

## HOW CORPORATE RISK MANAGEMENT AND OTHER FACTORS HAVE AN IMPACT ON THE VALUE OF PROPERTY AND REAL ESTATE COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (IDX) DURING 2015 – 2018

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### ABSTRACT

*The objective of this study is to analyze the effects of Enterprise Risk Management disclosure, leverage, firm size and profitability to firm value which is proxied by Tobin's Q. Population of this study are property and real estate companies listed on the Indonesian Stock Exchange (IDX) during the years 2016-2018. This study uses purposive sampling to determine sample size, so that 32 companies are used as sample. Data source used comes from the company annual report. This study uses quantitative approach with descriptive analysis methods and panel data regression to test hypotheses using Eviews 10 application. The results of this study found that Enterprise Risk Management disclosure has a positive and significant influence on firm value with a significance, leverage and profitability variable also have a positive significant influence on firm value, while firm size has negative influence on firm value. The result of the Determination Test shows that the adjusted R-square value is 0.932090 or 0.932. This value shows that enterprise risk management, debt to equity ratio, company size (size) and returns on assets are able to explain or provide information on firm value (Tobin's Q) of 93.2% while the remaining 6.8% is explained by other variables in outside research that is not included in research that can affect the level of firm value (Tobin's Q). The implication of this research is that where ERM has a positive influence on firm value, it is good for companies to increase ERM disclosure, because the company will be considered to have managed its risks well. Debt policy variables that are proxied by DER and profitability proxied by ROA have a positive effect on firm value. The company should increase debt where by using a large debt indicates the company has many opportunities for expansion or growth, and also increase income so that the company's value can increase. However, the company's size variable which is proxied by Ln Total Assets has a negative effect on the value of the company, which indicates that investors dislike the assets of the company that are too high that is not offset by high profits as well.*

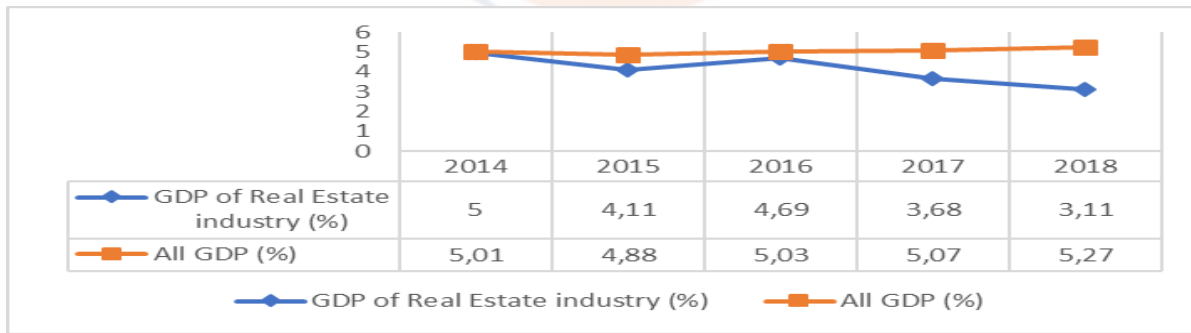
Key words: Enterprise Risk Management, Leverage, Firm Size, Profitability, Firm Value

### 1. INTRODUCTION

Property and real estate sector companies are companies engaged in the construction of land and buildings along with facilities and infrastructure to complement them. In Indonesia, property and real estate is one of the most popular investments among many people, this is supported by the high population of Indonesia. According to BPS projections of around 265 million people in 2018 (bps.go.id), thus the need for housing, recreational areas, entertainment facilities and other infrastructure will get bigger, besides that the price of land and buildings tends to increase every year. The need for managing risk will increase a company with a larger size, a large total asset indicates that the company has reached the maturity stage, which means that the risks faced are also increasingly complex. The importance of risk management is to maintain company value. Companies that have better performance will have an impact on increasing the size of the company, so that investment is more likely to create value for shareholders.

However, the property and real estate sector are an industry with characteristics that are difficult to predict so it has a high risk. It is difficult to predict, meaning that when there is high economic growth and macroeconomic conditions are in good condition, the property and real estate industry is booming and over supplied, but on the other hand, when economic growth is experiencing a decline and macroeconomic conditions are in recession, this sector will quickly experience a pretty drastic decrease too. As is currently being experienced by the real estate sector, it is evidenced by the decline in the growth of the contributor to gross domestic product (GDP), as seen in Figure 1.1:

**Figure 1.1 Real Estate GDP Growth Chart at Current Prices (%) 2014-2018 Second Quarter**



source: bps.go.id (data processed)

The graph depicts the difference in conditions that occur in which the overall GDP growth is stagnant, while the contribution of GDP from the real estate sector has decreased growth from 2016 to the second quarter of 2018, where real estate GDP only grew 3.11%, and is the lowest growth since 2016.

