A PERFORMANCE OF BANKING MANAGEMENT FACTORS AFFECTED ON RETURN ASSETS

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ABSTRACT

This study was conducted to test the usefulness of CAR, PDN, LDR, PO ROA, and ROA in banking companies listed on the Indonesia Stock Exchange. This research was conducted with a population of this study as many as 32 banks, which are banking companies listed on the Indonesia Stock Exchange in the period 2010-2014. The sample was selected using the purposive sampling method of several companies. Data processing using Least Squares Pooled analysis with random effect method. These results prove that CAR, PDN, LDR, PO, and ROA simultaneously affect banking companies listed on the IDX.
Keywords: Data Testing, Purposive Sampling, Least Squares

I. INTRODUCTION.

Banks must generate high profitability in carrying out their business activities. Profitability is the company's ability to generate profits from the results of management policies. Market analysts often use the average Return On Assets (ROA) to mark a company's success in carrying out its operational activities. A company that is expected to grow high (has good prospects) if it has a high ROA where the investment in asset placement can generate profits for the company. Maximum ROA achievement for a bank is influenced by risk management.

Risk management is the design and implementation of procedures to control risk. The economic crisis in Indonesia in mid-July 1997 caused a decrease in capital to run its business. More and more business sectors in Indonesia (both goods and services businesses) ignore the risk factors that even determine the company's goals in the future. The high volume of non-performing loans is a severe problem for banks in improving efficiency, affecting their operational performance. Bank risk management can be measured using five assessment aspects: CAMEL (Capital, Assets, Management, Earning, Liquidity). Capital aspects include Capital Adequacy Ratio (CAR), asset aspects include Net Open Position (PDN), and earning aspects include Operating Income (PO). In contrast, liquidity includes the Loan Deposit Ratio (LDR).

In carrying out its business, a banking company depends on operational efficiency from capital aspects, the quality of assets owned, net income from operating activities, profits earned, the amount of credit extended to the public, and others. These aspects significantly affect the company's profit which can increase profitability. The company is considered to have increased or decreased by looking at the changes in profits experienced from year to year. In this study, the Capital Adequacy Ratio (CAR), Net Open Position (NOP), Operating Income (PO), and Loan Deficit Ratio (LDR) will be used.

Basically, the higher the CAR, the higher the profit that will be received by the company so that it affects changes in profit because a bank that has a high CAR means that the bank has sufficient capital to carry out its business activities and is also sufficient to bear the risk if the bank is liquidated. The Net Open Position (NOP) is the sum of the absolute values of the net difference

between assets and liabilities in the balance sheet for each foreign currency plus the net difference between claims and liabilities, both commitments and contingencies in the off-balance sheet for each foreign currency, all of which are expressed in Rupiah. The high and low LDR can also affect changes in banking company profits. From the aspect of liquidity, A high LDR will impact lower bank liquidity. With a low level of liquidity, it can be predicted that profit changes will decrease. Operating income (PO) is all income that is a direct result of the bank's business activities that are received. The Bank's Operating Income (PO) must also be high to maintain the bank's economic profitability. BOPO is a financial ratio measuring bank management's ability to control operational costs. The smaller this ratio means, the more efficient the operational costs incurred by the bank, so the smaller this ratio, the higher the profit generated.

Based on the description above, the problem in this study is: With a low level of liquidity, it can be predicted that profit changes will decrease. Operating income (PO) is all income that is a direct result of the bank's business activities that are received. The Bank's Operating Income (PO) must also be high to maintain the bank's economic profitability. BOPO is a financial ratio measuring bank management's ability to control operational costs. The smaller this ratio means, the more efficient the operational costs incurred by the bank, so the smaller this ratio, the higher the profit generated. Based on the description above, the problem in this study is: With a low level of liquidity, it can be predicted that profit changes will decrease. Operating income (PO) is all income that is a direct result of the bank's business activities that are received. The Bank's Operating Income (PO) must also be high to maintain the bank's economic profitability. BOPO is a financial ratio measuring bank management's ability to control operational costs.

