

THE EFFECT OF FOREIGN DEBT, LIQUIDITY, FIRM SIZE, AND EXCHANGE RATE ON HEDGING DECISION

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ABSTRACT

Introduction/Main Objectives: This research aims to analyze the effect of internal factors, especially foreign debt, liquidity, and firm size, and also external factors, especially the exchange rate, on hedging decisions, with profitability as the control variable. **Background Problems:** Exchange rates are always affected by uncertainty. To ensure a company does not suffer losses, it will implement risk management, such as hedging. This is in accordance with the recommendation of the Ministry of SOEs to undertake hedging in the context of risk management. But in reality, not all state-owned enterprises do this. **Novelty:** This research adds profitability as a control variable, because this research does not involve the profit of the company, and focuses on how the company minimizes the risk of potential losses. **Research Methods:** The research used quantitative data, which is secondary data taken from the annual financial reports of state-owned enterprises listed on the Indonesia Stock Exchange for the 2016 to 2020 period that are accessed through the website www.idx.co.id and the annual reports of state-owned enterprises that are accessed through their official websites. Data analysis techniques that were used are descriptive statistics test, multicollinearity test, and logistic regression test. **Finding/Results:** The results show a significant effect from foreign debt and firm size on the hedging decisions of state-owned enterprises in Indonesia, while liquidity and the exchange rate did not show a significant effect on the hedging decisions of state-owned enterprises in Indonesia. **Conclusion:** This research shows that state-owned enterprises in Indonesia focus more on their foreign debt and firm size, than their liquidity or the exchange rate, in their decision to hedge.

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INTRODUCTION

The exchange rate of the rupiah against the US dollar often fluctuates, which puts companies at risk of loss when carrying out international trade activities due to the unstable Indonesian exchange rate (Haryanto, 2020). With the unstable rupiah exchange rate, companies in Indonesia that carry out international transactions have the potential to experience foreign exchange losses. The strategy used by the companies is to carry out hedging activities in order to avoid and reduce the risk of foreign exchange losses (Álvarez-Díez et al., 2016).

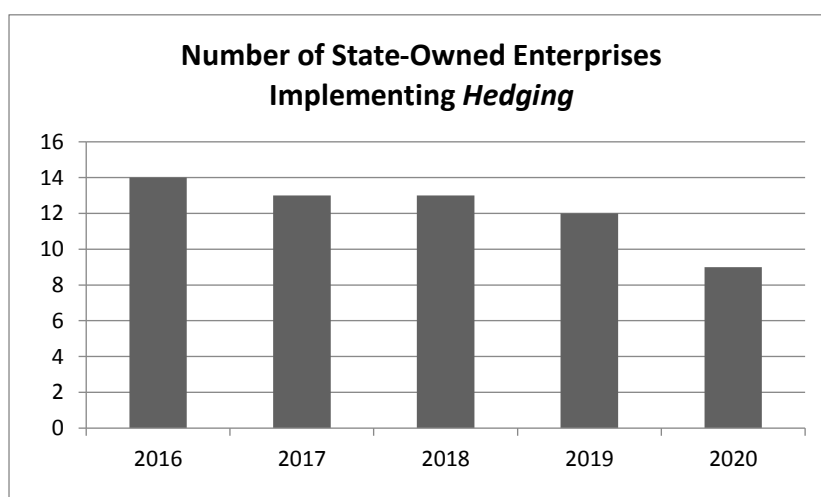
Currently, state-owned enterprises have been recommended, by the Ministry of State-Owned Enterprises, to carry out hedging in the context of risk management, so as to minimize risks that may occur. The recommendation is contained in the Regulation of State-Owned Enterprises, No. Per-09/Mbu/2013 concerning General Policy on Hedging Transactions of State-Owned Enterprises. However, in fact, not all state-owned enterprises have implemented hedging. This can be seen from Figure 1 below.