Apart from the slowdown in growth, another problem in the property and real estate sector is its share price, where this sector recorded that share prices tended to decline in the 2015-2018 period, as seen in Figure 1.2:

**Figure 1.2 Data on the Movement of the Property and Real Estate Sector Stock Price Index 2015 - 2018 period**



Source: yahoo finance (data processed)

One of the causes for the slowdown in growth occurred as a result of banks tending to be careful in distributing property loans and causing sluggish purchasing power, as consumers find it difficult to accept credit. This is also an impact of the slowdown in commercial property ownership credit which also continues to increase, as evidenced by BI (central bank) data on non-performing loans (NPL) for shop houses or office houses, which increased from the end of 2016 in the range of 3.88% in May 2017 to 4, 48% (Detik finance).

The purpose of this study is to determine the value of the company which can affect investors' perceptions of the company. The company's value does not only reflect how intrinsic value is at present but also reflects the prospects and expectations of the company's ability to increase its wealth value in the future. In order to increase company value, managers are expected to be able to manage company finances effectively and efficiently. Literally, company value is measured from the fair market value of the stock price. Tobin's Q is an indicator to measure company performance, especially for firm value, which shows a management proforma in managing management assets [23]. Tobin's Q is used because it provides an overview not only of fundamental aspects, but also the extent to which the market assesses the company from various aspects seen by a wide range of parties including investors. If the value of Tobin's Q is between 0-1, it indicates that the company's shares are undervalued, whereas if Tobin's Q shows > 1 it indicates that the market value is greater than the company value. In addition, the Tobin's Q value also describes the company's performance, if the Tobin's Q value is more than 1 then the company's performance is good, but if the Tobin's Q value is less than 1 then the company's performance is considered to be less than good. The greater the Tobin's Q value, the better the company's performance.

In the property and real estate industry, one of the risks that must be faced is financing or sources of funds, where the main source of funds in this sector is generally obtained through credit in the banking sector while this sector operates using fixed assets. In addition, there is a risk of rupiah depreciation, this occurs because many property issuers have debt in the form of US dollar bonds, this has the potential to erode the company's cash. According to Moody's research, several companies such as MDLN, ASRI, BSDE, PWON, LPKR and APLN have this risk.

Several previous studies regarding the effect of ERM on firm value have been conducted, including research [20], which showed that the ERM variable had a positive and insignificant effect on firm value (firm value). Research Li, et al.[19], concluded that the ERM variable has a positive and insignificant effect on firm value. Research by Tahir and Razali [31], concluded that ERM has a positive and insignificant effect on firm value. Meanwhile, research conducted by Hoyt and Lienbenberg [14], concluded that the ERM variable has a positive and significant effect on firm value. The application of the ERM system is seen as a value driver and not a cost for the company. Rizqia et al. (2013) in Suwardika and Mustanda [30] state that the factors that in principle affect firm value are leverage, company size, and profitability. In this study, debt policy, firm size and profitability are used as independent variables that affect firm value.

Based on Table 1.1 below, it can be seen that the company value is calculated by the Tobin's Q ratio of several companies, namely Agung Podomoro Land (APLN), Bukit Darmo Properti (BKDP), Bumi Serpong Damai (BSDE), Ciputra Development (CTRA) and Lippo Karawaci. (LPKR) tends to experience a decline in 2016-2018 on the Indonesia Stock Exchange. This could be due to a decrease in equity, which is very likely an indication that the company is losing money. If the company continues to lose, it is not impossible that the company's equity will be negative so that the Tobin's Q ratio is negative. In addition, it could also be caused by the decline in the quality and fundamental performance of the issuer concerned.

**Table 1.1. Samples of Tobin's Q, DER, Ln Total Assets, and ROA data from several property and real estate companies listed on the IDX 2016-2018**

Company's Name	Year	Tobins Q	DER	Ln Total Aset	ROA (%)
Agung Podomoro Land Tbk. - APLN	2016	0,77	1,58	30,878	3,65
	2017	0,74	1,5	30,991	6,54
	2018	0,69	1,42	31,018	0,65
Bukit Darmo Property Tbk. - BKDP	2016	0,91	0,44	27,388	-3,69
	2017	1,02	0,57	27,387	-5,51
	2018	0,94	0,65	27,361	-4,8
Bukit Darmo Property Tbk. - BSDE	2016	1,24	0,58	31,283	5,32
	2017	1,08	0,57	31,459	11,29
	2018	0,88	0,72	31,584	3,27
Ciputra Development Tbk.- CTRA	2016	1,22	1,03	31,001	4,03
	2017	1,21	1,05	31,088	3,21
	2018	1,06	1,06	31,166	3,8
Lippo Karawaci Tbk.- LPKR	2016	0,88	1,07	31,451	2,69
	2017	0,67	0,9	31,670	1,51
	2018	0,61	0,96	31,539	3,47

