

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.774[a]	.600	.567	5912006820470.5

a. *Predictors*: (Constant), Sales Volume*Economic Growth, DPR, LTDAR, ROA, Sales Volume, LTDAR*Economic Growth, ROA*Economic Growth, DPR*Economic Growth, Economic Growth
b. Dependent Variable: Firm Value

Based on the table above, R Square is 0.600, it can be concluded that the percentage of the influence of ROA, LTDAR, DPR, Sales Volume on Firm Value with economic growth as a moderating variable simultaneously is 60%.

5. *Discussion*

5.1.1. Effect of ROA, LTDAR, DPR, Sales Volume and Economic Growth on Firm Value

ROA (X1) has an effect on Firm Value (Y) in property and real estate sub-sector companies listed on the Indonesia Stock Exchange. In this case the return on assets affects the value of the company because any increase resulting from this ROA gives a positive signal for investors. This indicates that the company is able to properly manage existing assets in order to maximize the desired profit of the

ISBN: 978-623-95562-1-1

company and to maximize the welfare of investors. In signaling theory, when a company gives a positive signal to investors, investors will be interested in investing, because it is considered that the company is able to improve its financial performance.

Companies that have a high ROA and high company value, one of which is PT.Bekasi Fajar Industrial Estate, Tbk, with an ROA value of 22.17% (in 2013) This is because the assets in the company generate a fairly high profit after tax during period 2012 – 2018 and coupled with a decrease in selling expenses and no financial burden. In addition, in 2013 PT. Bekasi Fajar Industrial Estate, Tbk has a high amount of cash and cash equivalents due to an increase in sales of their products.

Overall, the results of this study support research with research results that companies with positive ROA values can describe positive company values. So that high ROA information will be a positive signal for investors that can increase investor prosperity. [17] This is supported by research conducted by AA Ngurah Dharma Adi Putra and Putu Vivi Lestari [2], Casmira S [5], and Wiharjo [6], which states that ROA has an effect on firm value.

Long Term Debt To Assets Ratio (X2) has no effect on Firm Value (Y). Which states that the leverage ratio has no significant effect, because financing through debt is better but if it is used for needs that require large costs and in the long term. [18]. Financing through debt is an option that is quite profitable but also risky. Because when the company borrows, the company will bear the interest expense. However, financing through debt will be profitable if the company can arrange financing through debt. If the debt is used as effectively and efficiently as possible, the company will feel the positive benefits of debt without ignoring the business risks it will cause, and vice versa. This is supported by research conducted by Maria Hendriani [18].

PT. Plaza Indonesia Realty, Tbk is one of the 17 samples of companies in this study that have a high LTDAR ratio but the company value is still high. So, in this sector having high long-term debt is natural, because of high operational costs too. When a company has a high level of operational and financial leverage, the company's level of dependence on external parties is also high [7]. In the property and real estate sub-sector, the use of debt has become a natural thing, because the projects they run really require large funds and with long rates of return. Therefore, companies prefer to use debt to further improve operations and profits.

DPR (X3) has no effect on Firm Value (Y). Of the 17 companies sampled, there are 9 companies that do not distribute dividends constantly, namely PT. Agung Podomoro Land, Tbk, PT. Alam Sutera Realty, Tbk, PT. Bekasi Fajar Industrial Estate, Tbk, PT. Sentul City, Tbk, PT. Duta Anggada Realty, Tbk, PT. Intiland Development, Tbk, PT. Megapolitan Development, Tbk, PT. Plaza Indonesia Realty, Tbk and PT. Roda Vivatex, Tbk. However, PT. Plaza Indonesia Realty, Tbk distributes dividends with a percentage of 367.01% and this is because most companies use the previous year's profit to distribute dividends.

Sales volume has an effect partially on firm value. In this study, the company that has the highest sales volume is PT. Lippo Karawaci, Tbk to be exact in 2018. The increase in sales volume was due to an increase in revenue from the hospital business unit. Even though the units sold are few, if the selling value is high, it will have a big impact on the company's profits.

5.1.2. Economic Growth As A Moderating Variable In Firm Value Determination

The results of this study indicate that economic growth has a positive and significant effect on strengthening the relationship between ROA, LTDAR, DPR, and Sales Volume on Firm Value. It can be explained that when economic growth increases, the company's performance will increase along with the increase in people's income. However, when economic growth declines, it will not have a significant impact on company value, including property and real estate sub-sector companies. In this sector, economic growth will not affect people's purchasing power for their basic needs. A place to live (house) is one of the basic needs of the community, and economic growth will not hinder people's investment in assets with a higher selling value in the future.

6. Conclusion

From the results of the study, it is known that ROA has an effect on firm value, a high ROA will give a positive signal to the market so that the value of the company will increase. LTDAR has no effect on firm value, this shows that the amount of long-term debt in this sector gives a signal to investors, because high levels of corporate debt will also provide high business risk, one of which is due to interest expense. DPR has no effect on the value of the company, because not all companies that have a stock of profits to distribute dividends when distributing dividends in large amounts. Sales volume affects the value of the company, high sales volume indicates that the company's operational activities are also high, and will generate high profits. The economic growth variable cannot moderate the ROA, LTDAR and DPR variables on firm value and can only moderate the sales volume variable on firm value. The high rate of economic growth is a driving factor for companies to increase sales volume in the market, so companies that have high sales volumes will give a positive signal to investors because of the company's high operating activities.

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