The smaller this ratio means, the more efficient the operational costs incurred by the bank, so the smaller this ratio, the higher the profit generated. Based on the description above, the formulation of the problem in this study is: The Bank's Operating Income (PO) must also be high to maintain the bank's economic profitability. BOPO is a financial ratio measuring bank management's ability to control operational costs. The smaller this ratio means, the more efficient the operational costs incurred by the bank, so the smaller this ratio, the higher the profit generated. Based on the description above, the formulation of the problem in this study is: The Bank's Operating Income (PO) must also be high to maintain the bank's economic profitability. BOPO is a financial ratio measuring bank management's ability to control operational costs. The smaller this ratio means, the more efficient the operational costs incurred by the bank, so the smaller this ratio, the higher the profit generated. Based on the description above, the formulation of the problem in this study are:

1. Test the direct variables that affect ROA simultaneously.
   Do CAR, PDN, LDR, PO, and BOPO simultaneously significantly affect ROA?
2. Testing the direct variables that partially affect ROA
a. Does CAR have a significant effect on ROA?
b. Does PDN have a significant effect on ROA?
c. Does LDR has a significant effect on ROA?
d. Does PO have a significant effect on ROA?
e. Does BOPO have a significant effect on ROA?

2. LITERATURE REVIEW.

2.1. Bank

Based on Article 1 of Law No. 10 of 1998 concerning banking, what is meant by a bank is "a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and or other forms in order to improve the standard of living of the people at large".

2. 2. Definition of ROA

ROA is a measure of the company's profitability in generating profits. Tandelilin (2001:240) explains "return on assets (ROA) describes the extent to which the company's assets can generate profits". While Garrison, et. al. (2007:596) provides a broad definition of return on assets, namely adding back interest expense to net income produces an adjusted profit figure that shows the profit figure if the assets are obtained solely from selling shares. With this adjustment, the return on assets can be compared for companies with different amounts of debt or at different times for a company that has changed its debt and equity composition. Thus, the measurement of how well an asset has been used is not affected by how the asset is financed.

2.3. Effect of CAR on ROA

Basically, the higher the CAR, the higher the profit to be received by the company so that it affects profitability, because a bank that has a high CAR means that the bank has sufficient capital to carry out its business activities, and is also sufficient to bear the risk if the bank is liquidated. With such conditions, namely with sufficient capital, a bank will be able to finance its many service products and will automatically increase bank profits. Thus, the higher the CAR can also illustrate that the bank is increasingly solvable. Adyani (2013) proves that CAR has a significant effect on ROA.

2.4. The Effect of PDN on ROA

The Net Open Position (NOP) is the net difference between assets and liabilities in the balance sheet (on balance sheet) for each foreign currency, plus the net difference between claims and liabilities, both commitments and contents in the off balance sheet. The higher this ratio, the betterthe position of the company's assets in carrying out its operational activities to generate profitability.

2.5. Effect of LDR on ROA

Loan to Deficit Ratio(LDR) is used to assess the liquidity of a bank by dividing the amount of credit extended by the bank to third party funds. The higher this ratio, the lower the liquidity capacity of the bank concerned so that the possibility of a bank in a problematic condition will be even greater. If this happens, it will have an impact on the loss of consumer or customer trust in the bank company, if the public/consumer no longer believes in the bank, the funds absorbed from the community will decrease, with less funds, the company will finance service products. will be disrupted so that the bank's profits will automatically decrease. With low profits, profitability will decrease.

3. RESEARCH METHODOLOGY

The data used in this study is secondary data contained in the financial performance reports of banking companies obtained from the official website of the Indonesia Stock Exchange (www.idx.co.id). The sample of banking companies obtained is 20 companies, for 5 consecutive years, so that pooling data is obtained with the unit of analysis n = 5 x 20 = 100.

