The Influence of Debt to Equity Ratio (DER) and Return on Assets (ROA) on Share Prices in Property & Real Estate Sector Companies Listed on the Indonesian Stock Exchange for the 2013-2017 Period

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Abstract
In The purpose of this research was to determine the effect of debt to equity ratio and return on assets on stock price. The samples used were 17 property & real estate sector companies listed on the Indonesia Stock Exchange in 2013-2017. The sample technique used was purposive sampling. This study uses secondary data in the form of published annual reports. The methods used in this study are descriptive statistical analysis, classical assumption test, multiple linear regression, t test, F test and coefficient of determination test. The data was processed using SPSS Version 23. Based on the results of the study it is known that partially the debt to equity ratio has no effect on stock price and return on asset effects stock price, while simultaneously to equity ratio and return on asset effects stock price..

Keywords : Debt to Equity Ratio (DER), Return On Assets (ROA), and Stock Price

Introduction

Funding is a factor that supports the sustainability of a company. The company will try to obtain funding, including by selling its shares on the capital market. The capital market is a meeting place for investors and issuers to buy and sell securities, such as shares, bonds, mutual funds and other financial instruments. The capital market also has two main functions, namely as a means of funding and increasing state income. In Indonesia, the capital market is regulated by the Financial Services Authority (OJK) and the Indonesian Stock Exchange (BEI).

According to Indonesia Investments, the Property and Real Estate Stock Index on the Indonesia Stock Exchange includes all companies listed on the Indonesia Stock Exchange that operate in the property and real estate sector. This index covers the building construction sub-sector. In 2018 it decreased by 8.37%, some examples include Ciputra Development (CTRA) share prices which decreased 14.35% since the beginning of the year, Metropolitan Kentjana shares decreased 38.38%, Summarecon Agung (SMRA) shares decreased 9.52%, and PP Property (PPRO) decreased 21.16%. (Kontan.co.id).

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Table 1. Share prices of Property and Real Estate sector companies listed on the Indonesia Stock Exchange for the 2013-2017 period

No	Issuer Code	2013	2014	2015	2016	2017
1	ARMYs	0	0	0	0	300
2	APLN	215	335	334	210	210
3	ASRI	430	560	343	352	356
4	FATHER	66	52	50	50	88
5	BCIP	450	770	850	106	125
6	BEST	445	730	294	294	250
7	BIKA	0	0	1905	470	310
8	BIPP	90	95	88	90	73
9	BKDP	80	98	90	70	75
10	BKSL	157	104	58	92	130
11	BSDE	1750	1805	1800	1755	1700
12	COWL	470	625	600	1085	880
13	CTRA	790	1335	1460	1335	1185
14	DART	445	680	420	360	306
15	DILD	315	650	489	500	350
16	DMAS	0	0	215	230	171
17	DUTY	4475	4880	6400	6000	5200
18	ELTY	50	50	50	50	50
19	EMDE	140	137	144	140	260
20	FORZ	0	0	0	0	770
21	FMII	385	449	800	500	515
22	GAMA	88	50	55	50	69
23	GMTD	8300	6100	7500	6950	10100
24	GPRA	151	299	199	171	103
25	GWSA	159	174	123	129	150
26	JRPT	800	1040	745	875	2244
27	KIJA	193	295	247	292	286
28	LCGP	285	600	620	135	80
29	LPCK	4875	10400	7250	5050	3140
30	LPKR	910	1020	1035	720	488
31	MDLN	390	520	467	342	294
32	MKPI	9500	15300	16875	25750	36500

33	MMLP	0	0	800	685	570
34	MTLA	380	490	215	354	398
35	MTSM	690	690	228	366	264
36	NIRO	265	186	109	94	80
37	MORE	340	340	300	216	490
38	PPRO	0	0	178	1360	189
39	PLIN	1620	3750	4000	4850	3550
40	PUDP	480	441	420	380	420
41	PWON	270	515	496	565	685
42	RBMS	91	88	63	85	238
43	RDTX	0	0	6000	10000	6000
44	WHEEL	450	469	595	390	170
45	SCBD	0	2000	1695	1650	2300
46	SMDM	190	141	95	76	106
47	SMRA	780	1520	1650	1325	945
48	TARA	0	444	560	655	780

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

Based on the table above, you can see the development of share prices of companies in the property and real estate sector for the 2013-2017 period. In the 2013-2017 period, property company share prices experienced fluctuations. Fluctuations occur because of the unstable economic conditions of society. The company's debt and profitability also influence the rise and fall of share prices.

