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Effect of Liquidity and Profitability to Bank Stock Return in Indonesia Stock Exchange (IDX)

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Abstract *The purpose of this study was to obtain empirical evidence about the impact of liquidity and profitability of bank stock returns are listed in Indonesia Stock Exchange (IDX). The population in this study was all banking companies listed in BEI in the period 2009 to 2010 i.e. by 29 banks. Of the entire population by 29 banks listed on the BEI the number of samples obtained as many as 26 banks. Data analysis technique used is multiple linear regression analysis. The results of these studies show that liquidity and profitability have a significant effect on stock returns.*

Key words Liquidity, profitability, stock, returns, BEI

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1. Introduction

The government's policy to liquidate banks that are less healthy, so it can be felt increasingly sharp competition in the banking world. The banks continue to develop, especially banks that go public. Development carried out either in bank management and customer service. To develop business and closing the bank's losses could be experienced by the bank at any time, so that until recently many banks have market shares in both the local bourse and in the world stock exchange. Bank management should be able to keep costs as effectively and efficiently as possible and to develop income from assets (earning assets), each in full, in order to obtain survival advantage for the bank. One way of good bank management is to pay attention to liquidity, solvency, and profitability of banks.

As an overview, the following conditions of development in Indonesia liquidity as measured by the assessment Investing Policy Ratio (IPR), profitability measured by ROA, and stock return can be seen from several banks on the Stock Exchange from 2009 to 2010.

Table 1. Growing of Liquidity, Profitability and Stock Return on some Banking in IDX (In Percent)

No.	Bank	Likuidity		Profitability		Stock Return	
		2009	2010	2009	2010	2009	2010
1.	CIMB Bank	12%	11%	2,75%	2,1%	43%	169%
2.	BCA	29%	8%	3,4%	3,5%	37%	32%
3.	Argoniaga Bank	21%	9%	0,18%	0,67%	11%	33%
4.	NISP Bank	21%	14%	1,79%	1,09%	31%	42%
5.	Permata Bank	12%	10%	1,4%	1,9%	63%	124%

Source: www.idx.com

Based on Table 1 above, it is known that several banking liquidity on the Stock Exchange the average has decreased from 2009 to 2010. This indicates that the ability of banks to meet obligations to its depositors also declined. Bank should be able to manage its liquidity in order to secure the debt and guarantees the customer savings could pay the customers at any time requested. Therefore the bank can be trusted. Similarly, the Bank should be able to manage its profitability, so that the bank makes a profit and be able to survive in a tough competition and evolved following the development of the market. So the impact on the growing number of clients and investors in the bank. With the high price of the shares and the amount of investment will strengthen the bank's solvency. Liquidity and profitability have an influence

on stock prices. Therefore companies need to improve liquidity and profitability of the bank to attract investors to invest in the bank. With many investors looking for shares of the company will impact on the increase in bank stock returns. Based on the above description which is the case in this study is how to influence liquidity and profitability of the bank stock returns in Indonesia Stock Exchange?. As for the research purposes in accordance with the problem above is to obtain empirical evidence about the impact of liquidity and profitability of bank stock returns are listed on the Indonesia Stock Exchange.

2. Literature Review

Research conducted by Primadoko (2005), Hidayat (2009) and Nurmalasari (2010) regarding the effect of liquidity and profitability of the bank stock returns are listed on the Jakarta Stock Exchange (JSX). The research results show that liquidity and profitability have an influence on stock returns.

Liquidity

Liquidity is the ratio to measure the ability of banks to meet short-term obligations at the time billed (Kasmir, 2007). The greater this ratio the more liquid. To make the measurement of this ratio is used as follows Infesting Policy Ratio (IPR) as follow:

$$IPR = \frac{\text{Securities}}{\text{Total Deposit}} X\ 100\% \quad (1)$$

IPR is the ability of banks in meeting their obligations to their depositors by liquidating securities it has, the higher the IPR will be higher bank liquidity to depositors (Abdullah, 2004).

