Factors Affecting Underpricing And Its Implications 
Stock Return on Companies Listed on the Indonesia Stock Exchange

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Abstract: This study discusses the factors that affect underpricing (UNDR) and its implications on stock returns (RS). The factors in question are Debt To Equity Ratio (DER), Return On Assets (ROA), Company Age (AGE) and Company Size (SIZE). This study applies a quantitative descriptive approach. The type of information used is Secondary Data, in the form of Financial Statements for Companies listed on the Indonesia Stock Exchange (IDX). 15 companies that conducted an IPO in 2016 became the population in this study using purposive sampling, so that 9 companies were obtained as samples. The research was processed using Eviews 9.0. The results showed that DER, ROA, AGE, SIZE had an effect on underpricing. DER, ROA, AGE and SIZE together have an effect on underpricing. DER, ROA, SIZE and underpricing have an effect on Stock Return, while AGE has no effect on Stock Return. DER, ROA, AGE, SIZE and underpricing together have an effect on Stock Return. Underpricing is a mediator or acts as an intervening variable in the effect of DER and ROA on stock returns, but not for AGE and SIZE.

Keywords: Underpricing (UNDR), Stock Return (RS), Debt To Equity Ratio (DER), Return On Assets (ROA), Company Age (AGE), Company Size (SIZE).

1. INTRODUCTION

Sources of organizational financing can be created from own capital and can be through outside parties, especially advances from banks or issuance of protection in the capital market. Capital market capacity is a way to get assets from financial supporters and a place to put resources into monetary instruments (Sustainable Finance OJK, 2016). Speculation is the movement of asset arrangements in at least one resource during a certain period in the hope of obtaining an expansion of the value of the underlying business (capital) that plans to strengthen normal returns (Jogiyanto, 2017) in the journal (Gendis, 2019). One of the most well-known interests in the capital market is stocks. In basic terms, an offer can be characterized as a safeguard that is evidence of an investment or responsibility or effort in an organization. Organizations that are involved in the capital market should have the option of building their organizational value because it is an outline of the speed of return. Stock return is the rate of return that investors get on the exercise of the venture. Stock returns are not fixed, sometimes increase and sometimes decrease depending on the financial condition of the organization.

By joining the capital market, the organization is expected to be able to contribute shares through the essential market, which is known as the Initial Public Offering. The reason the organization is leading the process of the First Share Sale (Initial Public Offering) is to acquire assets for business expansion or liability reimbursement purposes which are wholly intended to work on the organization’s monetary position and strengthen the capital design. As the article (Agregasi, 2016) shows, the peculiarity of the window dressing...
towards the end of 2016 made the Composite Stock Price List move to the 5,300 focus level which brought an expanded speculative premium from financial backers. Window dressing is a system carried out by the board of organizations speculation to decorate their portfolios or monetary executions before showing them to clients or investors. The uniqueness of this window dressing prompted the organization to complete the Initial Public Offering process in 2016. In addition, the most common oddity experienced in the Initial Public Offering process is underpricing, especially the stock price that occurs in the essential market. (Initial Public Offering) is lower than the first sale of shares (Initial Public Offering). This is because the offer price to be traded in the essential market is settled based on an agreement between the guarantor organization and the financier, while the value that occurs in the optional market is influenced by the existing business sector system with the power of interest and through offers in the capital market. Underestimation is a negative for organizations that are open to the world, arguing that the assets acquired from the general population are less extreme. Then again, if overpricing occurs, the financial backers will lose the cash, because they don't get the underlying return. The initial return is the profit that the investor earns as a result of the difference in the cost of the offer at the time it is bought in the essential market with the cost of selling the offer which is feared in the supplementary market. The owner needs to limit the underpricing situation, because the underpricing event here will bring an abundance exchange from the owner to financial supporters (Beatty, 1989) in (Desiana, 2016).

Although a lot of research has been done on underpricing, research in this area is still considered to be a very interesting specialty to study because of the irregularity of the effects of exploration, and most of the research is centered on non-monetary data, while many monetary proportions affect underpricing and stocks. return. The author examines DER and ROA as organizational financial data. According to (Sukamulya, 2017), DER measures the level of organizational capital design obligations. This proportion predicts an increase in the organization's business hazards with the extension of full liability. Meanwhile, ROA proves the capacity of an organization when utilizing all available resources to be able to produce postpaid benefits. The more prominent the ROA, the more proficient the use of organizational resources is (Sudana, 2015). For this situation, financial support can be found. In addition to monetary data, the authors chose AGE and SIZE as non-monetary data to consider. AGE is from the establishment of the organization until it can carry out its duties (Harmony and Herman, 2007) within (Puspita, 2019). The length of time the organization was founded means that the organization has experience in making maturity, and has the option to design actions to build benefits so that they have the option to compete. Meanwhile, as shown by Gunawan, et al., 2015 in (Puspita, 2019) SIZE is a big picture of the size of an organization.