Factors that investors observe in a company include the amount of debt which can be assessed using the Debt to Equity Ratio (DER). Debt to Equity Ratio (DER) is used to measure how much debt a company has compared to its equity. DER is a measure of the company's ability to fulfill its long-term obligations. A low DER value indicates that the company is able to pay its obligations well. This will have an impact on the company's share price being high, because with low debt the company's equity will be higher.

Profitability can be assessed by Return On Assets (ROA). Return on Assets (ROA) is included in the profitability ratio which is used to measure how much profit a company obtains by using all its assets. The greater ROA will have an impact on the size of the profit or profits obtained by the company. Company profits and gains will increase investors' interest in investing in the company. Investors who invest more and more in the company will cause the share price of the company to rise.

The phenomenon of companies operating in the property and real estate sector is currently experiencing a decline in share prices. The decline in share prices can be caused by several factors, this research only focuses on two factors that influence it, namely Debt to Equity Ratio (DER) and Return On Assets (ROA).

Stock price

Tandelilin (2010:133) defines is share prices are a reflection of investors' expectations regarding earnings factors, cash flow and the level of return required by investors, where these three factors are also greatly influenced by macroeconomic performance.

Debt to Equity Ratio (DER)

Sartono (2016:121) defines is the Debt to Equity Ratio means that the higher this ratio, the greater the risk faced, and investors will ask for a higher level of profit. A high ratio also indicates a low proportion of own capital to finance assets.

Return On Assets (ROA)

According to Sawir (2005), ROA is a financial ratio that is used as an analytical tool to measure the performance of company management in gaining overall profits. The higher (larger) the ROA value of a company, the better the company's effectiveness in using assets.

The Effect of Debt to Equity Ratio (DER) on Stock Prices

Debt to Equity Ratio is a ratio used to measure how much debt a company has compared to its equity. DER is also a measure of the company's ability to meet its long-term obligations. A low DER value indicates that the company is able to pay its obligations well. This will have an impact on the company's share price being high, because with low debt, the company's equity will be higher. So it can be concluded that DER has an effect on share prices. Based on research conducted by Safitri (2016) and Mudlofir, Andini and Supriyanto (2013), the results of their research show that DER has a significant effect on stock prices.

H1: There is an influence of the Debt to Equity Ratio on share prices

The Effect of Return On Assets (ROA) on Share Prices

Return on Assets (ROA) is included in the profitability ratio which is used to measure how much profit a company obtains by using all its assets. The greater the ROA value has an impact on the size of the profit or profits obtained by the company. This will increase investors' interest in investing in the company. The large number of investors who invest in the company will cause the share price of the company to rise. So it can be concluded that ROA influences share prices. Based on research conducted by Safitri (2016), Mudlofir, et al (2018) and research conducted by Frendy, et al (2015) which shows that ROA has a significant effect on share prices.

H2: There is an influence of Return On Assets on Share Prices

The Effect of Debt to Equity (DER) and Return on Assets (ROA) on Stock Prices

Debt to Equity Ratio is a ratio used as a measure in assessing the amount of debt a company has compared to its equity. The higher the value of the DER ratio indicates that the company is unable to fulfill its obligations, and vice versa, if the value of the DER ratio is low, it indicates that the company is able to pay its obligations. This will have an impact on the

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company's high equity. Return on Assets is used to measure how much profit a company obtains by using all its assets. The greater the ROA value has an impact on the size of the profit or profits obtained by the company. This will increase investors' interest in investing in the company. So it can be concluded that DER and ROA together influence share prices. Based on research conducted by Muldofir et al, the results show that DER and ROA simultaneously influence stock prices.

