FINANCIAL, NON-FINANCIAL, AND MACRO-ECONOMIC FACTORS THAT AFFECT THE FIRST DAY PROFIT RATE WHEN CONDUCTING INITIAL PUBLIC OFFERING

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ABSTRACT

The intention of this research is to specify and analyze the influence of profitability, financial leverage, company age, underwriters, and inflation on the first day profit rate for firms that conduct initial public offerings on the Indonesia Stock Exchange (IDX). There were 212 firms that went public and were listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period. This study resulted in 172 companies as research samples. Purposive sampling method is a sampling technique utilized in this research. Data analysis utilized cross-sectional data with multiple linear regression analysis method which was processed using Eviews12 software. The results showed that profitability, financial leverage, and age of the company had no significant effect on the first day's profit rate. Meanwhile, underwriter reputation and inflation have a significant effect on the first day's profit rate.

Keywords: Profitability, Financial Leverage, Company Age, Underwriter, Inflation

1. INTRODUCTION

Competition in business is increasing, because many companies want to do things with bigger goals and can survive in the midst of competition. There are many sources of funding for expansion, one of which is through an Initial Public Offering. The main impetus when the company decides to effectuate an initial public offering is to expand capital from stock trading which will then be used for company debt and research and development funds, particularly when company is going to expand.

Private enterprises that decide to go public will turn into a public company. Share ownership which is initially private which will turn into joint ownership will be owned by the company and also by investors who buy company shares. The capital market is a meeting place between investors and companies that go public [1]. There are two types of stock exchanges, namely the new issues market (primary market) and the aftermarket and follow-on public offering (secondary market). The primary market is a place where companies sell shares directly for the first time to investors. The secondary market is a place where other investors buy shares listed on the stock exchange. That is, in the secondary market, investors trade back securities that have been previously issued to other investors without involving the issuing company [2].

As has been avowed, if the main goal of conducting an initial public offering is to obtain additional funds in large amounts. However, in conducting an initial public offering there is a price disparity situation that will affect the profit level on the first day that will be obtained by the company. The most common price disparity phenomenon is the underpricing phenomenon. Underpricing is a situation where the share price offered in the primary market has a lower value than when in the secondary market [3]. This situation will cause a low level of profit on the first day to be obtained by the company and make the company in an
unfavorable condition. This causes the amount of capital to be received by the company to be not optimal because the offering price is underpricing. There are a number of factors that encourage underpricing and cause the first day's profit rate to be low. However, this study will only use three factors for analysis, namely financial factors, non-financial factors and macroeconomic factors. A number of researchers have conducted research on when the variables that affect IPO underpricing are. The variables chosen from the third factor and in accordance with what will be examined in this study, namely Profitability, Financial Leverage, Underwriter, Company Age, and Inflation.

The results of each study are not always the same. First, the final result of the study [4] if ROA does not have a significant negative effect on underpricing. On the other hand, [5] proves that ROA has a significant effect on underpriced prices. Second, [6] in the results of a study conducted if financial leverage (DER) has no significant effect on the level of underpricing. However, [7] explains that financial leverage has a significant positive effect on underpricing. Third, for the variable age of the company, [8] the results show that the age of the company has no significant effect on underpricing. On the other hand, [9] in her research stated that the age of the company had a significant negative effect on underpricing. Fourth, [6] from her research got the results if the underwriter reputation variable had a significant negative effect on underpricing. Meanwhile, [10] has the result that underwriter reputation has no effect on underpricing. Fifth, in proprietary research [11] is stated that inflation has a significant effect on positive underpricing. This result is in contrast to the results of proprietary research [12] which states that inflation has no effect on underpricing. Due to differences in results from previous studies, this study was conducted with the aim of reviewing the effect of profitability, financial leverage, underwriting, company age, and inflation on underpricing that affect the company's first day profit rate.