In addition to the above phenomena, the following are previous studies as triggers when conducting research to be carried out. According to (Saifudin & Rahmawati, 2016), DER has a significant and significant effect on underpricing, while according to (Serliani, 2020) DER has no effect on underpricing. Furthermore, research (Anjani, 2016) shows that DER has an effect on stock returns while (Dura & Vionitasari, 2020) states that DER has no effect on stock returns. Then, according to (Alviani & Lasmana, 2015) there is a positive effect of ROA on underpricing, while according to (Serliani, 2020) ROA has no effect on underpricing. Next, research (Sitanggang, 2018) shows a relationship between ROA and stock returns, but research (Mangantar, Mangantar, & Baramuli, 2020) shows the opposite. Furthermore, according to (Saifudin & Rahmawati, 2016) AGE has a significant effect on underpricing, while (Asnaini, 2020) states that AGE has no effect on underpricing. Furthermore (Kusuma, 2018) states that there is no effect of AGE on stock returns, but according to (Mubarok, Tandika, & Nurdin, 2015) there is an effect of AGE on stock returns. Furthermore, according to (Mayasari, Yusuf, & Yulianto, 2018) SIZE has an effect on underpricing, however (Alimah, 2020) states that SIZE has no effect on underpricing. Next, according to (Mubarok, Tandika, & Nurdin, 2015) shows a relationship between SIZE and Stock Returns, while (Setiyono & Amanah, 2016) shows the opposite.

The problem in this study is reflected in the form of questions, namely: Is there any influence of Debt To Equity Ratio (DER), Return On Assets (ROA), Company Age, Company Size, either partially or simultaneously on Underpricing; Is there any influence of Debt To Equity Ratio (DER), Return On Assets (ROA), Company Age, Company Size, Underpricing either partially or simultaneously on Stock Return; Is Underpricing a variable that
moderates the effect of Debt To Equity Ratio (DER), Return On Assets (ROA), Company Age, Company Size on Stock Return.

2. LITERATURE REVIEW

Asymmetric Information
Directors who are in charge of the organization seek to know about insider news and possible future friends rather than owners (investors). Therefore, as a leader, the management is obliged to convey a sign about the state of the organization to the owner. The sign given should be made possible through the exposure of bookkeeping news such as budget reports. The budget summary is planned for use by various meetings, including the actual administration of the organization. The current situation will trigger the issuance of a condition that is considered as unbalanced data (information asymmetry). That is a condition where there is an irregularity in obtaining data between the executive as a data supplier (prepaper) with investors and partners as a whole as data clients (clients).

Signalling Theory
According to Richard D. Morris in (Mediawati & Afiyana, 2018) Signal theory is a solution to every problem in the company by sharing information from those who have more information to those who have less information.

Agency Theory
According to Perdana and Raharja in 2014 in (Handayani S. N., 2019) Agency Theory is a correlation between agents (management) and principals (shareholders) which is a description of the existence of a cooperation agreement between managers and shareholders that gave rise to the agency theory, the correlation of the cooperation agreement. in the form of authority given from the principal to the agent in order to work so that the principal's goals are achieved.

Earnings Management Theory
As pointed out by Schipper in 1989 in (Sumantri, 2017) Executive profits are mediated for certain reasons outside the monetary announcement process by deliberately obtaining some personal gain. The advantage of executives as mediators for reasons unknown outside the cycle of revelations related to money deliberately gets some individual refinement. So (participants) who are related to the use of associations, either directly or indirectly, must know the benefits provided by the administration in the association, so that it does not become a problem that can harm partners in the future.

Capital Market
The capital market is a place where stock trading is carried out. Understanding stock trading (stock trade) is a coordinated framework where dealers and buyers meet from direct or indirect protection. According to Capital Market Regulation No. 8 of 1995 concerning the Capital Market in (Muklis, 2016), the capital market describes the activities of public donations that are regulated and protected, as well as foundations and securities-related professions.

Initial Public Offering
Quoted from the diary article, First Cycle of Sales of Shares on the IDX in (Amarilisya, 2021), The first sale of shares or public contributions is a term in which an organization or guarantor provides and sells the protection provided as an offer to individuals in general. Basically, he alluded to when the organization previously took to the stock exchange floor on the IDX to lead the sale of its initial shares.

