Analysis Influence of NPL, Good Corporate Governance, and BOPO to Stock Prices on National Private Bank Period 2012 - 2018

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ABSTRACT

The level of performance of a bank has many factors that affect stock prices; one of the problems is internal factors from the bank itself. Bank can influence the stock prices using the ratio from inside the bank. The objective of this research is to analyze the Non-performing Loan (NPL), Good Corporate Governance (GCG), and Beban Operasional Pendapatan Operasional (BOPO) effect on stock prices simultaneously or partially on the national private banks listed on IDX from 2012-2018. There were 21 samples consists national private banks listed on the IDX from 2012-2018. We use panel data regression with E-Views 10 software in the data analysis model as an applied research method. We can conclude that simultaneously the independent variables such as NPL, GCG, and BOPO significantly affect on national private bank's stock price from 2012-2018. NPL is significantly effect on stock prices at national private banks from 2012-2018, whereas GCG and BOPO didn't significant effect national private bank's stock price from 2012-2018.

Keywords: NPL; GCG; BOPO; Stock Price

INTRODUCTION

Shares shows sign of capital participation of a company that can be owned by individuals or on a larger scale, such as business entities (It can be other companies or other types of businesses). By having share, shareholders can claim benefits from the company, such as: the income from company, company assets and shareholders can be invited to attend general meeting of shareholders (annual meeting). The number of benefits obtained adjusts the number of shares owned. Therefore, shares are one of the capital market instruments that are most sought after by investors because they provide an attractive level of profit. Stock prices generally show prices created by market movements or exchanges, what is meant by market movements here are movements made by sellers and buyers. To increase their equity the company usually trades their shares in the stock market. Many types of companies & business are listed on the stock exchange, one of which is a banking companies.

The role of banks in a country becomes an economic driver. Basic duty of the bank is intermediating between parties who have excess money (known as deposits) to parties who need money (known as loans). The bank acts as a reservoir for funds and a place to channeling funds. In a banking company, the provision of credit by banks to the public can be risky in the form of non-payment which can affect the performance of banks, which is commonly referred to as bad loans. The ratio of non-performing loans (NPL) indicate how good banks in managing non-performing loans channeled by banks. Provisions from Bank Indonesia for banks to maintain the NPL ratio are below 5%. The higher this ratio, the more likely a bank is in problematic conditions. The high

number of problem loans in a bank can result in a decrease in share prices because, if the NPL ratio is high, banks will find it difficult to distribute funds between depositors and credit recipients and this will complicate the banking business. Meanwhile, good corporate governance (GCG) mechanism will provide protection to the others: shareholders and creditors. They can get back on the investment (for shareholders) and credit (for creditor) as reasonable, appropriate, and efficient as possible, also ensure that management acts as well as it does for the best benefit of bank. Good GCG implementation will make investors give a positive response because the interests of investors will be safe and the funds invested in the company concerned will be well managed. In carrying out daily activities, banks require operational costs. This cost can consist of interest costs, marketing costs, labor costs, and other operating costs. On the other hand, banks have various types of income. One of them is operating income. Usually, operating income is obtained from fees withdrawn for services carried out by banks, as well as other operating income. From operational cost and operating income, bank can calculate *Beban Operasional Pendapatan Operasional* (BOPO). The lower of BOPO means banks are more efficient. This indicates bank can manage its operational cost well. This has impact on cost efficiency and bank will get more profit.

From this study, we can find out that three main ratios (NPL, GCG, and BOPO) can be concluded to affect national private banking stock price. If the bank can maintain the three ratios on the optimum level, it will affect on its share prices. Thus, more investors will come to buy banks' shares. The main benefit of this research is for the management of banks. In order to make their stock prices higher, they can make strategies to develop internal factors from the bank. For the investors, this study can be used as an alternative to derived stock price using bank health conditions, using internal factors.

There have been many studies on Non Performing Loans on stock prices, one of which was conducted by Nino Y. et al (2016) who examined the size of the company, capital structure, Non Performing Loans, CAR, and ROE to stock returns in banking companies LQ45 index which shows company size, capital structure, Non-Performing Loans, CAR, and ROE simultaneously affect stock prices and NPL partially influences stock prices, and there are those who have stated that NPL have no effect to stock prices such as the research of Larasati R. et al (2017) and Satria and Hatta I. H (2015). Research on GCG on stock prices has also been widely carried out, one of which was conducted by Febiola Desty, et al (2019) who examined the Effect health of banking to Stock Prices in the Indonesia Stock Exchange in 2008-2017, which showed GCG influence to stock prices, and there are those that state that GCG does not effect to stock prices such as research Anggraeni Reza, et al (2019). Research on BOPO on stock prices has also been done a lot, one of which was conducted by Asri M. Hammidun (2017) about EPS, ROA, ROE, BOPO to Stock Prices Banking Company, which showed BOPO influence to stock prices, and some states that BOPO does not affect to stock prices such as research Halima S.N and Komariah E. (2017).