Source: www.idx.co.id, 2018 (data processed)

The fact that what happened was that the DER at Bukit Darmo Properti (BKPD) increased in 2016- 2017 but the company value decreased. Furthermore, DER Ciputra Development Tbk (CTRA) increased in 2016-2018 but the value of the company decreased. This is not in accordance with MM Theory (Merton Miller and Franco Modigliani) which states that an increase in debt can increase company value if it has not reached its optimal point, this is reinforced by the Trade Off Theory which explains that the use of debt can reduce tax burdens and company agency costs (Brigham &Houston, 2013).

For the size of the company, Agung Podomoro Land (APLN) from 2016-2018 continued to increase while the company value continued to decline. Bumi Serpong Damai (BSDE) and Ciputra Development (CTRA) experienced the same thing, where company size continued to increase but company value decreased. Whereas in Lipo Karawaci (LPKR) the size of the company continued to increase from 2016-2017 but the company value decreased. The above is not in accordance with the theory of Pangemanan and Mawikere (2011) company size also determines the level of investor confidence. Which will increase the value of the company.

Next is the profitability (ROA) of several property and real estate companies listed on the Indonesia Stock Exchange. It is known that the ROA of Agung Podomoro Land Tbk (APLN) increased in 2016- 2017 but the company value decreased. The ROA of Bukit Darmo Properti (BKDP) decreased even negatively in 2017-2018 but the company value increased. ROA Bumi Serpong Damai (BSDE) increased in 2017 -2018 but its company value decreased. The same thing happened to Lippo Karawaci (LPKR) where the company value increased in 2016-2017 but the company value decreased. Of course, this fact is not in accordance with the statement according to Brigham and Houston (2013) which states that increased profitability will increase investor interest in the company's stock price so that the company's value will also increase.

Several previous studies on the effect of ERM on value of the company have been conducted, including research by Mulyasari et al (2013), which shows that the ERM variable has a positive and insignificant effect on firm value (firm value). In his research, Li, et al. (2014) concluded that the ERM variable has a positive and insignificant effect on firm value. Research by Tahir and Razali (2011) concluded that ERM has a positive and insignificant effect on firm value. Meanwhile research conducted by Hoyt and Lienbenberg (2008), concluded that the ERM variable has a positive and significant effect on firm value. Furthermore, Bertinetti, et al. (2013), in their research found that the application of ERM has a significant positive impact on firm value. The application of the ERM system is seen as a value driver and not a cost for the company.

## 2. METHODS

### 2.1. Methods

The population in this study are property and real estate sector companies listed on the IDX for the period 2016 - 2018 which consists of 47 companies. The sampling technique is purposive sampling, and those that meet the criteria in this study are 34 companies, so the number of data that could be taken and used is 96 data.

The list of companies included in the sample of this study are as follows:

**Table 2.1. List of Property and Real Estate Sector Companies**

No	EMITTEN CODE	Company's Name
1	APLN	Agungpodomoro land Tbk
2	ASRI	Alamsutera reality Tbk
3	BEST	Bekasi fajar industrial estate
4	BIKA	Bina karyajayaabadi
5	BIPP	Bhuwanatalaindahpermai
6	BKDP	Bukit darmo property
7	BSDE	Bumiserpongdamai
8	COWL	Cowell development
9	CTRA	Ciputra development
10	DART	Duta anggada realty
11	DILD	Intiland development Tbk
12	DMAS	PuradeltalestariTbk
13	DUTI	Duta pertiwiTbk
14	EMDE	Megapolitan development Tbk
15	FMII	Fortunemate Indonesia Tbk
16	GPRA	PerdanaGapura Prima
17	GWSA	Greenwood Sejahtera
18	JRPT	Jaya Real Property
19	KIJA	KawasanIndustriJababeka
20	LPCK	Lippo Cikarang
21	LPKR	Lippo Karawaci
22	MDLN	Modern land Realty
23	MTLA	Metropolitan Land
24	OMRE	Indonesia Prima Property
25	PPRO	PP Property
26	PLIN	Plaza Indonesia Realty
27	PWON	PakuwonJati
28	RBMS	RistaBintangMahkotaSejati
29	RODA	Pikko Land Development
30	SCBD	DadanayasaArthatama
31	SMRA	SummareconAgung
32	TARA	SitaraPropertindo

Source: www.idx.co.id, 2018 (data processed)

