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Effect of Financial Performance on Stock Price with Return on Assets as an Intervening Variable in State-Owned Banks in Indonesia

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Abstract

The objective of this study is to examine the significant effect of financial performance on stock price with Return on Assets (ROA) as an intervening variable in state-owned banks. This is an explanatory research. The research population is Indonesian banking industry owned by the government, namely the State-Owned Commercial Bank (SOE). The 4 (four) banks involved as the sample among other PT Bank Mandiri (Persero) Tbk, PT Bank Negara Indonesia (Persero) Tbk, PT Bank Rakyat Indonesia (Persero) Tbk, and PT Bank Tabungan Negara (Persero) Tbk. The test results showed that Non-Performing Loan (NPL) ratio does not have a significant negative effect on Return on Assets (ROA), Loan to Deposit Ratio (LDR) ratio does not have a significant positive effect on ROA, Capital Adequacy Ratio (CAR) ratio does not have a significant positive effect on ROA, Operating Expenses toward Operating Income (OEOI) has a significant negative effect on ROA, BI Rate has a significant positive effect on ROA, Return on Assets (ROA) has a significant positive effect on the return of stock price.

Keywords: *Financial Performance; Stock; Return on Assets; Bank*

Introduction

In the current era of economic development, Bank Indonesia issued a new policy related to the benchmark interest rate or commonly referred to as the new BI 7-Day Repo Rate policy rate (Sanica et al., 2018). In addition to the existing BI Rate in Indonesia, the BI 7-Day Repo Rate is expected to affect the money market, banking and real sectors because it has a transactional nature or can be traded on the market, has a strong relationship with money market interest rates, and is expected to drive financial markets (Kismawati et al., 2019). This decrease has an impact on the decline in savings and deposit interest rates and triggers growth especially in the real sector of credit because it will be followed by a decrease in loan interest rates (Zuhri, 2020).

With regard to the BI 7-Day Repo Rate, many large investors are leaving banking shares because the new benchmark interest rate policy from Bank Indonesia is not yet understood. In the near future, investors will re-enter banking shares because there is no other choice for diversification where banking shares are the biggest market cap on the Indonesia Stock Exchange. Stocks in the banking world are very important as to meet the viability of a company requiring stock. Companies can easily get stock is from

the stock market where investors and issuers meet to conduct buying and selling transactions in the form of shares (Ichwani & Dewi, 2018).

In Indonesia, there are many banking companies from state-owned banks, private banks, sharia banks or foreign private banks (Qomariyah et al., 2018). Banks that are very dominant in the banking industry and in economic growth are state-owned banks (Hidayat, 2018). Data compiled from the Financial Services Authority (FSA), banks in Indonesia still dominate the market (market share) of the financial services sector with a percentage of 46.5%. In the second position, there is also a stock market with a percentage of 40.3% where the rest is filled by financing, venture stock, insurance, pension funds, SMF, guarantee companies and the Indonesian Export Financing Institution with a percentage of market share between 0.1% to 6.3 %.

Meanwhile, in terms of total assets, banks also dominated with a percentage of 78.5%, Rural Banks 1.2%, insurance 10.1%, pension funds 2.6%, and finance companies 6.7%, and investment managers 0.1%, venture stock 0.1%, pawnshops 0.5%, and guarantee companies 0.1%. Meanwhile, based on its type, the market share of state-owned banks (SOE) is considered to dominate with a percentage of 34.95%. Then, foreign banks came in second with 33.50% followed by sharia banks 3.68%, Regional Development Banks 8.60%, National Foreign Exchange Banks 18.07%, and finally non-foreign national national banks at 1.20%.

According to Esduardus (2001), a company that has good financial performance will provide benefits for the company itself, where investors will be interested to invest their stock in the company which will affect the company'sprofit. The profitability ratio preferred by Bank Indonesia to measure the value of a bank's performance is Return on Assets (ROA) rather than using Return on Equity (ROE). The reason is that Bank Indonesia prefers to measure the profitability value of a bank that measures fund assets, which mostly come from public deposits.

According to Brighman et al (2010), the level of profitability measured using the Return on Assets (ROA) ratio is also included in the category of financial ratios, but this financial ratio has a special characteristic that is a net result of decisions and policies taken. So far, the profitability ratio has provided very useful or useful clues regarding the effectiveness of the company's operations. However, the profitability ratio further aims to show the combined effect of asset management, liquidity and debt on operating results. Profitability can be influenced by financial liquidity, financial performance of assets and asset performance. As a result, profitability is influenced by Non-Performing Loans (NPL), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Operating Expenses toward Operating Income (OEOI), BI Rate (Siswanti: 2014).

