Effect Of Leverage And Firm Size On Company Value With Exchange Rate And Hedging Decision As Moderation Variable (Case Study On Nonfinancial Companies Listed On Indonesia Stock Exchange Period 2017-2018)

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ABSTRACT In general, the value of a company is a description of its condition, whether it is in good condition or not. In this research, exchange rates and hedging are moderating variables for various variables that affect company value, namely leverage and firm size variables. The purpose of this research is to determine the effect of each variable on firm value in nonfinancial companies on the Indonesia Stock Exchange in 2017-2018. The sampling technique used was purposive sampling with the amount of 285 companies. The research hypothesis was tested using the Structural Equation Model (SEM) approach based on Partial Least Square (PLS). The results show that the exchange rate can moderate the leverage and firm size on firm value. Hedging cannot moderate the leverage but can moderate the firm size on firm value.

Keywords: Leverage, Firm Size, Exchange Rate, Hedging, Company Value

INTRODUCTION

In early 2018, there was a trade war between the United States and China in which U.S. President Donald Trump set tariffs on imports of Chinese products amounting to US$ 60 billion (CNN, 2018). Then, China retaliated by doing the same by raising tariffs on imports of U.S. products by US$ 3 billion (CNN, 2018). Indonesia is one of the countries affected by this trade war. Indonesia is an export destination for Chinese and U.S. products.
However, with the increase in tariffs on U.S.-China imports, there is a decrease in Indonesian exports, which means the number of imports is higher than the number of exports. This means more money coming out of Indonesia than money coming in. If the rupiah is experiencing a shortage of capital supply in the country, it will be challenging to withstand pressures on other currencies so that the rupiah's value falls. Depreciation can affect the value of companies in the capital market, especially in emerging markets, such as Indonesia. In the era of globalization and tight competition, the company's condition described with the company's value needs to be considered by the company.

The company value is the investor's perception of how successful a company is in managing its resources, reflected in its share price (Hamidah et al., 2015). The average value of nonfinancial companies conducting international trades listed on the Indonesia Stock Exchange in 2017-2018 in the first quarter of 2017 was measured by a PBV of 2,284, in the first quarter of 2018 of 1,973. In the second quarter of 2017, it was 2,473, while in the second quarter of 2018, it was 2,213. In the third quarter of 2017, it was 2,625, while in the third quarter of 2018, it was 2,447. In the fourth quarter of 2017 amounted to 2,812, while in the fourth quarter of 2018, the average value of the company was 2,687.

The company value is influenced by factors that cause the company value to increase or decrease, resulting in fluctuations in the closing price of the company's shares, reflecting the company's value. Empirical study results explain the companies value affected by the leverage (Winarto, 2015), firm size (Siahaan, 2013), an exchange rate (Darminto, 2008) and hedging decisions (Nur, 2013); (Gonzalez & Yun, 2013); and (Nova et al., 2015).

Leverage is a ratio that measures how much a company uses funding derived from debt (Eugene & Houston, 2010). In trade-off theory, debt has a positive influence on the company value. Optimal debt levels are achieved when tax savings reach the maximum amount of financial distress costs. On the other hand, high debt will increase the cost of capital, thus impacting the increasing business risk.

Firm size is seen from the more assets a company owns, and then the company is also getting bigger. A large, established company has easy access to the capital market. In contrast, new and young companies will have many difficulties having access to the capital market. Because the ease of access to the capital market is significant enough
for its flexibility and ability to obtain larger funds, large companies have the opportunity to make greater profits (Al-Najjar, 2016).

The exchange rate is the price of a currency against another or the value of a currency against the value of another (Salvatore, 1997). According to (Mufidah 2012), most of the company's debt in US$ depends on the exchange rate, so if the rupiah weakens, it will be difficult for the company in terms of funding through debt in the company's capital structure. Management decisions of companies in international trade are influenced by risks such as foreign currency risks caused by fluctuating changes in exchange rates. The share price in the market is also affected.