Based on the problem, hypothesis of this study are:

H_{01} : NPL, GCG, and BOPO simultaneously do not have a significant effect on stock prices

H_{a1} : NPL, GCG, and BOPO simultaneously have a significant effect on stock prices

H_{02} : NPL have no significant effect on stock prices.

H_{a2} : NPL have a significant effect on stock prices.

H_{03} : GCG does not have a significant effect on stock prices

H_{a3} : GCG has a significant effect on stock prices.

H_{04} : BOPO has no significant effect on stock prices

H_{a4} : BOPO has a significant effect on stock prices

METHODS

This research is quantitative research and we are using secondary data (retrieved from other sources). We are using national private banks that listed in IDX (Indonesian Stock Exchange) from 2012-2018. This type of banks is chosen because these types have more banks than other banks and make a greater impact to the national economic than other types of banks (Islamic banks, Rural Credit Banks (BPRs), and non-national private commercial banks foreign exchange) due to transfers abroad, issuing traveler checks, collections abroad, bookkeeping and payment of letters of credit for foreign trade (export-import) and others. We are using purposive sampling as sampling techniques in this study. Sample that used as the object of research is determined based on certain criteria: (1) National Private Banks (Indonesia) that listed on the IDX during the observation period from

2012-2018; (2) National Private Banks (foreign) listed on IDX during the observation period from 2012-2018; (3) National Private Banks (Indonesia & foreign) that consistently publish audited financial statements during the observation period from 2012-2018.

Since panel data has the following advantages, we will use panel data (merging of section data and time series data) in this study. (1) Panel data can explicitly calculate individual non-uniformity, taking into account individual variables. (2) This ability to control non-uniformity makes panel data even more useful for testing and building more complex behavioral models. (3) Panel data is based on repeated cross-section observations (time series), making it a panel data method suitable for dynamic fitting research. (4) If the number of observations is large, it affects more useful and diverse data, the multicollinearity between the data (multico) decreases, and the degree of freedom (df) increases, so more efficient estimation results can be obtained. can do. (5) Complex behavioral models can be studied by panel data. (6) Bias can be minimized by using panel data (usually because aggregation of individual data). For banking data, it is wise to use panel data since tends to be abnormal because financial statements between banks tend to have a large differ from each other, as in size and capability.

We start the analysis with descriptive statistical analysis and correlation to analyze the data that already collected and ready to be tested. Then for determining of model that used in this study, we are using Chow Test, Hausman Test and Langrange Multiplier Test. And finally, the model that have been selected will be analyzed by the R2 test, F test and t test. The equation of the panel data model analysis used in this study is as follows:

Information :

Y	=	Stock Price
α	=	A constant
X_1	=	NPL
X_2	=	BOPO
X_3	=	GCG
$\beta_1, \beta_2, \beta_3$	=	The regression coefficients of each independent variable.
e	=	Error term
t	=	Time
i	=	Banking Companies

RESULT AND DISCUSSION

Below (Table 1) is descriptive statistical analysis based on all variable that used in the study:

Table 1. Descriptive Statistical Analysis

	Minimum	Maximum	Mean	Standard Deviation
Non Performing Loan (NPL)	0.0017	0.0723	0.0231	0.0142
Good Corporate Governance (GCG)	1.0000	4.0000	1.9252	0.5862
Operational Costs Operating Income (BOPO)	0.3328	2.3520	0.8921	0.2302
Stock Price (Rupiah)	50.0000	25476.25	1549.5076	3412.1171

(Source: data processed using Eviews 10)

Based on the descriptive statistical table 1, it can be concluded that Non Performing Loans (NPL), Good Corporate Governance (GCG) and *Beban Operasional Pendapatan Operasional*(BOPO) variables have a mean value greater than the standard deviation which means that the variables are grouped. The stock price has a mean value smaller than the standard deviation which means that the variable is not grouped.

The classic assumption tests used include the multicollinearity test based in table 2 and the heteroscedasticity test based in table 3.