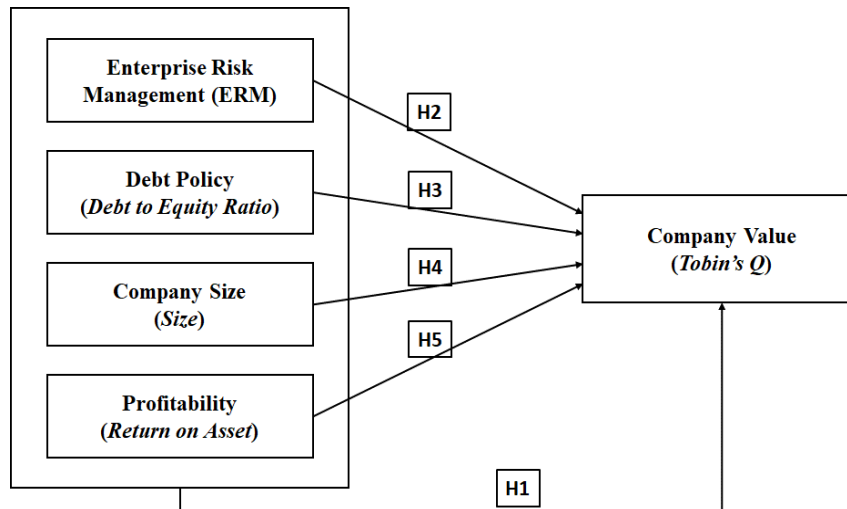


## 2.2. The conceptual framework

The conceptual framework is a conceptual model of how theory relates to several factors that have been identified as important issues. The independent variable of this study is Enterprise Risk Management with independent control variables of debt policy, company size, profitability, company growth and interest rates, while the dependent variable in this study is firm value.

The conceptual framework of this research can be described as follows:

Figure 2.1 Conceptual framework



## 2.3. Research Hypothesis

Based on the background of the problem, problem formulation and conceptual framework, the hypotheses in this study are:

- H1: Enterprise risk management (ERM), debt policy (DER), company size (Size), and profitability simultaneously affect firm value in property and real estate sector companies listed on the IDX.
- H2: Enterprise risk management has a positive effect on firm value in property and real estate sector companies listed on the IDX.
- H3: Debt policy has a negative effect on firm value in property and real estate sector companies listed on the IDX.
- H4: Company size has a positive effect on firm value in property and real estate sector companies listed on the IDX.
- H5: Profitability has a positive effect on firm value in property and real estate sector companies listed on the IDX.

The operational definition and measurement of variables in this study are:

Table 2.2 Operational Definition of Variables

No	Variable	Indicator	Scale
1	Company Value (Y) - Dependent Variable	$Q = \frac{\text{Market value of equity} + \text{Book value of debt}}{\text{Book value of total asset}}$	Ratio
2	Enterprise Risk Management (X1)	$\text{ERM} = \frac{\text{Total Asset Disclosed}}{108}$	Ratio
3	Debt Policy (X2)	$\text{DER} = \frac{\text{Total liabilities}}{\text{Total equity}}$	Ratio
4	Company Size (X3)	$\text{Size} = \text{Ln Total Asset}$	Ratio
5	Profitability (X4)	$\text{ERM} = \frac{\text{Net Profit}}{\text{Total Asset}}$	Ratio

Source: data processed

To determine the relationship between the dependent variable and the independent variable, the statistical analysis used is panel data regression analysis. The multiple linear regression equation model in this research is as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

The dependent variable in this study is Firm Value, while the independent variables are Enterprise Risk Management (ERM), Debt Policy, Company Size, and Profitability, as follows:

Information:

Y = Company Value (Tobins'Q)

$\beta_0$  = Constant

$\beta_1$  = Enterprise Risk Management regression coefficient (ERM)

$\beta_2$  = Debt Policy regression coefficient (DER)

$\beta_3$  = Firm Size regression coefficient (Size)

$\beta_4$  = Profitability regression coefficient (ROA)

X1 = Enterprise Risk Management (ERM)

X2 = Debt Policy (DER)

X3 = Company Size (Size)

X4 = Profitability (ROA)

$\varepsilon$  = error term

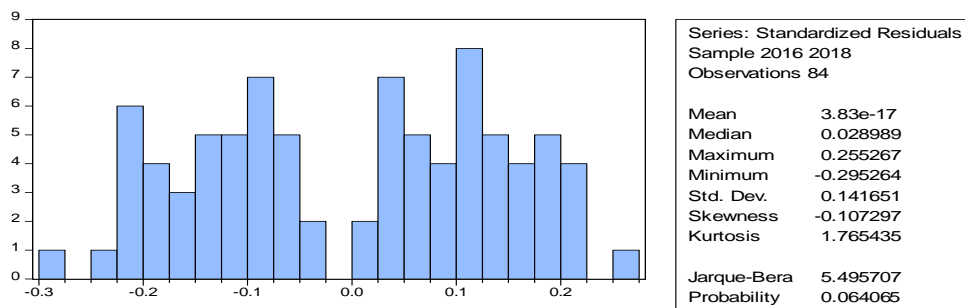
To provide certainty that the regression equation obtained has accuracy in estimation, unbiased and consistent, classical assumption testing is used which consists of the multi-collinearity test, auto-correlation test, heteroscedasticity test and normality test.

