

The Influence of Capital Adequency Ratio and Loan to Deposit Ratio on Return on Equity at PT. Bank Rakyat Indonesia Tbk

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ABSTRACT

Bank financial performance is a picture of the financial condition of a bank in a certain period, both including aspects of raising funds and channeling funds. The purpose of this study is to examine the effect of Capital Adequency Ratio (CAR) (variable X1) and Loan to Deposit Ratio (LDR) (variable X2) on Return On Equity (ROE) (variable Y). The method used in this research is descriptive analysis method with a quantitative approach. The research object of PT. Bank BRI, Tbk, period 2008-2015. The data source used is the secondary data source and the statistical method used is multiple linear regression analysis for Capital Adequency Ratio (CAR) and Loan to Deposit Ratio (LDR) to Return On Equity (ROE). By testing the classical assumptions first. The results of the study by stimulatory variables Capital Adequency Ratio (CAR) and Loan to Deposit Ratio (LDR) are known to $F_{count} (51,528) > F_{table} (5.79)$ and the level of significance then the Capital Adequency Ratio (CAR) and Loan to Deposit Ratio (LDR) in a manner Simultaneously has a significant influence on Return On Equity (ROE).

Keywords: Capital Adequency Ratio (CAR); Loan to Deposit Ratio (LDR); Return on Equity (ROE)

INTRODUCTION

The condition of the global economy in 2009 to date shows conditions that are full of uncertainties caused by the global economic crisis. This crisis began to be marked by the collapse of the largest financial institution in the world from the American Lehman Brother, bad credit in the housing sector (subprime morigage), and then followed by the bankruptcy of the automotive industry, namely General Motor and Ford. The impact of this crisis had a devastating effect on the bank and non-bank financial institutions in Indonesia. The domestic capital market also briefly corrected at the worst level due to the contagious impact of the stock market crash on Wall Street. This forced the Indonesian banking sector to face more difficult years. Until 2011, global economic conditions were still uncertain and may still take place in the foreseeable future. Banks have very important functions and roles in an economy, namely intermediary functions (Danupranata, 2013; Horne, J.C. dan Wachowicz, 2007; Margaretha &

Letty, 2017; Siringoringo, 2012). Banks become financial intermediaries between fund suppliers and fund users as well as institutions that facilitate the flow of payment traffic in the archipelago (Harahap, 2009, 2011; Soemitra, 2009). If we look at the current condition of society, it is very rare for people to be unrelated to banks. Over time banks increasingly dominate the economic and business development of a country, not only in developed countries but also in developing countries. According to data obtained from Infobank (2012), currently, 81% of the financial market in Indonesia is controlled by banks. Nowadays the development of the banking world is experiencing very rapid and modern progress, causing competition between banks.

Bank financial performance is a picture of the financial condition of a bank in a certain period, both including aspects of raising funds and channeling funds (Hamidu, 2013; Kasmir, 2014; Lestari & Sugiharto, 2007; Setyawati, Suroso, Rambe, & Susanti, 2017). Assessment of bank performance is done through an analysis of its financial statements. The company's financial statements are one important source of information in addition to other information such as industry information, economic conditions, company market share, quality of management, and others (Hanafi, 2005; Margaretha & Letty, 2017; Suryanto, 2014). Bank financial statements consist of balance sheets and income statements that can be used as a source of information for external banks, such as the central bank, the general public, and investors, which contain an overview of their financial position. Through this description, external parties can use it to evaluate bank performance in applying the principle of prudence, decisions on applicable regulations, and risk management (Adyani & Sampurno, 2011).

Capital Adequacy Ratio (CAR) is the ratio of bank performance to measure the Adequacy of capital owned by banks to support assets that contain or generate risk financed from own capital funds or sources of funds originating from outside the bank (Fernos & Dona, 2018; Hakiim & Rafsanjani, 2016; Jumhana, 2018). CAR is also an indicator that shows the ability of banks to cover the decline in assets as a result of bank losses caused by risky assets. CAR ratio is used to measure the capital Adequacy of banks to support assets that contain or generate risk, for example, loans. The capital factor is very important in carrying out bank operational activities and to support all of its needs so that the quality of the management in managing banking activities will get the expected profit level.

Loan to Deposit Ratio (LDR) shows the amount of credit granted financed with third-party funds (Sudiyatno & Suroso, 2010; Widowati & Suryono, 2015; Wiryanti & Rudiarto, 2015). In addition, this ratio is used to measure the level of a bank's ability to pay third party funds from loan repayment. The loan to deposit ratio states how far the bank's ability to repay the withdrawal of funds made by depositors by relying on loans provided as a source of liquidity. In other words, the extent of lending to credit customers can offset the bank's obligation to immediately meet the demand of depositors who want to withdraw the money that has been used by banks to provide credit (Damodaran, 2011; Deitiana, 2013; Gunadi & Kesuma, 2015; Hanum, 2009). Following are the average development of CAR, LDR, and ROE at BRI Bank during the period 2008 - 2015.