In Fig. 1, it can be seen that from a total of 20 state-owned enterprises listed on the

Indonesia Stock Exchange, not all the state-owned enterprises used hedging for risk management. Between 2016 and 2020, the number of state-owned enterprises that used hedging was highest in 2016 with 14 companies. However, in the following years the number of state-owned enterprises that used hedging tended to decrease, despite recommendations from the Ministry of SOEs.

There are internal and external factors that make companies do hedging activities. The internal factors include foreign debt, liquidity, and company size, while the external factors include the exchange rate. Foreign debt has been considered as an important hedging factor in companies (Kim et al., 2020). Hedging decisions should be made to keep foreign debt from increasing, due to the increase in foreign exchange rates. The results of previous research conducted by Kussulistiy & Mahfudz (2016) stated that foreign debt had a positive and significant effect on hedging. A different result is shown by Prasetyono & Hidayah (2016) who stated that foreign debt has a negative effect on hedging.

Figure 1. Number of State-Owned Enterprises Implementing Hedging.



Source: Data processed, 2022.

High ratio of a company's liquidity indicates its ability to pay its short term liabilities. The difficulty of the company in paying off its short-term debts makes the company minimize risk by risk management. The results of previous studies, carried out by Kussulistiy & Mahfudz (2016), Prasetyono & Hidayah (2016), and Chaudhry et al. (2014), all stated that liquidity has a significant negative effect on hedging decisions. Different results were obtained by Kinasih & Mahardika (2019) who stated that liquidity had a positive effect on hedging, and Habibah et al. (2020) who stated that liquidity had no effect on hedging.

The bigger the company grows, the more the activities by the company become not just about domestic trade transactions, but also international trade transactions. This indicates, the larger the size of a company, the bigger the risk faced by the company, especially related to changes in the exchange rates for international transactions. The results of previous studies carried out by Kussulistiy & Mahfudz (2016), Prasetyono & Hidayah (2016), and Meridelima & Isbanah (2021) stated that firm size has a significant positive effect on hedging. Different results were obtained by Habibah et al. (2020), who stated that firm size had no effect on hedging.

Changes in currency exchange rates often affect the international trading activities of a company. If the value of the rupiah is lower than the value of the other exchange rates, for example the US dollar, then companies in Indonesia have the potential to undergo a loss due to fluctuations in the exchange rate. Previous research conducted by Chaudhry et al. (2014) stated that the exchange rate has a significant positive effect on hedging. Other studies actually give different results. According to research by Kinasih & Mahardika (2019), the exchange rate has no effect on hedging.

This study uses profitability as a control variable to control the effect of profitability on the company's decision to hedge. The focus in this research is to know the effect of some factors of the hedging decision regardless of the influence of profitability in the company's hedging decisions. This point makes the researcher set profitability as a control variable so that the research results can be neutralized from the influence of profitability. This will prevent bias in the calculation results.

The sample in this study is state-owned enterprises listed on the Indonesia Stock Exchange for the 2016 to 2020 period. The sample of state-owned enterprises in Indonesia was chosen because not all state-owned enterprises in Indonesia perform hedging, even though the Ministry of State-Owned Enterprises supports hedging policies being carried out by state-owned enterprises in Indonesia. In addition, there are differences in the research results related to the effect of foreign debt, liquidity, firm size, and exchange rates on the firms' decisions to hedge. On this basis, the researcher is interested in analyzing the influence of these factors that are considered when state-owned enterprises consider using hedging.

LITERATURE REVIEW

1. Prospect Theory

This theory was put forward in 1979 by Kahneman & Tversky. This theory provides an explanation why companies will display risk-taking behavior when the problems they face contain the potential for losses (Wahyuni & Hartono, 2019). The theoretical link with hedging is how companies choose the right choice in determining whether to hedge or not. Because decision makers will tend to choose definite choices, and try to minimize the risk of losses due to uncertainty in foreign currency values, companies will tend to hedge.