## 2.4 Classical Assumption Test

### 2.4.1 Normality Test

The normality test is conducted to test whether the confounding or residual variables in the regression model have a normal distribution or not. The normality test was carried out by the Jarque-Bera Test (JB). If the probability value is greater than 0.05, the data is normally distributed.

Figure 2.2 Result of the Normality Test of Jarque-Bera (JB)



Source: Results of processing Eviews 10, 2019

Based on Figure 4.1 shows that the results of the normality test obtained the Jarque-Bera (JB) value of 5.495707 with a probability of 0.064065. Because the probability value is  $0.064065 > 0.05$ , it can be concluded that the data used in this study have been normally distributed.

### 2.4.2 Multi-collinearity Test

The multi-collinearity test was conducted to test whether there was a linear relationship between the independent variables (Nachrowi and Usman, 2006). The multi-collinearity test was carried out by using the pairwise correlation test. If the correlation value of each independent variable is  $< 0.80$ , then there is no multi-collinearity problem.

**Table 4.6 Pairwise Correlation Multi-Collinearity Test Results**

Weighted Statistics			
R-squared	0.991987	Mean dependent var	2.927440
Adjusted R-squared	0.986699	S.D. dependent var	2.512398
S.E. of regression	0.182504	Sum squared resid	1.665391
F-statistic	187.5823	Durbin-Watson stat	2.630329
Prob(F-statistic)	0.000000		

Source: Results of processing Eviews 10, 2019

Based on table 4.7, it is known that the Durbin-Watson value statistic generated by the selected model Fixed Effect Model (REM) is 2.630329. According to the DW table with a significance level of 0.05, the number of samples is 84 and the free variable has a number of 4 points, the value of the value is 1.74619. From these data it can be concluded that  $1.74619 < 2.630329 > (4-1,74619)$  so that the assumption of autocorrelation is not fulfilled. In order to solve the autocorrelation problem above, it is necessary to carry out tests with the formula of the Cochrane-Orcut method.

$$y = c X1 + X2 + X3 + X4 \text{ AR (1)}$$

Information:

- y = coefficient tobin's Q
- X1, X2, X3, X4 = coefficient ERM, DER, Ln TA, ROA
- AR (1) = autoregressive order 1

After the equations are estimated in the Cochrane-Orcutt method using Autoregressive order 1, and re-estimates are carried out, the results are shown in Table 4.8 as follows.

**Table 2.4 Results of Autocorrelation Test with the Cochrane-Orcutt AR Method (1)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.688480	1.755632	1.531346	0.1298
ERM	0.198827	1.760654	0.112928	0.9104
DER	0.156887	0.077508	2.024131	0.0464
TOTAL_ASET	-0.069629	0.054499	-1.277600	0.2052
ROA	3.662697	1.225298	2.989229	0.0038
AR(1)	0.516223	0.089976	5.737332	0.0000
SIGMASQ	0.125522	0.022450	5.591222	0.0000
R-squared	0.329172	Mean dependent var	1.050560	
Adjusted R-squared	0.276900	S.D. dependent var	0.435165	
S.E. of regression	0.370044	Akaike info criterion	0.950691	
Sum squared resid	10.54381	Schwarz criterion	1.153259	
Log likelihood	-32.92902	Hannan-Quinn criter.	1.032122	
F-statistic	6.297262	Durbin-Watson stat	2.119857	
Prob(F-statistic)	0.000020			
Inverted AR Roots	.52			

Source: Results of processing Eviews 10, 2019

Based on Figure 4.8, it is known that the Durbin Watson statistical value generated by the selected Random Effect Model (REM) is 2.119857. According to the DW table with a significance level of 0.05, the number of samples is 84 and the independent variable is 4, the dU value is 1.74619. From these data it can be concluded that  $1.74619 < 2.119857 < (4-1,74619)$  so that the autocorrelation assumption is fulfilled.

#### 2.4.4. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to other observations, if the variance of the residuals of one observation is different, it is called heteroscedasticity (Ghozali, 2013). The heteroscedasticity test in this study used the Glejser test. The basis for the decision making is as follows:

1. H0: If all probability values from the Glej test all variables  $\geq 0.05$  then there is no heteroscedasticity.
2. H1: If all probability values from the Glej test are all variables  $<$  then it is heteroscedasticity.

