

# Factors Affecting the Stock Underpricing Level in Public Offering in Indonesian Stock Exchange

(Study of Companies Conducting IPOs on the Indonesia Stock Exchange Period 2010-2014)

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**Abstract:-** The purpose of this study is to demonstrate empirically the effect of variable underwriter reputation, accounting method choice, ownership structure, and the type of industry to level of underpricing shares. The study was conducted on 61 companies which did an IPO on the Stock Exchange in 2010-2014. The result of multiple regression model for this study found that simultaneous variable underwriter reputation, inventory accounting method, accounting method of depreciation, ownership structure, and the type of industry affect the level of underpricing shares. Partially, only underwriter reputation variables that significantly and negatively affect the level of underpricing shares, while the variable accounting method of inventory, depreciation accounting method, ownership structure, and industry types not significant with a positive coefficient direction the level of underpricing shares.

**Keyword:-** Initial Public Offering (IPO), Underpricing, Underwriter Reputation, Accounting Method Choice, Ownership Structure, Type of Industry.

## I. INTRODUCTION

Initial Public Offering (IPO) is a stock offering activity for the first time to the general public by the issuer. Desyanti (2012) said that an initial public offering (IPO) is a securities that were first sold to the public in the primary market, and an initial public offering is an activity carried out by an issuer to sell new shares to the general public or investors. Through an IPO the company will get additional funding that can be used for the survival of the company and achieve company goals.

The benefits that can be obtained through going public for the issuer according to Desyanti (2012), namely: (1) Ease of increasing capital in the future. By going public, companies must report their finances continuously, making it easier to get additional capital in the future, (2) Benefits of diversification. The company will divide ownership companies to prospective investors, by dividing ownership, the company automatically shares risk with investors, (3) Increases liquidity for shareholders. companies that have gone public will be easy to buy and sell shares in the capital market, and transactions that occur between capital market players on a stock will increase the liquidity of these shares, and (4) the market value of the company is known.

However, in IPO activities, issuers or companies that will conduct IPOs often experience the phenomenon of underpricing. Underpricing is the difference between the initial offering price and the closing price on the first day on the secondary market (Rusmanto and Fransiska, 2012). The following is an illustration of the phenomenon of underpricing in companies implementing IPO for the period 2010-2014 which experienced a share underpricing level above 50%, namely:

No	Code Company	IPO Price (Rp)	Closing Price (Rp)	Initial Return (%)
1	MFMI	200	340	70
2	BSIM	150	255	70
3	GREN	105	178	69,5
4	ALDO	200	310	55
5	SRAJ	120	200	66,7
6	GAMA	105	178	69,5
7	BEST	170	285	67,6
8	NAGA	180	305	69,4
9	VICO	125	219	68
10	AGRS	110	187	70
11	TARA	106	180	69,8
12	DNAR	110	187	70

Table 1:- Phenomenon of Underpricing in the Indonesia Stock Exchange 2010-2014.

In theory, this underpricing phenomenon can be minimized, namely through Asymmetric Information Theory and Signaling Theory. The underpricing phenomenon can be caused by many factors that can influence, including the reputation of the underwriter, the choice of accounting methods, ownership structure, and type of industry.

Underwriter functions as the party who makes a contract with the issuer to make a public offering for the interests of the issuer. The choice of accounting method is thought to influence the level of underpricing of shares in companies that go public. In determining the recording method chosen by the company, of course the company that will benefit the company, especially in this study is the method of valuing inventory and depreciating fixed assets.

Ownership structure or comparison of the number of shares sold through an IPO with the total agreed shares (old investors). Prospective investors have limited access to information about the issuer rather than the old investor, so potential investors will think that the less access to

information or the risk of uncertainty, the level of underpricing will be even greater (Rusmanto and Fransiska: 2012). Regarding the industry type variable, each industry group has certain characteristics that are different from other industry groups. Because different industries have different levels of returns and risks. Sometimes prospective IPO investors are irrationally overly optimistic about a particular industry (Junaeni and Agustian, 2013).