Based on the background above, the variables used in this study are NPL (Non-Performing Loans), LDR (Loan to Deposit Ratio), CAR (Capital Adequacy Ratio), BI Rate, OEOI (Operating Expenses toward Operating Income), ROA (Return on Assets) and Stock Price.

Research Methodology

Research Design

Based on the research objectives, this is an explanatory research which aims to explain the causal relationship between the variables studied through hypothesis testing. In this study, the relationship of cause and effect between variables can generally be predicted so that researchers can previously state the classification of cause variables, and intermediate variables, or commonly referred to as dependent variables. This includes quantitative research in which the data used in this study are secondary data using quantitative method for analysis. Based on the time dimension, this is a pooling data study because the

sample taken involved several banks and several periods. Independent variables in this study are Non-Performing Loans (NPL), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Operating Expenses toward Operating Income (OEOI) and BI Rate. The Return on Asset (ROA) variable itself is an intervening variable and the dependent variable in this study is the Stock Price.

Research Limitations

This study has the following limitations:

1) The research object is a Conventional Commercial Bank where the focus of the study is the SOE Bank.

2) The research period is limited in 2007 to 2015.

3) The variables studied are limited to several variables, namely Non-Performing Loans (NPLs), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Operating Expenses toward Operating Income (OEOI), BI Rate as independent variable, Return on Assets (ROA) as intervening variable and Stock Price as dependent variable.

Variable Identification

This study uses the following variables:

1) Independent Variable: Independent variables consist of: Non-Performing Loans (NPLs), Loans to Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), Operating Expenses toward Operating Income (OEOI), and BI Rate.

2) Intervening Variable: Intervening or mediating variable used in this study is ROA.

3) Dependent Variable: The dependent variable in this study is Stock Price.

Population and Sampling Techniques

The research population is the Indonesian banking industry owned by the government, namely the State-Owned Commercial Bank (SOE). There are 4 (four) banks listed on the Indonesia Stock Exchange (IDX). In this study the 4 (four) banks will be used as research samples, so this study employs a census. The 4 (four) banks include PT Bank Mandiri (Persero) Tbk, PT Bank Negara Indonesia (Persero) Tbk, PT Bank Rakyat Indonesia (Persero) Tbk, PT Bank Tabungan Negara (Persero) Tbk.

Data and Data Collection Method

This research uses quantitative data. The secondary data that the researchers used in this study was in the form of documents of financial statements of Government Banks or State-Owned Banks. The variables used are NPL, LDR, CAR, OEOI, BI Rate, ROA and stock prices sourced from published financial statements. The data in this study are quantitative data with a ratio scale. The data source is secondary data taken from financial reports that have been published by Bank Indonesia and data that is listed on the Indonesia Stock Exchange. The data used in this study is a combination of time series data

and space section data or commonly referred to as pooling. According Suharso (2009), documentation data collection methods are generally used to complement the data and information that researchers need for the benefit of the research variables that have been previously designed.

Data Analysis Technique

In this study, researchers used financial ratio analysis to financial statements. The form of statistical analysis that researchers use is parametric statistics. Technical analysis to simplify data for easier interpretation is to use multiple linear regression analysis to discuss and process the data obtained and to test the research hypotheses. Before the regression analysis is performed, a classic assumption deviation test will first be carried out which consists of a normality test, a multicollinearity test, and a heteroskedasticity test.

Path Analysis and Multiple Regression Analysis

Path analysis represents a development technique of multiple linear regressions. This technique is used to test the amount of contribution shown by the path coefficient on each path diagram of the causal relationships X1, X2, and X3 to Y and their impact on Z. Path analysis is a technique to analyze the causal relationships that occur in multiple regression if the independent variable affects dependent variables both directly and indirectly (Hendry: 2010). Multiple regression analysis is generally used to find out whether there is a relationship between the independent variable (X) and the dependent variable (Y).

Hypothesis Testing

Hypothesis testing is carried out by looking at the level of significance of the regression coefficient (β) partially or individually from independent variable to dependent variable. Hypothesis testing consists of a simultaneous test (F test), a coefficient of determination test (R2) and a partial test (two-tailed t test).