**Contribution**

This research can present knowledge obtained from research results to readers, companies, or investors regarding the first day profit level when conducting an Initial Public Offering which is calculated using the level of underpricing. In this research, readers are expected to know the effect of several variables on the first day profit level. For companies, this research can be used as a comparison for making decisions and transparency of information when they want to carry out the Initial Public Offering (IPO) action to get maximum results. This research can be used as deliberation for potential investors in reviewing and determining investment decisions to be made. Then, this research is expected to expand knowledge as a source of literature that can be used and utilized as material for further research.

**2. BACKGROUND**

**Grand Theory**

**Asymmetry Information Theory**

This theory explains the imbalance of information obtained, where there are parties who get better information than other parties. The concept of information asymmetry usually takes place between the company, the underwriter, and the investor.

**Signaling Theory**
When there are two parties who have different amounts of information (information asymmetry), signal theory is useful for solving the problem of information asymmetry. In signal theory, there are four elements, namely signaling, signaling, receiving, and feedback.

Brigham and Houston [13], explain that signal theory is a guide on how management views the company's prospects provided by the company to investors.

**Operational Theory**

**Initial Public Offering**

Initial Public Offering (IPO) is an activity when private companies offer and sell their shares to the public (go public) and list their shares on the Indonesia Stock Exchange (IDX).

**First Day Profit Rate**

The level of profit on the first day that a company gets when it first conducts an initial public offering can be influenced by the underpricing phenomenon. This phenomenon shows the condition when the public offering price in the primary market is cheaper than the stock price in the secondary market. When the underpricing phenomenon occurs, the level of profit on the first day obtained by the company will be low which results in the not maximal amount of capital that will be received from investors.

**Profitability**

Profitability is a measure used to evaluate the company's capability to earn a profit, its relationship to sales, assets and profits as well as own capital [14].

**Financial Leverage**

Financial leverage is a condition where a company uses debt as a source of funds in carrying out its business activities, but to use it the company needs to pay a fixed fee.

**Company Age**

The age of the company is an indication for investor about how long the company has been in existence so that it has a big influence because of the experience it has in the existing business competition. Companies that have been around for a long time and are getting more mature are considered to have a low level of risk because they have been able to survive [15].

**Underwriter**

Constitution Number 8 Year 1995 states that the underwriter plays a role in making an agreement with the issuer when making a public offering that is centered on the profits and needs of the company. The agreement has 2 guarantee systems, namely: (1) Best effort, meaning that the underwriter only sells to the extent that it sells and (2) Full commitment, meaning that the underwriter guarantees that all shares are sold, so they have an obligation to buy shares that are not sold [16].
Inflation

The International Monetary Fund (IMF) explains that inflation describes an increase in prices that occurs within a certain time span. Inflation is described on a comprehensive scale, such as an increase in overall prices or an increase in the cost of living in a country.

Research Hypothesis

The effect of profitability on the first day on profit (underpricing)

Profitability is a type of financial matrix commonly used by investors to evaluate the company's performance in generating profits. The profitability indicator model that is often used is the Return on Assets ratio. A large ROA ratio will signal a high profit trend to investors. If the profitability of the company is high, it is considered that it will reduce the uncertainty of the IPO so that the possibility of underpricing will also be smaller. Due to the small value of underpricing, the first day's profit rate will increase.

The effect of financial leverage on the level of profit on the first day (underpricing)

Financial leverage is an activity of using debt to buy additional assets. Where the results are expected to multiply the potential return of additional assets. The most common type of ratio is debt to equity (DER) which will show the relationship between company debt and shareholder equity. If the value of the high DER ratio can increase the risk of company failure, because the company will find it difficult to pay debts. This situation is very influential on the results of the consideration of investors who want to buy shares and will affect the level of underpricing. High underpricing will reduce the amount of the company's first-day profit rate.