Relationship between DER and Underpricing
DER is the organization's way of fulfilling each of its commitments, for example using capital to pay obligations. The more attention paid to the DER value shows that the business capital design uses liabilities that are proportional to the value. The amount of DER becomes a boomerang for the company, because it can reduce
the interest of investors to buy shares. A high DER indicates the organization's inability to return the down payment, and vice versa. Investors in determining business choices will consider the DER of each organization. In this way, the level of vulnerability will be higher and make underpricing increase. This information is related to research (Saifudin & Rahmawati, 2016).

**Relationship between ROA and Underpricing**

ROA as a measure of the adequacy of the organization seen from the resources of the organization. Investors who will donate their capital can involve this proportion as a consideration of whether the guarantor in his duties will later make a profit. The high capacity of the guarantor to get a return on the resources owned, will make the investment risk smaller. This implies that the organization can leverage its resources, thereby reducing underpricing. A high ROA benefits the organization because this data allows investors to join the organization in increasing capital. The high benefits of an organization will reduce the vulnerability for financial backers with the aim that it will reduce the level of underpricing. This implies a low opportunity for investors to get the return received at the beginning. This information is closely related to the research results (Alviani & Lasmana, 2015).

**Relationship between AGE and Underpricing**

The length of time an organization exists makes information about the organization known to the wider community, which will reduce data imbalances and reduce vulnerabilities in the future. Organizations that have been around for a long time may have more insight. The length of time the organization has been established is a consideration for investors to join the organization in investing. The longer the organization stands, the easier it is for organizations to face business competition. This information is related to the results of research by (Saifudin & Rahmawati, 2016).

**Relationship between SIZE and Underpricing**

Organizations that have more assets will be quickly recognized by the public so that information is easier to obtain than companies that have fewer assets. The level of vulnerability that would-be financiers see with regard to the ultimate fate of the guarantor organization can be limited by assuming large amounts of data are available. As a rule, the scale or size of the organization is a financial support element in choosing to donate their capital. This information is related to the results of research by (Mayasari, Yusuf, & Yulianto, 2018).

**Relationship between DER and Stock Return**

DER serves to measure the capital capacity of the organization which is used as a guarantee of organizational obligations. DER is a way of checking all liabilities, by utilizing capital. A low DER price carries less risk of bad luck when the financial situation is down, but when the financial situation improves, the chances of making a profit are generally low and vice versa. This information relates to research results (Anjani, 2016).

**Relationship between ROA with Stock Return**

ROA is obtained by looking at the net profit or EAT with absolute resources. ROA shows the capacity of the organization to benefit from the capital it uses. ROA is directly proportional to profits that can increase transaction value. Expanded transactions will make organizational profits also increase and show good and good organizational activities. Wise investors will place funds in organizations that have high profits, thereby increasing the value of the stock. This information is related to research results (Sitanggang, 2018).

**Relationship between AGE with Stock Return**

The length of time the organization has been established is proof that the organization can compete well. An indicator of the length of the organization can be seen from the perspective of the organization, with the assumption that more experienced organizations are seen as businesses that have less stakes in speculative choices. This information is related to the results of research by (Mubarok, Tandika, & Nurdin, 2015).
Relationship between SIZE with Stock Return
The high total assets will be trusted by investors in investing because it is possible that the stock return will be large and the possibility of bankruptcy of the company is small. This is in line with research (Mubarok, Tandika, & Nurdin, 2015) that there is a significant effect of firm size on stock returns.

Relationship between Underpricing with Stock Return
Underpricing is the underlying benefit (initial return) of a predetermined price. The unevenness of stock data is reflected in the extent of the evaluation. The presentation of the Initial Public Offering is due to the magnitude of the underlying benefits. Initial Return is the final value of shares when issued on the secondary market minus the IPO price compared to the initial share price.

Research Framework

![Figure 1 Direct Relationship Thinking Framework](image1)

![Figure 2 Indirect Relationship Thinking Framework](image2)

Hipotesis Penelitian:
H1 : There is an effect of DER with Underpricing.
H2 : There is an effect of ROA with Underpricing.
H3 : There is an effect of AGE with Underpricing.
H4 : There is an effect of SIZE with Underpricing.
H5 : The effect of DER, ROA, AGE, SIZE together on underpricing.
H6 : There is an effect of DER with stock returns.
H7 : There is an effect of ROA with stock returns.
H8 : There is an effect of AGE with stock returns.
H9 : There is an effect of SIZE with stock returns.
H10 : There is an effect of Underpricing with stock returns.
H12 : There is an effect of DER on stock returns with underpricing as an intervening variable.
H13 : There is an effect of ROA on stock returns with underpricing as an intervening variable.
H14 : There is an effect of AGE on stock returns with underpricing as an intervening variable.
H15 : There is an effect of SIZE on stock returns with underpricing as an intervening variable.