**Table 2.5 Heteroscedasticity Test Results**

Variable	Probability	Remarks
ERM	0.7468	Heteroscedasticity does not occur
DER	0.1243	Heteroscedasticity does not occur
Total Assets	0.4526	Heteroscedasticity does not occur
ROA	0.5481	Heteroscedasticity does not occur

Source: Results of processing Eviews 10, 2019 (data processed)

Based on Table 4.6, it is known that the probability value of all variables is greater than 0.05, so H0 is accepted and H1 is rejected, in other words, the Regression model is free of heteroscedasticity problems.

### 3. RESULT

The panel regression model used is the fixed effect model which is selected based on the results of the Chow and Hausman test. The estimation results of panel regression with a fixed effect model are presented in the following table:

Table of Fixed Effect Model Panel Regression Estimation Results:  
 Dependent Variable: TOBINS\_Q  
 Method: Panel EGLS (Cross-section weights) Date: 08/15/19 Time: 16:09  
 Sample: 20162018  
 Periodsincluded:3  
 Cross-sections included: 30  
 Total panel (unbalanced) observations: 84 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.91094	2.136881	7.445872	0.0000
ERM	3.223479	0.707453	4.556457	0.0000
DER	0.137907	0.066956	2.059644	0.0447
TOTAL_ASET	-0.586180	0.066432	-8.823734	0.0000
ROA	0.784945	0.364433	2.153881	0.0361

Source: The results of processing using Eviews 10, 2019

Based on the table above, the panel data multiple regression equation is as follows:

$$Y = 15.91094 + 3.223479ERM + 0.137907DER - 0.586180LnTA + 0.784945ROA$$

Based on the multiple linear regression equation, the following is the interpretation of the regression equation model:

- A constant of 15.91094 means that without considering the independent variable, Tobin's Q value will increase by 15.91094.
- Variable X1 (ERM) has a coefficient value of 3.223479, meaning that each addition to the ERM variable of 1 unit, assuming other variables are considered constant, will increase Tobin's Q value of 3.223479.
- The variable X2 (DER) has a coefficient value of 0.137907, meaning that each addition to the DER variable of 1 unit, assuming the other variables are considered constant, will reduce the Tobin's Q value by 0.137907.
- The company size X3 variable (Size) has a coefficient value of -0.586180, meaning that each addition to the company size variable (Size) by 1 unit, assuming the other variables are considered constant, will decrease Tobin's Q value by -0.586180.
- The variable X4 (ROA) has a coefficient value of 0.784945, meaning that each addition to the company size variable (Size) of 1 unit, assuming other variables are considered constant, will reduce Tobin's Q value by 0.784945.



3.1. F Statistical Test (Simultaneous Test)

Table of F statistical test results (F test)

Dependent Variable: TOBINS\_Q  
Method: Panel EGLS (Cross-section weights)  
Date: 08/15/19 Time: 16:09  
Sample: 20162018  
Periods included: 3  
Cross-sections included: 30  
Total panel (unbalanced) observations: 84  
Linear estimation after one-step weighting matrix

Weighted Statistics

R-squared	0.991987	Mean dependent var	2.927440
Adjusted R-squared	0.986699	S.D. dependent var	2.512398
S.E. of regression	0.182504	Sum squared resid	1.665391
F-statistic	187.5823	Durbin-Watson stat	2.630329
Prob(F-statistic)	0.000000		

Source: The results of processing using Eviews 10, 2019

Based on the table above, it is known that the calculated F-statistic value is 187.5823 with a probability value of 0.000000. From these data it can be concluded that the F-statistic count > F-table statistic and the probability value < 0.05 so that **hypothesis 1 is accepted** and simultaneously the independent variable of enterprise risk management, debt to equity ratio, company size and return on assets have a significant effect to the dependent variable firm value (Tobin's Q).

3.2. Partial Test(t-test)

Table partial test results (t test)  
Dependent Variable: TOBINS\_Q  
Method: Panel EGLS (Cross-section weights) Date: 08/15/19 Time: 16:09  
Sample: 20162018  
Periods included: 3  
Cross-sections included: 30  
Total panel (unbalanced) observations: 84 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.91094	2.136881	7.445872	0.0000
ERM	3.223479	0.707453	4.556457	0.0000
DER	0.137907	0.066956	2.059644	0.0447
TOTAL_ASET	-0.586180	0.066432	-8.823734	0.0000
ROA	0.784945	0.364433	2.153881	0.0361

Source: The results of processing using Eviews 10, 2019

Based on the table above, it is known that:

1. Hypothesis testing2:

The effect of enterprise risk management on firm value (Tobin's Q). It is known that the probability value of the enterprise risk management variable is 0.0000 < 0.05, it can be concluded that enterprise risk management has a significant effect on the level of firm value (Tobin's Q), thus hypothesis 2 is accepted.