The effect of company age on the first day on profit (underpricing)

The age of the company indicates the company's ability to run a business and the experience the company has in its type of industry. Companies that have been around for a long time tend to have more information about the company for public consumption. However, the company is still relatively new, the information about the company published will certainly be less. Much or little information that can be accessed by investors will be the subject of review in carrying out investments. If the amount of information that can be accessed is small, the company's level of uncertainty will be high and this can lead to underpricing, so that the possibility of low first-day profits obtained by the company will be even greater.

The effect of the underwriter on the first day of profit (underpricing)

The first day's profit rate can be influenced by the underwriter. This is because the underwriter will become a bridge between the issuer (company) and potential investors and be the party who plays a role in helping the company not experience underpricing which will affect the amount of profit. The underwriter is responsible for the shares sold in the
primary market ensuring that there are no unsold securities. Therefore, underwriters who have a high reputation are usually more trusted by the company to be able to sell all the shares offered at a price that benefits the issuer.

The effect of inflation on the rate of profit on the first day (underpricing)

According to Bank Indonesia, inflation is indicated as an increase in the price of goods and services within a certain period. Investment activity can be affected by inflation because people's purchasing power will decrease due to increased production costs. Thus, the level of underpricing tends to increase because the price of the shares to be offered will be lower to attract the attention of investors. With the high value of underpricing and low investor interest, the level of profits obtained on the first day will be smaller.

The research model can be described as follow:

![Research Model Diagram]

**Figure 1. Research Model**

Based on the research model, the hypotheses in this research are:

- **H1**: Profitability (ROA) has a significant negative effect on the level of profit on the first day (underpricing).
- **H2**: Financial leverage (DER) has a significant positive effect on the level of profit on the first day (underpricing).
- **H3**: The age of the company has a significant negative effect on the level of profit on the first day (underpricing).
- **H4**: Underwriters have a significant negative effect on the rate of profit on the first day (underpricing).
- **H5**: Inflation has a significant positive effect on the level of profit on the first day (underpricing).

3. RESEARCH METHOD

**Population and Samples**

This study is a descriptive study with the aim of describing the relationship of each independent variable on the dependent variable obtained through the results of the study. The kind of study method used is quantitative method, namely research that uses data in variables in the form of numbers in the true sense. The kind of data in this study is Cross-Section data, which is a series of data that includes one or more variables that are collected at a certain time.
against several groups. The data displayed in this analysis is the data of enterprises listed on the Indonesia Stock Exchange for the period 2016-2020.

The data collection method applied in this analysis is the documentation method. The documentation method is carried out by copying and archiving information from available sources, using secondary data from the IDX official website (www.idx.co.id), (www.e-bursa.com) and obtained from articles, journals, and literature related to research. The sampling method in this study used a purposive sampling technique with the aim of finding samples that were in line with the research intent.

**Operationalization of Variables**

The operationalization of this study variable is explained as follows:

The rate of profit on the first day in this study is proxied by the magnitude of the value of underpricing that occurs. Underpricing can be measured from the initial return value as measured by the difference in stock prices on the first day of closing on the secondary market with the offering price in the primary market divided by the initial offering price [17]:

\[
Initial \ Return = \frac{P_1 - P_c}{P_0}
\]

Profitability (ROA) is used to examine the value of the company by investors. This makes the company strive to bring in optimal profits. It can be concluded that the high profitability ratio can affect the increase in firm value in the eyes of investors [18]. Based on [13] in finding ROA can be projected using the formula:

\[
ROA = \frac{Net \ Income}{Total \ Asset}
\]

Financial leverage is the use of budget sources that bring a fixed financial burden [19]. Financial leverage represented by the Debt to Equity (DER) ratio can be measured using the formula [20]:

\[
DER = \frac{Total \ Debt}{Total \ Equity} \times 100\%
\]

The age of the company indicates how long the company has existed and is capable to remain alive in the midst of competition. Company age is measured by calculating the difference between the year the company listed on the IDX and the year the company was founded [21]:

\[
AGE = Listing \ date - Established \ date
\]

The underwriter together with the issuer is the party that determines the price of the IPO shares to be sold in the primary market. Underwriters can be measured using a dummy variable of 1 for underwriters who are in the top 20 in the IDX most active brokerage house each month based on the total trading frequency listed in the IDX Fact Book and a value of 0 for underwriters who are not in the top 20 [22].

