

**INFLUENCE OF CAPITAL ADEQUACY, NON PERFORMING LOANS,
LOAN TO DEPOSIT RATIO AND FIRM SIZE ON FINANCIAL
PERFORMANCE OF BANKING COMPANY LISTED IN INDONESIA
STOCK EXCHANGE**

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ABSTRACT

The purpose of this study is to examine the effect of capital adequacy, non performing loans, loan to deposit ratio and firm size to the financial performance of conventional foreign exchange banks listed on the Indonesia Stock Exchange. This research used the hypothesis testing model with census method. There are 87 banks observed over the period of 2013-2015. The data were gathered from the annual report and analyzed by using multiple regression analysis. The result of this study confirms that (1) Capital Adequacy, Non Performing Loans, Loan to Deposit Ratio, and Size of Company influence the financial performance (2) capital adequacy have positive effect on financial performance, (3) Non Performing Loans negatively affect the financial performance, (4) loan to deposit ratio has a positive effect on financial performance, (5) firm size has a positive effect on financial performance.

Keywords: Capital adequacy, non performing loans, loan to deposit ratio, firm size and financial performance.

INTRODUCTION

The financial performance (FP) of banking institutions describe the bank's financial condition for a certain period either in fund raising or in terms of credit disbursement. Performance appraisal needs to be conducted on a regular basis as a material evaluation of management in order to build more developed company and benefits. Analysis of financial statements can be used to assess the FP of the banking institution (Adyani, 2011: 2). Additionally, the profitability ratio is the most important indicator to measure the performance of a bank (Defri, 2012: 2). This ratio is

used to measure the company's FP in generating profit over one accounting period and measure the level of operational efficiency in using its assets.

Over the past few years there has been a fluctuation in FP of the national banking industry which has an impact on the declining of profits. The Financial Services Authority explained that the national banking industry's profit in the fourth quarter of 2015 decreased, it is compared to the same period of 2014. The increase in non-performing loans (NPL) required the bank to establish a reserve of impairment loss (CKPN), thereby reducing bank revenues.

The first factor that is expected to affect FP is the level of capital adequacy (CAR). Where banks with high CAR tend to illustrate better FP (Bennaceur, et al 2008), then NPL are also estimated to be the second factor in determining FP of banks. If the NPL ratio is high, it will have an impact on the decreasing level of FP. Another factor that is expected to affect FP is the loan to deposit ratio (LDR). The high LDR is predicted to improve FP with the assumption that the bank is able to channel credit effectively. The last factor that is estimated to affect the FP is the firm size. The large size of assets provides a greater opportunity for banks to disburse their capital in productive assets.

LITERATURE REVIEW

The Effect of CAR on FP

CAR is a ratio of capital which indicating the ability of banks to provide capital for business development purposes and to accommodate the risk of loss arising from the planting of productive assets by the operations of the bank and finance all fixed assets and bank inventory. Bank Indonesia requires a minimum CAR of 8% resulting in banks always trying to maintain the adequacy of capital owned in accordance with the provisions. According to Dietrich, et al., (2009) banks are considered relatively safer if they have high capital, it is caused the bank less needed for the external financing. With sufficient CAR or comply with the provisions, the bank can operate to generated the profit. Optimal loan disbursement with the assumption of NPL will increase the profit that will ultimately improve the bank's FP. Merkusiwati (2007); and Dietrich, et al., (2009) states that CAR has a positive effect on FP (ROA). Based on the theoretical framework the first hypothesis in this study is:

H1: CAR has a positive effect on FP

The Effect of NPL on FP

NPL are an indicator used to assess the bank's ability to measure the default risks on credit payment by debtors (Mabruroh, 2004). NPL represent credit risk, the lower the problem loans

the lower the credit risk owned by the bank. The bank in providing credit should conduct an analysis of the borrower's ability to repay its obligations. After credit is granted the bank has to monitor the use of credit and the ability and compliance of the debtor in fulfilling its obligations. To minimize credit risk the bank can evaluating, appraise and bind to collateral (Ali, 2004). NPL is an indicator of credit risk faced by banks, the rising growth of NPL will enlarge the formation of the cost of allowance for impairment losses (CKPN), thereby affecting the decline in bank FP. Ponco (2008); Topak and Talu (2017); in their research examines the influence of NPL on the FP of banks where the results of their study explains that NPL negatively affect the performance of banks. It means that the magnitude of bank credit risk affects the performance of banks. Regarding to the theoretical framework the second hypothesis in this research is:

H2: NPL have a negative effect on FP

The Effect of LDR on FP

LDR is used to measure the ability of banks to pay their liabilities to customers who have invested funds, therefore banks are required to maintain liquidity and ensure smooth operation in fulfilling its obligations in accordance with Bank Indonesia regulation No.18 / 14 / PBI / 2016 Bank Indonesia regulates the banks should have 80 until 92 percent of LDR. The size of LDR of a bank will affect the performance of the bank (Sudiyatno, 2010: 127). The lower the liquidity condition of a bank, the FP also decreases, on the contrary if the higher LDR the bank profit will increases with the expected credit can be channeled effectively, with the increase of bank profit, the bank performance also increases. Conversely, if the funds collected while the bank is not able to distribute the credit will cause the FP of the bank decreased (Kasmir, 2004). Based on research conducted by Nu man (2009); Prasanjaya and Ramantha (2013); and Pratiwi and Wiagustini (2015) stated that LDR has a positive effect on financial performance measured by ROA. Additionally, banks can also use the ratio of LDR to determine the ability of banks in settling short-term liabilities. On the behalf of the theoretical framework the third hypothesis in this study is:

H3: LDR has a positive effect on FP

The Effect of Firm Size on FP

The firm size reflects the level of establishment of a company that can be gathered from the total assets owned, in addition the bank have larger assets tend to be attractive because it allows banks to provide a broader type of financial services. Previous research related to firm size has been done by Gul, et al., (2011); Alper et al., (2011); Kurnia, et al., (2012); and Topak and Talu (2017) stated that asset improvements have a positive effect on increasing the FP. This indicates that banks with large total assets have the opportunity to channel their credit to the borrower in

larger amounts. Therefore, the banks can earn a high profit (Alper, et al. 2011). Moreover, the size and well established companies will also be easier to go to the capital market. Due to the ease of getting in touch with the capital market it means greater flexibility and greater investor confidence. Based on the theoretical framework the fourth hypothesis in this study is:

H4: Firm size has a positive effect on FP

RESEARCH METHODOLOGY

This study aims to examine the effect of CAR, NPL, LDR and firm size to FP through hypothesis testing. The intervention rate of the researcher is minimal. Based on the condition of the research environment and the level of the researcher's involvement, this research is a field study. The unit of analysis used by an organizational level unit of analysis (company) is a conventional foreign exchange bank listed on the Indonesia Stock Exchange. The time horizon is a balanced panel of data for three years (2013-2015).

The research population is conventional foreign exchange bank that has been listed in Indonesia Stock Exchange from 2013-2015. Data collection in this study using census method, the population composite in 2013 is as many as 29 commercial banks, in 2014 as many as 29 commercial banks and in 2015 as many as 29 commercial banks. Thus, the number of observations in this study amounted to 87 observations. The data used in this study is secondary data in the form of financial statements of conventional foreign exchange banks listed on the Indonesia Stock Exchange over the period of 2013-2015. Data collection techniques used are documentation techniques.

Variable Operationalization of this research can be seen in the table 1 below:

Variable	Measurement
Dependent: Financial Performance	$\frac{EBT}{Total\ Asset} \times 100\%$
Independent: Capital Adequacy (X ₁)	$\frac{Core\ Capital + Add.\ Capital}{(ATMR)\ Balance\ Activa + Balance\ Administration} \times 100\%$
Non Performing Loans (X ₂)	$\frac{Total\ Non\ Performing\ Loans}{Total\ Loans} \times 100\%$
Loan to Deposit Ratio (X ₃)	$\frac{Loans}{Third\ Party\ Fund} \times 100\%$
Firm Size (X ₄)	Firm Size = Ln (Total Asset)

Analysis Method

The analysis method used in this research is multiple regression analysis, which is used to measure the relationship between the dependent variable and the independent variable.

The regression equation model can be formulated as follows:

Description: $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$

- Y = Profitability
- α = Constant
- β_1 - β_4 = Regression Coefficient
- X1 = CAR
- X2 = NPL
- X3 = LDR
- X4 = Firm Size
- ε = Error Term

RESEARCH RESULT AND DISCUSSION

This study conducted regression analysis to determine whether there is influence between independent variables to the dependent variable. Multiple regression analysis is used to obtain regression coefficients which will determine whether the hypothesis will be accepted or rejected. The results of regression analysis are explained in the following table.