It uses the following hypothesis:

H0: $\beta = 0$, means that there is no significant effect of the independent variable partially on the dependent variable.

H1: $\beta \neq 0$, means that there is a significant effect of the independent variable partially on the dependent variable.

Results and Discussion
Classical Assumption Test

1. Normality Test

The results of tests using SPSS version 24 is presented in Table 1.

Table 1. Normality Test for Dependent Variable: Return of Stock Price

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Return of stock price	.062	143	.200*	.983	143	.080
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Based on the results of data processing, all data are normally distributed and there are no deviations. This can be explained by a significance value of 0.200 (p > 0.05). So, in the Kolmogorov-Smirnov test, the data are normally distributed. The significance value in the Shapiro-Wilk test was 0.080 (p > 0.05). So, based on Shapiro–Wilk normality test, the data is normally distributed.

2. Multicollinearity Test

Multicollinearity test results are used to determine the correlation between independent variables or independent variables. Table 2 and Table 3 show the multicollinearity of each independent variable. This is presented in Table 2.

Table 2. Multicollinearity Test Results for the First Model

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	10.022	.809		12.396	.000		
	NPL (X1)	-.078	.085	-.076	-.920	.359	.194	5.159
	LDR (X2)	.007	.005	.084	1.318	.190	.327	3.063
	CAR (X3)	-.001	.019	-.001	-.029	.977	.659	1.517
	OEOI (X4)	-.113	.008	-.878	-13.436	.000	.312	3.202
	BIRATE (X5)	.113	.041	.115	2.738	.007	.757	1.321

a. Dependent Variable: ROA (Y)

Table 3. Multicollinearity Test Results of the Second Model

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.311	5.193		.060	.952		
	ROA (Y)	2.729	1.649	.138	1.654	.100	1.000	1.000
a. Dependent Variable: RETURNOFSTOCKPRICE (Z)								

Source: secondary data processed by SPSS ver.24

Based on data obtained from the two tables above, the tolerance value of all variables is >10% and the VIF value <10. It means that there is no multicollinearity between each independent variable in the regression model.

3. Heteroscedasticity Test

This test aims to test whether the variance inequality from residuals of one observation to another occurs in regression model.

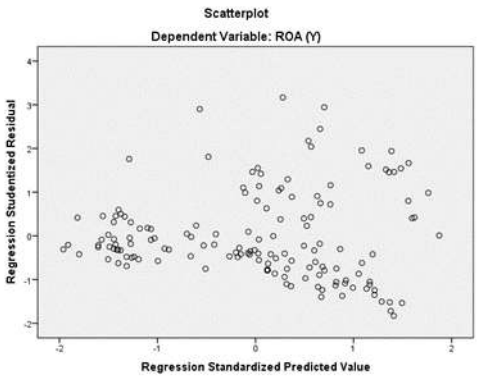

Figure 1. Analysis Results of Heteroscedasticity Test for the First Model

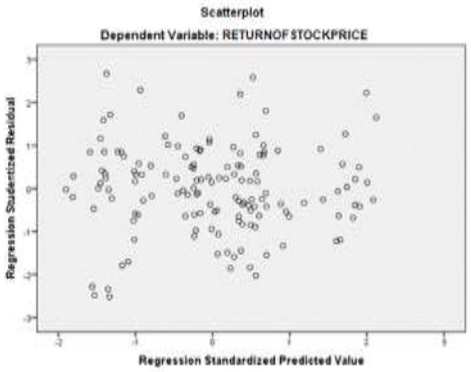

Figure 2. Analysis Results of Heteroscedasticity Test for the Second Model

Based on scatterplot charts, the plots spread randomly and spread above or below the number 0 on the y axis by not forming a clear pattern. According to observations on the graph, it is concluded that heteroscedasticity did not occur in this regression model because the pattern was random and unclear.

Hypothesis Testing

1. Determination Coefficient Test Results

The determinant coefficient or R2 is the predictive ability of the variables NPL, LDR, CAR, OEOI, BI Rate toward ROA and ROA variable toward Return of Stock Price. It is explained in Table 4.