The sample selection used purposive sampling method, meaning that the sample was deliberately selected based on certain criteria in order to represent the population. The sample selection criteria are as follows:

1. Registered and published financial performance reports during the research observation period, namely from 2010 to 2014.
2. Obtaining positive profitability during the research observation period, namely from 2010 to 2014.

Data processing using EVEWS version 7 program with panel data regression analysis. As is known, there are three types of panel data regression model estimation techniques, namely the model with the OLS (common) method, the Fixed Effect model and the Random Effect model. Gujarati (2001) explained that the estimation of panel data using the Oldinery Least Square (OLS) method is inconsistent and efficient, so it is recommended to use the Generalized Least Square (GLS) method which uses two models, namely the fixed effect model (FEM) and the rendom effect model (REM). Then from the two models can be determined the best model to use.

The test to determine whether the selected Fixed effect or random effect model is carried out by testing the Haussman Test. If the random cross-section value is greater than Alpha 0.05, then the null hypothesis (H0) can be accepted so that the best model after sorting the models is the Random Effect method.

If in the Fixed Effects Model, differences between individuals and/or time are reflected through intercepts, then in the Random Effects Model, these differences are accommodated through errors. This technique also takes into account that errors may be correlated across time series and cross sections. This study uses a Random Effect Model (Random Effect).

Multiple linear regression equation was performed to determine the direction of the relationship of each independent variable to the dependent variable. Based on the specifications of the multiple regression model, the equation model in this study is as follows:

$$Y = + _1X_1 + _2X_2 + _3X_3 + _4X_4 + e$$

Where :
Y	: ROA
$\square$	: Constant Coefficient
$\square_{1-5}$	: Regression Coefficient
X_1	: CAR
X_2	: PDN
X_3	: LDR
X_4	: PO
X_5	: BOPO
e	: Error term

4. ANALYSIS AND RESULTS
4.1. Result Description.

The description of the data shows the distribution of the distribution of the data briefly in descriptive statistics which shows a general description of the research data used as samples used in the study. Descriptive statistics in this study focused on the minimum, maximum, average and standard deviation values.

Table 1. Descriptive Statistics

	CAR?	PDN?	LDR?	PO?	BOPO?	ROA?
mean	25.80450	755.6610	61.11400	2.471000	172.7865	1.985000
median	20.79000	764.9050	70.43500	2.165000	157.1550	1.900000
Maximum	84.50000	890.1300	78.31000	4.210000	293.5100	3.350000
Minimum	15.87000	612.2100	0.060000	1.280000	117.8200	1.010000
Std. Dev.	16,37529	79.85081	20.93502	0.912356	50.16013	0.670787

1. The average value of CAR for banking companies listed on the Indonesia Stock Exchange in 2010-2014 is 25.80. The minimum CAR value is 15.87 and the maximum value is 84.50. The standard deviation of 16.38 shows that the data distribution is very close (homogeneous).

2. The average value of PDN of banking companies listed on the Indonesia Stock Exchange in 2010-2014 is 755.66. The minimum PDN value is 612.21 and the maximum value is 1890.13. The standard deviation of 79.85 shows that the data spread is very far (heterogeneous).

3. The average LDR value of banking companies listed on the IDX in 2010-2014 is 61.11. The minimum LDR value is 0.06 and the maximum value is 78.31. The standard deviation of 20.94 shows that the data spread is very far (heterogeneous).

4. The average value of PO for banking companies listed on the Indonesia Stock Exchange in 2010-2014 is 2.47. The minimum PO value is 1.28 and the maximum value is 4.21. The standard deviation of 0.91 indicates the distribution of the data is very close (homogeneous).

5. The average value of BOPO for banking companies listed on the IDX in 2010-2014 is 172.79. The minimum BOPO value is 117.82 and the value ofthe maximum is 293.51. The standard deviation of 50.16 shows that the data spread is very far (heterogeneous).