2. Hypothesis testing3:

The effect of debt to equity ratio on firm value (Tobin's Q). It is known that the probability value of variable debt to equity ratio is 0.0447 < 0.05, it can be concluded that the debt to equity ratio has a significant effect on the level of firm value (Tobin's Q). 3 accepted.

**3. Hypothesis testing4:**

The effect of firm size (Size) on firm value (Tobin's Q). It is known that the probability value of the firm size variable (Size) is  $0.0000 < 0.05$ , it can be concluded that the size of the company (Size) has a significant effect on the level of firm value (Tobin's Q), thus hypothesis 4 is accepted.

**4. Hypothesis testing5:**

Effect of return on assets on firm value (Tobin's Q). It is known that the probability value of variable return on assets is  $0.0361 < 0.05$ , so it can be concluded that return on assets has a significant effect on the level of firm value (Tobin's Q), thus hypothesis 5 is accepted.

**3. Coefficient of Determination(R<sup>2</sup>)**

Table of Determination Coefficient Test Results (R<sup>2</sup>)

Dependent Variable: TOBINS_Q			
Method: Panel EGLS (Cross-section weights) Date:			
08/15/19 Time: 16:09			
Sample: 20162018			
Periodsincluded:3			
Cross-sections included: 30			
Total panel (unbalanced) observations: 84 Linear			
Weighted Statistics			
R-squared	0.991987	Mean dependent var	2.927440
Adjusted R-squared	0.986699	S.D. dependent var	2.512398
S.E. of regression	0.182504	Sum squared resid	1.665391
F-statistic	187.5823	Durbin-Watson stat	2.630329
Prob(F-statistic)	0.000000		

Source: The results of processing using Eviews 10, 2019

Based on the table above, it is known that the adjusted R-square value is 0.986699 or 0.987. This value shows that enterprise risk management, debt to equity ratio, company size (size) and returns on assets are able to explain or provide information on firm value (Tobin's Q) of 98.7% while the remaining 1.3% is explained by other variables in outside research that is not included in research that can affect the level of firm value (Tobin'sQ).

**4. DISCUSSION**

**The Influence of Enterprise Risk Management (ERM), Debt to Equity Ratio (DER), Company Size (Size) and Return on Assets (ROA)**

Based on the simultaneous test results (Test F), it shows significant results, namely  $0.00 < 0.05$ , it can be concluded that: Enterprise risk management (ERM), debt policy (DER), company size (Size) and profitability (ROA) have a significant effect on firm value (Tobin's Q). This means, Enterprise risk management (ERM) which is implemented by the company comprehensively to manage all types of risk in all business lines has been carried out properly. Disclosure of ERM in companies will increase the value of the company, because investors consider the company to have managed the risks well. Debt to Equity ratio (DER) has a positive effect, this happens because the market thinks that the higher the debt the company has, the easier it will be for the company to develop its company. For Company Size (Size), companies with large sizes generally have more diversified businesses and have easier access to the capital market. Investors consider the existing diversification to be an obstacle for the company. High Return on Assets (ROA) will make investors look to a company because a high ROA shows the amount of the company's net profit that is ready to be distributed to all shareholders. This creates a positive market response so that it will have an effect on increasing the value of Tobin's Q.

**The Effect of Enterprise Risk Management on Firm Value**

Based on the results of the t statistical test (t test), it can be concluded that the variable Enterprise Risk Management (ERM) disclosure has a positive and significant effect on firm value. The results of this study are consistent with research Prasetyorini [23], which states that the disclosure of Enterprise Risk Management has a positive and significant effect on firm value. This means that the wider the Enterprise Risk Management disclosure items disclosed by the company, the more the company value will be increased. Adequate ERM disclosure is needed by investors to minimize the level of risk and uncertainty. The broader ERM disclosure is considered positive by investors, because the more Enterprise Risk Management disclosure items are disclosed, it

shows that the company has a better commitment to risk management. The positive response given by investors to the company will have an impact on increasing the value of the company. With a high application of ERM a company will become the target of investors to invest in the company. Due to the high disclosure of ERM, companies have the possibility to avoid existing risks because these risks have been managed by the application of ERM. This is in line with signal theory, namely the application of ERM that gives a positive signal to investors to invest their funds in the company. Good performance will be reflected by investors who are increasingly interested in investing in these companies.