3. RESEARCH METHODS

Variable Operation

Debt to Equity Ratio (DER)
According to (Sukamulya, 2017), DER is a ratio for the layman used to calculate the level of liability in the construction of organizational capital. This proportion is very important to measure the increasing business hazard of the organization by expanding how much liability. Calculating DER, the indicator that can be used is the total amount of debt divided by the amount of capital. Liability to DER Value Proportion can be estimated using the following equation:

\[
DER = \frac{Total\ Debt}{Total\ Shareholder's}
\]

Return On Asset (ROA)
ROA as a measure of the adequacy of the organization seen from the resources of the organization. The higher the ROA value, the more productive the utilization of organizational resources or in other terms utilizing the same amount of resources, the greater the profits that can be obtained, and vice versa (Sudana, 2015). Calculating ROA, commonly used markers are Net Income After Tax and Total Assets. Calculating ROA can be estimated using the following equation:

\[
ROA = \frac{Net\ Income\ After\ Tax}{Total\ Assets}
\]

Company Age (AGE)
Organizational age is the age since its establishment until the organization can carry out its activities (Harmony and Herman, 2007) in it (Puspita, 2019). The wider the existence of the organization, the more experience the organization has in fulfilling its obligations, and can design game plans that can expand benefits and can compete. The age of the organization is determined from the founding of the organization in accordance with the deed of establishment of the organization until the organization leads the Initial Public Offering. The age of the organization can be determined using the following strategies:

\[
\text{Company Age} = \text{IPO year} - \text{Company Founding Year}
\]

Company Size (SIZE)
Organizational size is a picture of the size of an organization (Gunawan, et.al., 2015) in (Puspita, 2019). Organizational size n can be used as an intermediary for the level of vulnerability of the stock. Organizations with large coverage will usually be better known to the public in order to make reports on possible large organizations make more sense to financial advocates than organizations with limited coverage.
The size of the organization can be determined using the following strategies:

\[
\text{Company Size} = \ln(\text{Total Assets})
\]

**Underpricing**

As pointed out by Sumarso in 2003 in (Handayani E. , 2020), stock underpricing is a condition in which the cost of offerings exchanged in the essential market is lower than in the supplementary market. Underpricing can be estimated using the following equation:

\[
\text{Underpricing} = \frac{\text{Secondary Market Closing Price} - \text{IPO year}}{\text{IPO year}} \times 100\%
\]

**Return Saham**

As pointed out by Acheampong et al. 2014 in (Yap & Firnanti, 2019) Stock Return is the normal rate of profit from speculation placing resources into stocks or some collection of offerings through portfolios. Stock Return is the speed of return as a benefit or misfortune obtained by financial backers during a certain period. As Alexander and Destriana pointed out in 2013 in (Yap & Firnanti, 2019) Returns on shares can take the form of gains, specifically organizational profits earned by financial backers in the form of real money, offers, or property, and increased capital, particularly the contrast between prices tags and deal fees. According to Jogiyanto in 2017 in (Permatasari, 2020) the stock return formula can be estimated using the following equation:

\[
R_t = \frac{P_t - P_{t-1}}{P_{t-1}}
\]

Information

\[
\begin{align*}
R_t &= \text{Stock returns} \\
P_t &= \text{Last year or current stock price} \\
P_{t-1} &= \text{Previous period’s stock price}
\end{align*}
\]

**Population and Sample**

The population studied were 15 companies that led the 2016 Initial Public Offering which were included in the list of IDX companies (issuers) during 2016-2020. The sample used is as many as 9 samples that are included in the list of companies (issuers) on the IDX during 2016-2020. The technique commonly used when sampling during this research is a non-probability technique.

**Descriptive Statistical Analysis**

Descriptive Statistics has the capacity to make a description of the object of examination through simple sample or population information indicated by the greatest and smallest qualities. Descriptive statistics can also be described as several techniques related to the collection and introduction of information collections so that they can provide useful data. Create groupings so that derivation and enlightenment measurements are made based on their practice.

**Model Selection**

The estimation model commonly used in panel data regression is to use three approaches (Basuki A. T., 2017) namely: CEM, FEM, and REM. This testing procedure is intended to determine the 3 models in the regression, namely: Chow test, Hausman test, and Lagrange multiplier test.
Classic Assumption

Normality test
The Normality Test intends to test the model in regression, frustrating factors or residuals that are indeed normally distributed (Ghozali (2011) in (Handayani S. N., 2019).

