

**FINANCIAL RATIO AND CASH FLOW VOLATILITY
ANALYSIS TO DETERMINE STOCK PRICE: THE
EFFECT ON BANKING STOCK RETURN IN THE
PERIOD 2010 – 2019**

SCIENTIFIC JURNAL

Written by :

Chaerul Achmadi Zacky

145020107121010



UNDERGRADUATE INTERNATIONAL PROGRAM IN ECONOMICS

FACULTY OF ECONOMICS AND BUSINESS

UNIVERSITAS BRAWIJAYA

2021

FINANCIAL RATIO AND CASH FLOW VOLATILITY ANALYSIS TO DETERMINE STOCK PRICE: THE EFFECT ON BANKING STOCK RETURN IN THE PERIOD 2010 – 2019

Written By:

Chaerul Achmadi Zacky, Shofwan, SE., M.Si.

Faculty of Economics and Business

Universitas Brawijaya Malang

Chaerulzacky08@gmail.com

ABSTRACT

This study aims to determine the effect of financial ratios and cash flow volatility on stock returns of banking companies in 2010 - 2019. The samples were 15 banks with the largest market capitalization. The study employed quantitative approach and utilized secondary data from the sample companies' financial statements obtained from the Indonesia Stock Exchange website. In addition, further research data were analyzed using panel regression analysis techniques with the STATA program. This study concludes that: (1) the ROA has a positive and significant effect on company stock returns; (2) LDR have a negative and significant effect on company stock returns; (3) NIM has no significant effect on company stock returns; (4) Cash Flow Volatility has a negative and significant effect on company stock returns; (5) ROA, LDR, NIM, and cash flow volatility simultaneously have a significant effect the stock returns of banking companies with a significant contribution of 22.34%.

Keywords: ROA, LDR, NIM, Cash Flow Volatility, stock return, panel regression analysis.

A. BACKGROUND

Stock return is the main reason someone invests in a company. Return expected from investment is a compensation for the opportunity cost and decreases the risk of purchasing power due to the influence of inflation (Tandelilin, 2001). So, they should consider the risk that will be borne from the investments. The relationship between risk and expected return is linear. The higher the rate of return expected, the greater the risk in the investment. Therefore, in the face of fluctuating return conditions, investors need accurate calculations in making investment decisions.

Table 1. Return IHSG BEI in the Period 2010 - 2019

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Return	46%	3%	13%	-1%	22%	-12%	15%	20%	-3%	2%

Source: IDX Statistic, accessed on May 22nd, 2020, processed by author

The table above explains the overall movement of IHSG that tends to fluctuate. The highest stock return occurred in 2010, reaching 46%, and the lowest in 2015 at -12%. It can be concluded that the stock returns tend to fluctuate, so there is no certainty in return obtained by investors. To get high returns by lower risk, investors need to conduct fundamental analysis. Financial ratios are used to provide information about the strengths and weaknesses of the company's financial condition and predict stock returns (Restiyani, 2006). Financial ratios are divided into five ratios: profitability ratios, liquidity ratios, activity ratios, solvency ratios, and market ratios (Ang, 1997).

Cash flow is a more relevant component in assessing a company because it contains activities that cannot be manipulated. According to Narayan and Westerlund (2014), cash flow volatility can predict returns. They find evidence that cash flow volatility is better than cash flow at predicting returns. Fluctuating cash flow volatility can affect the profit level because of the high uncertainty in the operating environment indicated by high cash flow volatility. Cash flow volatility can predict the level of future cash flow, so the current price shows the expected future cash flow. This applied to returns and can be seen as a proxy for cash flow. In addition, the analysis of cash

flow volatility can be used as a tool in measuring risk to detect changes in price volatility to intrinsic value (Minton, 2002).

Cash flow volatility has an important role in investment activities compared to cash flow. Cash flow volatility indirectly impacts changes in investment activity because the investment is a necessity not only to depend on current cash flows but to prioritize expected future cash flows. However, Wei (2018) states that Cash Flow Volatility has a negative effect on firm value to affect stock returns. Nurlili and Hardika (2015) state that cash flow volatility can only explain stock returns with a tiny percentage, so additional variables are needed as control variables, as a consideration in predicting returns.