Table 2. Multicollinearity Test Results

		Uncentered	Centered
Variance Inflation Factors			
Date: 06/27/20 Time: 07:00			
Sample: 1 147			
Included observations: 147			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	0.076245	40.54177	NA
NPL	0.021816	36.07083	1.220050
GCG	0.098776	4.682185	1.049569
BOPO	0.234509	1.667082	1.199669

(Source: data processed using Eviews)

Based on table 3.2, the VIF value of all variables is not more than 10. Multicollinearity Test Results, it can be seen the value of Non Performing Loans (NPL) with a VIF value of 1.220050. Good Corporate Governance (GCG) with a VIF value of 1.049569. Operational Costs Operating Income (BOPO) with a VIF value of 1.199669. The conclusion drawn is to accept Ho and reject Ha, which means there is no multicollinearity.

Table 3. Heteroscedasticity Glejser Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent Variable: Stock Price				
Method: Least Squares				
Date: 06/27/20 Time: 07:01				
Sample: 1 147				
Included observations: 147				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.625265	0.161659	3.867808	0.0002
NPL	0.128278	0.086474	1.483436	0.1402
GCG	0.047070	0.184001	0.255817	0.7985
BOPO	-0.049813	0.283513	-0.175699	0.8608
R-squared	0.018498	Mean dependent var		0.418351
Adjusted R-squared	-0.002093	S.D. dependent var		0.307505
S.E. of regression	0.307827	Akaike info criterion		0.508275
Sum squared resid	13.55030	Schwarz criterion		0.589647
Log likelihood	-33.35820	Hannan-Quinn criter.		0.541337
F-statistic	0.898343	Durbin-Watson stat		0.954932
Prob(F-statistic)	0.443766			

(Source: data processed using Eviews 10)

Based on table 3 Heteroscedasticity Glejser Test Results, it is known that the NPL has a p-value of 0.1402 > 0.05, the variable GCG has a p-value of 0.7985> 0.05, BOPO has p-value of 0.8608> 0.05. The p-value of all variables above 0.05. The conclusion drawn is accepting Ho and rejecting Ha, which means there is no heteroscedasticity.

Table 4. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	72.634436	(20,123)	0.0000
Cross-section Chi-square	374.888717	20	0.0000

(Source: data processed using Eviews 10)

The model testing, Chow Test result based in table 4 show that the chi-square probability value of 0.0000 <0.05 states that the Fixed Effect Model (FEM) is better used than the common effect model. So, we are choosing FEM based on Chow Test Results and then we proceed with the Hausman Test.

Table 5. Hausman Test Results

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	15.031977	3	0.0018

(Source: data processed using Eviews 10)

The hausman test results based in table 5 show that the probability value of 0.0018 <0.05 states that the Fixed Effect Model (FEM) is better used than the random effect model. So that the FEM is chosen.

To see the effect of NPL, GCG, and BOPO on stock prices, a regression analysis with the following equation is used:

$$\text{Stock price} = 3.070467 + 0.207694 \, (NPL) - 0.014136 \, (GCG) - 0.166869 \, (BOPO) + e$$

Table 6. Test Results of the Significance of the Fixed Effect Model

Dependent Variable: Stock Price				
Method: Panel Least Squares				
Date: 06/27/20 Time: 07:07				
Sample: 2012 2018				
Periods included: 7				
Cross-sections included: 21				
Total panel (balanced) observations: 147				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	3.070467	0.107262	28.62583	0.0000
NPL	0.207694	0.059074	3.515825	0.0006
GCG	-0.014136	0.161807	-0.087361	0.9305
BOPO	-0.166869	0.215424	-0.774607	0.4401
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.944126	Mean dependent var		2.716971
Adjusted R-squared	0.933678	S.D. dependent var		0.615059
S.E. of regression	0.158397	Akaike info criterion		-0.699146
Sum squared resid	3.086010	Schwarz criterion		-0.210912
Log likelihood	75.38722	Hannan-Quinn criter.		-0.500771
F-statistic	90.36420	Durbin-Watson stat		1.065600
Prob(F-statistic)	0.000000			

(Source: data processed using Eviews 10)

Based on table 6, results of the regression equation above, it can be explained that:

- The value of the constant coefficient (C) of 3.070467 which means that if the NPL, GCG, and BOPO variables are fixed or constant, the value of the stock price as the dependent variable is 3.070467.

- The coefficient value of the NPL variable is 0.207694 stating that every time there is an increase in 1 unit of the NPL variable, the value of the stock price will increase by 0.207694.

- The coefficient value of the GCG variable is -0.014136 stating that each increase of 1 unit of GCG variable, the value of the stock price will decrease by 0.014136.

- The coefficient value of the BOPO variable is -0.166869 stating that each increase of 1 BOPO variable unit, the value of the stock price will decrease by 0.166869.

