

Changes in Underpricing Due to Changes in Return on Assets, Debt to Equity Ratio, and Firm Size Analysis

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Abstract. The purpose of this study is to analyze the effect of Return on Assets, Debt to Equity Ratio, and Firm Size on the level of underpricing in non-financial companies conducting Initial Public Offering (IPO) on the Indonesia Stock Exchange in the period 2014 - 2017. The large population of this study was 74, and the samples obtained were 25 non-financial companies that experienced underpricing and met the requirements for sampling using purposive sampling. The research method used is descriptive statistics whose data is taken from secondary data available. The analytical method used in this study is the testing of classic assumptions which include the Normality Test (K-S), Multicollinearity Test, Heterokedasticity Test, Autocorrelation Test, Run Test, F Statistical Test, Determination Coefficient, and Hypothesis Testing using t Test. The results of simultaneous testing using the F test showed an F value of 2.141 and a significance level of 0.125, which means ROA, DER, and firm size together affect the level of underpricing but not significantly. R Square value obtained is 0.234, meaning 23.4% of the level of underpricing can be explained by ROA, DER, and firm size, while the rest can be explained by other variables. The t table value in this study is known to be 2.079. The value of t Calculate ROA is equal to -1.426 with a significance level of 0.169, ROA has no significant negative effect on the level of underpricing. The t-test value of DER is -0.841 with a significance level of 0.41, meaning that DER has no significant negative effect on the level of underpricing. Firm size is known to have a t table value of -2.266 with a significance level of 0.034, meaning that the firm size has a negative and significant effect on the level of underpricing.

Keywords : Return On Assets, Debt To Equity Ratio, Firm Size, Underpricing

1 Introduction

To face increasing competition have sufficient capital reserves in order to meet the increasing need for additional capital. Management is required to seek additional capital by borrowing or by increasing the number of shares ownership by issuing new shares. If a company wants to increase the number of shares ownership by issuing new shares, the company can offer some of the company's shares to the public through the stock exchange. In this case the company must start through an initial public offering called an IPO (Initial Public Offering). Things that need to be considered in the IPO process include, for example: Profitability, Liquidity, Solvency and Renatability. Hesti Erinawati (2015) found that the size of the ROA will significantly affect underpricing. Meanwhile, according to I Dewa Ayu (2013) found no effect of ROA on underpricing.

Debt to Equity Ratio (DER) (Kurniawan, 2007 in Shoviyah, 2013) and Ayu Wahyusari (2013) found that DER had a positive effect on underpricing. Whereas Fransiska and Sri (2017)

found that DER had no significant effect on underpricing. Strengthened by Shoviyah (2013) which shows that DER has no effect on the underpricing of shares in companies implementing IPOs.

Firm size or firm size describes company value and total company assets. Company size variables are measured by calculating the natural log of the total assets of the last year before the company was listed (Suyatmin, 2006 in Shoviyah, 2013) and (Handayani, 2008). The results of I Dewa Ayu's research (2013), showed that company size significantly affected underpricing. However, research conducted by Hesti Erinawati (2015), shows that company size does not significantly influence underpricing.

The factors mentioned have inconsistencies in the results of research in previous studies, so it is necessary to re-examine the variables. Because this research uses financial information as its variable, it is better if regulations that monitor business activities set aside in advance so as not to interfere with financial information variables.

Table 1. Non-Financial Companies conducting IPO 2014 - 2017 with Underpricing, Upperpricing and Fair Conditions.

Keterangan	2014	2015	2016	2017	Total
Saham IPO	16	14	12	32	74
Underpricing	14	13	12	29	68
Upperpricing	1	1	0	3	5
Wajar	1	0	0	0	1

Source: Indonesia Stock Exchange 2018

Based on the non-financial company stock data above, from 74 there were 68 companies that experienced underpricing, while only 5 companies experienced upperpricing, and only 1 company that experienced experience fair prices. This phenomenon is very interesting to study because based on previous research that examines using similar variables, there are inconsistent research results.

1.1 Restricting the Problem

Based on the background above, so that this research is more focused, this research is limited to Underpricing Changes for the period 2014 - 2017.