Multicollinearity Test
Multicollinearity test is usually used to examine the side effects of the model of the relationship between autonomic factors or not.

Heteroscedasticity Test
The heteroscedasticity test looks for the disparity of fluctuations from one perception to another. Assuming this is the case, the end is homoscedasticity.

Research Hypothesis Test
The theory test is completed after the selected model completes the classical assumption test assessment. In this review, there are 2 exploratory structures. The main structure analyzes its impact on underpricing and the next structure examines its impact on stock returns.

Equation For Structure 1

\[
\text{UNDR} = \alpha + \beta_1 \text{DER} + \beta_2 \text{ROA} + \beta_3 \text{AGE} + \beta_4 \text{SIZE} + \epsilon_i
\]

Equation For Structure 2

\[
\text{RS} = \alpha + \beta_1 \text{DER} + \beta_2 \text{ROA} + \beta_3 \text{AGE} + \beta_4 \text{SIZE} + \beta_5 \text{UNDR} + \epsilon_i
\]

Information
- \(\text{RS}\) = Stock returns
- \(\text{UNDR}\) = Underpricing
- \(\alpha\) = constant
- \(\text{DER}\) = Debt to Equity Ratio
- \(\text{ROA}\) = Return On Asset
- \(\text{AGE}\) = Company age
- \(\text{SIZE}\) = Company size
- \(\epsilon_i\) = Error company i in time t

T test (Partial Test)
According to (Ghozali, 2018) the t-test is always used to some extent to test the impact of each autonomous variable used in this review on the dependent variable.

F Test (Simultaneous)
This test is to see a higher level of achievement of the model, which can understand the peculiarities of the dissected. F test to see the effect on the autonomous variable (free) as well as the effect of the dependent variable (bound). Synchronous testing is completed by taking into account the significant value of F at the level of 5%. Assuming probability < 0.05, this means that the exploratory model can be achieved, whereas if the opposite is > than 0.05, the model is considered not comparable.

Coefficient of Determination
The coefficient of determination estimates the capacity in the model to understand the dependent variable. The value of the coefficient of determination lies in the range of 0 and 1. The simplest number shows the capacity of the independent variable is very limited in understanding the independent variable. A value close
to 1 indicates that the independent variable can understand the expected data to anticipate the dependent variable.

**Path Analysis**

Path analysis is a development technique of double linear regression. The existence of intervening variables in path analysis can trigger an indirect relationship.

![Figure 3 Path Analysis Model](image)

4. **FINDINGS AND DISCUSSION**

**Descriptive statistics**

<table>
<thead>
<tr>
<th>Table 1 Descriptive Statistical Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DER</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Based on table 1 above, it shows that the total observations in this study are 45 data, and it is known that the average value (mean) of the DER variable is 1.382667, the highest value is 8.100000, and the lowest value is 0.000000. The average value (mean) of the ROA variable is 1.691111, the highest value is 14.60000, while the lowest value is -45.10000. Meanwhile, AGE has an average value of 22.77778, the highest score is 49,000 and the lowest value is 2.000000. SIZE displays the average value (mean) which is 28.18419 and the highest value is 30.57312, while the lowest data is 24.57000. UNDR which is the intervening variable studied shows the mean value is 1.539319, in this data group the highest value is 20.59091, while the lowest data is -0.683077. RS, which is the dependent variable in the study, is known to have an average value (mean) of 0.359500 in terms of the organization’s initial return in the form of profit or loss received by investors during certain periods as measured by the difference between the current stock price and last year’s stock price divided by price. The stock last year showed a figure of 0.36%. The highest value is 15.84783, while the lowest value is -0.597143.

**Model Selection**

**Structure 1 (Underpricing)**

Of the three test systems for selecting the panel data regression model in structure 1, the accompanying decisions are obtained:

<table>
<thead>
<tr>
<th>Table 2 Results of Model Selection and Testing of Structure Panel Data Regression 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
</tbody>
</table>

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Based on table 2, it can be concluded that by carrying out tests in choosing a model, the Fixed Effect Model (FEM) is more appropriate than the other two panel data regression models.