H3: There is an influence of Debt to Equity Ratio and Return On Assets together on share prices

Based on the explanation of the framework of thought, a picture of the framework of thought can be created as follows:

Figure 1. Framework Thinking
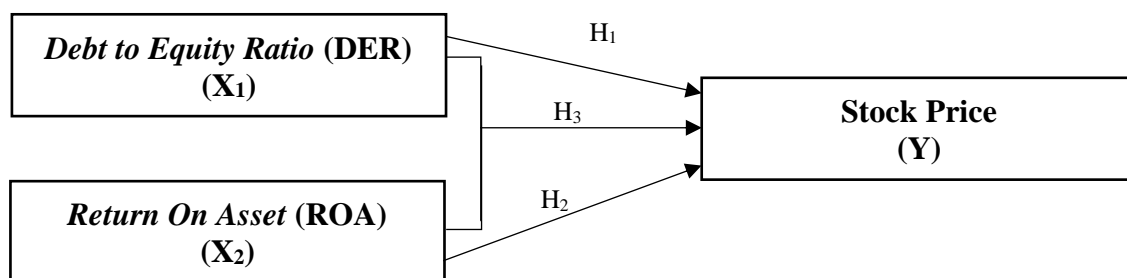
Method
Types of research

The type of research used is basic research. Basic or pure research is research that aims to discover new knowledge that has never been known before (Sugiyono, 2017: 5). The method used in this research is the Verification Method. Verification methods are studies that include hypothesis testing, usually explaining the nature of certain relationships, or determining differences between groups or the freedom (independence) of two or more factors in a situation. Hypothesis testing is carried out to examine variance in the dependent variable or to estimate organizational outcomes (Sekaran 2014 :162).

Operational Variables
Dependent Variable

The dependent variable is a variable that is influenced or is a result of the existence of an independent variable. (Sugiyono, 2017:39) the variable used as the dependent variable in this research is Share Price (Y).

Hartono (2015: 188) states that: "The share price is the price of a share that occurs on the stock market at a certain time by market players and is determined by the demand and supply of the shares concerned in the capital market."

Independent Variable (Independent Variable)

The independent (independent) variable is the variable that influences or is the cause of the change or emergence of the dependent (bound) variable (Sugiyono, 2017: 39).
In this research the independent variables used are:

Debt to Equity Ratio (X1)

Kasmir (2015:157) stated the following: "Debt to Equity Ratio is a ratio used to assess debt versus equity. This ratio is found by comparing all debt, including current debt, with all equity."

Return On Assets (X2)

Fahmi (2017: 137) defines it as follows: "This ratio looks at the extent to which the investment that has been invested is able to provide a profit return as expected and the investment is actually the same as the company assets invested or placed."

Table 2. Operational Variable

No	Variable	Indicator	Measurement	Scale
1	Stock price	- LN Stock Prices (Closing Price)	LN Stock Prices (Closing Price)	Ratio
2	DER	-Total Liabilities -Total Shareholder Equity	$DER = \dfrac{\text{Total Liabilities}}{\text{Total Shareholderd Equity}}$	Ratio
3	ROA	-Earnings After Tax -Total Assets	$ROA = \dfrac{\text{Earning After Tax (EAT)}}{\text{Total Assets}}$	Ratio

Source : Fahmi (2017), Hartono (2015)

Research Population

Sugiyono (2017:80) states that: "Population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn." In this research, the population is Property and Real Estate Companies listed on the Indonesia Stock Exchange during the 2013-2017 period. The population in this study was 48.

