

## UNDERPRICING SIGNALS: EXPLOITATION OF DAR VARIABLES (DEBT TO ASSET RATIO)

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### Abstract

The analysis of DAR (Debt to Asset Ratio) associated with the level of underpricing movement is the main focus in this study process. This study adopts a quantitative approach and relies on secondary data with a focus on explanatory research. The utilization of purposive sampling method in sample selection allows the study to focus on 77 issuers over a significant period from 2021 to 2022. The uniqueness of this study lies in the use of the latest data and a sample that reflects the situation during the period. In analyzing the data, linear regression with the support of EViews software is used as the main tool to test the hypothesis. The data source is obtained from the information of companies conducting initial public offerings and accessed through the Indonesia Stock Exchange website. The calculation results show a significant impact of the DAR variable on the level of movement of IPO stock underpricing. The positive coefficient on the DAR variable indicates that an increase in the DAR value has the potential to increase the level of movement of IPO stock underpricing, and vice versa.

Keywords: IPO, Underpricing, DAR

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### 1. Introduction

DAR (Debt to Assets Ratio) emerges as a key variable in this study. DAR is an important indicator in analyzing a company's capital structure, giving an idea of the extent to which, the company utilizes debt resources to support its assets. Within this framework, this study will explore it further, specifically focusing on the 2021-2022 period which includes significant events and dynamics in the global market. DAR is a key benchmark to measure the extent to which a company utilizes debt to fund its assets. This ratio reflects the company's level of dependence on borrowings and can tell us a lot about the finance risk it may face. One of the financial ratios that can be a key factor in analyzing underpricing is DAR. In the context of this study, the main focus is to understand the effect of DAR on stock underpricing during the 2021-2022 period.

According to Tandelilin (2010) The capital market is a meeting between parties who have excess funds and parties who need funds by trading securities. In the challenging dynamics of the capital market, underpricing at the time of Initial Public Offering (IPO) is an interesting phenomenon that is enough to spark the attention of stakeholders. IPO means the sale of securities by a company for the first time (Tandelilin, 2010). (Tandelilin, 2010). Based on this basic reference, IPO is considered as a strategy that can be an option for prospective issuers to obtain capital or additional funds through the issuance of securities, especially shares, to the public. IPO underpricing represents the difference between the opening price of a newly issued share and the closing price of that share at the end of the first trading day. (Ljungqvist, 2007). Underpricing, which refers to the difference between the initial offering price of a stock and the market price on the first

trading day, is one of the potential indicators for investors to assess the attractiveness and profit prospects of a company.

When financial markets are faced with uncertainty, an in-depth understanding of the factors that can moderate underpricing becomes increasingly important. This study was initiated with the motivation to provide investors, regulators, and market participants with better insights into how capital structure, particularly through Debt to Assets Ratio, can influence underpricing tendencies at IPO time.

The main objective of this study is to analyze whether and to what extent the Debt to Assets Ratio has an influence on stock underpricing during the 2021-2022 period. By involving careful statistical analyses, it is expected that this study can contribute to the financial literature and provide a more in-depth view of the complex dynamics in the capital market. By compiling this article, it is hoped that a solid foundation will be created to discuss the findings of the study in a holistic manner and relevant to the latest developments in the financial world. With a focus on DAR and underpricing variables, this analysis is expected to open new insights into the complex dynamics of the capital market and provide valuable guidance for stakeholders in financial decision-making.

## 2. Theoretical Background

Several previous articles reviewed by several reviewers regarding DAR, including, studies conducted by Rahayu & Utami (2024) shows the results of the study that DAR has a positive impact on the price earnings ratio. The Debt to Asset Ratio (DAR) has an impact and is significant to Financial Distress according to Rahma & Rinaldi (2024). A positive and significant relationship was found between the Debt to Assets Ratio (DAR) and Net Profit Margin (NPM) as a result of a study conducted by Shabrina (2020). Furthermore, the results of the DAR study have an effect but not significant on Audit Delay according to Suarsa & Nawawi (2018). The results of studies that show DAR has a significant positive effect on earnings quality according to Kurniawan & Suryaningsih (2019). Sisharini & Kutu (2022) stated that, based on the results of his study, DAR has no influence on underpricing. Then Irawan & Nasution (2023) added that their study concluded that DAR does not affect the level of underpricing. In contrast, the results of a study by Rahmawati et al. (2022) Asserts that there is a positive influence of the Debt to Asset Ratio (DAR) on the level of underpricing. Putri & Sari (2023) reported with the results of the DAR variable there is an influence on underpricing based on the results of their study. According to Siregar (2022) in his study, DAR has a negative and significant effect on Return on Asset. Then Debt to Asset Ratio has a negative value in relation to Return according to INNAWATI (2019).