**Structure 2 (Return Saham)**

<table>
<thead>
<tr>
<th>No</th>
<th>Test</th>
<th>Model Type</th>
<th>Prob/Sig</th>
<th>α</th>
<th>Results</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Chow Test</td>
<td>CEM VS FEM</td>
<td>0.0000</td>
<td>0.05</td>
<td>FEM</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>LM Test</td>
<td>CEM VS REM</td>
<td>0.3688</td>
<td>0.05</td>
<td>CEM</td>
<td>FEM</td>
</tr>
<tr>
<td>3.</td>
<td>Hausman Test</td>
<td>REM VS FEM</td>
<td>0.0000</td>
<td>0.05</td>
<td>FEM</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 3, it can be concluded that by carrying out tests in choosing a model, the Fixed Effect Model (FEM) is more appropriate than the other two panel data regression models.

**Classic Assumption**

**Normality test**

Based on Figure 4 with the help of Eviews 9, it was found that the jarque-fallow value was 6.107274 with a p value of 0.057187 which was > from 0.05. So we can conclude that the data is normally distributed.

**Multicollinearity Test**

<table>
<thead>
<tr>
<th></th>
<th>DER</th>
<th>ROA</th>
<th>AGE</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER</td>
<td>1</td>
<td>-0.644310</td>
<td>-0.067648</td>
<td>0.156855</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.644310</td>
<td>1</td>
<td>0.197973</td>
<td>0.185082</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.067648</td>
<td>0.197973</td>
<td>1</td>
<td>0.120964</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.156855</td>
<td>0.185082</td>
<td>0.120964</td>
<td>1</td>
</tr>
</tbody>
</table>

Based on table 4, it can be concluded that by applying the method of partial correlation between the detailed independent variables, there is no relationship between the independent variables above 0.80. So in conclusion there is no multicollinearity between independent factors considering the fact that the next test score is less than 0.80.
Heteroscedasticity Test

The results in this study prove that the cross section data is suspected to have heteroscedasticity according to the data in Figure 5, so white heteroscedasticity consistent standard error & variance is applied to determine residuals, so that heteroscedasticity does not occur.

Hypothesis testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>DER</td>
<td>-1.112880</td>
<td>-2.853167</td>
<td>0.0075</td>
<td>Significant</td>
</tr>
<tr>
<td>H2</td>
<td>ROA</td>
<td>-0.219958</td>
<td>-3.080365</td>
<td>0.0042</td>
<td>Significant</td>
</tr>
<tr>
<td>H3</td>
<td>AGE</td>
<td>-0.482671</td>
<td>-1.433600</td>
<td>0.1614</td>
<td>Not significant</td>
</tr>
<tr>
<td>H4</td>
<td>SIZE</td>
<td>7.388445</td>
<td>4.197309</td>
<td>0.0002</td>
<td>Significant</td>
</tr>
<tr>
<td>H5</td>
<td>SIMULTAN</td>
<td>F=5.328390</td>
<td>0.000073</td>
<td>Significant</td>
<td></td>
</tr>
</tbody>
</table>

R-squared 0.666461

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6</td>
<td>DER</td>
<td>-1.710929</td>
<td>-3.186375</td>
<td>0.0033</td>
<td>Significant</td>
</tr>
<tr>
<td>H7</td>
<td>ROA</td>
<td>-0.286216</td>
<td>-3.319060</td>
<td>0.0023</td>
<td>Significant</td>
</tr>
<tr>
<td>H8</td>
<td>AGE</td>
<td>-0.331554</td>
<td>-3.071244</td>
<td>0.0044</td>
<td>Significant</td>
</tr>
<tr>
<td>H9</td>
<td>SIZE</td>
<td>6.425112</td>
<td>3.428737</td>
<td>0.0017</td>
<td>Significant</td>
</tr>
<tr>
<td>H10</td>
<td>UNTR</td>
<td>-0.643905</td>
<td>-3.026287</td>
<td>0.0049</td>
<td>Significant</td>
</tr>
<tr>
<td>H11</td>
<td>SIMULTAN</td>
<td>F=6.782047</td>
<td>0.000006</td>
<td>Significant</td>
<td></td>
</tr>
</tbody>
</table>