Hedging policy carried out by the company is an activity to increase the value of the company. In this case, investors will give more value to companies that conduct hedging activities (Suriawinata, 2004). In order to reduce exposure and other risks that can affect the value of currencies in funding activities, which will further affect the value of the company, the company needs to implement a hedging policy strategy to avoid the risk of losses due to foreign exchange fluctuations. The higher capital structure offset by hedging policy is expected to minimize risk and increase profitability so that the company's value will increase. Various researches on the value of the company have been done before. The study results (Winarto, 2015) stated that leverage has a significant influence on the company's value. However, this is contrary to the research results (Parhusip, 2016), which states that leverage has an insignificant influence on the company's value. The study results (Gill & Obradovich, 2012) stated that the firm size has a positive and significant effect on the company's value. However, this is contrary to research conducted (Naceur & Goaied, 2002) which states that firm size has a negative and significant influence on the company's value. Research conducted by Kandir (2008) found a positive relationship between exchange rates and company value. However, this contradicts research (Gupta, 2000) which found evidence that there is no exchange rate relationship with the company's value. Research conducted by Nur (2013) found that the company's hedging policy has a significant influence with a positive direction on the company's value. Research conducted by (Gonzalez & Yun, 2013) and (Nova et al., 2015) strengthened the results obtained earlier, namely finding similar that hedging policies have a significant influence with a positive direction on the value of the company.

Based on the gap phenomenon and research gap, the author formulated a study with the title: "The Effect of Leverage and Firm Size on The Companies Value with
Exchange Rates and Hedging Decisions as Moderation Variables (Case Study on Nonfinancial Companies Listed on the Indonesia Stock Exchange Period 2017-2018)

METHOD
The type of data in this research is quantitative. While the data source used in this study is secondary data derived from the financial statements of sample companies obtained from the Indonesia Stock Exchange through its official website, namely [www.IDX.co.id](http://www.IDX.co.id) and a summary of fluctuations in rupiah exchange rates obtained from Bank Indonesia through its official website, [www.bi.go.id](http://www.bi.go.id).

The population in this study consists of companies that have gone public engaged in the nonfinancial sector listed on the Indonesia Stock Exchange for 2017-2018. Determination of samples selected from the population is a company that meets several criteria by purposive sampling method and obtained a sample of 285 companies. Data analysis obtained in this research will be done Structural Equation Model (SEM) using Partial Least Square (PLS).

Operational Definition

Company Value
According to (Sujoko & Soebiantoro, 2007) and (Hermuningsih & Wardani, 2009), the company's value is the investor's perception of its success rate, closely related to its share price. The company's value in this study was proxied with Price Book Value (PBV):

\[
PBV = \frac{Share\ price}{Book\ Value\ (BV)}
\]

Leverage
A debt ratio is a ratio used to measure how much debt a company has. Leverage is calculated using the formula:

\[
\text{Ratio leverage} = \frac{\text{Total Debt}}{\text{Total equity}}
\]

Firm Size
According to Riyanto (2008), the firm size or size of the company is the size of a company that can be seen from the amount of equity value, sales value, and the total value of assets. Firm Size is proxied through:
Firm size = ln total assets

**Exchange rate**

The exchange rate measurement in this study used exchange rate sensitivity, the degree of influence of exchange rate changes on the company in a certain period. Exchange rate sensitivity is seen from the beta coefficient (β) of each company's exchange rate.

\[ Y = \alpha + \beta Kurs + e \]

Y = Company net sales
α = constant
β = exchange rate sensitivity
e = disturbance's error

The company's net sales are derived from the company's annual financial statements, and the exchange rate is obtained from the quarterly average of the exchange rate during the current year. Net sales are used because it is the most impactful post of exchange rate changes. When the exchange rate depreciates, it will impact the decrease in sales so that it will result in the profit that will be received by the company (Suselo, 2016).

**Hedging or Hedging**

Hedging is one of the economic functions of futures trading, namely the transfer of risk. Hedging is a strategy to reduce the risk of losses caused by exchange rate fluctuations.