6. The average ROA of banking companies listed on the IDX in 2010-2014 is 1.99. The minimum ROA value is 1.01 and the maximum value is 3.35. The standard deviation of 0.67 shows the spread of the data very far (heterogeneous).

4.2. Model Fit Test

Before analyzing the proposed hypothesis, the goodness-of-fit model is first tested. The results of the suitability of the model below:

Table 2. Hausman Test

Correlated Random Effects - Hausman Test
Pool: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Cross-section random	0.000000	5	1.0000

From the table, it is known that the random cross-section value is the main requirement in the Chi-Sq model suitability test. The statistic is 0.000 with p-value 1.0000 > 0.05. So that the best model after sorting the model is the Random Effect method.

4.3. Hypothesis test
In the following, direct hypothesis testing is described as follows.

Dependent Variable: ROA?

Method: Pooled EGLS (Cross-section random effects)

Date: 06/26/16 Time: 09:38

Sample: 2010 2014

Included observations: 5

Cross-sections included: 20

Total pool (balanced) observations: 100

Swamy and Arora estimator of component variances

Cross sections without valid observations dropped

Table 3. Hypothesis Testing Results

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	1. 491630	0.354245	4.210734	0.0001
CAR?	-0.007708	0.002946	-2.616753	0.0103
PDN?	-0.000781	0.000253	-3.090010	0.0026
LDR?	-0.005856	0.002533	-2.311908	0.0230
PO?	0.720610	0.023750	30.34088	0.0000
BOPO?	-0.000814	0.000405	-2.011282	0.0472

Table 4. Effects
Specification

		SD	Rho
Cross-section random		0.000000	0.0000
Idiosyncratic random		0.165815	1.0000
	Weighted Statistics		
R-squared	0. 945624 Mean dependent var		1.985000
Adjusted R-squared	0.942732 SD dependent var		0.670787
SE of regression	0.160524 Sum squared resid		2.422188
F-statistics	326.9433 Durbin-Watson stat		1.904351
Prob(F-statistic)	0.000000		

In this proposed research model, there are five independent variables, namely CAR, PDN, LDR, PO and BOPO. The test results are shown in the table above, it is known that:

1. Simultaneous Test (F Test)

The results in table 3 obtained the value of F_{count} of 326.94 while F_{table} at the confidence level = 5% with df_1= 6 – 1 = 5 and df_2= 100 – 2 = 98, is 2.31 with a significance level of 0.000. Thus it can be concluded that F_{count}> F_{table} and sig = 0.000 < = 0.05, which means that the hypothesis Ha is accepted, which states that the CAR variable. PDN, LDR, PO and BOPO simultaneously affect ROA.

2. Partial Test (t Test)

The results in table 3 show the values of each independent variable with a degree of independence (df) = 100 – 2 = 98. The value of t table with a significance level of /2 = 0.025 and df = 98 is 1.984 as follows:

a. CAR affects ROA

-t value$_{count}$ of -2.616753 < -t_{table} -1.984 with a significance level of 0.0103 <0.05. Thus it can be concluded that the hypothesis Ha is accepted, which states that the CAR variable has an effect on ROA. The results of this study are consistent with the results of Adyani's research (2013) proving that CAR has a significant effect on ROA. Banks that have a high CAR show a sufficient capital ratio to finance all bank operational activities so that the bank's ability to obtain ROA is higher.

b. PDN affects ROA

-t value$_{count}$of -3.090010 < -t$_{table}$ -1.984 with a significance level of 0.0026 <0.05. Thus it can be concluded that the hypothesis Ha is accepted, which states that the PDN variable has an effect on ROA. The results of this study cannot be compared with the results of previous studies because they have variable measurements. However, statistically the results of this study indicate that PDN is very influential on ROA. The higher the PDN means the higher the bank's assets so that the ability to obtain ROA is greater.

c.   LDR has an effect on ROA.