The next study conducted by Pasando et al. (2018) explained the results of the study of debt to assets ratio there is a positive positive effect on price to book value. According to the study Rosi & Hasanuh (2020) Debt to Assets Ratio has influence on financial distress. Furthermore, according to Yanuarta (2023) explained in his study that the Debt to total assets ratio has a significant effect on Dividend payout. Natalia-Natalia & Kezia-Natalie (2022) showed in their study that there is a significant effect of leverage (DAR) on earnings management. Interesting according to Furniawan (2019) said that there was no significant effect between Debt to asset ratio and price to book value ratio. In line with this according to Alfiani (2022) Debt to Asset Ratio has no significant effect on Return on Asset. Furthermore, the word Supriati et al. (2019) said Debt to Assets Ratio affects Company Profitability. In contrast, the next opinion says Debt to Asset Ratio (DAR) has

no significant effect on stock prices according to Elizabeth & Putra (2023). Finally, according to Sari et al. (2022) Debt to Assets Ratio has an effect on Return on Asset.

### 3. Methods

This study uses quantitative methods that utilize cross section data. The approach applied is explanatory research, which aims to explain the relationship between the two variables being studied, namely Debt to Asset Ratio (DAR) and underpricing.

#### 3.1 Population

The population in this study includes all issuers listed and conducting Initial Public Offering (IPO) in the initial period of 2021 to 2022 on the Indonesia Stock Exchange. The total population is 112 issuers.

**Table 1.** Total Issuers Conducting IPOs in 2021 and 2022

Period	Total IPO Issuers
2021	53
2022	59

Source: Indonesia Stock Exchange (2023)

#### 3.2 Sample

In the process of data analysis in this study, the sample was selected through purposive sampling by measuring certain predetermined conditions. A total of 77 issuers were selected as the study sample, confirmed in accordance with the study criteria, namely issuers that carried out the Initial Public Offering (IPO) process in the period 2021 to 2022, stored on the Indonesia Stock Exchange data, and not included in the outlier's category in the data analysis of this study.

**Table 2.** Name of Issuer used as Sample

Issuer Code	IPO Period	Issuer Code	IPO Period	Issuer Code	IPO Period
FAPA	2021	MCOL	2021	GOTO	2022
DGNS	2021	CMNT	2021	MTMH	2022
UFOE	2021	SBMA	2021	IBOS	2022
WMUU	2021	RUNS	2021	WINR	2022
EDGE	2021	RSGK	2021	ASHA	2022
UNIQ	2021	IDEA	2021	SWID	2022
SNLK	2021	KUAS	2021	TRGU	2022
ZYRX	2021	BOBA	2021	AXIO	2022
LFLO	2021	BINO	2021	HATM	2022
FIMP	2021	DEPO	2021	AMMS	2022
TAPG	2021	WGSB	2021	JARR	2022
NPGF	2021	CMRY	2021	RAFI	2022
LUCY	2021	IPPE	2021	MORA	2022
HOPE	2021	NASI	2021	KKES	2022
MGLV	2021	BSML	2021	FRUIT	2022
PROFIT	2021	ADMR	2022	MEDS	2022
TRUE	2021	SEMA	2022	CRAB	2022
MASB	2021	ASLC	2022	COAL	2022
IPAC	2021	NETV	2022	BSBK	2022
BMHS	2021	BAUT	2022	OMED	2022
NICL	2021	NTBK	2022	CBUT	2022

UVCR	2021	NANO	2022	KDTN	2022
OPEN	2021	STAA	2022	PDPP	2022
HAI5	2021	BIKE	2022	ZATA	2022
GPSO	2021	WIRG	2022	MMIX	2022
OILS	2021	SICO	2022		

Source: Indonesia Stock Exchange (2023)

Study Variables. In the framework of the study, it is important to note that the dependent variable that is the focus is underpricing, symbolized by variable Y. And for the independent is DAR symbolized by X.