Table 1.
CAR, LDR, and ROE value at BRI Bank

Year	Indicator		
	CAR	LDR	ROE
2008	13.18	80.48	26.65
2009	12.75	81.49	26.81
2010	13.76	74,01	31.28
2011	14.96	74.27	30.28
2012	16.94	77.91	28.80
2013	21.56	88.79	6.26
2014	19.06	90.17	6.85
2015	22.11	91.13	5.95

The table above shows the financial performance of Bank BRI which is always fluctuating, seen from the Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR) to Return on Equity (ROE) in the period 2008-2015. Based on the background of the research described above, the formulation of this research problem is how much influence the simultaneous Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) on PT Bank BRI Tbk's Return On Equity (ROE).

METHOD

The data analysis method in this research is a quantitative descriptive method by processing the company's financial data in the form of financial statements. The object of this research is PT. Bank BRI Tbk. having its address at Jalan Jenderal Sudirman. The analytical method used in this study is to use the SPSS (Statistical Product Service and Solution) method. SPSS is a software program used to process statistical data. The data formula used by researchers in compiling this research is the classic assumption test, multiple linear regression test, moment product correlation test, hypothesis test.

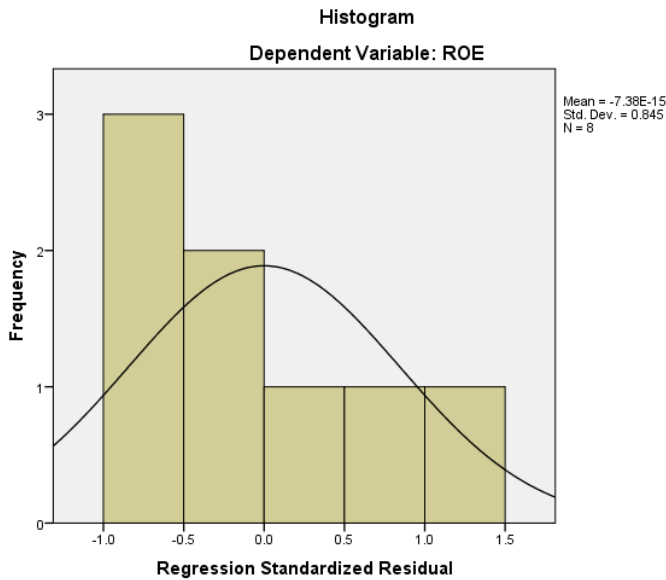
RESULT AND DISCUSSION

Return on Equity or the level of taking owner's equity is the ratio shows the extent to which the company manages its own capital (net worth) effectively measures the level of return on the investment made by the owner of his own capital or shareholders. Return on Equity Capital or ROE (measuring the ability of bank management in managing existing capital to get net income)

Classic Assumption Test

The results of normality test data on the CAR and LDR variables on ROE obtained the following results:

Figure 1.
 Normality Test



Based on the above histogram data it can be seen that the curve has a histogram value that is normally distributed. This can be seen from the normally distributed residual values. Because the normality test is not carried out on each variable but on the residual value.

To find out whether there is autocorrelation by looking at the Durbin-Watson (DW) test value. From the test obtained the following results:

Table 2.
 Autocorrelation Test

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.977 ^a	.954	.935	2.87571	2.918

a. Predictors: (Constant), LDR, CAR

b. Dependent Variable: ROE

From the output results above the DW value generated from the regression model is 2.918. While from the DW table the significance of 0.05 and the amount of data (n) = 8, and the number of independent variables 2 (k = 2) 2.8 obtained dL values of 0.5591 and dU 1.7771. DW value = 2,918 is greater than dU which is 1,7771 and less than (4-dU) 4-1,7771 = 2,2229. because the DW value (2,918) is in the dL and dW regions.

Table 3.
Multicollinearity Test

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
	(Constant)	169.197	15.763				10.734
CAR	1.680	.503	.558	3.344	.020	.333	3.005
LDR	-2.180	.264	-1.378	-8.261	.000	.333	3.005

a. Dependent Variable: ROE

Based on the VIF and Tolerance values of the multicollinearity test in the table, it can be seen that the independent CAR and LDR variables have a Tolerance value of more than 0.10 and a VIF of less than 10.00, so it can be concluded that there is no multicollinearity of the tested data.