2. Portfolio Theory

The portfolio theory is a theory introduced by Harry Markowitz in 1952, which is also known as Markowitz theory. The essence of the portfolio theory is how companies choose the right diversification to be able to provide expectations that are in accordance with the company's wishes, and reduce risk to a minimum point (Brigham & Ehrhardt, 2011). This can be related to how companies carry out hedging to minimize risk, because companies must be able to carry out risk management where the decision to hedge investments is not only for other aspects such as operations and other investments, but also by implementing hedging to reduce risks that may potentially arise.

3. Hedging

Hedging is an activity to protect a company from the risk of foreign exchange rates that can change at any time (Baker et al., 2013). In 2017, there were 2,660 companies in Indonesia that had hedged. As many as 88 percent of them carried out hedging with a maturity of three months. Meanwhile, 90 percent of the total companies hedge with a tenor of six months (Florentin, 2017). In international activity, U.S Companies use hedging because the dollar is higher than the Japanese yen and higher than the euro, having risen 13% and 8% respectively against the currencies this year (Ahmed, 2022). It means that hedging is crucial to minimize the risk.

4. Foreign Debt

Foreign debt is company debt where the debt is in the form of foreign currency (Baker et al., 2013). Changes in foreign currency exchange rates will have an impact on changes in the foreign debt of the company if it is converted into rupiah. The measuring instrument used for foreign debt is by dividing the amount of debt in

foreign currency against the company's overall debt.

The higher the foreign debt, the higher the need for companies to carry out hedging activities because the company's debt is in foreign currencies, so changes in foreign currency exchange rates will have an impact on the foreign debt of the company if it is converted into rupiah. The results of previous research conducted by Kussulisty & Mahfudz (2016) stated that foreign debt had a positive and significant effect on hedging.

H1: Foreign debt has a positive effect on hedging decisions.

5. Liquidity

Liquidity is a ratio that states the company's ability to carry out its responsibilities related to its short-term liabilities (Mowen et al., 2017). If the company has difficulty paying its current liabilities, then the company's liquidity is classified as low. If the company finds it difficult to pay its current liabilities this makes the company minimize its risk by using hedging. The measuring instrument of liquidity is the current ratio, by comparing the current assets to total liabilities.

The results of previous studies by Kussulisty & Mahfudz (2016), Prasetiono & Hidayah (2016), Chaudhry et al. (2014) stated that liquidity has a significant negative effect on hedging.

H2: Liquidity has a negative effect on hedging decisions.

6. Firm Size

Firm size is a scale classification of companies that can be assessed from various things, including total capital, total assets, and total income (Basyaib, 2007). The bigger the company, the more likely it is that its transaction activities are not only in its home country, but

also include international transactions such as sales and purchasing the product. For this reason, management usually manages these risks by doing hedging activities. The measuring instrument of firm size uses the natural logarithm of the total assets.

The results of previous studies by Kussulistiy & Mahfudz (2016), Prasetiono & Hidayah (2016), Meridelima & Isbanah (2021) stated that firm size has a significant positive effect on hedging.

H3: Firm size has a positive effect on hedging decisions.

7. Exchange Rate

The exchange rate is the value of the traded currency of a country with the currency of another country (Ebert & Griffin, 2014). To avoid the risk of potential losses that may occur due to changes in foreign exchange rates, companies can use hedging. Measurements are made using the volatility of the rupiah against the US dollar. This is because the US dollar is a common currency used as a means of payment in international trade. To avoid the risk of potential losses that may occur due to changes in the value of foreign currencies, companies can carry out hedging.

The volatility of the rupiah against the US dollar is measured using the difference between the current exchange rate of the rupiah and its exchange rate in the previous year. The results of previous studies carried out by Chaudhry et al. (2014) stated that the exchange rate has a significant positive effect on hedging.

H4: The exchange rate has a significant positive effect on hedging decisions.