#### **The Effect of Debt to Equity Ratio on Firm Value**

Based on the results of the t statistical test (t test), it shows that the debt to equity ratio (DER) has a significant positive effect on firm value. The positive influence shown by DER indicates that the company is able to manage its debt well so that it can increase the value of the company. This result is in line with the results of previous research conducted by Gill [11], which found that DER has a positive and significant effect on firm value. The company's value will be high if the level of debt incurred by the company is still within reasonable limits, and if the company's debt level exceeds the limit, the company's value will decrease because there are a lot of interest expenses that the company must pay to creditors and it will reduce the interest of investors to invest and reduce the value of the company. this can also have an impact on the company's bankruptcy. A positive response from the market indicates that the debts owned by the property and real estate sector companies are still reasonable, and are able to be repaid by the company. The results of this study also support Miller and Modigliani's debt policy theory which states that an increase in debt can increase company value if it has not reached its maximum risk (Brigham & Houston, 2013)

#### **The Effect of Firm Size on Firm Value**

Based on the results of the t statistical test (t test), it can be concluded that the variable company size (size) has a regression coefficient that shows a negative number, which means that company size has an opposite relationship to firm value. The bigger the company size, the lower the company value. Assets or assets are the total assets of the company which include, among others, equity, retained earnings, and debt from external parties. When debt dominates the composition of total assets, the asset is considered to be at risk so that even though total assets are large, total assets that are dominated by debt reduce the value of the company as measured by Tobin's Q. This result is in line with research conducted by Tahir and Razali [31]. Based on this theory, the size of the company which is proxied by total assets indicates that the number of company assets is deposited, and this makes investors perceive that the assets owned by the company do not rotate properly, tend to be stagnant so that it is not profitable.

#### **Profitability Against Company Value**

Based on the output of the t statistical test (t test), it can be concluded that the variable profitability (ROA) has a positive and significant effect on firm value. The results of this study are in line with the research results of Rudangga and Sudiarta [24] which prove that profitability has a significant positive effect on firm value. The significant results indicate that the higher the company's profitability, the higher the firm's value. This reflects the effectiveness and efficiency of the company in generating profits in using its assets. The greater the value, the greater the level of profit achieved by the company and the better the position of the company in terms of the use of its assets. The existence of a high company profit shows the company's performance is good and has a long-term prospect, so that it can attract investors to buy shares. An increase in stock prices can reflect a good corporate image. Investors like this, of course, because they are considered to be buying companies that are able to generate profits, and will generate profits in the future.

## **5. CONCLUSION**

Based on the results of testing and discussion on property and real estate sector companies listed on the Indonesia Stock Exchange (BEI) 2016-2018, it can be concluded that:

1. Enterprise Risk Management (ERM) partially has a positive and significant effect on company value (Tobin's Q). This can be seen from the t-count value of 4.5564 with a significance or probability value of  $0.0000 < 0.05$ . The more ERM disclosure items published by the company, the higher the company's value. These results also indicate that the broad voluntary ERM information published by companies has a positive response by the market because the market believes that ERM disclosure can be used as one of the relevant information in predicting the future and going concern. The results of this study are in line with signaling theory. ERM information aimed at the company is a form of good commitment from management regarding the company's risk management, therefore ERM disclosure is good news that can be used as a positive signal, because through ERM information investors will also be able to assess the company's prospects.
2. Partially Debt to Equity Ratio (DER) has a positive and significant effect on company value (Tobin's Q). This can be seen from the t-value of 2.0596 with a significance or probability value of  $0.0000 < 0.05$ . The positive effect of DER means that using large debt indicates that the company has many opportunities to expand or develop, and the profits for investors are getting better so that investors will be interested in buying company shares. The increase in demand for shares causes the stock price to rise and can make the company value increase.
3. Company size (Size) partially has a negative and significant effect on company value (Tobin's Q). This can be seen from the t-count value of -8.8237 with a significance or probability value of  $0.0000 < 0.05$ . This is contrary to the hypothesis which explains that firm size has a positive effect on firm value. Assets in a property company consist of land, buildings and infrastructure, office equipment, project equipment, then machinery and equipment, the majority of which consists



of land, buildings and infrastructure. Investors tend to avoid companies whose assets increase without an increase in profits, because assets such as buildings and infrastructure require maintenance costs.

4. Return on Asset (ROA) partially has a positive and significant effect on company value (Tobin's Q). This can be seen from t-value of 2.1538 with a significance or probability value of  $0.0361 < 0.05$ . The significant results indicate that the higher the company's profitability, the higher the firm's value.
5. The determination coefficient test results obtained an Adjusted R2 value of 0.987 indicating that 98.7% of Tobin's Q dependent variable can be explained by variations in the independent enterprise risk management variable, debt to equity ratio, company size and return on assets, 3% is explained by other variables not included in the study, such as dividend policy.
6. Regarding variable of Enterprise Risk Management (ERM), the indicator refers to the existing COSO ERM Framework applied in the United States, therefore of course several things are necessary to be studied considering the different conditions in Indonesia.

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