Table 4. R Square Coefficients of NPL, LDR, CAR, OEOI, BI Rate toward ROA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900[a]	.810	.804	.45431
a. Predictors: (Constanta), BIRATE (X5), NPL (X1), CAR (X3), LDR (X2), OEOI (X4) b. Dependent: ROA				

Table 4 shows that R2 is 0.810 or 81%. It shows that the variation of the dependent variable ROA can be explained simultaneously by the independent variables NPL, LDR, CAR, OEOI, BI Rate of 81% while the remaining 19% is influenced by other variables outside this model and the variable on ROA has a coefficient value of 0.9.

Table 5. R Square Coefficients of ROA toward Return of Stock Price

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.179[a]	.032	.025	18.33229

Dependent Variable: Returnof Stock Price
Source: Data processed with SPSS ver.24

Table 5 shows that R2 is 0.032 or 3.2%. It shows that the variation of the dependent variable Return of Stock Price can be explained by the ROA variable of 3.2% while the remaining 96.8% is influenced by other variables outside this model and the Return of Stock Price variable has a coefficient of 0.179.

2. Test Results of Multiple Linear Analysis

The first regression equation can be seen in the table of coefficients test results based on SPSS output version 24 on the independent variables NPL, LDR, CAR, OEOI, BI Rate on ROA presented in Table 6.

Table 6. Results of Multiple Linear Regression Test (X-Y)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constanta)	10.022	.809		12.396	.000
	NPL (X1)	-.078	.085	-.076	-.920	.359
	LDR (X2)	.007	.005	.084	1.318	.190
	CAR (X3)	-.001	.019	-.001	-.029	.977
	OEOI (X4)	-.113	.008	-.878	-13.436	.000
	BIRATE (X5)	.113	.041	.115	2.738	.007
a. Dependent Variable: ROA (Y)						

Based on Table 6, the following regression equation can be determined:

ROA = 10.022 – 0.078NPL + 0.007LDR – 0.001CAR – 0.113OEOI + 0.113BI Rate.....(1)

The above equation produces the following explanation:

a. Constanta (β0)

The constanta value (a) of 10,022 indicates that the magnitude of the ROA dependent variable is 10.022 if it is not influenced by the independent variables NPL, LDR, CAR, OEOI, BI Rate. It is assumed that if the independent variables are fixed, the ROA variable will increase by 10.022%.

b. Non-Performing Loan (NPL) Coefficient

β_1 = -0.078 indicates the value of the effect of NPL variable is negative at 0.078 units of ROA. It means that each NPL (X_1) of 1 unit will cause a decrease in ROA (Y) of 0.078 units assuming that the other independent variables are in a constant (fixed) state. The NPL significance value of 0.359 indicates that NPL has a positive and not significant effect on ROA. Table 4.5 shows that t_{count} is -0.920. t_{table} was obtained with the value of df = 142, sig 5% 1 tail (0.05) = 1.64 so that it is concluded that $t_{count}<t_{table}$of -0.920 <-1.64 then the hypothesis isrejected. It means that NPL partially has no significant negative effect on ROA. Thus, the first hypothesis which states that NPL has a negative and significant effect on ROA is not accepted.

c. Loan to Deposit Ratio (LDR) Coefficient

β_2 = 0.007 indicates the value of the effect of LDR variable is positive at 0.007 units of ROA. It means that each LDR (X_2) of 1 unit will cause a decrease in ROA (Y) of 0.007 units assuming that the other independent variables are in a constant (fixed) state. Table 4.5 shows that t_{count} is 1.318. t_{table} was obtained with the value of df = 142, sig 5% 1 tail (0.05) = 1.64 so that it is concluded that $t_{count}\leq t_{table}$ of -1.318 $\leq$ 1.64 then the hypothesis is rejected. It means that LDR partially has no significant positive effect on ROA. Thus, the second hypothesis which states that LDR has a significant positive effect on ROA is not accepted.

d. Capital Adequacy Ratio (CAR) Coefficient

β_3 = -0.001 indicates the value of the effect of CAR variable is negative at 0.001 units of ROA. It means that each CAR (X_3) of 1 unit will cause a decrease in ROA (Y) of 0.001 units assuming that the other independent variables are in a constant (fixed) state. Table 4.5 shows that t_{count} is -0.029. t_{table} was obtained with the value of df = 142, sig 5% 1 tail (0.05) = 1.64 so that it is concluded that $t_{count}\leq$ t_{table} of -0.029 $\leq$ 1.64 then the hypothesis is rejected. It means that CAR partially has no significant positive effect on ROA. Thus, the second hypothesis which states that CAR has a significant positive effect on ROA is not accepted.