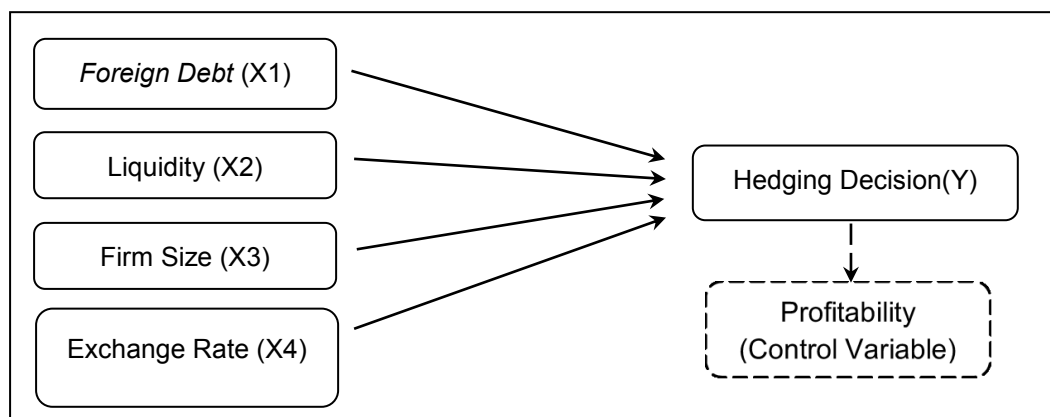
8. Profitability

Profitability is a company's ability to earn profits (Kasmir, 2015). Profitability is used as a control variable in this research to control the effect of profitability on the company's decision to hedge. The measuring instrument of profitability is return on asset (ROA) which is an indicator of how well a company in utilizing its assets to achieve net profit, by comparing net income to the company's total assets.

9. Research of Framework

This study aims to test the hypotheses and analyze the effect of each independent variables, which are foreign debt, liquidity, firm size, and exchange rate on the dependent variable, which is the hedging decision, with profitability used as a control variable in this research.

Figure 2. Theoretical Framework



METHOD, DATA, AND ANALYSIS

1. Population and Sample of the Research

The population in this research was state-owned enterprises listed on the Indonesia Stock Exchange for the 2016 to 2020 period. The sampling technique of this research was purposive sampling. The criteria for this research were companies that periodically reported financial statements and annual reports during the 2016 to 2020 period, companies that presented complete financial reports and the data needed for this research, and companies that had positive profits in the research years. From these criteria we obtained 81 items of data to be researched.

2. Data Collection Technique

The method used in collecting the data in this research was the documentation method. This method collected secondary data from the state-owned enterprises that had been published by the Indonesia Stock Exchange from 2016 to 2020 through the website www.idx.co.id, and then we examined it.

3. Data Analysis Method

3.1. Descriptive statistical analysis

Descriptive statistical analysis is a descriptive analysis in order to convey information about the existing data, but is not intended to test hypotheses. The purpose of this analysis is to explain the condition and character of the data in question by presenting and taking into account the data.

3.2. Logistic regression analysis

Logistic regression analysis is a research method used to test the probability of an occurrence from the dependent variables that can be predicted, with the independent variable (Ghozali, 2016).

1. Hosmer and Lemeshow goodness of fit test

This test is intended for evaluating the hypothesized model so that the empirical data fits the model (Ghozali, 2016). The statistical value of Hosmer and Lemeshow's goodness of fit should equal or < 0.05 , as this indicates that the nul hypothesis is rejected. However, if the statistical value is > 0.05 ; it indicates that the nul hypothesis is accepted.

2. Overall model fit

Assessing the entire model can be indicated by comparing $-2 \log L$ at the beginning (block number = 0) where the model only inputs the independent variable (block number = 1). In the regression model, the model can be said to be good if it is in a condition where $-2 \log L$ block number = 0 $> -2 \log L$ block number = 1. The regression model will be better if there is a decrease in log likelihood (Ghozali, 2016).

3. Omnibus Tests of Model Coefficients

This test was conducted to test whether the independent variables in the study simultaneously affect the dependent variable. If the significance level > 0.05 then H_0 should be rejected, meaning that the independent variables had no effect on the dependent variable. If the significance level < 0.05 then H_0 should be accepted, meaning that the independent variables had a significant effect on the dependent variable (Ghozali, 2016).