### 3.3 Variable Scaling

**Table 3.** Variable Scaling (DAR, Underpricing)

Variables	Indicators	Size
X_DAR	$DAR = \frac{\text{Jumlah Liabilitas}}{\text{Total Aset}} \times 100\%$	Scale/Ratio
Y_Underpricing	$Underpricing = \frac{\text{Close Price} - \text{Open Price}}{\text{Open Price}} \times 100\%$	Scale/Ratio

### 3.4 Descriptive Statistical Analysis

Descriptive statistical analysis was used with the intention of providing a detailed description of the data that has been collected and used in this study. The results of the analysis include a number of descriptive parameters, including the Mean and Std. Deviation, which were applied to each variable that was the focus of the study. This process involves the independent variable X\_DAR and the dependent variable Y\_Underpricing in the context of this study.

### 3.5 Classical Assumption Test

Before conducting linear regression analysis, the first step that needs to be carried out is the classical assumption test. This process involves steps such as tests for normality, heteroscedasticity, autocorrelation.

### 3.6 Linear Regression Analysis

In the linear regression analysis applied, the main thing is to understand the impact of the independent variable X\_DAR on the dependent variable Y\_Underpricing. The results of this analysis are geared towards producing a basic model that outlines the relationship between the independent variable X\_DAR and the dependent variable Y\_Underpricing.

$$Y = c + \beta X + \varepsilon \dots$$

- Y : Underpricing
- c : Constant
- X : DAR (Debt to Asset Ratio)
- $\beta$  : Regression coefficient of X
- $\varepsilon$  : Residual factor (error)

### 3.7 T Test (Partial)

Before obtaining the results of hypothesis testing, a T test is conducted in order to show the partial effect of the independent variable X\_DAR on the dependent variable Y\_Underpricing. The results of this test are the main determinant in determining the next step in the hypothesis testing process.

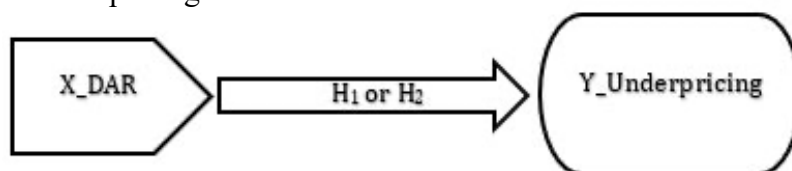
### 3.8 Hypotheses development

#### 3.8.1 DAR (Debt to Asset Ratio) and Underpricing

DAR (Debt to Asset Ratio), DAR variable, DAR is a leverage ratio that shows what percentage of the company's assets are provided by creditors. (Brigham & Houston, 2013). In other words, it can be said that DAR describes the proportion of the company's total debt to its total assets. DAR provides an indication of the company's level of dependence on debt in financing its operations and investments. It is possible that a high DAR creates uncertainty for investors and increases the level of underpricing as compensation for the risk faced, or there may be an optimal level or a certain range of DAR that has the least impact on underpricing, and it could be that DAR may not be a dominant factor in determining the share price at the time of the IPO.

This test is a crucial step to determine whether there is an influence of X\_DAR, on the level of Y underpricing during the period 2021 to 2022. Thus, two temporary hypothesis developments are realized that need to be tested, involving these existing variables. Namely:

- H1 = The value of the X\_DAR variable for the period 2021 to 2022 has an influence on the level of underpricing movement.
- H2 = The value of the X\_DAR variable for the period 2021 to 2022 has no effect on the level of underpricing movement



**Figure 1.** Hypothesis Design  
 Source: Study Results (2023)

## 4. Results and Discussion

### 4.1 Descriptive Analysis

Standard deviation intends to explain a pattern of values used to determine the distribution of data in a sample and see how close the data is to the mean value result (Sekaran & Bougie, 2016). (Sekaran & Bougie, 2016). The results of the descriptive statistical analysis explain that in a sample of 77 data for the X\_DAR variable, it has a small standard deviation value from the mean. With a standard deviation value of 22.83173 and a mean value of 45.86974, this illustrates the variation that exists in the X\_DAR data, showing the tendency of the data to lean closer to the average or mean value. Similar to the value of Y\_Underpricing, this indicates that the data for variable Y, has a small standard deviation value from the mean with a standard deviation value of 10.18112 and a mean value of 25.53987. This illustrates the variation of the two variables shows the tendency of the data to lean closer to the average or mean value or in other words the data tends to be homogeneous.