Based on the background above, the purpose of this study is to prove empirically:

- Effect of underwriter reputation on the level of underpricing of shares in companies conducting IPOs on the Indonesia Stock Exchange in the 2010-2014 period.
- The effect of the selection of accounting methods on the level of underpricing of shares in companies conducting an IPO on the Indonesia Stock Exchange 2010-2014.
- Effect of ownership structure on the level of underpricing of shares in companies conducting an IPO on the Indonesia Stock Exchange in the period 2010-2014.
- The influence of the type of industry on the level of underpricing of shares in companies conducting an IPO on the Indonesia Stock Exchange in the period 2010-2014.

## II. THEORETICAL BASIS AND HYPOTHESIS DEVELOPMENT

### A. *Asymmetric Information*

Asymmetric Information is a condition where there is information that is not the same or balanced between the information held by managers and other parties such as investors (Junaeni and Agustian, 2013). The Baron Model (1982) offers an information asymmetry hypothesis that explains the difference in information held by the parties involved in the initial offering, namely the issuer, underwriter, and investor community. This model is also known as the monopoly power investment banker hypothesis, which explains that the underwriter has more complete market information than the issuer, whereas for potential investors, the underwriter has more complete information about the condition of the issuer.

### B. *Signaling Theory*

Signal theory is used to explain that basically an information is used by companies to give positive or negative signals to the users (Ratnasari and Hudiwinarsih, 2013). Therefore a good company will give a signal related to the prospect of the company in the future through underpricing. Even though it suffered a loss in the initial offering, through it is expected that underpricing will be a powerful signal for investors and can subsequently cover losses through its performance in the future. Conversely on companies that are not good, they will not give a signal back because they know that they will not be able to compensate for losses arising from underpricing (Alteza, 2010).

### C. *Underpricing*

Underpricing is the difference between the stock price when making an initial offering (IPO) and the closing price of the stock on the first day when traded on the secondary market. According to Astuti and Syahyunan (2013) underpricing occurs when the stock price on the primary market (IPO) is lower than the stock price on the secondary market on the first day. This difference is known as Initial Return (IR).

This underpricing phenomenon occurs in every country that has a capital market, although the level of underpricing varies from country to country. In general, countries with advanced capital markets experience more moderate underpricing than developing markets (Ross et al., 2009).

### D. *Reputation of Underwriter*

The higher the reputation of the underwriter, the lower the level of underpricing of IPO company shares. Based on the results of previous studies Junaeni and Agustian (2013) concluded that the underwriter's reputation had a significant effect on underpricing of shares in a negative direction. The results of Astuti and Syahyunan (2013) showed that underwriter reputation variable had a negative and significant effect on stock underpricing. Rusmanto and Fransiska (2012) stated that underwriter reputation does not affect the underpricing of shares. Lestari et al. (2015) concluded the underwriter reputation variable had a negative and not significant effect on underpricing. Therefore, the first hypothesis concluded in this study was formulated as follows:

- H1: Underwriter's reputation for the level of underpricing in shares.

### E. *Selecting Inventory Valuation Accounting Methods*

Related to inventory, PSAK No. 14 per 1 June 2012 in addition to defining inventory also states that companies can use the FIFO (First in First Out) method or weighted average in calculating their inventory. Choosing the use of different inventory cost methods will result in different amounts for ending inventory, cost of goods sold for a certain period and profit / loss for a certain period.

Based on previous research Neil et al. (1995) states that companies that use the FIFO inventory method will produce a higher level of underpricing than companies that use the LIFO inventory method. Rusmanto and Fransiska (2013) stated that the inventory accounting method has no significant effect on underpricing. Ali and Hartono (2003) concluded that companies that use the FIFO inventory valuation method will not result in a higher level of underpricing compared to companies that use the weighted average method. Therefore the second hypothesis concluded in this study was formulated as follows:

- H2: The choice of inventory accounting method influences the underpricing of shares.