4. Regression coefficient

The regression coefficient is needed to test the influence of the independent variables on the dependent variable. H_0 is accepted under conditions of Wald statistic $<$ chi square and probability value (sig) > 0.05 . This point shows that H_a is rejected. On the other hand, H_0 is rejected in a condition where the Wald statistic $>$ chi square and the probability value (sig) < 0.05 . This point explains that H_a is accepted (Ghozali, 2016).

RESULT AND DISCUSSION

1. Descriptive Statistics Analysis

Table 1. Descriptive Statistics of Hedging, Foreign Debt, Liquidity, Firm Size, Exchange Rate, and Profitability for 2016-2020 Period

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Hedging	81	0	1	0.68	0.470
Foreign Debt	81	0.000000	0.8244867	0.144215559	0.1998371829
Liquidity	81	0.270	2.870	1.22398	0.680339
Firm Size	81	27.956	34.952	31.89770	1.721419
Exchange Rate	81	-580	933	55.284	539.594
Profitability	81	0.0000175	0.212	0.0388942	0.04675883

Source: Data processed by IBM SPSS Statistics 25, 2022.

Based on Table 1, it can be seen that the number of observations (N) in the statistical descriptive table numbered 81. Foreign debt had a minimum value of 0 which was owned by PT Adhi Karya, PT Pembangunan Perumahan, PT Semen Baturaja, PT Wijaya Karya, and PT Waskita Karya. The maximum value of foreign debt was owned by PT Aneka Tambang with a value of 0.82449 or 82%. The average value of foreign debt was 0.1442. The standard deviation of foreign debt was 0.1998.

Liquidity had a minimum value of 0.27 or 27%, owned by PT Bank Mandiri. The maximum value of liquidity was owned by PT Semen Baturaja by 2.87 or by 287%. The average value of liquidity was 1.22398 or 122%. The value of the standard deviation of liquidity was 0.680339.

Firm size had a minimum value of 27.96, owned by PT Indofarma. The maximum value for company size was owned by PT Bank Rakyat Indonesia of 34.95. The average value of company size was 31.8977. The value of the standard deviation of firm size was 1.721419.

Volatility exchange rate had a minimum value of -580 which was found in 2019. The maximum value of the exchange rate was 933 which was found in 2018. The average value of the exchange rate was 55.284. The standard

deviation value of the exchange rate was 539.594.

Profitability had a minimum value of 0.0000175 or 0.00175%, which was owned by PT Indofarma. The maximum value of profitability was owned by PT Bukit Asam by 0.212 or by 21.2%. The average value of profitability was 0.03889 or 3.9%. The value of the standard deviation of profitability was 0.046759.

2. Goodness of Fit Test

Table 2. Hosmer and Lemeshow Test

Hosmer and Lemeshow Test		
Step	Chi-square	Sig.
1	4.517	0.808

Source: Data processed by IBM SPSS Statistics 25, 2022.

Based on Table 2, it can be seen that the statistical value of the Hosmer and Lemeshow Goodness of fit test was 4.517 with a significance level of 0.808, which is far above 0.05. This showed that the regression model was feasible to be used and analyzed further because there were no significant differences between variables, and the model was quite capable of explaining the data.

Based on Table 3, it can be seen that the number -2 log Likelihood block number = 0 was

101,673 while - 2 log Likelihood block number = 1 of 64.913. From this data, it could be seen that there was a decrease in likelihood which indicated that the overall logistic regression model used was a good model and met the test requirements. The overall percentage correct in block 0 was lower than the overall percentage correct in block 1.

3. Overall Model Fit

Table 3. Overall Model Fit

Iteration	-2 Log Likelihood
Step 0	101.673
Step 1	64.913

Source: Data processed by IBM SPSS Statistics 25, 2022.

Table 4. Overall Percentage

Block	Overall Percentage Value
Block 0	67.9
Block 1	75.3

Source: Data processed by IBM SPSS Statistics 25, 2022.

Table 4 shows that the overall percentage correct in block 0 was 67.9, which was lower than the overall percentage correct in block 1, which was 75.3. This indicated that the regression model with the estimator of the independent variables had been correct in estimating the effect of the independent variables on hedging. In addition, there was a model summary that explained whether or not the independent variable was able to explain the status of the dependent variable.