**Table 4.** Descriptive Analysis Score

Observations	Description	X_DAR	Y_Underpricing
77	Mean	45.86974	25.53987
	Std. Dev.	22.83173	10.18112

Source: Study Results (2023)

## 4.2 Classical Assumption Test

### 4.2.1 Normality test. Then

Based on the results of the normality test using the Jarque-Bera probability value of 0.056399, it can be concluded that the value exceeds the significance level of 0.05. This finding shows that the distribution of the data, which involves a sample of 77 in this study, tends to be normal. Therefore, this study can proceed to the next stage of testing.

**Table 5.** Normality Test Scores

Description	Value
Observations	77
Jarque-Bera Probability	0.056399

Source: Study Results (2023)

### 4.2.2 Heteroscedasticity Test

If you successfully pass the normality test, the next step is to test for heteroscedasticity using the Harvey method. If the probability of the independent variable exceeds the value of 0.05, it can be concluded that there are no signs of heteroscedasticity. Based on the Chi Square test results listed in Table 6, the probability is 0.1206, which exceeds the value of 0.05. Using a sample size of 77, the conclusion of this finding is that there is no sign of heteroscedasticity in this study.

**Table 6.** Heteroscedasticity Test Score: Harvey

Description	Value
Observations	77
Prob. Chi Square	0.1206

Source: Study Results (2023)

### 4.2.3 Autocorrelation Test

The next test is the autocorrelation test, which is one of the classic assumption tests. The LM Test results, as listed in the results above using a sample of 77 in this study, show a Chi-Square Probability of 0.0858. Clearly, this value exceeds the significance level of 0.05. Therefore, it is concluded that there is no sign of autocorrelation in the data of this study.

**Table 7.** Autocorrelation Test Score: LM Test

Description	Value
Observations	77
Prob. Chi Square	0.0858

Source: Study Results (2023)

## 4.3 Linear Regression Analysis

The linear regression output from the EViews software shows that the constant value is 19.11771, while the coefficient of the variable X\_DAR is 0.140009, using a sample of 77. With reference to these resulting values, the study model is formed in line with its application, namely:

$$Y = 19.11771 + 0.140009X\_DAR + e...$$



**Table 8.** Regression Analysis Score

Observations	Dependent Variable (Y)	Description	Coefficient
77	Underpricing	C	19.11771
		X_DAR	0.14 0009

Source: Study Results (2023)

Once the model is established, we can interpret the results. Firstly, the constant value of 19.11771 indicates that when the value of the independent variable X\_DAR is held constant (0), the value of the dependent variable, Y\_Underpricing, will remain at 19.11771. Secondly, with a regression coefficient of X\_DAR of 0.140009, it can be interpreted that a 1% increase in the value of X\_DAR will result in an increase of approximately 0.140009 in the level of underpricing movement, and vice versa.

#### 4.4 Coefficient of Determination ( $R^2$ )

**Table 9.** Coefficient of Determination Score ( $R^2$ )

Description	Value
Included Observations	77
Adjusted R-squared	0.086563

Source: Study Results (2023)

Table 9 shows that the Adjusted R-squared value is about 0.086563, in other words 8.6563%. This means that about 8.6563% of the variation in underpricing in this study can be explained by the variation in the value of the X\_DAR variable. The rest, about 91.3437%, can be attributed to factors outside the scope of this analysis.

#### 4.5 T (Partial) Test

Analyzing the table shows that the specific probability for the X\_DAR variable is around 0.0054. This finding indicates that the independent variable X\_DAR has a significant influence on the level of underpricing movement over the period 2021 to 2022. The fact that the probability value is less than ( $<$ ) 0.05, i.e., 0.0054, adds to the meaningfulness of the effect.

**Table 10.** T-test scores

Observations	Dependent Variable (Y)	Description	Prob.
77	Underpricing	C	0.0000
		X_DAR	0.0054

Source: Study Results (2023)

#### 4.6 Hypothesis Testing

Turning to hypothesis testing, a summary of the results of hypothesis testing can be presented based on several tests that have been carried out by the reviewer. The following are the results of hypothesis testing: X\_DAR Variable Hypothesis Test (H1 accepted). Based on the probability value of 0.0054, the X\_DAR variable value for the period 2021 to 2022 has an influence on the level of underpricing movement.