Multiple Linear Regression Analysis

Table 4.
Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
	(Constant)	169.197	15.763		
CAR	1.680	.503	.558	3.344	.020
LDR	-2.180	.264	-1.378	-8.261	.000

a. Dependent Variable: ROE

From the table above we get the following equation or regression model:

$$Y = a + b_1X_1 + b_2X_2$$

$$Y = 169,197 - (1,680) X_1 - (-2,180) X_2 + e$$

The constant coefficient of 169,197 states that if X_1 and X_2 are worth 0, meaning that if CAR and LDR are each worth 0, then the ROE is valued at 169,197. The regression coefficient for the CAR variable is 1.680 stating that every 1% increase in the CAR variable, will add an ROE value of 1,680 assuming the other variables are of a fixed value. The regression coefficient for the LDR variable is -2.180 stating that every 1% addition of the LDR variable will add the ROA value of -2.180 assuming the other variables are of a fixed value.

Hypotesis Testing

Testing this hypothesis aims to measure the effect of CAR and LDR partially on profitability (ROE). Due to the small number of samples, it is simplified. Hypothesis testing with $\alpha = 5\%$. While the degree of free testing is $n - k = 8 - 3 = 5$. In this case, the value of t_{table} is:

$$t_{table} = (0.05; 8-3)$$

$$t_{table} = (0.05; 5)$$

then the t_{table} is 2,570.

Table 5.

T-Test Result

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	169.197	15.763		10.734	.000
CAR	1.680	.503	.558	3.344	.020
LDR	-2.180	.264	-1.378	-8.261	.000

a. Dependent Variable: ROE

Based on the analysis results in the table above shows the t_{count} of 3.344 with a significance value of 0.020 and 2.570 t_{table} . Because $3,344 > 2,570$ and a significance value of $0.020 < 0.05$. So it can be concluded that CAR partially has a significant effect on ROE, because based on the t-test criteria if $t_{count} > t_{table}$ and $sig < 0.05$, the independent variable (CAR) has a significant effect on the dependent variable (ROE).

Based on the analysis results in the table above shows the t-count is -8,261 with a significance value of 0 and a table of 2.570. Because $-8,261 < 2,570$ and the significance value is $0 < 0.05$. It can be concluded that LDR partially does not significantly influence ROE. Because according to the t-test criteria if $t_{count} < t_{table}$ and $sig < 0.05$ then the independent variable does not have a significant effect on the dependent variable.

This test aims to determine the effect of CAR and LDR variables together on ROE that is, by comparing F_{count} with F_{table} with a significance of 5% and $df1 = k-1$ and $df2 = n-k$.

Table 6.

F-Test Result

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	852.252	2	426.126	51.528	.000 ^b
Residual	41.349	5	8.270		
Total	893.601	7			

a. Dependent Variable: ROE

b. Predictors: (Constant), LDR, CAR

Based on the table above it is known that F_{count} is 51.528 with a significant level of 0. F_{table} at a 5% confidence level with $df1 = 2$ and $df2 = 5$, then $F_{table} = 5.79$ is obtained. Because F_{count}

(51.528) > F_{table} (5.79) and the significance level of 0 < 0.05, it can be concluded that CAR and LDR simultaneously have an influence on ROE.

Analysis of the Coefficient of Determination

R square test is used to see how much influence each independent variable has on the dependent variable.

Table 7.

Coefficient of Determination Result

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.977 ^a	.954	.935	2.87571

a. Predictors: (Constant), LDR, CAR

b. Dependent Variable: ROE

Based on the table above, it can be seen that the R square value of 0.954 or 95.4% of the ROE variable can be explained or influenced by CAR and LDR. While the remaining 4.6% is explained or influenced by other variables not addressed in this study.

CONCLUSION

Based on the results of the study variable (X1) CAR in a simple regression analysis, namely, a constant of 169.197, meaning that if CAR (X1) the value is 0, then the ROE (Y) value is positive that is equal to 169.197. The LDR variable (X2) in a simple regression analysis, namely, Constant 169.197, means that if the Loan to Deposit Ratio (X2) value is 0, then the Return On Equity (Y) value is also positive that is equal to 169,197. By stimulatory variable CAR and LDR known F_{count} of 51.528 with a significant level of 0. F_{table} at a 5% confidence level with $df_1 = 2$ and $df_2 = 5$, then obtained $F_{table} = 5.79$. Because F_{count} (51.528) < F_{table} (5.79) and a significance level of 0 < 0.05, it can be concluded that CAR simultaneously has a negative effect and LDR simultaneously does not have a significant effect on ROE of Bank BRI, Tbk for the period 2008-2015 .

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