B. THEORETICAL FRAMEWORK

The theoretical framework is a conceptual model of how theory relates to various factors that have been identified as essential problems (Sekaran and Bougie, 2013). The framework is described and explained theoretically between the dependent variable, which is influenced by the independent variable. The dependent variable is the stock return which is influenced by independent variables, namely Return on Assets (ROA), Loan to Deposit Ratio (LDR), Net Interest Margin (NIM), and Cash Flow Volatility. Therefore, the systematics of conceptual in this study is described as follows.

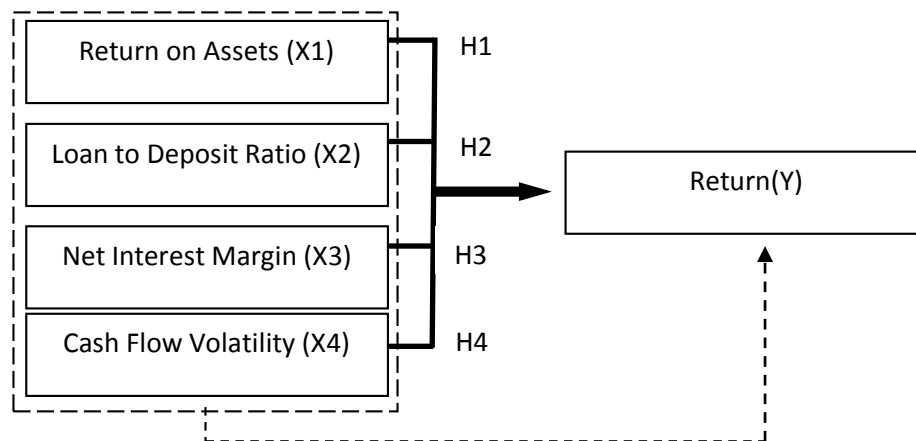


Figure 1. Theoretical Framework

A. Hypothesis

H.1: Financial Ratios and Cash Flow Volatility have a simultaneous significant effect on banking stock returns.

H.2: Net Interest Margin has a partial significant effect on banking stock returns.

H.3: Return on Assets has a partial significant effect on banking stock returns.

H.4: Loan to Deposit Ratio has a partial significant effect on banking stock returns.

H.5: Cash Flow Volatility has a partial significant effect on bank stock returns.

B. RESEARCH METHOD

This research was analyzed using quantitative method to collect information that be required from Financial Statement of banks was listed on the Indonesia Stock Exchange (IDX). Financial data, namely financial statements, are obtained from the Indonesia Stock Exchange website (www.idx.co.id). The data taken includes a statement of financial position and a cash flow statement from the company in the 2010-2019 periods. This research using Stata to measure dependent variables Return and independent variables used in this study are Return on Assets (ROA), Loan to Deposit Ratio (LDR), Net Interest Margin (NIM), and Cash Flow Volatility. Therefore, equation of relation between variables as follow :

$$Y = \alpha_i + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_{i,t}$$

Where:

- i : Companies listed on the IDX
- t : Observation Period
- Y : Return of Banking Shares
- α_i : Constants
- β_n : The coefficient of change in value
- X_1 : *Return on Assets* (ROA)
- X_2 : *Loan to Deposit Ratio* (LDR)
- X_3 : *Net Interest Margin* (NIM)
- X_4 : *Cash Flow Volatility*
- ε : *Random Error*

Dependent variable is the variable that is influenced or becomes the result of the independent variable. The dependent variable used is the Return of Banking Stocks. Return is the level of return on investment made. Both short-term and long-term investment has the main objective of getting a profit called return, either directly or indirectly. Total return is the return most often used to measure how much return an investor will receive from an investment in a certain period. Investors in stock investing have a goal to maximize returns.