### 5. Conclusions

As a result of the comprehensive analysis obtained, it is concluded that this study confirms that there is a suspicion that the X\_DAR variable in issuers has an impact on underpricing during the period 2021 to 2022 with the use of 77 samples. This finding adds to the results of a number of studies that have been conducted and recognized by

previous reviewers, although there are several studies that produce different findings. The conclusion of this study aims to contribute a clear and real picture.

Based on this conclusion, the reviewer proposes several recommendations that can be put forward in the context of this study. First, it is suggested that prospective issuer participants planning to launch an Initial Public Offering (IPO) should endeavor to present information on the issuer's Debt to Asset Ratio (DAR) with a high level of accuracy and credibility. This is expected to make the information a reliable source of reference for investors when investing in IPOs because there are allegations that investors view DAR as a key factor in making investment decisions in IPO shares. Second, for reviewers who will continue the study in the future, it is recommended to consider expanding the period of view or adding the latest year in order to increase the completeness of the data sample studied. In addition, reviewers can also consider adding other variables to enrich the analysis, given the limitations in the number of variables used in this research. That way, it is used as a basis to contribute a more comprehensive and in-depth view of the variables or elements that affect the level of underpricing in IPO shares.

## REFERENCES

- Alfiani, D. N. (2022). The effect of current ratio and debt to assets ratio on return on assets. *Journal of Management*, 14(1), 206-212. <https://doi.org/10.30872/jmmn.v14i1.10905>
- Brigham, E. F., & Houston, J. F. (2013). *Fundamentals of Financial Management: Essentials of Financial Management Book 1*.
- Elizabeth, E., & Putra, A. (2023). EFFECT OF RETURN ON ASSETS (ROA), DEBT TO ASSETS RATIO (DAR), AND CURRENT RATIO (CR) ON STOCK PRICE. *SCIENTIFIC JOURNAL OF REFLECTION: Economic, Accounting, Management and Business*, 6(4), 933-942. <https://doi.org/10.37481/sjr.v6i4.754>
- Furniawan, F. (2019). The Effect of Earning Per Share, Debt to Asset Ratio, Debt To Equity Ratio and Return On Equity on Price To Book Value. *The Asia Pacific Journal of Management Studies*, 6(3). <https://doi.org/10.55171/.v6i3.341>
- Indonesia Stock Exchange. (2023). Indonesia Stock Exchange. <https://www.idx.co.id/>
- INNAWATI, I. (2019). THE INFLUENCE OF CURRENT RATIO, DEBT TO ASSET RATIO AND TOTAL ASSET TURNOVER ON RETURN ON ASSETS IN COOPERATIVES IN GRESIK DISTRICT IN 2013-2015 (STUDY ON COOPERATIVES THAT REPORT IN DISKOPERINDAG). *Managerial Journal*, 5(1), 1-10. <https://doi.org/10.30587/jurnalmanajerial.v5i1.733>
- Irawan, I., & Nasution, I. R. (2023). Identification of Underpricing Factors Initial Public Offering (IPO) Manufacturing Sector on The Indonesia Stock Exchange. *Management Research and Behaviour Journal*, 3(1), 1. <https://doi.org/10.29103/mrbj.v3i1.10496>
- Kurniawan, C., & Suryaningsih, R. (2019). The effect of accounting conservatism, debt to total assets ratio, liquidity, profitability, and firm size on earnings quality. *Journal of Economics, Management, Accounting*, 21(2), 163-180. <https://doi.org/10.34209/.v21i2.642>
- Ljungqvist, A. (2007). Chapter 7 - IPO Underpricing\*\*Thanks for helpful comments go to Martijn Cremers, Espen Eckbo, Roger Edelen, David Goldreich, Tim Jenkinson, Ron Masulis, Jay Ritter, Ann Sherman, Seha Tinic, and William J. Wilhelm. In B.