1.2 Formulation of the Problem

Referring to the title above, the research can be formulated as follows:

- a) Are there any changes in underpricing due to changes in 2014 - 2017?
- b) Are there any changes in underpricing due to changes in Debt to Equity Ratio (DER) in non-financial companies conducting IPOs in 2014 - 2017?
- c) Are there any changes in underpricing due to changes in Firm size in non-financial companies that conduct IPOs in 2014 - 2017?
- d) How does the change in underpricing result in changes in ROA, DER, and Firm size non-financial in 2014 - 2017?

2 Literature Review

2.1 Underpricing

Determining the initial share price at an IPO or when going public is very difficult, because there is no previous market price that can be observed to be used as a bid determination. In addition, most of the companies that will go public have little or no experience with this pricing. Actually a company that wants to go public has to deal with an underwriter or underwriter. Here a share price determination is determined jointly between the company / issuer and the underwriter. Underpricing occurs because the IPO share price that is set is too low, because the price that occurs in the secondary market has reflected the price in equilibrium (Shoviyah, 2013).

2.2 Return on Assets (ROA)

ROA is the ratio of profitability to the percentage of profits received by the company by considering the overall resources or the average amount of assets (Tambunan, 2007) and (Ghozali, 2002).

2.3 Debt to Equity Ratio (Der)

Financial Management Debt is aimed at boosting the company's financial performance. If the company only relies on capital or equity, of course, the company will be difficult to expand the business that requires additional capital. Well here, the role of debt is very helpful. Debt to equity ratio (DER) is one of the leverage ratios. The greater the value of DER, indicates the structure of venture capital uses more debt to equity. The greater the DER, the greater the risk of the company, as a result investors tend to avoid companies with high DER (Kasmir, 2015).

2.4 Firm Size

Werner R. Murhadi (2013) shows that firm size by converting the company's total assets into a natural logarithm, firm size = Ln (Total Asset) (Kim, Krinsky, and Lee, 1995 in Sri Retno, 2008).

2.5 Prior Research

Previous research is needed as a reference and comparison whether the research is conducted in the same direction or in the opposite direction. As for previous studies related to this research:

Table 2. Prior Research

No.	Peneliti	Variabel Bebas	Hasil
1.	I Dewa Ayu (2010)	<i>Return on asset, Debt to Equity Ratio, Firm Size, underwriter, Auditor, Firm Age</i>	<i>Return on asset, debt to equity ratio underpricing</i>
2.	Hesti Erinawati (2015)	<i>Debt to Equity Ratio, Return firm age, Debt to equity ratio, return on asset, Earning per share, auditor, firm age, firm size, reputasi underwriter</i>	<i>asset, Earning per share</i>
3.	Shoviyah (2013)	<i>auditor, debt to equity ratio, return on asset, Debt to equity ratio, Return</i>	

4	Ayu Wahyusari (2013)	<i>on asset, firm size</i> Solvabilitas, Return on assets, debt to equity ratio, firm age, underwriter	Solvabilitas, debt to equity ratio dan firm age return on assets for underpricing.
5.	Anom Cahaya dan Suaryana (2016)	Firm age, firm size, return on asset, debt to equity ratio	Firm size, return on assets and debt to equity ratio

3 Framework

The thinking framework is the flow of research so that it is easily understood based on the theory of variables used described think framework as follows:

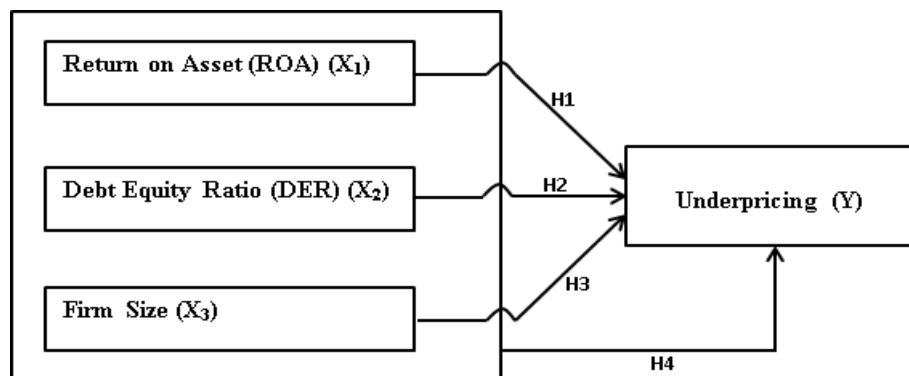


Fig.1. Thinking Framework Model

3.1 Hypothesis

The hypothesis is a temporary answer that will be proven after the actual research is carried out. Based on Figure 2.1, the hypotheses in this study are:

- H1: Allegedly there was a change in underpricing due to changes in ROA for companies conducting an IPO in 2014 - 2017.
- H2: Allegedly there was a change in underpricing due to changes in the DER of companies conducting an IPO in 2014 - 2017.
- H3: Allegedly there is a change in underpricing due to a change in Firm Size in companies doing an IPO in 2014 - 2017.
- H4: It is suspected that there is a change in underpricing due to changes in ROA, DER, and Firm Size together for companies conducting an IPO in 2014 - 2017.

4 Analysis and Discussion Method Population

4.1 Research Samples

The sample in this study are companies that meet the following criteria:

- a) Non-financial in the period January 2014 to December 2017 whose shares were experiencing underpricing.
- b) Prospectus and financial data available one year or two years before the IPO.
- c) Stock price data and listing dates are available on the IDX during the study period.
- d) Financial statements or prospectuses of companies must use the rupiah.
- e) The value of the company's return on assets is not less than 0 (zero). Referring to these requirements, there are 25 companies that qualify as samples.

4.2 Data Analysis Description of the Research Object

in 2014 - 2017 on the Indonesia Stock Exchange were 74 companies, which qualified as a sample of only 25 companies. Test the validity of 25 companies that meet the sample requirements in table3.

Table 3. Test the Validity of 25 Companies

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
UND	25	.2471	.7000	.542600	.1251994
ROA	25	.0002	.3319	.107792	.0855035
DER	25	.0800	7.3600	1.897316	1.8261889
FS	25	23.1610	28.8020	26.763628	1.7538749
Valid N (listwise)	25				

Source: Processed Secondary Data

4.3 Data Analysis

4.3.1 Normality Test

Normality test is carried out by the Kolmogorov Smirnov method, the distributed data are shown with a significance value greater than 0.05. The analysis results are as shown in the figure and table below.

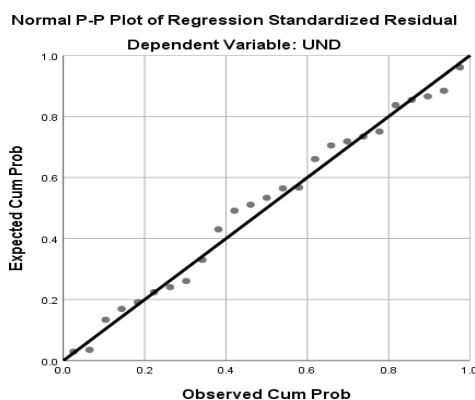


Fig.2. Histogram P-Plot

In the picture above, it shows that the data distribution is not far from the diagonal line, meaning that the graph shows a normal distribution pattern and meets the assumption of normality.

Table 4. Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		25
Normal Parameters ^{a,b}	Mean	.000000
	Std. Deviation	.10956002
Most Extreme Differences	Absolute	.091
	Positive	.073
	Negative	-.091
Test Statistic		.091
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Processed Secondary Data

Based on testing using the Kolmogorov-Smirnov statistical test, the level of significance of 0.2. This data are normally distributed because they meet the assumption of a significance level greater than 0.05.

4.3.2 Multicollinearity Test

Table 5. Testing Multikolinieritas

		Coefficients ^a	
	Model	Collinearity Statistics	
		Tolerance	VIF
1	ROA	.845	1.184
	DER	.978	1.022
	FS	.846	1.182

a. Dependent Variable: UND

The analysis test results show that there are no variables that produce a VIF value greater than 10. This shows that the independent variable model used in this study has no symptoms of multicollinearity in the regression model.

4.3.3 Heterokedasticity Test

Heteroscedasticity analysis test was performed using the Glejser method. In principle, the analysis test with the Gleyser method is done by regressing the absolute unstandardized residuals with the independent variables.