Inflation is one of the macroeconomic variables that worries economic actors because it has the potential to affect production costs and slope people's welfare [23]. The inflation rate can
be measured based on the magnitude of the inflation rate one month before the company conducts the Initial Public Offering determined by Bank Indonesia [21].

Data Analysis

Data analysis in this study consisted of:
(a) Classical Assumption Test, which is carried out with normality testing models, multicollinearity testing, and heteroscedasticity testing.
(b) Multiple Linear Regression Analysis, with the following equation form:

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon \]

(c) Hypothesis Test:
- Coefficient of Determination Test (R^2), is a test to see the capability of the independent variable to describe the dependent variable.
- The t-test is a test to see the capability of the independent variable individually in describing the dependent variable with \( \alpha = 0.05 \).

4. RESULTS AND DISCUSSIONS

Data Analysis Results

Classical Assumption Test

This study conducted three kinds of classical assumption tests, namely normality test, multicollinearity test, and heteroscedasticity test.

The results of the normality test point that the probability value obtained is 0.000244 which indicates that the data is not normally distributed because the value is < 0.05. However, the data is still normally distributed because the number of samples is more than 30, which is in accordance with the statement in the central limit theorem where data with a large number of samples, especially those with a number of more than 30 (n > 30) is considered a normal distribution approach [24].

The results of the multicollinearity test in this research obtained that the VIF value of all independent variables was less than 10, so the independent variables in this research were considered not to have symptoms of multicollinearity.

The results of the heteroscedasticity test in this research were seen from the value of Prob. Chi-Square, explains if the tested regression model does not have heteroscedasticity symptoms because of the Prob value. Chi-Square in this study is 0.3087 so it is greater than 0.05.

Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted with the aim of knowing the magnitude and direction of each independent variable, namely probability (ROA), financial leverage (DER), company age (AGE), underwriter reputation, and inflation on the dependent variable,
namely underpricing which has an influence on the level of first day profit. The following is the information generated from the estimation of multiple linear regression analysis utilizing the EViews 12 program, namely:

### Table 1. Multiple Linear Regression Analysis on Underpricing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.365164</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.049363</td>
</tr>
<tr>
<td>DER</td>
<td>0.001618</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.002056</td>
</tr>
<tr>
<td>UW</td>
<td>-0.115776</td>
</tr>
<tr>
<td>INFLATION</td>
<td>6.152835</td>
</tr>
</tbody>
</table>

According to the outcomes of the regression analysis in the Table 1 above, multiple linear regression equations were found as below:

\[ UP = 0.37 - 0.05\text{ROA} + 0.001\text{DER} - 0.002\text{AGE} - 0.12\text{UW} + 6.15\text{INFLATION} + \epsilon \]

### Hypothesis Test

Coefficient of Determination Test (Adjusted R²). The coefficient of determination test in this study shows the resulting Adjusted R² value is 0.100384. This signifies that the dependent variable can be described by independent variables, namely profitability (ROA), financial leverage (DER), company age (AGE), underwriters, and inflation of 10.04% while the rest is described by other variables that do not act as objects in this study, namely equal to 89.96%.

Partial Significance Test (t Test). The partial significance test (t test) was conducted to observe the effect of the independent variable separately on the dependent variable. The decision-making requirement is the probability value < 0.05, the independent variable individually has a significant effect on the dependent variable. The following is the result of the t-test of the regression model in this study:

### Table 2. t-Test Against Underpricing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.0000</td>
</tr>
<tr>
<td>ROA</td>
<td>0.7290</td>
</tr>
<tr>
<td>DER</td>
<td>0.5426</td>
</tr>
<tr>
<td>AGE</td>
<td>0.0582</td>
</tr>
<tr>
<td>UW</td>
<td>0.0008</td>
</tr>
<tr>
<td>INFLATION</td>
<td>0.0139</td>
</tr>
</tbody>
</table>

Based on the probability values in Table 2, then: ROA, DER, and AGE have no significant effect on underpricing. Meanwhile, UW and INFLATION have a significant effect on underpricing. Therefore, the rate of profit on the first day will be affected.