#### F. Selection of Accounting Methods for Depreciation of Fixed Assets

PSAK No. 16 per 1 June 2012 explained that various depreciation methods can be used to allocate the amount that is systematically depreciated from an asset over its useful life. The choice of the method of depreciation of fixed assets used by the company needs to consider that the costs of maintaining and repairing fixed assets will tend to increase with age in fixed assets. Depreciation method used in this study is the straight-line method and the declining balance method.

Based on the results of previous studies by Neil et al. (1995) concluded that the straight-line depreciation accounting method experienced a greater underpricing compared to declining balance depreciation. Research Results Dwimulyani and Arius (2006) stated that the selection of inventory accounting methods had no effect on underpricing. Therefore, the third hypothesis concluded in this study was formulated as follows:

- H3: Depreciation accounting method affects the level of underpricing of shares.

#### G. Ownership Structure

The ownership structure or comparison of the number of shares sold through an IPO with the total agreed shares (old investors) is thought to have a positive effect on the level of underpricing of shares because the greater the percentage of shares offered by old owners, the greater the private information held by the old holders, so the higher the information asymmetry for potential investors and the higher initial return or underpricing when an IPO.

Based on the research of Yeh et al. (2008) in his research on companies conducting an IPO in Taiwan concluded that ownership structure was negatively correlated with IPO underpricing. Whereas Elston and Yang (2010) concluded that ownership affects the underpricing of shares in IPO companies in Germany. Therefore the fourth hypothesis concluded in this study was formulated as follows:

- H4: Ownership structure influences the level of underpricing of shares.

#### H. Industry type

Each industry group has certain characteristics that are different from other industry groups. Therefore the type of industry correlates positively and significantly to underpricing of shares. The higher the risk of an industry, the higher the uncertainty of stock prices when an IPO thereby increasing stock underpricing, and conversely the lower the risk of an industry, the lower the uncertainty of stock prices when the IPO and the level of underpricing of shares will be smaller.

Based on research Yolana and Martani (2005) concluded that industry type variables influence the level of underpricing of shares, where by grouping industrial types, companies in the type of consumer goods industry have

smaller underpricing compared to other industries. While research by Junaeni and Agustian (2013) states that the classification of industrial types has no effect on IPO underpricing. Therefore the fifth hypothesis concluded in this study was formulated as follows:

- H5: Industry type influences the level of underpricing of shares.

### III. RESEARCH METHODOLOGY

The type of data used in this study is secondary data in the form of quantitative data derived from annual financial statements issued by companies that conduct Initial Public Offering (IPO) listed on the Indonesia Stock Exchange (IDX) in the period 2010-2014. The population in this study were 124 companies listing on the Indonesia Stock Exchange in the period 2010-2014. Samples were selected using the purposive sampling method with the following criteria:

- Companies that conduct initial public offering (IPO) on the IDX during the period 2010-2014,
- Companies that experienced underpricing during the period, namely companies whose share price at the time of the IPO was lower than the price at the close of the secondary market on the first day,
- Excludes banking company groups, financial institutions and the like
- Issuing financial statements before the listing date until 31 December 2014.
- Data needed in research is available

The dependent variable in this study is the level of underpricing of shares measured by initial stock returns, which is the difference between the offering price and the closing price on the secondary market on the first day (closing price) multiplied by 100% and divided by the price of the public offering (Junaeni and Agustian, 2013). Mathematically can be written, namely:

$$\text{Initial Return (\%)} = \frac{\text{CP} - \text{OP}}{\text{OP}} \times 100\%$$

Explanation:

CP = Closing Price (closing price on the first day of the secondary market)

OP = Offering Price

The independent variables (independent variables) in this study are: underwriter reputation, selection of inventory valuation accounting methods, accounting methods for depreciation of ownership structure, and type of industry. Measurement of underwriter reputation variables is the same as that of Junaeni and Agustian (2013), which is assessed dummy, by giving a value of 1 for the name of underwriter in Indonesia in the top 5 underwriters according to Bloomberg and a value of 0 for underwriters not in the top 5.