Table 4.2: The Result of Multiple Regression

Variable	Unstandardized Coefficients	
	B	Std. Error
(Constant)	-11,09	2,522
Capital Adequacy (X1)	0,023	0,015
Non Performing Loans (X2)	-0,454	0,086
Loan to Deposit Ratio (X3)	0,038	0,009
Company Size (X4)	0,749	0,177
Correlation Coefficient	=	0,643
Determination Coefficient	=	0,414
Adjust R Squared	=	0,385

Table 4.3 The Result of Determination Coefficient Test Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,643 ^a	0,414	0,385	1,19885

a. Predictors: (Constant), Firm Size, NPL, LDR, CAR

Regarding to the results of statistical calculations in Table 4.2, then obtained the regression panel data analysis equation as follows:

The results of the regression test indicated that CAR, NPL, LDR, and Firm size simultaneously affect the FP. Then, on the behalf of Table 4.3 uncover the value of R square (R²) is 0.414. it means that the CAR, NPL, LDR, and firm size are able to explain the variation of the financial performance variable by 41.4% while the remaining 58.6% is explained by other variables which is not included in this variable.

The Effect of CAR on FP

This study found that CAR has a positive effect on financial performance. The average value resulting form the regression is 18.90%, this explains the average CAR of this study is in a better condition because the CAR set by the bank Indonesia is 8%. This implication also minimizes the risk of bank loss and bankrupt like some national banks have experienced in recent years. CAR also reflects the bank's ability to support productive assets and to finance its operations. The results of multiple linear regression testing also describes every 100% increase in capital adequacy will increase the percentage of financial performance by 2.3%. The results of this study are consistent with the results of research conducted Dietrich, et al., (2009); and Ongore, et al., (2013) explaining that CAR has a positive effect on bank FP.

The Effect of NPL on FP

The results of this study explain that non performing loans have a negative effect on financial performance. The result of multiple linear regression tests find that if it increase of NPL 100% it will decrease the percentage of FP by 45.4%. The negative influence of NPL on FP in this study, correlated to the condition of the banking industry in Indonesia in the period 2014-2015 where the condition of the national banking at that time experienced fluctuations in financial performance that impact to the declining of profits. The declining of profit was in line with the rising NPL that required banks to form larger reserves of value losses, resulting in lower revenues (earnings). The results of this study support previous research conducted by Ponco (2008); Topak and Talu (2017); which states that NPL have a negative effect on the bank's FP.

The Effect of LDR on FP

The test results illustrated that the LDR has a positive effect on FP. The result of multiple linear regression test shows every increase of 100% loan to deposit ratio it will increase the percentage of financial performance by 3.8%. The bank's ability to keep its loan to deposit ratio has a good impact on profit growth. Deposits accumulated from third parties must be in line with the credit disbursed to the communities, in addition to the credit distribution, it should meet the standards that have been applied so that banks can ensure the credit repayment has been channeled, then a source of liquidity and gain an opinion of interest on credit. The results of this study are consistent with Ponco (2008) research; Prasanjaya and Ramantha (2013); Pratiwi and Agustini (2015) showing LDR to banking FP. This result explains the higher loan to deposit ratio the bank's profit increases with the bank's estimates to effectively channel credit, and ensure the return of credit disbursed.

The Effect of Firm Size on FP

The results describes that firm size has a positive effect on FP. The results of multiple linear regression tests depicting every 100% increase in Firm size will increase the percentage of FP by 74.9%. This test provides information that the company's ability to build assets affected the company's performance in carrying out its operations. The amount of assets owned by the company provides a greater opportunity for the company to place its assets in the form of productive assets. Additionally, the company also has the opportunity to expand its business unit into a wider work area. All these business activities will have an impact on FP, and add the trustworthiness of the community to put the funds in the bank, indirectly this process will increase the firm size because the assets owned by the bank continues to grow as the public trust to put the funds. The results of this study are related with the previous research of Alper et al., (2011); Gul, et al., (2011); Kurnia, et al., (2012); Topak and Talu (2017), they found that firm size has a positive effect on FP.

CONCLUSION, LIMITATION AND SUGGESTION

Conclusion

The empirical results of this study point the way to the validation of the hypothesis, which can be described briefly as follows:

1. CAR, NPL, LDR, and Firm size have an effect on collectively on FP.
2. CAR positively affects the FP.
3. NPL have a negative effect on FP.
4. LDR positively affects the FP.

5. The Firm size positively affects the FP.

Limitations and Suggestions

This study has limitations and it is expected to be taken into consideration for further research in order to obtain better results in the future. This study only uses four variables, whereas there are still some other variables that can affect the FP of conventional foreign exchange bank. It is hoped that further research can add other independent variables that affect the FP of banks.

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