Table 5. Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	64.913 ^a	0.365	0.510

Source: Data processed by IBM SPSS Statistics 25, 2022.

Based on Table 5, it can be seen that the value of Nagelkerke R Square was 0.510 which indicated that the independent variables (foreign debt, liquidity, firm size, exchange rate, and profitability) could explain the dependent variable (hedging) by 51%, while the rest would be explained by other factors out of the independent variables used.

4.4. Omnibus Tests of Model Coefficients

Table 6. Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients		
Chi-square	Df	Sig.
30.215	4	0.000
30.215	4	0.000
30.215	4	0.000

Source: Data processed by IBM SPSS Statistics 25, 2022.

Based on Table 6, the result had a significance of 0.000 and $0.000 < 0.05$, which indicated that if all independent variables were tested simultaneously, the independent variables in this study would prove to have a significant effect on the hedging decision.

4.5. Regression Coefficients Test

Table 7. Logistics Regression Coefficient Test

Variables	B	S.E.	Wald	Sig.
Foreign Debt	25.209	11.311	4.967	0.026
Liquidity	0.835	0.945	0.781	0.377
Firm size	0.817	0.403	4.113	0.043
Exchange Rate	0.000	0.001	0.162	0.687
Profitability	-19.985	9.254	4.664	0.031
Constant	-15.129	16.225	0.869	0.351

Source: Data processed by IBM SPSS Statistics 25, 2022.

Based on Table 7, the regression coefficients of each independent variable were as follows.

Regression model = $-15.129 + 25.209FD + 0.835CR + 0.817SZ + 0.000EXC - 19.985PR$.

1. Foreign debt had a regression coefficient of 25.21 with a probability value (sig) of 0.026, and had a Wald statistics value of 4.96 which indicated that the foreign debt was significant because it had a sig value that was smaller than 0.05 where $0.026 < 0.05$. Meanwhile, the Wald statistic of foreign debt was greater than the value of the chi-square table, where $4.967 > 3.841$, which indicated that the foreign debt had a significant positive effect on hedging decisions, and thus it could be accepted.
2. The liquidity variable had a regression coefficient of 0.835 with a probability value (sig) of 0.377, and a Wald statistics value of 0.781 which indicated that the liquidity variable was not significant because it had a sig greater than 0.05, where $0.377 > 0.05$. Meanwhile, the Wald statistic of liquidity was smaller than the chi-square value, where $0.781 < 3.841$, which indicated that the liquidity variable had a significant negative effect on hedging decisions, and thus it could be rejected.
3. The firm size variable had a regression coefficient of 0.817 with a probability value (sig) of 0.043. This gave an indication that the firm size variable was significant because it had a smaller value than 0.05, where $0.043 < 0.05$. Meanwhile, the Wald statistic of firm size was greater than the chi-square, where $4.11 > 3.841$, which indicated that the firm size variable had a significant positive effect on hedging, and thus it could be accepted.
4. The exchange rate variable had a regression coefficient of 0.000 with a probability value (sig) of 0.687. This indicated that the exchange rate variable was not significant because it had a value greater than 0.05 where $0.687 > 0.05$. Meanwhile, the Wald statistic value of the exchange rate was smaller than the chi-square value, where

$0.162 < 3.841$, which indicated that the exchange rate variable had a significant positive effect on hedging, and thus it could be rejected.

5. Profitability, as a control variable, had a regression coefficient of -19,985 with a probability value (sig) of 0.031. This indicated that the profitability variable was significant because it had a smaller value than 0.05, namely $0.031 < 0.05$. In addition, the Wald statistic of profitability was greater than the chi-square value, where $4.66 > 3.841$ which indicated that the profitability variable had a significant negative effect on hedging.