This study looks at companies' annual financial statements listed on the Indonesia Stock Exchange for 2017-2018. Suppose the company uses derivative instruments as hedging activities. In that case, it is given number 1 as a category that the company conducts hedging activities and is numbered 0 if it does not use derivative instruments as hedging activities.
RESULTS

Table 1. Descriptive Analysis Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBV Der</td>
<td>57</td>
<td>-14.72</td>
<td>64.43</td>
<td>2.4379</td>
<td>5.27142</td>
</tr>
<tr>
<td>Total asset</td>
<td>57</td>
<td>-31.72</td>
<td>94.10</td>
<td>1.3391</td>
<td>5.03525</td>
</tr>
<tr>
<td>Exchanger rate</td>
<td>57</td>
<td>.000</td>
<td>29.225</td>
<td>15.33582</td>
<td>2.390949</td>
</tr>
<tr>
<td>Hedging Valid N</td>
<td>57</td>
<td>8.1267253</td>
<td>27.012212</td>
<td>20.973870</td>
<td>2.6865576</td>
</tr>
<tr>
<td>(listwise)</td>
<td>0</td>
<td>.0</td>
<td>59</td>
<td>63</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>57</td>
<td>1.0</td>
<td>.204</td>
<td>.4030</td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed Data

Table 2. Frequency Descriptive Statistics (Dummy)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dummy = 0</th>
<th>Dummy = 1</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Hedging</td>
<td>454</td>
<td>79.6%</td>
<td>116</td>
</tr>
</tbody>
</table>

Source: Processed Data

Evaluation of Structural Models (Inner Model)

Table 3. The goodness of Fit Models

<table>
<thead>
<tr>
<th>Indeks</th>
<th>P-Value</th>
<th>Criteria</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>APC</td>
<td>0.074</td>
<td>&lt; 0.05</td>
<td>Diterima</td>
</tr>
<tr>
<td>ARS</td>
<td>0.061</td>
<td>&lt; 0.05</td>
<td>Diterima</td>
</tr>
<tr>
<td></td>
<td>0.040</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The output result of the table shows that APC has an index of 0.074 with a p-value of 0.023, while ARS has an index of 0.061 with a p-value of 0.040. Based on the criteria, APC and ARS have been fulfilled, which have a p-value < 0.05. Furthermore, the AVIF value has a value of 1,534. By the required criteria, the AVIF value is less than 5. Thus, the structural model (inner model) is acceptable.

### Table 4. R-Square Coefficients

<table>
<thead>
<tr>
<th></th>
<th>R-Squared</th>
<th>Adjusted R-Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBV</td>
<td>0.061</td>
<td>0.047</td>
</tr>
</tbody>
</table>

The output above shows that adjusted R-Squared value influences variable leverage, firm size, exchange rate, and hedging decision against PBV is 0.047. These results showed that 4.7% of PBV was influenced by leverage, firm size, exchange rate, and hedging decisions. In contrast, the rest were influenced by other factors not studied in this study.

Hypothesis testing is used to test causality relationships developed in models, i.e., exogenous and moderation variables’ influence on endogenous variables. The following can be seen from figure 1 relationship of each variable, namely the image that states the influence between leverage and firm size on the company's value moderated by exchange rates and hedging decisions.
Based on the results of hypothesis testing in the picture above can be described as follows:

1. Hypothesis 1, leverage affects the value of the company.
Hypothesis 1 says that leverage affects the value of the company. Test results on the parameter coefficient between leverage to company value showed a p-value of 0.016 or < 0.05. The beta coefficient value of 0.094 indicated a significant positive influence on the company's value; thus, the first hypothesis was accepted.

2. Hypothesis 2, firm size affects the value of the company.
Hypothesis 2 says that firm size affects the value of the company. The test result of parameter coefficient between firm size to company value shows p-value 0.098 or > 0.05 and beta coefficient value of 0.057 indicates insignificant positive influence on company value. Thus the second hypothesis is rejected.
3. Hypothesis 3, the exchange rate affects the value of the company.

Hypothesis 3 says that exchange rates affect the value of the company. The test result of parameter coefficient between exchange rate to company value shows a p-value of 0.117 or > 0.05, and the beta coefficient value of 0.052 indicates insignificant positive influence on company value. Thus the third hypothesis is rejected.

4. Hypothesis 4, hedging decisions affect the value of the company.

Hypothesis 4 says that hedging decisions affect the value of the company. The test result of parameter coefficient between hedging decision against company value shows p-value 0.448 or > 0.05 and beta coefficient value -0.006 indicates little adverse influence on company value. Thus the fourth hypothesis is rejected.

5. Hypothesis 5, exchange rates can moderate the influence of leverage on the company's value.

Hypothesis 5 says that exchange rates can moderate the influence of leverage on the value of the company. Test results against the parameter coefficient showed a p-value of 0.004 or < 0.05, and beta coefficient value -0.114 indicated a significant negative influence. Thus the fifth hypothesis was accepted. The test results prove that the exchange rate can moderate the influence of leverage on the company's value.