Profitability

According to Brigham and Houston (2001), suggesting that profitability ratios show the combined effects of liquidity, asset management, and debt on operating results. Sartono (2001), also said the same thing, namely the ratio of profitability is the ability of the company makes a profit in relation to sales, total assets, as well as their own capital. Indicators used to analyze the profitability are the Return on Asset (ROA) as follows:

$$\text{Return On Assets} = \frac{\text{Net Income}}{\text{Total Asset}} X\ 100\% \quad (2)$$

This ratio is used to measure the performance of bank management in managing the bank's finances are available to generate a profit after tax. The higher the ROA, the greater the level of bank profits are achieved so that the possibility of a bank in error will be smaller as well.

Stock Return

Return is the return of the results obtained from an investment. Stock return is divided into two kinds of return realization and expected return. Return the realization of a return that has occurred and is calculated based on historical data. Return important realization because it is used as one measure of performance of the company. Historical returns are also useful as a basis for determining the expected return in the future. Return expectations of a return can be expected in the future investors. Unlike the return realization that nature has occurred, its expected return has not occurred. Return the stock can be obtained from the form of dividends and capital gain/loss. Capital gain/loss is the difference more or less than stocks. Dividends are used to measure the performance of stocks based on dividend distribution, the greater the dividend the stock more attractive to investors. The higher the stock price indicates that the stock is more attractive to investors because the higher the stock price will result in a greater capital gain. Return realization used in this study is the capital gain/loss is often also called the actual return. According Jogianto (2000), the magnitude accrual can return to the formula as follows:

$$R_{it} = \frac{(P_t - P_{t-1})}{P_{t-1}} X\ 100\% \quad (3)$$

R_{it} = The level of profit share i in period t;
P = The closing price of stock i in period t (period closing/last);
P_{t-1} = The closing price of stock i in the previous period.

3. Methodology of research

3.1. Population and sample

The overall population who were the subjects of research (Arikunto, 2006). The population in this study was all banking companies listed on the Indonesia Stock Exchange in the period 2009 to 2010 those as many as 29 banks. Sample is representative of the population studied. Sampling in this study using the technique of sampling purpose. Sampling technique is the purpose of sampling is based on a certain criteria in accordance with the purposes of research. Where these criteria must be met by the sample, such as: banking companies listed on the Stock Exchange from 2009-2010, the banking company which publishes the complete financial statements, banking firms have fiscal years ending on December 31 and the sample had no delisting (not listed) and conduct the initial offering for the new year of data collection. Of the entire population of 29 banks listed on the Stock Exchange of the obtained sample number as many as 26 banks. Because of the limited completeness of the data such as stock prices cannot find a specific period because of new companies going public or have delisted. Thus the total sample to be used during the years 2009-2010 the 26 banks, then the sample (n) is 26 x 2 = 52. Here are the names of the banks are taken into the sample:

Table 2. Research Sample

No.	Banking Name	Code
1	Agroniaga Bank	AGRO
2	Arta Graha Internasional Bank	INPC
3	Bukopin Bank	BBKP
4	Bumi Arta Bank	BNBA
5	Capital Indonesia Bank	BACA
6	Central Asia Bank	BBCA
7	CIMB Niaga Bank	BNGA
8	Ekonomi Raharja Bank	BAEK
9	Himpunan Saudara Bank	SDRA
10	ICB Bumi Putera Bank	BABP
11	Internasional Indonesia Bank	BNII
12	Kesekawaan Bank	BKSW
13	Mandiri Bank	BMRI
14	Mayapada Internasional Bank	MAYA
15	Mega Bank	MEGA
16	Negara Indonesia Bank	BBNI
17	NISP Bank	NISP
18	Nusantara Parahyangan Bank	BBNP
19	Pan Indonesia Bank	PNBN
20	Pundi Indonesia Bank	BEKS
21	Permata Bank	BNLI
22	Rakyat Indonesia Bank	BBRI
23	Swadesi Bank	BSWD
24	Tabungan Pensiunan Nasional Bank	BTPN
25	Victoria Bank	BVIC
26	Windu Kentjana Internasional Bank	MCOR

Source: www.idx.com

3.2. Types and sources of data

The data used secondary data, namely Indonesia Capital Market Directory of banking that has been listed on the Indonesia Stock Exchange and the nature of the data used is quantitative data. Sources of data in this study are the financial data on each bank of each end of the period during the analysis period of 2009 through 2010. Data obtained from the information center or reference Indonesian capital market through www.idx.com and www.finance.com that includes the issuer's annual financial statements and monthly individual stock prices.