Research Sample

Sugiyono (2017:81) states that: "The sample is part of the number and characteristics possessed by the population". The sampling technique in this research used purposive sampling. Sugiyono (2017:85) states that: "Purposive sampling is a technique for determining samples by

considering criteria". The sample criteria that must be met in this research are Property & Real Estate Company listed on the Indonesia Stock Exchange (BEI) for the 2013-2017 period. Property & Real Estate Company that publishes audited annual reports and publishes them in full for the 2013-2017 period. Property & Real Estate Company whose shares were actively traded in the 2013-2017 period. Property & Real Estate Company that generated positive profits during the 2013-2017 period.

Based on the criteria determined above, sampling can be done in the table below:

Table 3. Number of samples selected

No	Information	Number of Companies
1	Property & Real Estate companies listed on the IDX for the 2013-2017 period	48
2	Property & Real Estate Companies that do not publish report yearly that has been audited and published in a way complete in the 2013-2017 period	(13)
3	Property & Real Estate Company whose shares No in a way active traded in the 2013-2017 period	(9)
4	Property & Real Estate Companies that do not produce profit positive during period 2013-2017	(9)
	Amount sample company	17
	Total sample used _ in study this n = number sample companies (17) X 5 years (2013-2017)	85

Source : Processed Data , 2023

Data collection technique

The type of data used in this research is secondary data. Sugiyono (2017:137) states that: "Secondary sources are sources that do not directly provide data to data collectors, for example through other people or through documents." In this research, the secondary data used is in the form of financial reports and annual reports as well as share prices of Property & Real Estate Companies listed on the Indonesia Stock Exchange for the 2013-2017 period.

The data analysis technique used in this research uses multiple regression analysis to determine the influence of the independent variables (Debt to Equity Ratio) and (Return On Assets) on the dependent variable (Share Price). Previously, classical assumption tests were carried out which included multicollinearity tests, autocorrelation tests, heteroscedasticity tests and normality tests, as well as hypothesis testing in this study using the t test and F test.

Results and Discussion
The following are the results of descriptive statistics using IBM SPSS 23 (Statistical Package for Social Science).

Table 4. Analysis Results Statistics Descriptive

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
LN_Share_Price	85	4.63	9.24	6.2364	.94998
DER	85	.073	1,932	.95416	.459909
ROA	85	,001	,254	.06669	.047794
Valid N (listwise)	85				

Source : Processed secondary data , 2023

Classic Assumption Test Results
Data Normality Test Results

Table 5. Kolmogorov-Smirnov test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residuals
N		85
Normal Parameters [a, b]	Mean	.0000000
	Std. Deviation	.89382716
Most Extreme Differences	Absolute	,087
	Positive	,087
	Negative	-.037
Statistical Tests		,087
Asymp . Sig. (2-tailed)		.164 [c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source : Processed secondary data , 2023

Based on table 5 of the Kolmogorov_Smirnov (KS) statistical test, it can be seen that N=85, meaning that the data tested in this study was 85 data. The Kolmogorov_Smirnov (KS) value is 0.087 with an asymp value. Sig. (2-tailed) of 0.164. Therefore, the significant value is greater than the expected significant value, namely $0.164 > 0.05$. This means that the residuals in this study are normally distributed or meet the normality test requirements.

Multicollinearity Test Results

Table 6. Multicollinearity Test Results
Coefficients ᵃ

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	DER	,934	1,071
	ROA	,934	1,071

a. Dependent Variable: LN_Share_Price

Source : Processed secondary data , 2023

Based on table 6, it shows that the results of the multicollinearity test for the Debt to Equity Ratio (DER) obtained a tolerance value of 0.934 and a VIF value of 1.071, meaning that the tolerance value of the Debt to Equity Ratio (DER) was greater than 0.10 and the VIF value of the Debt to Equity Ratio (DER) is smaller than 10. In the Return On Asset (ROA) multicollinearity test results obtained a tolerance value of 0.934 and a VIF value of 1.071, meaning the Return On Asset (ROA) tolerance value is greater than 0.10 and the VIF Current Ratio (CR) value) is smaller than 10. Therefore, the tolerance value for all variables is above 0.10 and the VIF value for all variables is below 10, it can be concluded that in the regression model there is no multicollinearity between independent variables, so multicollinearity can be used to predict stock prices .