6. Hypothesis 6, the exchange rate can moderate the influence of firm size on the company's value.

Hypothesis 5 says that exchange rates can moderate the influence of firm size on the company's value. The test result of parameter coefficient shows p-value 0.021 or < 0.05, and beta coefficient value 0.089 indicates significant positive influence. Thus the sixth hypothesis is accepted. The test results prove that the exchange rate can moderate the influence of firm size on the company's value.

7. Hypothesis 7, hedging decisions can moderate the influence of leverage on the company's value.

Hypothesis 7 says hedging decisions can moderate the influence of leverage on the value of the company. The test results against the parameter coefficient showed a p-value of 0.360 or > 0.05. The beta coefficient value of -0.016 indicated an insignificant negative influence. Thus hypothesis seven was rejected. The test results prove that hedging decisions can not moderate the influence of leverage on the company's value.

8. Hypothesis 8, hedging decisions can moderate the influence of firm size on the company's value.
Hypothesis 8 says that hedging decisions can moderate the influence of firm size on the company’s value. The test result of parameter coefficient shows p-value 0.007 or < 0.05 and beta coefficient value -0.108 indicates significant negative influence on company value. Thus the eighth hypothesis is accepted. The test results prove that hedging decisions can moderate the influence of firm size on the company’s value.

DISCUSSION

Leverage Affects Company Value

The test results in this study showed that leverage has a significant positive effect on the company’s value. With the results of this research, the first hypothesis was accepted. Leverage has a significant positive effect on the company’s value. If the leverage of a company is high, then the value of the company is also high. Vice versa, if the leverage decreases, then the value of the company also decreases. This follows the trade-off theory, which says that leverage positively impacts the company’s value. Companies can earn higher profits with high leverage by using capital derived from debt or assets financed by debt. With that, the company can maximally run its business so that the profit obtained by the company also increases.

The results of this study are in line with the results of research conducted by (Hansen & Juniarti, 2014) and (Suteja & Manihuruk, 2009). However, the results of this study are not in line with the research conducted (Prasetyorini, 2013) and (Kayobi & Anggraeni, 2015).

Firm Size Has No Effect on Company Value

The test results in this study showed that the firm size has an insignificant positive effect, which means that the firm size does not influence the company’s value. With the results of this study, the second hypothesis was rejected. This means that in this study, the firm size cannot describe its influence on its value. This can happen because the company’s size is judged by the total assets owned by the company. Suppose an investor wants to assess a company. In that case, the investor does not only look at the company’s size that is assessed from the company’s total assets. However, investors will look more at several other aspects, such as paying attention to the company’s performance that can be seen from the company’s financial statements, the company’s
good name among investors, and other considerations before deciding to invest its funds in the company. The results of this study are supported by research conducted by (Rahmantio et al., 2018) and (Kayobi & Anggraeni, 2015). However, this research contradicts the results of research (Ngurah et al., 2016) and (Angga Pratama & Wiksuana, 2018).

**Exchange Rate Has No Effect on Company Value**

The test results in this study showed that the exchange rate positive effect is not significant, which means that the exchange rate does not influence the company's value. With the results of this study, the third hypothesis was rejected. This can be because the exchange rate does not affect the cost and volume of sales. After all, nonfinancial companies produce goods that are a basic necessity for the community, so it is not too sensitive to changes in exchange rates. In addition, it can also be caused because the raw materials used by these companies mostly come from within the country, not imported goods.

The results of this research are supported by research conducted by Idamiharti (2017) and Fuad & Wandari (2018). However, this research contradicts the research conducted by Kandir (2008).

**Hedging Decisions Have No Effect on The Company's Value**

The test results in this study showed that hedging decisions have a negative effect insignificant, which means that hedging decisions do not influence the company's value. With the results of this study, the fourth hypothesis was rejected. The negative influence is illustrated by if hedging increases, then the value of the company will decrease. This is likely due to several factors. The first factor is that the cost of hedging is very high. The second factor is the lack of banks that provide hedging product services. Based on the provisions of Bank Indonesia and OJK, it is stated that only banks with large core capital above Rp5 trillion can provide hedging product services.