e. Operating Expense to Operating Income (OEOI) Coefficient

β_4 = -0.113 indicates the value of the effect of OEOI variable is negative at 0.113 units of ROA. It means that each OEOI (X_4) of 1 unit will cause a decrease in ROA (Y) of 0.113 units assuming that the other independent variables are in a constant (fixed) state. Table 4.5 shows that t_{count} is -13.436. t_{table} was obtained with the value of df = 142, sig 5% 1 tail (0.05) = 1.64 so that it is concluded that $t_{count}<t_{table}$ of -13.436 < -1.64 then the hypothesis is accepted. It means that OEOI partially has a significant negative effect on ROA. Thus, the fourth hypothesis which states that OEOI has a significant negative effect on ROA is accepted.

f. BI Rate Coefficient

β_5 = 0.113 indicates the value of the effect of BI Rate variable is positive at 0.113 units of ROA. It means that each BI Rate (X_5) of 1 unit will cause a decrease in ROA (Y) of 0.113 units assuming that the other independent variables are in a constant (fixed) state. Table 4.5 shows that t_{count} is 2.738t_{table} was obtained with the value of df = 142, sig 5% 1 tail (0.05) = 1.64 so that it is concluded that $t_{count}\geq$ t_{table} of 2.738 $\geq$ - 1.64 then the hypothesis is accepted. It means that BI Rate partially has a significant

negative effect on ROA. Thus, the fifth hypothesis which states that BI Rate has a significant negative effect on ROA is accepted.

The second regression equation is presented in table 7. The results of the coefficients test are based on SPSS output version 24 on the independent variable ROA toward Return of Stock Price shown in the following table:

Table 7. Results of Multiple Linear Regression Test (Y-Z)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constanta)	-.473	4.712		-.100	.920
	ROA	3.234	1.499	.179	2.158	.033
a. Dependent Variable: RETURNOFSTOCKPRICE						

Table 7 produces the following equation:

Return of Stock Price = 0.473 + 3.234ROA.....(2)

The second multiple linear regression equation has a constant (a) of -0.473. It shows the magnitude of the dependent variable Return of Stock Price of -0.473 if it is not influenced by the ROA free variable. It is assumed that if the ROA variable is fixed then the Return of Stock Price variable will decrease by 0.473.

The ROA coefficient shows a value of 3.234 which means that the influence of the ROA variable is positive at 3.234 units of the Return of Stock Price assuming that the other independent variables are in a constant state (fixed). Table 4.8 shows that tcount is 2.158. ttable was obtained with the value of df = 142, sig 5% 1 tail (0.05) = 1.64 so that it is concluded that tcount>ttable of 3.234 > 1.64 then the hypothesis is accepted. It means that ROA partially has a significant positive effect on Return of Stock Price. Thus, the fifth hypothesis which states that ROA has a positive and significant effect on the Return Stock price is accepted.

3. F Test (Simultaneous)

Based on the results of data processing performed using the IBM SPSS Statistics 24 program, the following results are obtained:

Table 8. F Test Results (X-Y)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	125.275	5	25.055	121.394	.000[b]
	Residual	29.308	142	.206		
	Total	154.584	147			
a. Dependent Variable: ROA (Y)						
b. Predictors: (Constant), BIRATE (X5), NPL (X1), CAR (X3), LDR (X2), OEOI (X4)						

Based on Table 8, it is concluded that the NPL, LDR, CAR, OEOI, BI Rate simultaneously have a significant effect on ROA as evidenced by the significance value (α) F greater than 5% (0.000 < 0.05).

Table 9. F Test Results (Y-Z)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1564.686	1	1564.686	4.656	.033[b]
	Residual	47386.282	141	336.073		
	Total	48950.968	142			
a. Dependent Variable: RETURNOFSTOCKPRICE						
b. Predictors: (Constant), ROA						

Based on Table 9, it is concluded that the ROA variable simultaneously has a significant effect on the Return of Stock Price as evidenced by the significance value (α) F which is smaller than 5% (0.033 < 0.05).