R-squared 0.739860

The results of the estimation of factors that affect underpricing according to table 5, namely DER, ROA, AGE and SIZE by applying the fixed effects model, the equation for structure 1 is obtained as follows:

$$UNDR = -281.999292972 - 0.627727573851^*DER - 0.117004422615^*ROA - 1.42569079763^*AGE + 86.544007696^*SIZE$$

While the results of the estimation of factors that affect stock returns, namely DER, ROA, SIZE and underpricing by applying the fixed effects model, the equation for structure 2 is obtained as follows:

$$RS = -499.278984135 - 1.67617291905^*DER - 0.268922335984^*ROA - 1.15188105686^*AGE + 151.863486694^*SIZE - 0.616069639142^*UNDR$$
Path Analysis
Path analysis is used to understand the effect of DER, ROA, AGE and SIZE on Stock Return (RS) and compare it with the effect of DER, ROA, AGE and SIZE on Stock Return (RS) through Underpricing (UNDR) as an intervening variable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Direct Influence to UNDR</th>
<th>Indirect Influence to RS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER</td>
<td>-1.112880 S</td>
<td>-1.710929 S</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.219958 S</td>
<td>-0.286216 S</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.482671 T</td>
<td>-0.331554 S</td>
</tr>
<tr>
<td>SIZE</td>
<td>7.388445 S</td>
<td>6.425112 S</td>
</tr>
<tr>
<td>UNDR</td>
<td>-0.643905 S</td>
<td></td>
</tr>
</tbody>
</table>

S : Significant ; TS : Not significant

5. DISCUSSION

The Effect of DER on underpricing.
DER has an effect on underpricing, so H1 is accepted. A high DER indicates a higher stake of monetary disappointment or inability to pay obligations to the loan boss. Organizations with high DER values will generally take advantage of the consequences of an Initial Public Offering to pay obligations to lenders instead of expanding their business to grow their organization. This can reduce the premium of financial support so that in determining their speculative choice they will consider a high DER price, resulting in a higher level of vulnerability and an impact on the level of underpricing. The information above is related to research (Saifudin & Rahmawati, 2016) which proves that there is an effect of DER on underpricing.

The Effect of ROA on underpricing.
ROA has an impact on underpricing, so H2 is accepted. ROA data show that the capacity of the organization to generate net profits is very important for financial supporters in placing resources into the capital market, because it can affect the returns obtained by financial supporters in the secondary market. This research is related to that conducted by (Alviani & Lasmana, 2015) which explains that ROA has an influence on underpricing.

The Effect of AGE on underpricing.
Age has an impact on underpricing, so H3 is accepted. The high age of the organization is considered to have been tested so that it can attract investors because it is believed that organizations that have been around long enough have information to produce that affects the increase in long-term returns. So that organizations that have been around for a long time will reduce underpricing. This research is related to research (Saifudin & Rahmawati, 2016).

The Effect of SIZE on underpricing.
SIZE has an effect on underpricing, so H4 is accepted. The size of the organization is important for attracting potential financial backers when an organization is open to the world. Large organizations have high resources, great organizational conditions because they have better control over the economic situation, data about large organizations with high resources are more and easier to obtain and are not resistant to monetary changes, so they can face financial contests. Even though the resource value of the mostly piloted company is increasing, but not backed by big monetary executions, this should be seen by financial backers as a bad sign and could lead to underpricing. The larger the size of the organization, the lower the level of underpricing of the stock. Initial public offerings of shares can also be limited, while the limited scope of the organization has high stakes, especially higher levels of underpricing, this is on the grounds that financial backers do not believe in the possibility of being questioned. organization, so that financial support capital can offer low costs and
underpricing an initial public offering is very difficult to avoid. This research is in line with his research (Mayasari, Yusuf, & Yulianto, 2018)

**Simultaneous effect of DER, ROA, AGE and SIZE on underpricing.**

Simultaneously, all independent variables have an effect on underpricing, so H5 is accepted with a value of R square (R²) = 72.94%, while 27.06% is influenced by other factors that are not in the model tested in this study.

**The Effect of DER on Stock Return**

DER has an impact on Stock Return, so H6 is accepted. The high value of DER shows the more prominent the commitment or responsibility that must be carried out by the organization. Investors tend to go to organizations that have a smaller DER. A small DER indicates that the commitment borne by the organization is also getting lower, so the larger the DER, the smaller the premium of funders who put resources into the organization, this can be seen from the small share price, which in turn results in the stock return on the organization being lower. This research is related to research (Anjani, 2016)

**The Effect of ROA on Stock Return**

ROA has an impact on Stock Return, so H7 is accepted. ROA as a measure of the adequacy of the organization seen from the resources of the organization. The higher the ROA, the more feasible the organization is in utilizing its resources to generate net profits. Investors will be interested in putting resources into organizations that have a high ROA, thus affecting stock returns. This research is related to research (Sitanggang, 2018) which states that ROA has an effect on Stock Return.

**The Effect of AGE on Stock Return**

These results indicate that age does not have an impact on iShare returns, so H8 is not accepted. Organizational age is used as a benchmark to see the nature of the organization because more established organizations are considered to have good performance, but this data generally has no impact when stock offerings are made on the secondary market, because many investors in the secondary market understand organizational data after it is distributed on the IDX. This research is related to research (Kusuma, 2018) which states that there is no effect of company age on stock returns.