-t value$_{count}$of -2.311908 < t$_{table}$ -1.984 with a significance level of 0.0230 <0.05. Thus it can be concluded that the hypothesis Ha is accepted, which states that the LDR variable has an effect on ROA. The results of this study are consistent with the results of Tan Sau Eng's (2013) research proving that LDR has a significant effect on ROA. The better the LDR, the better the bank's liquidity position so that the bank has no difficulty in obtaining the maximum ROA.

d.   PO affects ROA

t value$_{count}$of 30.34088 > t$_{table}$1,984 with a significance level of 0.000 < 0.05. Thus it can be concluded that the hypothesis Ha is accepted, which states that the PO variable has an effect on ROA. The results of this study cannot be compared with the results of previous studies because they have variable measurements. However, statistically the results of this study indicate that PO is very influential on ROA. The higher the PO means the higher the profitability of the bank so that the ability to obtain ROA is greater.

e.   BOPO affects ROA
-t value$_{count}$of -2.011282 < -t$_{table}$ -1.984 with a significance level of 0.0472 <0.05. Thus it can be concluded that the hypothesis Ha is accepted, which states that the BOPO variable has an effect on ROA. The results of this study are consistent with the results of research by Prasanjaya and Ramantha (2013) proving that BOPO has a significant effect on ROA. The lower the BOPO, the more efficient the bank in carrying out its operational activities so that the bank will be able to obtain a high ROA.

4.4. Regression Model

The information displayed in table 3 is a multiple regression equation between the independent variable (X) and the dependent variable (Y) which can be formulated in the following equation:

$$Y = 1.491630 - 0.007708X_1 - 0.000781X_2 - 0.005856X_3 + 0.720610X_4 - 0.000814X_5 + e$$

Explanation of the values of a, b$_1$and b$_2$The Unstandardized Coefficients can be explained below:

1.   The value of B Constant (a) is 1.491630, meaning that if the CAR variable. PDN, LDR, PO and ROA are constant (fixed) then the ROA is 4,380.

2. $value_1$ of -0.007708 means that the effect of the CAR variable on ROA is negative where if the CAR variable increases by one, the ROA will decrease by 0.007708.

3. $value_2$ of -0.007708 means that the influence of the PDN variable on ROA is negative where if the PDN variable increases by one, the ROA will decrease by 0.000.

4. $value_3$ equal to -0.005856 means that the effect of the LDR variable on ROA is negative where if the LDR variable increases by one, the ROA will decrease by 0.005856.

5. $value_4$ of 0.720610 means that the effect of the PO variable on stock returns is positive, where if the PO variable increases by one, the ROA will increase by 0.720610.

6. $value_5$ of -0.000814 means that the effect of the LDR variable on ROA is negative where if the LDR variable increases by one, the ROA will decrease by 0.000814.

4.5. Coefficient of Determination

The coefficient of determination aims to determine how far the model's ability to explain the variation of the dependent variable. Table 3 shows that the R Square value is 0.9456 which means that the percentage of the influence of the independent variables (CAR. PDN, LDR, PO and BOPO) on ROA is 94.56%, the remaining 5.44% is influenced or explained by other variables that are not included. in this research model. The results of this study indicate that the panel regression model is very able to explain the variation of the dependent variable.

5. CONCLUSION

Based on the results of testing the hypotheses described in the previous chapter, the following conclusions can be drawn:

1. Empirical evidence shows that simultaneously there is an effect of CAR. PDN, LDR, PO and BOPO to ROA. These results indicate that the achievement of maximum ROA is influenced by bank risk management as measured by CAR. PDN, LDR, PO and BOPO.

2. Empirical evidence shows that there is a partial effect of CAR on ROA. These results indicate that CAR as an indicator of bank capital strongly supports the achievement of banking ROA.

3. Empirical evidence shows that there is a partial effect of PDN on ROA. These results indicate that PDN as an indicator of bank assets strongly supports the achievement of banking ROA.

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