Moreover, the number of eligible banks is no more than 30 banks. The third factor is data limitation. The sample company hedging is only one-fifth of the sample, so it is low representative. Although the effect is insignificant, hedging can reduce the
uncertainty of future cash flow. If the incoming cash flow enlarges, then hedging can increase the value of the company.

The results of this study are supported by research conducted (Hamidah et al., 2015). However, this research contradicts the research results (Lesmana & Musdholifah, 2019) and (Situmeang & Wiagustini, 2018).

**Exchange Rate Able to Moderate Leverage Effect on Company Value**

The test results in this study showed a negative and significant influence. This means that the exchange rate can moderate the influence of leverage on the value of the company. With the results of this study, the fifth hypothesis was accepted. Negative influence is intended if the company's leverage increases, then the company's value decreases. The leverage ratio measures how much a company is financed with debt. The use of excessively high debt will harm a company because it will fall into the extreme leverage category, a company stuck in high debt and difficult to repay the debt burden. Such overriding makes investors afraid to invest in the company so that the value of the company decreases.

The results of this research are supported by research conducted by (Nurunnisak et al., 2016). However, the results of this study contradict the results of the study (Tresnasih et al., 2017) and (Istiqomah, 2020).

**Exchange Rate Able to Moderate Firm Size Effect on Company Value**

The test results in this study indicate that the exchange rate can moderate the effect of firm size firm on value. With the results of this study, the sixth hypothesis is accepted. The exchange rate is one of the external factors that can affect the company. The company's external factors, such as the exchange rate, cannot be managed. However, the company must still pay attention to these external factors to increase firm value. If the exchange rate strengthens, companies that have a large size will grow and develop better so that the exchange rate can strengthen the influence of the firm size on company value.

Research conducted by (Al-Najjar, 2016) states that firm size has a positive and significant effect on firm value. (Kandir, 2008) conducted research and found a positive relationship between exchange rates and firm value.
**Decision Hedging Cannot Moderate the Effect of Leverage on Company Value**

The test results in this study indicate a negative and insignificant relationship. This indicates that the decision hedging is unable to moderate the effect of leverage on firm value. With the results of this study, the seventh hypothesis is rejected. A negative relationship means that if the leverage increases, the company value will decrease. This is because the use of too high a debt will endanger a company. After all, the company will fall into the category of extreme leverage, namely companies that are trapped in high debt and find it difficult to pay back the debt burden. The debt that is too large makes investors afraid to invest in the company so that the company's value decreases. This is also because hedging requires a lot of money. The number of samples that perform activities is hedging very small, only one-fifth of the total sample. However, currently, the use of hedging for companies is not just a necessity.

The results of this study are supported by research conducted by (Ahmad et al., 2017) which states that decisions are hedging not able to moderate the effect of leverage on firm value.

**Decision Hedging Able to Moderate the Effect of Firm Size on Company Value**

The test results in this study indicate a significant negative relationship. This means that the decision hedging can moderate the effect of firm size firm on value. With the results of this study, the eighth hypothesis is accepted. This negative relationship means that if firm size decreases, then firm value increases. Investors think that companies with more considerable total assets tend to determine more retained earnings than the dividends distributed to shareholders. Thus, investors and potential investors perceive this as a negative signal and can reduce the company's value. Coupled with this study, the number of samples who perform activities is hedging very small, only one-fifth of the total sample.

The results of this study are supported by research conducted by (Huang, 2003) which states that decision hedging can moderate the effect of firm size on company value.
CONCLUSION

Based on the research results, it can be concluded that leverage can affect the firm's value. However, firm size, exchange rate sensitivity, and decisions hedging cannot affect the firm's value. Exchange rate sensitivity can moderate the effect of leverage and firm size firm on value. The decision was hedging unable to moderate the effect of leverage on firm value. However, the decision is hedging able to moderate the effect of firm size firm on value.

LIMITATIONS AND RECOMMENDATIONS

Some limitations need to be fixed, such as the first. The period used in this study only covers two years, so the implication may have different results if the sample period is extended. Second, this study only uses one indicator each for each latent variable.

Based on the limitations that have been described, the suggestions given are for further researchers to expand the research year and increase the number of samples, add other variables to obtain different research results, use different methods so that the resulting conclusions are more valid and varied.

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