Measurement of the variable selection of the accounting method is the same as the measurement method done by Rusmanto and Fransiska (2012), the inventory valuation accounting method is valued dummy, by giving a value of 1 for companies that use the FIFO inventory valuation method and giving a value of 0 if the company's inventory valuation method is weighted average. The accounting method for depreciating property, plant and equipment is also dummy, by giving a value of 1 if the company uses the straight-line depreciation method. and 0 when using the declining balance depreciation method.

The ownership structure is measured by finding a percentage of the number of shares retained when the company conducts an IPO. The formula used is the same as the research conducted by Rusmanto and Fransiska (2012), namely:

$$SK = 100\% - (SHM\_IPO / TOT\_SHM\ IPO \times 100\%)$$

Explanation:

SK = Ownership Structure

SHM\_IPO = Number of shares offered at the time the company made an IPO

TOT\_SHM\_IPO = Total number of shares authorized by the company

Industry type is a dummy variable, which is intended to indicate whether the underpriced level of manufacturing

industry companies is different from non-manufacturing industries (Junaeni and Agustian, 2013). For the measurement of this variable, namely, for companies that are included in the type of manufacturing industry are given a value of 1, while for companies included in the type of non-manufacturing industries are given a value of 0.

This study uses multiple linear regression models to test the magnitude of the effect of the level of underpricing of shares on underwriter reputation variables, selection of accounting methods, ownership structure, and type of industry.

Analysis of the data used in this research is, firstly, descriptive statistical analysis, then performs a classic assumption test consisting of a normality test, a multicollinearity test, an autocorrelation test, and a heteroscedasticity test. To test a hypothesis that is measured using the R2 test, F test, and t test.

#### IV. RESULTS AND DISCUSSION

Based on the data obtained, all companies conducting an IPO on the Indonesia Stock Exchange in the period 2010-2014 were 124 companies and a sample of 61 company data. So in general the process of collecting samples in this study is as follows:

No	Information	Number of Companies	%
1	Companies conducting an IPO for the period 2010-2014	124	100
2	Companies that do not experience underpricing when IPO	(21)	16,94
3	Companies that are a group of banking companies, financial institutions and the like	(22)	17,74
4	Companies for which data is not available	(20)	16,13
TOTAL		61	49,19

Table 2:- Sample Determination Results

##### A. Classic Assumption Test

###### ➤ Normality Test

Used to test whether in the regression model, confounding or residual variables have a normal

distribution (Ghozali, 2013). In this study to test normality using the Kolmogorov-Smirnov test with a significance level of 0.05, as follows:

Variable	N	K-S	Sig.
Underpricing	61	1,178	0,125
Reputation of Underwriter	61	3,406	0,00
AM Inventory	61	3,597	0,00
AM Depreciation	61	4,202	0,00
Ownership Structure	61	1,149	0,143
Industry type	61	3,471	0,00

Table 3:- Normality Test Results

Based on table 3. Normally distributed variables are underpricing level of shares and ownership structure, while underwriter reputation variables, inventory accounting methods, depreciation accounting methods, and industry types are not normally distributed because these variables are dummy variables.



➤ *Multicollinearity Test*

Variable	Tolerance	VIF
Reputation of Underwriter	0,930	1,075
AM Inventory	0,822	1,216
AM Depreciation	0,837	1,194
Ownership Structure	0,830	1,206
Industry type	0,969	1,032

Table 4:- Multicollinearity Test Results

In table 4. it can be explained that the independent variables in this study have a VIF value <10, so it can be concluded that the data are free from multicollinearity symptoms.

➤ *Autokorelasi Test*

For autocorrelation testing in this study using the Durbin-Watson test (DW test). The autocorrelation test results are as follows:

Durbin Watson	Du	4-du
2,124	1,7671	2,2329

Table 5:- Autocorrelation Test Results

Based on the chest of table 5. that in the linear regression model does not occur autocorrelation because the value of du < d < 4 - du.