### Discussion
Based on the results of the data analysis above, the results of testing the 5 (five) research hypotheses are as follows:

**Profitability (ROA) has a significant negative effect on the level of profit on the first day (underpricing).**

The first hypothesis is rejected, this implies that return on assets (ROA) does not have a significant effect on the level of profit on the first day (underpricing) because the probability value is 0.73 (> 0.05). These results indicate that each company has a different ROA value, where not all have a high ROA value. In addition, according to a statement from Tandelilin quoted by Linda Andriyani [25], in her research explains that the ROA value owned by the company at present will be different in the future. Therefore, investors do not pay too much attention to the ROA value one year before the IPO but rather pay more attention to the IPO value several years before the IPO as a whole.

According to the explanation of information asymmetry theory, where there is an imbalance of information between issuers and investors, it can raise assumptions from investors if there is a possibility of issuers changing financial statements one year before the IPO. This is done to increase a certain value so that the company appears to have good performance for potential investors.

The results of the analysis with a negative direction can be explained because to know the company's overall performance, ROA is considered inadequate because ROA has not estimated the debt ratio used in the company's operations. In addition, in deciding investment activities, investors do not judge the profitability of a company only from the ratio of return on assets but will also consider other profitability ratios.

**Financial leverage (DER) has a significant positive effect on the level of profit on the first day (underpricing).**

The second hypothesis is rejected, this means that financial leverage (DER) has no significant effect on the level of profit on the first day (underpricing) because the probability value is 0.54 (> 0.05). This result can be caused because this research conducted testing on companies from different types of industries where according to PSAK (Statement of Financial Accounting Standards) No. 31: Banking Accounting (Revised 2000) if the characteristics of the financial and accounting reports owned by the banking industry are different from other types of industries. The banking industry performs as an institution that collects funds belonging to the public and then re-circulates these funds to the public. In the bank's financial statements, the collected public funds will be recorded as debt so that it becomes a liability for the bank. The large balance of debt in bank financial statements makes financial leverage in the banking industry significantly different from other types of industries.

In estimating stock prices, not all investors view a high debt ratio as a bad thing for the company. Although high debt represents a high company risk, investors have different characteristics. There are investors who stay away from risk or what is often referred to as risk averse. On the other hand, there are risk takers, namely investors who like companies with high risk because they are considered to produce a high return value as well. As a result,
investors do not continue to stay away from companies that have a high DER value.

The age of the company has a significant negative effect on the level of profit on the first day (underpricing).

The third hypothesis is rejected, this implies that the company’s age has no significant effect on the level of profit on the first day (underpricing) because the probability value is 0.06 > 0.05. These results indicate that the quality of the enterprise's performance can not only be measured or be observed from the length of establishment of an enterprise. Companies that have only been established for a few years cannot be guaranteed to have worse performance results or prospects than companies that have been around for a long time. The company’s age does not guarantee that a company has a good financial condition and can provide the expected benefits. So that investors will only invest in companies that are considered capable of providing maximum profit in the future even though the company has not been around for a long time.

The results of this study have a negative regression coefficient direction which explains that companies that have been around for a long time have a greater ability to present more and more extensive company information than companies that have not been established for a long time. This can reduce the possibility of underpricing during the initial offering due to reduced market uncertainty and reduced information asymmetry. If the possibility of underpricing decreases, the company's opportunity to earn the first day's profit rate will be higher.

Underwriters have a significant negative effect on the rate of profit on the first day (underpricing).