4.6. Discussions

Foreign debt has a significant effect on hedging decisions. Depreciation of the exchange rate can cause debt in the form of the amount of foreign currency owned by the company to become larger in a relatively short period, which can damage the financial balance of the company (Krugman, 1999). It means the company have to pay more due to changes in the value of the foreign currency. The company must be able to manage the risk in order to achieve its purpose (Rahayu, 2018), so a hedging decision is needed for risk management.

PT Aneka Tambang in 2020 has a foreign debt of 0.82 which indicates that 82% of PT Aneka Tambang's debt is foreign currency debt. This is clearly risky when currency fluctuations occur, so management must implement hedging in order to minimize the risk of loss from foreign currency fluctuations. This is also in line with the prospect theory, which ensures the company does not suffer losses by using hedging to reduce risk. The risk of activities carried out by state-owned enterprises is the responsibility of the government, so accuracy is needed in risk management so the government does not suffer losses, by using hedging as risk management.

The results of this study state that foreign debt has a positive, significant effect on hedging decisions, while using profitability as a control variable, and this supports the prior research from Kussulisty & Mahfudz (2016), which explains that foreign debt has a significant positive effect on hedging. However, the results of this study are different from other studies by Prasetiono & Hidayah (2016), which explain that foreign debt actually has a significant negative effect on hedging; both of these prior studies did not apply profitability as a control variable.

Liquidity has no significant effect on hedging decisions. This is because the higher the liquidity, the more able the company is to pay its debts, so the company does not think of hedging as a priority, but to keep the good liquidity, or increase the liquidity, the company will choose hedging for risk management.

Although the direction of the influence of liquidity is positive on hedging, most of the state-owned enterprises implement hedging decisions without looking for liquidity. State-owned enterprises also get funding from the government, so most of them should not have to worry about their liquidity.

The results of this study state that liquidity has no significant effect on hedging decisions, while using profitability as a control variable is supported by the prior research from Kussulisty & Mahfudz (2016), Habibah et al. (2020) which explains that the liquidity variable has no effect on hedging. However, the results of this study differ from the research by Prasetiono & Hidayah (2016), and Meridelima & Isbanah (2021), which explains that the liquidity variable has a significant negative effect on hedging; both of these prior studies did not apply profitability as a control variable.

Firm size has a significant effect on hedging decisions. This is because the bigger the company is, it is more likely that its operational

activities will cover include an international scope, so hedging is needed for risk management. Large companies will tend to frequently carry out foreign transaction activities such as exports and imports of raw materials to increase production by the company (Windari & Purnawati, 2019). Beside that things, the larger the firm size is, the greater are the potential revenues to be earned from the company (Junaidi et al., 2016), so this certainly encourages state-owned enterprises in Indonesia to carry out hedging in order to minimize the risks that may occur.

Regarding the maximum value from the firm size of state-owned enterprises, PT Bank Rakyat Indonesia in 2020 was worth 34.95; where this value shows a total asset of 1,511 trillion rupiahs; and this company does implement hedging. This is due to the implementation of the Ministry of State-Owned Enterprises regulations that encourage state-owned enterprises to hedge, because their activities are a part of the responsibility of the government, so accuracy is needed in risk management when using hedging; this is in accordance with the prospect theory and the portfolio theory where companies will try to minimize the risk of loss from changes in currency values by using hedging.

The results of this study state that firm size has a positive significant effect on hedging decisions while using profitability as a control variable and this was supported by the prior research from Chaudhry et al. (2014), and Meridelima & Isbanah (2021) which explains that company size has a significant influence in a positive direction on hedging. However, this result is not in accordance with the research conducted by Jannah et al. (2019), and Habibah et al. (2020) which states that company size has no effect on hedging; both of these prior studies did not apply profitability as a control variable.

The exchange rate has no significant effect on hedging decisions. This is because during that

period, the exchange rate for the rupiah was quite stable especially in the 2016 until 2020 period, so companies did not use the exchange rate as a benchmark for their hedging decisions.