Autocorrelation Test Results

Table 7. Durbin Watson Test Results
Model Summary ᵇ

Model	Durbin-Watson
1	1,903

a. Predictors: (Constant), LnROA @, LnDER @
b. Dependent Variable: LnHS @

Source : Processed secondary power , 2023

Based on table 7, it shows that the Durbin-Watson value is 1.903 with a value of n = 85 and k = 2, so the table value dL (lower) = 1.599 and dU (upper) = 1.695 is obtained. The DW-test value is in the dU and $4 - dU$ areas, namely $dU < d < 4 - dU$ or $1.695 < 1.903 < 2.305$. So it can be concluded that in the regression model there are no symptoms of autocorrelation.

Heteroscedasticity Test Results

Table 8. Park Test Results
Coefficients [a]

Model		t	Sig.
1	(Constant)	-8,044	,000
	LnDER @	-.535	,594
	LnROA @	1,637	.105

a. Dependent Variable: LnU2i

Source : Processed secondary power , 2023

Based on table 8, it shows that the results of the heteroscedasticity test in this study are that all variables do not experience heteroscedasticity or do not experience heteroscedasticity. This is because the significant value for the Debt to Equity Ratio (DER) variable is 0.594 and the significant value for Return On Assets (ROA) is 0.105. Where the significant value of all independent variables is greater than 0.05, so the regression model is suitable for predicting DER and ROA on share prices.

Results of Multiple Linear Regression Analysis

Table 9. Analysis Results Multiple linear regression
Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,431	,085		16,770	,000
	LnDER @	,159	,220	,079	,722	,472
	LnROA @	2,706	1,296	,230	2,089	,040

a. Dependent Variable: LnHS @

Source : Processed secondary power , 2023

Based on the results of multiple analysis in table 9, the following multiple linear regression equation is obtained:

Harga Saham = 1,431 + 0,159 DER + 2,706 ROA + ε

The constant value of 1.431 explains that if the DER and ROA values are 0 then the share price value is 1.431. The regression coefficient for the DER variable (X1) is 0.159. This means that if the values of the other independent variables remain constant and the DER

increases by one unit, the share price will increase by 0.159. The regression coefficient for the ROA variable (X2) is 2.706. This means that if the values of the other independent variables remain constant and ROA increases by one unit, the share price will increase by 2.706.

Hypothesis Testing Results (t Test)

Table 10. Hypothesis Test Results (t Test/ Partial Test)
Coefficients [a]

Model		t	Sig.
1	(Constant)	16,770	,000
	LnDER @	,722	,472
	LnROA @	2,089	,040

a. Dependent Variable: LnHS @

Source : Processed secondary power , 2023

Testing the Effect of Debt to Equity Ratio (DER) on Stock Prices

Based on the SPSS output results of partial testing of the Debt to Equity Ratio variable sig $0.472 > 0.05$ and Tcount < Ttable, namely $0.472 < 1.988$, H1 is rejected. So the partial conclusion is that the Debt to Equity Ratio variable has no effect on share prices.

Testing the Effect of Debt to Equity Ratio (DER) on Stock Prices

Based on the SPSS output results of partial testing of the Return On Asset variable sig $0.040 < 0.05$ and $T_{count} > T_{table}$, namely $2.089 > 1.988$, H_1 is accepted. So the partial conclusion is that the Return On Asset variable has an effect on share prices.

Results of Analysis of Variance (ANOVA)

Table 11. Analysis of Variance (ANOVA)
ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,573	2	,787	2,238	.113 [b]
	Residual	28,472	81	,352		
	Total	30,045	83			

a. Dependent Variable: LnHS @
b. Predictors: (Constant), LnROA @, LnDER @

Source : Processed secondary power , 2023

Based on table 11, it shows that the results of the Analysis of Variance (ANOVA) or Ftest probability magnitude are sig $0.113 > 0.05$ and Fcount < Ftable $2.238 < 3.10$. This means

that the variables Debt to Equity Ratio (X1) and Return On Assets (X2) do not have a significant effect together (simultaneously) on share prices.