Table 6. Glesjer Test

		Coefficients ^a		t	Sig.
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	.208	.234		.892	.382
ROA	-.033	.173	-.045	-.191	.850
DER	-.002	.008	-.056	-.254	.802
FS	-.004	.008	-.118	-.501	.622

a. Dependent Variable: Absolute Res

The Glejser analysis test shows that there are no statistically significant independent variables that influence the absolute variable unstandardized residual. This can be seen from the significance level.

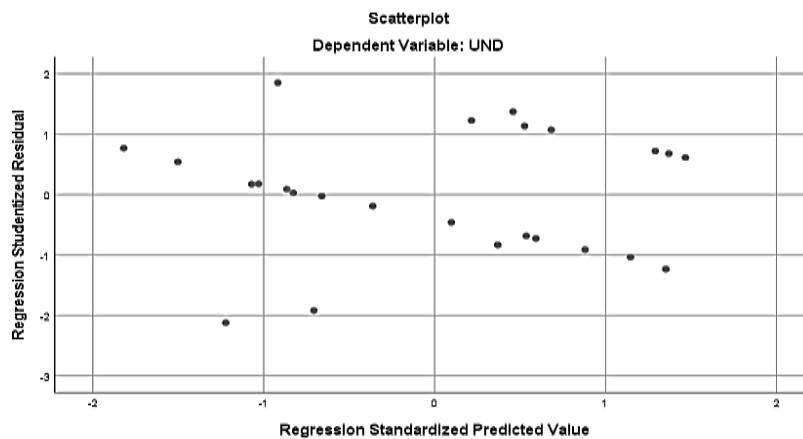


Fig.3. Grafik Scatterplot

4.3.4 Autocorrelation Test

Table 7. Durbin-Watson Table

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.484 ^a	.234	.125	.1171246	2.677

a. Predictors: (Constant), FS, DER, ROA
b. Dependent Variable: UND

D	dL	dU	4 - dL	4 - dU
2,677	1,1228	1,6540	2,8772	2,346

Source: D-W table which is then processed

Table 8. Test Run Test

Runs Test	
Unstandardized Residual	
Test Value ^a	.00980
Cases < Test Value	12
Cases >= Test Value	13
Total Cases	25
Number of Runs	18
Z	1.645
Asymp. Sig. (2-tailed)	.100
a. Median	

4.3.5 Test Statistics F

To see the regression line model can be done by testing simultaneously. Testing the regression model simultaneously obtained using the following F test:

Table 9. Uji F

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.088	3	.029	2.141	.125 ^b
	Residual	.288	21	.014		
	Total	.376	24			
a. Dependent Variable: UND						
b. Predictors: (Constant), FS, DER, ROA						

4.3.6 Coefficient of Determination

The results of the analysis on the coefficient of determination test obtained values as presented in the following table:

Tabel 10. Nilai R dan R Square

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.484 ^a	.234	.125	.1171246
a. Predictors: (Constant), FS, DER, ROA				
b. Dependent Variable: UND				

It is known that the R value of 0.484 is smaller than 0.5, this shows that the correlation / relationship between underpricing with ROA, DER, and Firm Size is weak. While the R Square figure of 0.234 (23.4%), this means that changes in ROA, DER, and Firm Size can provide a change in underpricing of 23.4%.

Conclusions and Suggestions

5.1 Conclusion

Referring to the results of the analysis that has been done that changes in ROA, DER and Firm Zise can provide changes in underpricing with an F value of 2.141 with a significance level of 0.125 and a contribution change of 23.4%.

5.2 Suggestion For Companies

Companies that will conduct an initial offering should pay attention and consider the existing financial statements in particular that can cause changes in underpricing. In this study the ROA, DER and Firm Zise variables, although providing low and insignificant changes.

5.3 For Academics

- a) Adding other variables that have not been used in this study such as underwriter reputation, auditor reputation, firm age, and earnings per share such as research conducted by I Dewa

- Ayu (2010), Ayu Wahyu Sari (2013), and Hesti Erinawati (2015). This is because the value of R Square in this study is only 0.234 or only a small part or 23.4%.
- b) The period used in this study is relatively small, namely from 2014 - 2017, it is better that the research period should be extended so that a better distribution of data can be obtained.

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