4. Path Analysis Test Results

a. Path Coefficient Model 1

Tabel 10. Koefisien Jalur Model 1

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10,022	,809		12,396	,000
	NPL (X1)	-,078	,085	-,076	-,920	,359
	LDR (X2)	,007	,005	,084	1,318	,190
	CAR (X3)	-,001	,019	-,001	-,029	,977
	BOPO (X4)	-,113	,008	-,878	-13,436	,000
	BIRATE (X5)	,113	,041	,115	2,738	,007
a. Dependent Variable: ROA (Y)						

Table 10 shows that the significance value of the NPL, LDR, CAR variables is greater than 0.05, while the significance value of the BOPO and BI Rate variables is less than 0.05. These results provide the conclusion that the regression model 1 including variables NPL, LDR, CAR has no significant effect on ROA. In addition, the BOPO and BI Rate variables have a significant effect on ROA. The value of R Square is shown in table 4.6 of 0.8. It shows that the contribution of NPL, LDR, CAR, BOPO and BI Rate variables to ROA was 81%, while the remaining 19% was contributed by other variables not included in the study. Meanwhile, the value of e1 can be found with the formula e1=√(1-0.81)=0.436.

b. Koefisien Jalur Model II Path Coefficient Model II

Tabel 11. Koefisien Jalur Model 2

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-102,539	53,022		-1,934	,055
	NPL (X1)	-,799	3,817	-,040	-,209	,834
	LDR (X2)	-,191	,235	-,120	-,814	,417
	CAR (X3)	,084	,853	,010	,098	,922
	BOPO (X4)	1,405	,587	,553	2,395	,018
	BIRATE (X5)	-,665	1,903	-,034	-,349	,727
	ROA (Y)	9,717	3,829	,497	2,538	,012
a. Dependent Variable: Stock Price Return (Z)						

Based on Table 11, it is known that the significance value of the variable NPL, LDR, CAR and BI Rate is above 0.05, while the significance of the BOPO and ROA variables is less than 0.05. It concludes that the regression model 2 which covers the NPL, LDR, CAR and BI Rate variables does not significantly influence the Stock Price Return, while the BOPO and ROA variables have a significant effect on the Stock Price Return.

Tabel 12. Koefisien R Square Variabel X dan Y

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,227[a]	,052	,010	20,23254
a. Predictors: (Constant), ROA (Y), CAR (X3), BIRATE (X5), LDR (X2), NPL (X1), BOPO (X4)				

R Square can be seen in the table above that is equal to 0.052. It shows that the contribution of NPL, LDR, CAR, BOPO, BI Rate and ROA variables to the Stock Price Return is 5.2%. Moreover, the rest is influenced by other variables outside this study. Calculation of the value of e2=√(1-0,052)=0,974.

Path Analysis Calculation Results

- The direct effect of the NPL on Stock Price Returns was -0.40, while the indirect effect could be calculated as -0.76 x 0.497 = -0.377. Thus, the total effect given by NPL on Stock Price Return was a direct effect plus an indirect effect, namely: -0.40 + (-0.377) = -0.7777. Based on the result of this calculation, the direct effect of -0.40 was greater than the indirect effect of-.777. These results indicated that directly NPL through ROA has a significant effect on the stock price return.

- The direct effect of the LDR on Stock Price Return was -0.120, while the indirect effect could be calculated as 0.084 x 0.497 = 0.042. Therefore, the total effect given by LDR on Stock Price Return was a direct effect plus an indirect effect, namely: -0.120 + 0.042 = -0.078. Based on the result of this

calculation, the direct effect of -0.120 was smaller than the indirect effect of -0.078. These results indicated that indirectly LDR through ROA has a significant effect on the stock price return.

- The direct effect given by CAR to the Stock Price Return was 0.10, while the indirect effect could be calculated as -0.001 x 0.497 = -0.00049. Thus, the total effect given by CAR to the Stock Price Return was a direct effect plus an indirect effect namely: 0.10 + (-0.00049) = 0.099. Based on the result of this calculation, the direct effect of 0.10 was greater than the indirect effect of 0.099. These results indicated that directly CAR through ROA has a significant effect on the stock price return.

- The direct effect given by BOPO on Stock Price Return was 0.533, while the indirect effect could be calculated as -0.878 x 0.497 = -0.436. Therefore, the total effect given by BOPO on Stock Price Return was a direct effect plus an indirect effect namely: 0.533 + (-0.436) = 0.097. Based on the result of this calculation, the direct effect of 0.533 was greater than the indirect effect of 0.097. These results indicated that directly BOPO through ROA has a significant effect on stock price returns.