Based on the statistical descriptive table, the average value of the exchange rate volatility was 55,284. The increase or decrease in the exchange rate during this five-year period was not too sharp, where the minimum value of this exchange rate volatility was -580 in 2019, and the maximum value was 933, which was found in 2018 when this situation was still within reasonable limits. According to Finance Minister Sri Mulyani, as reported by Suara.com, the depreciation of the rupiah was not as bad as that experienced by other G20 countries (Ariefana & Fauzi, 2019). From this explanation, it can be seen that during the observation period, the rupiah was in a fairly normal condition so there was no need to worry about the exchange rate risk.

The results of this study state that the exchange rate has no significant effect on hedging decisions while using profitability as a control variable, and this was supported by the prior research from Firmansyah (2016), Kinasih & Mahardika (2019) which explains that the exchange rate variable has no influence on hedging. However, the results of this study contradict the research undertaken by Chaudhry et al. (2014) which states that the exchange rate variable has a significant influence in a positive direction on hedging; these prior studies did not apply profitability as a control variable.

Profitability, based on the analysis, has a significant negative effect on hedging decisions. This explains that the greater the profitability of the company, the smaller the possibility of the company carrying out hedging, because the greater the profitability of the company means that the better the position in terms of the use of the assets (Supriyono&Herdhayinta, 2019), so

the company have a strong consideration for not hedging. On average, the profitability of state-owned enterprises listed on the Indonesia Stock Exchange in 2016 to 2020 was 0.039 or 3.9% which is below the good profitability standard (5.98%), so normally these companies still require hedging to minimize risk or even avoid risks that may occur due to currency fluctuations.

The results of this research are consistent with research that has been carried out by Jiwandhana & Triaryati (2016) and Utomo & Hartanti (2020), which explains that profitability has a significant negative effect on hedging. However, the results of this study contradict the research that has been carried out by Candradewi & Rahyuda (2018), and Rahayu et al. (2020) which explains that the profitability variable has no effect on hedging.

The results of the analysis show that foreign debt, liquidity, firm size, and exchange rates simultaneously have a significant effect on hedging decisions. This means that any increase in foreign debt, liquidity, firm size, and exchange rate simultaneously will significantly affect hedging decisions.

CONCLUSION AND SUGGESTION

Based on the results, the factors that have an impact on hedging decisions are foreign debt and firm size; while on the other hand, liquidity and the exchange rate have no significant effect on hedging decisions by state-owned enterprises listed on the Indonesia Stock Exchange in the 2016 to 2020 period.

This study used state-owned enterprises, which have special characters, for example their funding is still partially provided by the government. Therefore, the result of this study cannot be generalized for non-state-owned enterprises, especially for the liquidity results, because based on the results the liquidity of state-owned enterprises has no influence on

hedging decisions. Whereas according to the prospect theory, decision makers will make decisions that can minimize risk, and with low liquidity, companies should use hedging to minimize risk, so there is a possibility that the results of liquidity in this study cannot be used as generalizations for all types of companies.

For the other variables, they can be used as generalizations for the other types of companies in determining the factors that influence companies to implement hedging because the results in this sample of state-owned enterprises are in accordance with the prospect theory, which states that decision makers will carry out hedging under the right conditions to minimize risk, as well as the portfolio theory, which states that decision makers will diversify risks so that when faced with potential difficulties, a company will carry out hedging to minimize risk; this is in accordance with the results of this study.

The limitations of this research are that the Nagelkerke R Square is only 0.529 or 52.9% and the other 47.1% is influenced by other factors that are not used by this research model, so it does not represent the complete factors that have an impact on the hedging decision. There are limitations in the foreign debt data because the data are only obtained based on the company's annual financial statements.

Based on the results of the research that has been done, for further researchers, it is recommended to be able to add other independent variables such as leverage, growth opportunity, volatility of cash flow, financial distress, dividend policy, managerial ownership, institutional ownership, and interest rates so that they can contribute to a more comprehensive study. For further researchers, it is recommended to look at the data on foreign debt not only through financial statements, but also from another source like interviews with the

companies, so it will give more complete data. It is recommended to add measuring instruments related to the exchange rate so that it is not limited to the United States dollar only.

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