➤ *Heterokedastisitas Test*

To detect the occurrence of heteroscedasticity can be done by looking at the scatterplot graph, which is as follows:

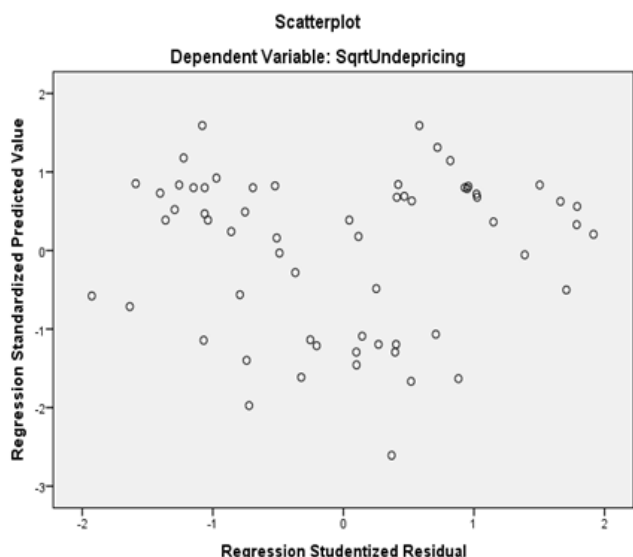


Fig 1:- Heteroscedasticity Test Results

Based on the scatterplot graph in Figure 1. it appears that the points spread and do not form certain patterns, it can be concluded that in the regression model heteroscedasticity does not occur.

*B. Data Analysis Results*

**R2 test**, aims to measure how far the ability of the model in explaining the variation of the dependent variable. The R2 test results in this study are:

Model	R	R Square	Adjusted R Square
1	,464a	,216	,144

Table 6:- Test Results R<sup>2</sup>

In table 6. it can be seen that the value of R Square is 0.216 which means that the contribution of the underwriter reputation variable, inventory accounting methods, depreciation accounting methods, ownership structure, and industry type in influencing the level of underpricing of shares is equal to 21.6% and the remaining 88.4 % is influenced by other factors.

**T test**, shows how far the influence of one explanatory / independent variable individually in explaining the variation of the dependent variable (Ghozali, 2013).

Variable	B	Sig.
(Constant)	,203	,201
Reputation of Underwriter	-,206	,001
AM Inventory	,082	,221
AM Depreciation	,162	,169
Ownership Structure	,181	,141
Industry type	,002	,967

Table 7:- Test Results t

$$Y = 0,203 - 0,206X1 + 0,082X2 + 0,162X3 + 0,181X4 + 0,02X5.....(1)$$

Where:

- Y = Level of Underpricing of shares
- X1 = Reputation of Underwriter
- X2 = Inventory Accounting Method
- X3 = Depreciation Accounting Method
- X4 = Ownership Structure
- X5 = Industry Type

Based on table 7. it can be seen that only the underwriter reputation variable has a significant and negative effect on the level of underpricing of shares with a significance level of 0.001.

### C. Discussion of Results

#### ➤ Underwriter

Based on the test results it is known that the underwriter's reputation has a negative and significant effect on the underpricing of shares in companies conducting IPOs on the IDX because it has a magnitude of regression coefficient of -0.206 and a significance of 0.001. This is in line with previous studies namely Junaeni and Agustian (2013), Astuti and Syahyunan (2013) and Ratnasari and Hudiwinarsih (2013).

In purchasing initial shares offered by the issuer, potential investors will certainly consider who the issuer is guaranteed, whether by its underwriter who has a good reputation or not. The lower value of underpricing shows the more accurate the IPO price set by the underwriter, meaning that the estimation error in setting the IPO price will decrease. With a good underwriter reputation, IPOs are expected to run smoothly and underpricing can be minimized.

A reputable underwriter will be able to organize an IPO professionally and provide better services to investors because they are more aware of market conditions and more experienced in helping issuers when IPO processes. Therefore, underwriters with a good reputation do not set low prices on IPO shares, so that underpricing will be minimized (Ratnasari and Hudiwinarsih, 2013).