Results of Determinant Coefficient Analysis (R^2)
Table 12. Analysis Results Coefficient Determination

Model Summary

Model	Adjusted R Square	Std. Error of the Estimate
1	,029	.59288

a. Predictors: (Constant), LnROA @, LnDER

Source : Processed secondary power , 2023

Based on table 12, it shows that the Adjusted R^2 value obtained is 0.029 or 2.9%, meaning that 2.9% of the share price can be explained by the Debt to Equity Ratio (DER) and Return On Asset (ROA) variables. Then, the remainder is 97.1 % can be influenced by other variables.

The Effect of Debt to Equity Ratio (DER) on Stock Prices

Based on the hypothesis test, it shows that the Debt to Equity Ratio (DER) has no effect on share prices with a significance value of $0.472 > 0.05$. The results of this research are in line with the results of research by Martina Rut Utami & Arif Darmawan (2018), Reynard Valintino & Lana Sularto (2013) and research conducted by Rani Ramdani (2013) stating that DER has no significant effect on stock prices. However, this is different from the results of previous research conducted by Safitri (2016), Mudlofir, et al (2018) and research conducted by Frendy, et al (2015), namely that their research stated that DER had an effect on share prices.

The majority of companies experience fluctuations. However, the fluctuation value for each company is not too high, meaning that if it experiences a decrease or increase, the changes are slight. Therefore, the property & real estate companies in this study can be said to be doing well because none experienced a significant decline in DER values. It can also be said that these companies are able to pay their obligations well. If the company is able to pay its obligations, the company's equity will be higher. In this research, the Debt to Equity Ratio (DER) has no effect on share prices. Property & Real Estate Companies assess company securities, including shares, by looking at the company's liquidity condition, because with good liquidity, it is likely that the company will be able to pay its long-term debts, including dividends to investors.

The Effect of Return On Assets (ROA) on Share Prices

Based on hypothesis testing, it shows that Return On Assets (ROA) has an effect on share prices with a significance value of $0.040 < 0.05$. The results of this research are in line with the results of research conducted by Safitri (2016), Mudlofir, et al (2018) and research conducted by Frendy, et al (2015), namely in their research they stated that ROA has an effect

on share prices. However, this is different from the results of research by Martina Rut Utami & Arif Darmawan (2018), Reynard Valintino & Lana Sularto (2013) and research conducted by Rani Ramdhani (2013) which states that ROA does not have a significant effect on share prices.

If you look at the results of the Return On Asset (ROA) calculation in table 4.3, it shows that the majority of the 17 companies experienced fluctuations. This is because the company's ability to generate profits or potential profits obtained from assets by the company can be said to be good. By achieving high profits, it will attract investors' interest in investing their capital. If the company makes large profits, there will be the possibility of distributing dividends by the company which will make investors interested in investing funds. Apart from that, income is generated from capital and the shortfall is covered by a portion of the company's income.

The Effect of Debt to Equity (DER) Return on Assets (ROA) on Stock Prices

Based on the simultaneous test, it shows that the Debt to Equity Ratio (DER) and Return On Assets simultaneously have no effect on share prices with a significance value of $0.113 > 0.05$. The results of this research are not in line with the results of research conducted by Rani Ramdhani (2013) who in her research showed that the Debt to Equity Ratio (DER) and Return On Assets (ROA) did not have a joint effect on stock prices.

Conclusion

Based on the description above, it can be concluded that Debt to Equity Ratio (DER) variable has no effect on share prices. The Return On Assets (ROA) variable influences share prices. The variables Debt to Equity Ratio (DER) and Return On Assets (ROA) together have no effect on share prices. It is hoped that future researchers will add other financial ratios as independent variables to obtain results that are different from the results of this research. For companies, they must consider the company's debt policy, because the higher the debt, the lower investors' interest in investing. Investors and potential investors should pay attention that when investing capital in a company, you need to look at aspects of financial ratios that reflect the company's performance.

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