- The direct effect given by the BI Rate to Stock Price Returns was -0.034, while the indirect effect could be calculated as 0.115 x 0.497 = 0.057. Thus, the total effect given by the BI Rate to Stock Price Return was a direct effect plus an indirect effect, namely: -0.034 + 0.057 = 0.023. Based on the result of this calculation, the direct effect of -0.034 was smaller than the indirect effect of 0.023. These results indicated that indirectly the BI Rate through ROA has a significant effect on stock price returns.

Effect of NPL, LDR, CAR, BOPO, BI Rate through ROA on Stock Price Return

Based on the Path Analysis test results, it can be concluded that directly NPL, CAR and BOPO through ROA have a significant effect on the Stock Price Return. Bad credit will greatly affect the profitability of a company which results in an effect on the acquisition of Share Prices. Nowadays many banks offer low interest loans, but many customers find it hard to pay their obligations when there is an increase in interest rates. It will certainly affect the Bank's profitability, while the profit has a large influence on stock prices and the trust of the public and investors.

The increase in assets and capital is one of the important variables in increasing the company's profit. The higher the capital owned, the bank can use it to improve the performance of a company. Furthermore, investors will also choose the banks with high assets to get a sense of security in investing which definitely will affect the company's share price.

BOPO is a variable that is frequently discussed in the company since this variable is very influential on earnings or company performance. BOPO implies how a company management manages its operations properly and does not reduce the performance or profits. The share price is directly affected by BOPO because the greater the costs incurred by the company, the less profit obtained. It has an effect on the Share Price.

Meanwhile, LDR and BI Rate through ROA indirectly have a significant effect on Stock Price Returns. It can happen due to the relative decline in the level of liquidity. Even though the LDR is still in a good condition, it cannot simultaneously increase profit calculated by ROA.

At present, the BI Rate plays an important role for economic stability with a seven days repo that is evaluated every 7 days. The increase or decrease of the BI Rate affects the movement of the Bank's offer in terms of deposit interest and loan interest. When interest falls, people tend to be lazy to save their money in the bank and prefer to turn it around as a business or take credit. On the other hand, when

interest rises, many people prefer to place their funds in deposits. Therefore, the Bank is currently using another alternative in achieving profit increases, namely fee-based income.

Discussion

Effect of Non-Performing Loan (NPL) on Return on Assets (ROA)

Based on the test results between NPL and ROA variables, it proves that NPL does not have a significant negative effect on ROA. Thus, the first hypothesis which states that NPL has a significant negative effect on ROA is not accepted. This is not consistent with the study of Eng (2013) which shows that the NPL ratio has a negative and significant effect on ROA. The higher the NPL indicates the worse the quality of bank credit that causes the number of problem loans to be higher. If the NPL is high, banks must bear losses in operational activities which result in a decrease in ROA.

The uncertainty between the increase and decrease in ROA causes the effect of non-significant NPL on ROA. This is in line with research conducted by Buchory (2015) who says that NPL has a positive effect on ROA.

Effect of Loan to Deposit Ratio (LDR) on Return on Assets (ROA)

Based on the test results between LDR and ROA, it proves that LDR has no significant positive effect on ROA. The results of this study do not support research conducted by Praja & Hartono (2018) which states that the LDR ratio has a significant positive effect on ROA. The results of this study conclude that liquidity does not necessarily increase ROA and in this case the effect is not significant. It might be because of the relative decline in the level of liquidity even though the LDR is still in good health. However, it cannot simultaneously increase profit calculated by ROA. Bank Indonesia itself provides an LDR lower limit of 78% and an upper limit of 92%. Eng's research (2013) explained that LDR has a negative effect on ROA. It proves that the higher the LDR of a bank will result in a decrease in profits calculated by ROA.

Effect of Capital Adequacy Ratio (CAR) on Return on Assets (ROA)

Based on the test results of CAR variable on ROA variable, it proves that CAR has no significant positive effect on ROA which states that the hypothesis is not accepted. Improving the quality of CAR will affect earnings, but it is not too significant. If it is not accompanied by other supporting factors such as efficiency of costs, an increase in stock will not necessarily increase profits calculated by ROA. This research is supported by research conducted by CaturWahyuEndraYogianta (2013) who stated that CAR ratio has no significant positive effect on ROA. The insignificance of CAR is caused by Bank Indonesia regulation which requires the Bank to maintain CAR at 8%, where the Bank must prepare reserve funds to meet the minimum requirements.