#### ➤ Selection of Inventory Valuation Accounting Methods

Based on the test results it is known that the selection of inventory valuation accounting methods has no effect on stock underpricing because the magnitude of the variable regression of inventory accounting methods is 0.082 and is significant 0.221 (greater than 0.05). The results of this study are in line with research by Rusmanto and Fransiska (2013), stating that the method of inventory accounting has no significant effect on underpricing.

Likewise, the research of Dwimulyani and Arius (2006) states that there is no significant difference in the average underpricing produced by the inventory valuation method, the FIFO method and the weighted average method. Another research result, Ali and Hartono (2003), which failed to prove that companies using the FIFO inventory valuation method will produce a higher level of underpricing compared to companies that use the weighted average method.

#### ➤ Selection of Accounting Methods for Depreciation of Fixed Assets

Partially the choice of accounting methods for depreciation has no effect on the level of underpricing of shares in IPO companies on the Indonesia Stock Exchange in the period 2010-2014. This variable has a positive coefficient and is not significant because the magnitude of the regression coefficient is 0.181 and significant is 0.141 (greater than 0.05).

The results of this test are consistent with previous research, namely Dwimulyani and Arius (2006) on companies whose IPO on the Indonesia Stock Exchange period 2000-2003 stated that the selection of inventory accounting methods had no effect on underpricing. These results are also in line with research by Rusmanto and Fransiska (2013) which concluded that there was no significant effect on the choice of a depreciation accounting method for underpricing IPOs.

#### ➤ Ownership Structure

Partially has no effect on the level of underpricing of shares. The results of this test are consistent with previous research, Elston and Yang (2010) have not been able to prove that ownership structure influences the shareholding of shares in IPO companies in Germany. Another study is Rusmanto and Fransiska (2012) which concluded that the ownership structure does not affect the underpricing of shares in companies conducting IPOs on the IDX in the period 2001-2010.

#### ➤ Type of Industry

Based on the test results it is known that partially the type of industry variable which is divided into two in this study, namely manufacturing industry and non-manufacturing industry has a positive and not significant regression coefficient with a magnitude of the regression coefficient of 0.002 and significant 0.967 (greater than 0.05). Therefore it is concluded that industry type variables do not affect the level of underpricing of shares. The results of this test are in line with the research of Junaeni and Agustian (2013) which concluded that the grouping of industry types has a positive and insignificant effect on the underpricing IPO.

## V. CLOSING

### A. Conclusion

- Simultaneously underwriter reputation variables, selection of accounting methods, ownership structure, and type of industry affect the level of underpricing of shares
- Partially only the underwriter reputation variable has an effect on the level of underpricing of shares, whereas variable selection of accounting methods, ownership structure, and type of industry. has no effect on the level of underpricing of shares.
- The underwriter reputation has a negative effect on the level of underpricing of shares, the higher the reputation of the underwriter, the lower the level of underpricing experienced by the issuer.

### B. Research Limitations

- This research is only limited to companies conducting an IPO for the period 2010-2014
- Partially, this research has not been able to prove the effect of variable selection of inventory accounting methods, selection of depreciation accounting methods, ownership structure and type of industry on the level of underpricing of IPO shares

- Researchers only classify the types of industries into two groups, namely manufacturing and non-manufacturing industries.

### C. Research Suggestions

- Researchers in the future are advised to extend the research period, because the longer the study period will show a wider cycle of changes in economic conditions that will provide the accuracy and accuracy of research results.
- Researchers in the future are advised to use other factors that can influence the level of underpricing of IPO shares. Such as company internal factors, namely the quality of company performance, corporate governance and others, as well as company external factors such as macroeconomic, industrial environment and others that can affect the underpricing of shares.
- Researchers in the future are expected to classify types of industries more specifically because of different characteristics and will affect the level of underpricing of different stocks. For example, the manufacturing industry is further divided into basic and chemical industrial companies, the consumer goods industry, and various industries. While non-manufacturing companies are further divided into agriculture and mining industries.

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