3.3. Operational definition and measurement of variables

Dependent variable (Y)

Stock return is the return of the results obtained from an investment by calculating the difference in the current period's stock price with previous period. The stock return calculation uses the formula according to Jogianto (2000) as follows:

$$R_{it} = \frac{(P_t - P_{t-1})}{P_{t-1}} \quad (4)$$

R_{it}: The level of profit share i in period t,
Pt: The closing price of stock i in period t (the period from the closing/last) and
Pt-1: The closing price of stock i in the previous period.

Independent variable (X)

a. Liquidity (X1)

Liquidity ratios measure a bank's ability to meet liabilities when billed. Liquidity is calculated by using IPR. The calculation is done using a formula according to Abdullah (2004) as follows:

$$IPR = \frac{\text{Securities}}{\text{Total Deposits}} \text{ X } 100\% \quad (5)$$

b. Profitability (X2)

Profitability is the company's ability to generate profits. Profitability is calculated by using Return on Assets (ROA) as follows:

$$\textit{Return On Assets} \text{ (ROA)} = \frac{\text{Net Income}}{\text{Total Asset}} \text{ X } 100\% \quad (6)$$

3.4. Data analysis techniques

Data analysis technique used is multiple linear regression analysis. Regression analysis is used to observe the effect of liquidity and profitability of bank stock returns. The model used is as follows (Algifari, 2000):

$$Y = a + b_1 X_1 + b_2 X_2 + e \quad (7)$$

Where:
Y = Stock Return
X_1 = Likuidity
X_2 = Profitability
b1,b2 = Coefficient X_1,X_2
a = Constanta
e= Error.

3.5. Determination Coefficient Test (R^2)

According to Ghozali (2006), the coefficient of determination (R^2) was used to measure how far the ability of the model in explaining the variation in the dependent variable. Seen the value of the coefficient of determination adjusted R^2 values ranging between zero and one. This correlation coefficient measures the percentage of variability in Y that can be explained by the variable X. Independent in essence, the coefficient is a portrait of how far the variability of Y is affected by the variability of X. Symbolized by the coefficient of determination R^2 is defined as follows:

$$R^2 = 1 - \frac{\text{Deviation of the unexplained}}{\text{Total Deviation}} \quad (8)$$

4. Hypothesis testing

4.1. t test statistics

This test aims to test the partial effect of independent variables on the dependent variable, assuming other variables are constant. The test results of the t-statistic performed using one-tailed test with α of 0.05 with the following criteria:

- If $T_{hit} > _{tab}$ or sig. < α then H_o is rejected and H_a accepted. This means that there is a partial influence of the independent variable on the dependent variable.
- If $Th_{it} <_{tab}$ or sig. > α then H_o is received and H_a rejected. This means that no partial effect between the independent variable on the dependent variable.

4.2. F test statistics

F test was conducted to examine the overall effect of the independent variable on the dependent variable, the following test criteria:

- If the sig. < α then H_o is rejected and H_a accepted. This means that all independent variables have a significant effect on the dependent variable
- If the sig. > α then H_o is received and H_a rejected. Means that all the independent variables did not significantly influence the dependent variable.

5. Analysis and discussion

5.1. Descriptive Statistics

Before getting into the research, need to know in advance the idea of descriptive statistics. Based on data obtained from the financial statements of each bank at the bank listed on the Indonesia Stock Exchange, it is known that the descriptive statistics in Table 3 below.

Table 3. Descriptive Statistics

	Mean	Std. Deviation	N
Stock Return	61,79	52,633	52
Liquidity	18,46	15,427	52
Profitability	1,2204	1,140	52

Source: SPSS processed

Based on Table 3 above, shows that the average stock return is equal to 61.79 while the deviation of stock returns is 52.633 so that the deviation is smaller than the average value of data that show that small deviations. The average value of 18.46 with a deviation of liquidity was 15.427, so that the deviation is smaller than the average value of the data showed a smaller deviation. While the average value of the profitability deviations are severs 1.220 with 1.140, so that the deviation is smaller than the average value shows a data deviation of the used small.