A prudent investment policy by the Bank will affect Bank's profits. Meanwhile, the level of public confidence in the Bank is one of the important factors for increasing Bank's profitability. Therefore, even though the Bank has a high stock and a high CAR level, if it is not matched by good investment and distribution of funds, it will not affect profitability.

This study is not in line with research conducted by Bogdan Capracu, Lulian and Ihnatov (2015) which states that CAR has a significant positive effect on ROA.

Effect of Operating Expense to Operating Income (OEOI) on Return on Assets (ROA)

Based on the test results of OEOI variable on ROA variable, it proves that OEOI has a significant negative effect on ROA. This research is supported by Yogianta (2013) who showed that the OEOI ratio has a negative effect on ROA. If the OEOI variable increases, it will affect the ROA which will decrease. The bank will obtain increased profits when it is able to reduce operational costs in managing the business. If it manages its operational costs properly, the Bank can reduce losses due to inefficiencies in the company. In good management, public trust increases, it will affect the increase in Third Party Funds collected by the Bank. The increase in third party funds will affect the increase in profitability of the bank. Bank Indonesia sets the minimum OEOI at 85%. If OEOI is above the minimum threshold set, the Bank runs its operations inefficiently. This study does not support the study of Tan SauEng (2013) who stated that OEOI has no effect on ROA.

Effect of BI Rate on Return on Assets (ROA)

Based on the test results of BI Rate variable on ROA variable, it proves that the BI Rate has a significant negative effect on ROA which indicates that the hypothesis is accepted. When interest rates increase, companies should maintain the stability of profitability because when the BI Rate rises, many people will place their money in savings or deposits. Meanwhile, the credit sector will experience a decline in public interest. So, banks must take other steps to increase probability such as the use of e-channel services as a strategy to increase profits from the Fee Based Income sector. This study does not support the research of Siswanti (2014) who stated that the BI Rate has a significant positive effect on ROA.

Effect of Return on Assets (ROA) on Return of Stock Price

Based on the test results of ROA variable on Return of Stock Price, it proves that ROA has a significant positive effect on Return of Stock Price which states that the hypothesis is accepted. This research is not supported by Lola Devita Sari's (2016) research which shows that ROA has no significant effect on Stock Price. Increase in ROA will be followed by an increase in Return of Stock Price which can be caused by the performance of a company. This can affect investor interest in investing in the company. Rising return of stock prices is caused by the increase in stock returns obtained by investors who are an attraction to buy these shares. This research is supported by research conducted by Siswanti (2014) which states that ROA has a significant effect on the Return of Stock Price.

Effect of NPL, LDR, CAR, BOPO, BI Rate through ROA on Stock Price Return

Based on the Path Analysis test results, it can be concluded that directly NPL, CAR and BOPO through ROA have a significant effect on the Stock Price Return. Bad credit will greatly affect the profitability of a company which results in an effect on the acquisition of Share Prices. Nowadays many banks offer low interest loans, but many customers find it hard to pay their obligations when there is an increase in interest rates. It will certainly affect the Bank's profitability, while the profit has a large influence on stock prices and the trust of the public and investors.

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Conclusion

The test results show that Non-Performing Loan (NPL) ratio does not have a significant negative effect on Return on Assets (ROA) so hypothesis 1 is rejected, Loan to Deposit Ratio (LDR) ratio does not have a significant positive effect on Return on Assets (ROA) so hypothesis 2 is rejected, Capital Adequacy Ratio (CAR) ration does not have a significant positive effect on Return on Assets (ROA) so hypothesis 3 is rejected, Operating Expense to Operating Income (OEOI) has a significant negative effect on Return on Assets (ROA) so hypothesis 4 is accepted, BI Rate has a significant positive effect on Return on Assets (ROA) so that hypothesis 5 is accepted, Return on Assets (ROA) has a significant positive effect on Return of Stock Price so hypothesis 6 is accepted.

Research Limitations

As the results that have been previously described, this research is limited to state-owned banks totaling 4 banks in Indonesia. In addition, the ratio to measure Return of Stock Price is limited by Return on Assets (ROA), which is actually many factors that can affect the Return of Stock Price.

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