**The Effect of SIZE on Stock Return**

SIZE has an impact on Stock Return, so H9 is accepted. With high resources, the company will be relied on by financial investment actors in contributing considering the possibility of increasing stock returns and the possibility of collapse of small organizations. This research is related to research (Kusuma, 2018) which states that there is no effect of firm size on stock returns.

**The Effect of Underpricing on Stock Returns.**

Underpricing has an effect on Stock Return, so H10 is accepted. The occurrence of underpricing due to irregularities in the circulation of data between Initial Public Offering figures, particularly organizations, guarantors, and financial backers. For the (supporting) organization, underpricing can hinder the guarantor because the assets collected are not ideal. Nevertheless, underpricing can be used as an advertising technique to increase the premium of financial support in placing resources into the Initial Public Offering that can affect Stock Returns. An underpricing opportunity is created with the expectation that the guarantor will charge the contribution fee well below market cost to limit the misfortune to be incurred on an unsold offer. This is in line with research (Mubarok, Tandika, & Nurdin, 2015) that there is an effect of firm size on stock returns.

**The Effect of DER, ROA, AGE, SIZE and Underpricing Together on Stock Return.**

Simultaneously, all independent and intervening variables have an impact on stock returns, so H11 is accepted with an R square value (R²) of 72.87%, while 27.13% is influenced by other factors that are not in the model
tested in this study. This research is related to research penelitian (Mubarok, Tandika, & Nurdin, 2015) which proves the influence of company size on stock returns.

**Underpricing as a Mediator of the Effect of DER on Stock Return**
The direct effect of DER on Stock Return is -1.676173 and significant, so H12 is accepted. The indirect effect of DER on Stock Return through Underpricing is 0.386724. This figure is the result of multiplication of -0.627728 multiplied by -0.616070 and is significant, so the direct effect is smaller than the indirect effect. As a result, it can be concluded that Underpricing (UNDR) is a mediator of the effect of DER on Stock Return.

**Underpricing as a Mediator of the Effect of ROA on Stock Return**
ROA has a direct effect on Stock Return of -0.268922 and is significant, so H13 is accepted. The indirect effect of ROA on Stock Return through Underpricing is 0.072082. This figure is the result of multiplying -0.117004 with -0.643905 and is significant, so the indirect effect is greater than the direct effect, so it can be concluded that underpricing is a mediator of the effect of ROA on stock returns.

**Underpricing as a Mediator of the Effect of AGE on Stock Returns**
Age has a direct effect on underpricing of -1.425691 and is significant, so H14 is not accepted. The direct effect of Firm Age (AGE) on Stock Return (RS) is -1.151881 and is significant. So it can be concluded that underpricing is not a mediator of the effect of firm age (AGE) on stock returns (RS), because it is not significant.

**Underpricing as a Mediator of SIZE Effect on Stock Return**
Company size (SIZE) has a direct effect on stock returns of 151.8635 and is significant. The indirect effect of company size (SIZE) on stock returns through underpricing is -53,317168, so H15 is not accepted. This figure is the result of multiplying 86.54401 multiplied by -0.616070 and significant, so the direct effect is greater than the indirect effect. As a result, it can be concluded that Underpricing is not a mediator of the influence of Company Size (SIZE) on Stock Return.

6. **CONCLUSIONS AND SUGGESTIONS**

**Conclusion**
From the reaction of the investigation to the theoretical test above, with the aim of being able to answer the problem plan that can finally be drawn, specifically that DER, ROA and SIZE have an effect on underpricing and stock returns, while AGE has an effect on underpricing and has no effect on stock returns. DER, ROA, AGE and SIZE simultaneously have an impact on underpricing and stock returns, as well as underpricing on stock returns. Underpricing is a mediator of the effect of DER and ROA on stock returns but not with AGE and SIZE.

**Suggestion**
If an organization wants an IPO on the IDX, it must pay attention to DER, ROA, AGE, SIZE in order to determine the timing of the company's IPO to ensure Sustain underpricing and perform well in the long term so that it can still generate positive returns. If you want to do further research, you can use other variables, in this case if you want to determine underpricing and stock returns, so that the results are more accurate. Future researchers should examine macroeconomic variables, such as inflation and JCI returns, which can affect stock market conditions at the time of the IPO. It is recommended that future researchers use stock returns for the last period, such as 2021 to 2025.

7. **REFERENCE**


INFO

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