The fourth hypothesis is accepted, this implies that the higher the underwriter's reputation, the lower the possibility of underpricing, resulting in a higher level of profit on the first day, this conclusion is obtained because the probability value is 0.0008 (< 0.05). The issuer (company) will choose an underwriter with a high reputation with the assumption that the underwriter will not offer a share price at a price lower than the price offered by the issuer. In addition, the first day's profit rate can be influenced by the underwriter. This is because the underwriter will be a bridge between the issuer (company) and potential investors. The underwriter is also in charge of determining the share price together with the company, therefore the rate of profit on the first day will be affected by the size of the share price determined and the level of underpricing that occurs during the initial public offering.

The underwriter is responsible for the shares sold in the primary market ensuring that there are no unsold securities. Therefore, underwriters who have a high reputation are usually more trusted by the company to be able to sell all the shares offered at a price that benefits the issuer.

Inflation has a significant positive effect on the level of profit on the first day (underpricing).
The fifth hypothesis is accepted, namely the inflation rate has a significant positive effect on the first day profit rate (underpricing). This implies that the higher the inflation rate, the higher the risk of underpricing so that the profit level on the first day will be smaller, this conclusion is obtained because the probability value is 0.01 (< 0.05). Inflation can be a tool that shows the level of economic balance in a country. The high rate of inflation will affect the price of goods and services which will increase which will affect the increase in supply prices in the primary market. High prices of goods and services will affect the amount of net profit earned by the company because of the increase in production costs incurred which will result in a decrease in company performance.

The increase in inflation also affects people's purchasing power, so that many investors will delay their investment activities due to rising prices of consumer goods. So that issuers (company) and underwriters will set a low IPO share offering price, thereby increasing the risk of underpricing.

In relation to signal theory, a low inflation rate can be a positive signal for investors to carry out investment activities in buying shares because this inflation rate describes the macroeconomic conditions in a country in a certain period. However, a high inflation rate will act as a negative signal for issuers because there is a possibility that investors will delay investment activities. This will result in a low level of first-day profit that will be obtained by the company due to the possibility of underpricing caused by high inflation.

5. CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of the data assessment that has been carried out, it is concluded that the profitability (ROA), company age, and financial leverage (DER) variables have no significant effect on the first day profit level. Then the underwriter variable has a significant negative effect on the first day's profit rate as measured by the underpricing value and the inflation rate variable has a positive significant effect on the first day's profit rate as measured by the underpricing value.

Suggestions

Based on the results of the analysis carried out, a few suggestions can be submitted by the author which are written below:

For Companies

With a significant negative effect on the underwriter variable, issuers are expected to be able to choose an underwriter with a good reputation and success rate. This is to avoid setting the price of shares that will be offered to investors experiencing underpricing. So that the company will get a high level of profit on the first day.

In addition, there is a significant positive effect between inflation and underpricing, which can be considered by issuers before conducting an Initial Public Offering. High inflation can hinder the process of buying offering shares by investors because inflation affects the ability of issuers to earn profits due to rising prices of goods and services. People's purchasing power will decrease, resulting in delays in investment activities. Thus, issuers and underwriters will
set a low IPO share offering price to attract investors' attention, thereby increasing the risk of underpricing. So that it will affect the level of profit on the first day that will be obtained later.

For Investors

In this study, one of the variables that can be calculated for investors in buying shares in the primary market is the inflation rate. This is because the high inflation during the IPO sends a negative signal to issuers because inflation has an influence on the purchasing power of investors so that issuers and underwriters will generally set a low IPO share offering price with the aim of attracting investors' attention to continue investing activities. Thus, this condition becomes a positive and profitable signal for investors because investors can obtain IPO shares at a low price.

For Further Research

The independent variable in this study was only able to explain the effect on the dependent variable of 10.04%. While the remaining 89.96% is explained by other independent variables that are not the object of research. Therefore, it is recommended for further research to carry out research on other independent variables or add variables outside of this research.

REFERENCES