Based on tabel 6, the F statistical test shows whether all independent variables have an influence simultaneously or together to the dependent variable. This study was conducted using simultaneous testing to test NPL, GCG and BOPO variables as independent variables on stock prices as the dependent variable. Based on table 4.6, the Fcount value obtained was 90.36420 with a significance of 0.000000. Ftable value of 2.67, obtained from the distribution table F with α 5%, df_1(k) = 3 and df_2 ($n_{(147)}$-$k_{(3)}$-1) = 143. Therefore, based on test results, Fcount> Ftable and significance <0.05, so we can concluded that Ho is accepted and Ha is rejected, which indicates NPL, GCG, and BOPO simultaneously has a significant effect on stock prices.

T statistic test shows how far each of independent variable independent variable individually in explaining the variation of the dependent variable. Based on table 6 the results of the partial influence test which was conducted to partially test the influence of the NPL, GCG, and BOPO as an independent variable on stock prices as the dependent variable. The significant level used is 0.025. T table value is obtained from the t distribution table with df = n-k-1 (147-3-1) = 143. The results of hypothesis testing are as follows:

1. Non Performing Loan (NPL) variable shows the value of t arithmetic is 3.515825> 1.9767 and p-value of 0.0006 <0.025, it can be concluded that NPL has a significant effect on stock prices.

2. Good Corporate Governance (GCG) variable shows the t value is -0.087361 <1.9767 and p-value is 0.9305> 0.025, it can be concluded that GCG has no significant effect on stock prices.

3. *Beban Operasional Pendapatan Operasional* (BOPO) shows the value of t arithmetic is -0.774607 <1.9767 and p-value of 0.4401> 0.025, it can be concluded that the BOPO has a significant effect on stock prices.

Based on table 6, coefficient of determination test with an value of 0.944126 or 94.41% which shows that the NPL, GCG and BOPO variables are only able to explain their effect on stock prices by 94.41% while the rest are influenced by other variables that is equal to 5.59%.

Based on table 6, NPL coefficient is 0.207694, the value of t arithmetic is 3.515825 and t_table is 1.9767 so that t arithmetic> t table and significance 0.0006> 0.025 This means that the NPL variable has a significant effect on stock prices. Thus, the decision taken is that Ho is rejected and Ha is accepted. This result is supported by research conducted by Nino Y. et al (2016) which states that NPL has a significant effect on stock prices. Non Performing Loans affect the stock prices of banking companies.

Based on table 6, GCG coefficient is -0.014136, the value of t arithmetic is -0.087361 and t table is 1.9767 so t arithmetic <t table and significance 0.9305> 0.025 This means that GCG variables have no significant effect on stock prices. Then the decision taken is that Ho is accepted and Ha is rejected. This results is supported by research conducted by Anggraeni Reza, et al (2019) which states that GCG has no significant effect on stock prices. The composite value of GCG does not affect the stock prices of banking companies.

Based on table 6, coefficient of BOPO is -0.166869, the value of t arithmetic is -0.774607 and t table is 1.9767 so that t arithmetic <t table and significance of 0.4401> 0.025 This means the *Beban Operasional Pendapatan Operasional* (BOPO) variable has no significant effect on stock prices. Then the decision taken is that Ho is accepted and Ha is rejected. This result is supported by research conducted by Halima S. N. And Komariah E. (2017) which states that BOPO has no significant effect on stock prices. BOPO does not affect the stock prices of banking companies.

CONCLUSION

Finally, this research leads to conclusions. The first hypothesis in this study is to analyze whether NPL, GCG, and BOPO have simultaneous influence to stock prices national private bank period 2012-2018. The results of the study found that NPL, GCG, and BOPO simultaneously affected to stock prices national private bank period 2012-2018. The second hypothesis is to analyze whether NPL has a partial effect to stock prices national private bank period 2012-2018. The results found that NPL partially effected to stock prices national private bank period

2012-2018. The third hypothesis is to analyze whether GCG has a partial effect to stock prices national private bank period 2012-2018. The results found that GCG had no partial effect to stock prices national private bank period 2012-2018. The fourth hypothesis is to find out whether BOPO has a partial effect to stock prices national private bank period 2012-2018. The results found that the BOPO had no partial effect to stock prices national private bank period 2012-2018.

From this research, we can conclude that NPL, GCG and BOPO together can affect the stock price. For the management, it is important to maintain these ratio. Because these ratio effect the stock price. To make sure higher stock price, then management must make sure these ratio well-maintained. And for the investor, they can find out more about the stockprices, using NPL, GCG and BOPO.

This research still has weaknesses and these things can be considered for further research, such as: (1) Next studies are expected add numbers of other supporting variables not involved in this study, LDR, NIM, CAR, etc. ; (2) It is suggested that further studies add samples from other commercial banks to compare with the results of research in Indonesian banks.

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