5.2. Analysis of research results

Multiple Linear Regression Analysis

To know the value of each variable in determining the regression equation, then the data processing performed using the SPSS program, so the values obtained in the following table:

Table 4. Multiple Regression Analysis Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	78,670	16,522		,413	,165
	Likuidity	-,924	,234	-,447	-1,745	,014
	Profitability	,151	,065	,410	1,739	,021

a. Dependent Variable: Return

Source: SPSS processed

Based on Table 4 above, note the multiple linear regression equations for the variables of this study are as follows:

$Y = 78.670\text{-}.924\ (X_1) + 0.151\ (X_2)$

The numbers generated from the model above can be explained as follows:

a. Constant (b_0)

Constant values obtained at 78.670. This indicates that if the independent variable is zero, then the amount of stock return is 78.670

b. Regression coefficients (X_1)

Coefficient value of the variable X_1 (liquidity) of -0.924, meaning that if the liquidity variable increases by 1 unit then the return value of the stock would decline by 0.924, assuming other variables are zero independent. This means that liquidity is not proportional to a straight or negatively related to stock returns.

c. Regression coefficients (X_2)

X_2 coefficient value (profitability) of 0.151, meaning that if the variable profitability increased by 1 unit then the return value of the stock will also rise by 0.151, assuming the other independent variables are zero. This means that profitability is directly proportional or positively related to stock returns.

Test coefficient of determination (R^2)

The coefficient of determination (adjusted R^2) is a useful test to determine the contribution of independent variables in explaining the dependent variable. The greater the value of the coefficient of determination will show the greater the influence of independent variables on the dependent variable. The value of the coefficient of determination shown in Table 5 as follows:

Table 5. Determination Coefficient Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,888[a]	,789	,763	21,83800

a. Predictors: (Constant), Likuidity, Profitability

Source: SPSS processed

Based on Table 5 above, it is known that the coefficient of determination value of 0.763 or 76.3%, which means that the contribution of independent variables in explaining the dependent variable is equal to 76.3% and the balance of 0.237 or 23.7% described for other variables that are not included in the regression model.

Hypothesis testing

t test Statistics

Statistical t test was conducted to examine the influence of the partial between the independent variables on the dependent variable, assuming other variables are constant. This test is conducted by comparing the value $t_{account}$ with t_{table}. To find out the value of a TTable can be seen in table t, with α = 0.05 and degrees of freedom (df) = n-2 or 52-2 = 50. Results obtained from this test to a t_{table} by 1.676 to determine whether independent variables affect the dependent variable, it can be seen in the table as follows:

Table 6. t test statistics coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	78,670	16,522		,413	,165
	Likuidity	-,924	,234	-,447	-1,745	,014
	Profitability	,151	,065	,410	1,739	,021

a. Dependent Variable: Stock Return

Source: SPSS processed

From multiple regression models derived in table 6 above then, the following will explain the partial effect of independent variables on the dependent variable.

Liquidity

From the results of data analysis, values obtained $t_{account} > t_{tab}$ ie -1.745> 1.676 at α = 0.05 or sig <α (0.014 <0.05), consequently H_o rejected H_a accepted. This indicated that there was a significant effect between the levels of liquidity on stock returns.

Profitability

From the analysis of data obtained value Thit> ttab ie 1.739> 1.676 at α = 0.05 or sig <α (0.021 <0.05) consequently H_o rejected H_a accepted. This shows that there is significant influence between the profitability of stock returns.

F test statistics

Based on Table 7 below, it is known that $F_{account}$ value of 13.461 with a significant level of 0.000> 0.05. This means that the liquidity and profitability variables have a significant influence on stock return variables.

Table 7. F test Statistics ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10339,826	2	5169,913	13,461	,000[a]
	Residual	337902,8	49	6895,976		
	Total	348242,7	51			

a. Predictors: (Constant), Likuidity, Profitability

b. Dependent Variable: Stock Return

Source: SPSS processed

Liquidity and profitability influence on stock returns

Based on the analysis of the data that $F_{account}$ value of 13.461 with a significant level of 0.000 <0.05. This means that the liquidity and profitability variables have a significant influence on stock return variables. Banks that have high liquidity are also more likely to have assets that can be withdrawn at any time without decreasing its market value (selling securities). If you obtained the profitability high enough, it can be assumed that they operate effectively. This will impact the share prices of these companies will also increase. In other words, the profitability will affect stock prices. These results are consistent with findings Ariyadi Primadoko (2005). Research results that liquidity and profitability has a significant influence on stock returns.

6. Conclusion

Based on the results of research and discussion it can be concluded that the liquidity and profitability has a significant influence on stock returns.

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