- E. B. T.-H. of E. C. F. Eckbo (Ed.), *Handbooks in Finance* (pp. 375-422). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-444-53265-7.50021-4>
- Natalia-Natalia, A., & Kezia-Natalie, H. (2022). A META-ANALYSIS STUDY OF THE EFFECT OF RETURN ON ASSETS (ROA), MANAGERIAL OWNERSHIP, FIRM SIZE, DEBT TO ASSET RATIO (DAR) ON EARNINGS MANAGEMENT. *Macro: Journal of Management and Entrepreneurship*, 7(2), 148-165. <https://doi.org/10.53712/jmm.v7i2.1629>
- Pasando, V., Jubi, J., Inrawan, A., & Astuti, A. (2018). The Effect of Debt To Assets Ratio, Total Assets Turn Over and Return On Assets on Price To Book Value in Automotive Sub-Sector Companies and Components Listed on the Indonesia Stock Exchange. *FINANCIAL: ACCOUNTING JOURNAL*, 4(2), 51-61. <https://doi.org/10.37403/financial.v4i2.81>
- Putri, E. C., & Sari, S. P. (2023). Review of the Underpricing Phenomena in Companies Conducting IPO on the Indonesian Stock Exchange During the Pandemic Situation to the Endemic Covid-19.
- Rahayu, M., & Utami, N. E. (2024). DAR, ROA and TATO in influencing Price Earnings Ratio. *IKRAITH-ECONOMIKA*, 7(2), 284-294. <https://doi.org/10.37817/ikraith-ekonomika.v7i2.3359>
- Rahma, M. N., & Rinaldi, R. (2024). The Effect of WCTO, DAR and NPM on Financial Distress in Primary Consumer Goods Sector Manufacturing Companies. *IKRAITH-ECONOMICS*, 7(2), 98-111. <https://doi.org/10.37817/ikraith-ekonomika.v7i2.3339>
- Rahmawati, I. Y., Akil, W. F., Hartikasari, A. I., Rohayati, C., & Pandansari, T. (2022). Effect of Financial Leverage, ROA, Ownership Concentration, Listing Delay on Levels of Underpricing During Initial Public Offering (IPO) in Manufacturing Companies on the Indonesia Stock Exchange (2016-2020 \ Period). <https://doi.org/10.4108/eai.10-8-2022.2320917>
- Rosi, N. A., & Hasanuh, N. (2020). The influence of return on assets, debt to assets ratio and current ratio on financial distress. *E-Journal of Economics and Business*, Udayana University, 9, 995-1018. <https://doi.org/10.24843/eeb.2020.v09.i10.p04>
- Sari, W. N., Novari, E., Fitri, Y. S., & Nasution, A. I. (2022). Effect of Current Ratio (Cr), Quick Ratio (Qr), Debt to Asset Ratio (Dar) and Debt to Equity Ratio (Der) on Return On Assets (Roa). *Journal of Islamic Economics and Business*, 2(1), 42-58. <https://doi.org/10.15575/jieb.v2i1.20173>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & sons.
- Shabrina, N. (2020). The Effect of Current Ratio and Debt to Assets Ratio on Net Profit Margin at Pt. Ndo Tambang Raya Megah Tbk (Period 2008-2017). *Semarak Journal*, 3(2), 91-102. <https://doi.org/10.32493/smk.v3i2.5627>
- Siregar, S. A. (2022). The Effect of Current Ratio, Debt to Assets Ratio, and Total Asset Turn Over on Return on Assets at PT. ACE Hardware Indonesia Tbk in 2014-2021. *Balance: Journal of Accounting and Management*, 1(1), 100-110. <https://doi.org/10.59086/jam.v1i1.19>
- Sisharini, N., & Kutu, Y. B. (2022). Analysis of Factors Affecting Underpricing Company Stock Prices at the Initial Public Offering (IPO) on the Indonesia Stock Exchange. *Bismar: Business Management Research*, 1(1), 35-47.
- Suarsa, A., & Nawawi, E. M. (2018). The Effect of Return on Assets, Debt to Assets Ratio, and Audit Opinion on Audit Delay. *Scientific Journal of Management*,

Economics, & Accounting (MEA), 2(1), 1-9.  
<https://doi.org/10.31955/jimea.vol1.iss1.pp1-9>

- Supriati, D., Kananto, R., & Kusriananda, A. (2019). The effects of intellectual capital disclosures, debt to assets ratio, debt equity ratio, company size and assets turnover on company profitability. 5th Annual International Conference on Accounting Research (AICAR 2018), 104-109. <https://doi.org/10.2991/aicar-18.2019.23>
- Tandelilin, E. (2010). Investment Analysis and Portfolio Management, Fifth Edition. Yogyakarta.
- Yanuarta, R. (2023). Effect of Company Firms size, Debt to Total Asset, and Return on assets on Dividend Payout Ratio (Emprirical Study of Coal Sector Companies Listed on the Indonesia Stock Exchange in 2016-2020). Financial Management Studies, 3(2), 23-32. <https://doi.org/10.24036/jkkm.v3i2.145>