The factors that affect stock returns consist of fundamental factors, market factors, and macro factors. Because macro factors have a local effect on an investment object, what needs to be studied further are fundamental factors and market factors. Fundamental factors are factors related to the listed company's performance, while market factors are related to the performance of their shares. Therefore, the return measurement according to market theory can be formulated as follows:

$$\text{Stock Return} = \frac{P_1 - P_0}{P_0}$$

where,

P_1 = Price, which is the price for time t

P_0 = Price, which is the price for the previous time

Independent variable is a type of variable that does not depend on other variables. The independent variables used in this study are Return on Assets (ROA), Loan to Deposit Ratio (LDR), Net Interest Margin (NIM), dan Cash Flow Volatility. According to Brigham and Houston (2006), the net income ratio to total assets measures the Return on Total Assets (ROA) after interest and taxes. According to Horne and Wachowicz (2005), ROA measures the overall effectiveness in generating profits through available assets (the power to generate a return on invested capital). ROA can be measured by calculating:

$$\text{ROA} = \frac{\text{Net Income Available To Common Shareholders}}{\text{Total Assets}}$$

Loan to Deposit Ratio is an indicator used to measure the health of bank liquidity. LDR acts as a bank intermediary function as a lender of credit extended by banks based on the total funds raised through customer services. Therefore, the LDR ratio will affect the effectiveness of bank loan channels by changing the conditions of bank asset and fund management (Park, 2012). In this sense, bank management will use its assets and funds to be managed again in the form of a credit to customers.

Loan to Deposit Ratio measures the composition of the amount of credit extended compared to the number of public funds and capital used (Kasmir, 2012). Optimal liquidity management associated with effective bank operations will increase the company's share price (Moussa, 2015). Mathematically, LDR can be calculated with the formula:

$$\text{LDR} = \frac{\text{Total Loans}}{\text{Total Deposits}}$$

Net Interest Margin (NIM) is the ratio of net interest income to total loans (outstanding credit). NIM is obtained from the interest received on loans subtracted by interest costs from the sources of funds collected, which can be calculated by the formula:

$$\text{NIM} = \frac{\text{Net Interest Income}}{\text{Average Productive Asset}} \times 100\%$$

According to Dechow and Dichev (2002), cash flow volatility is the degree of cash flow distribution or the distribution index of the company's cash flow distribution. Volatility in cash flow means a risk from cash flow that will impact the stock returns that investor will receive. Cash Flow Volatility measurement uses Cash Flow from Operating Activities (CFO) measurement. The calculation of Cash Flow Volatility takes the standard deviation of the company's Cash Flow from Operating Activities (CFO) per year. Cash Flow Volatility is measured by the formula:

$$\text{Volatility Cash Flow} = \frac{\sigma(\text{CFO})_t}{\text{Total Assets}_{jt}}$$

Where:

σ = Standard Deviation
 CFO_t = Company operating cash flow during the observed year

Total Assets_{jt} = Total Assets of the company j year t

C. RESULTS AND DISCUSSION

The samples of this study are companies listed on the Indonesia Stock Exchange (IDX). Financial data, namely financial statements, are obtained from the Indonesia Stock Exchange website (www.idx.co.id). The data taken includes a statement of financial position and a cash flow statement from the company in the 2010-2019 period. Sampling in this study is based on the following criteria (purposive sampling):

- a. Banking companies listed on the Indonesia Stock Exchange (IDX) for the 2010-2019 period.
- b. The 15 largest market capitalizations in the banking sector companies

A. Descriptive Analysis

Descriptive analysis was employed to provide an overview of the value of research variables during the observation period. Descriptive analysis was carried out by looking at the maximum, minimum, mean, median, and standard deviation values. Graph of each research variable is also presented.

Table 2. Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Stock Return	-0.013	0.240	-0.462	0.607
ROA	0.024	0.012	-0.049	0.052
LDR	0.872	0.140	0.524	1.631
NIM	0.062	0.020	0.033	0.127
VolICF	0.047	0.025	0.016	0.180

Source: Data processed (2021) in Appendix B

Table 3 above provides an overview of the obtained value of each variable as follows:

1. Return on Asset (ROA)

Return on Assets (ROA) is used to measure the overall effectiveness in generating profit through available assets, also known as the power to generate a return on invested capital. The higher the ROA, the higher the company performance. Therefore, it will be translated to a higher rates of return. Table 3 shows that the lowest value of Return on Assets (ROA) during the

observation is -0.049 and the highest value is 0.607, with an average of -0.013 and a standard deviation of 0.240.

2. Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio (LDR) is the ratio used to assess liquidity risk. The higher the LDR, the higher the resulting profit. Therefore, it may affect stock prices which have an influence on return growth. Table 3 shows that the lowest LDR value during the observation is 0.524 and the highest value is 1.631, with an average of 0.872 and a standard deviation of 0.140.

3. Net Interest Margin (NIM)

Net Interest Margin (NIM) is the ratio used to assess the performance of bank management in managing its productive assets to gain bank interest income. In other words, the higher the increase of NIM gained, the greater the influence of bank interest income towards the stock returns. Based on Table 3, it is found that the lowest NIM value during the observation is 0.033, and the highest is 0.127, with an average of 0.062 and a standard deviation of 0.020.

4. Cash Flow Volatility

Cash flow volatility involves the influence of cash flow generated and disbursed (cash in and cash out) from all incoming transactions into net income. The higher the operation cash flow, the greater the stock return value. Table 3 shows that the lowest value of Cash Flow Volatility during the observation is 0.016, and the highest is 0.180, with an average of 0.047 and a standard deviation of 0.025.

5. Stock Return

Stock return is the rate of return obtained from stock investment, which is the difference between the amounts received and the amount invested, divided by the amount invested. Table 3 shows that the value of the company's stock return during the observation has the lowest value of -0.462 and the highest of 0.607, with an average of -0.013 and a standard deviation of 0.240.

B. Panel Regression Analysis

The panel regression analysis has three regression model approaches; Common Effect Model (Pooled Least Square), Fixed Effect Model (FEM), and Random Effect Model (REM). Chow test, Hausman test, and Lagrange Multiplier test must be done to determine the best regression model approach that fits the research data.

Table 3. Results of Panel Regression Model Selection

Test	Sig	Results	Conclusion
Chow Test	0.5956	CE Selected	Best Model Common Effect
Hausman Test	0.7102	CE Selected	
LM Test	1.0000	CE Selected	

Source: Processed data (2021) in Appendix C

1. Chow Test

Chow test is used to determine the best model among CEM and FEM. The hypotheses proposed in this test are as follows:

Ho: Common Effect Model (CEM) is the best model approach.

Ha: Fixed Effect Model (FEM) is the best model approach.

The test was carried out by looking at the probability value of the cross-section F of the test results. If the probability value > 0.05 , then Ho is accepted, and it is concluded that the PLS model is the best, whereas if the probability value < 0.05 , then Ho is rejected, and it is concluded that the FE model is the best. Based on the results of the Chow test in Table 4, the probability value of the Chow test results is 0.5956. Therefore, the probability value obtained is > 0.05 , it is concluded that the best regression model is the Common Effect Model (CEM).

2. Hausman Test

The Hausman test is used to determine the best model between the REM and FEM. The hypotheses proposed in this test are as follows:

Ho: Random effect Model (REM) is the best model approach
 Ha: Fixed Effect Model (FEM) is the best model approach

The test was carried out by looking at the chi square probability value of the test results. If the probability value > 0.05 , then Ho is accepted and it is concluded that REM is the best model approach, whereas if the probability value < 0.05 , then Ho is rejected, and it is concluded that the FEM is the best model approach.

Based on the results of the Hausman test in Table 4, the probability value for the Hausman test results is 0.7102. Since the probability obtained is > 0.05 , it is concluded that between FEM and REM, the REM is the best model approach. Since the results of the Chow and Hausman tests have not resulted in consistent conclusions, the Lagrange Multiplier test is necessary.

3. Lagrange Multiplier (LM) Test

The Lagrange Multiplier test, or commonly called the LM test, is used to test the Common Effect model and Random Effect models. The hypotheses proposed in this test are as follows:

Ho: Common Effect Model (REM) is the best model approach
 Ha: Random Effect Model(FEM) is the best model approach

Testing was done by looking at the chi square probability value of the test results, if the probability value > 0.05 , then Ho is accepted. It is concluded that the CEM is the best model approach, whereas if the probability value < 0.05 , then Ho is rejected and it is concluded that the REM model is the best model approach.

The results of the LM test in Table 4 produce a probability value of 1,000 and the significance value obtained is > 0.05 , therefore, Ho is accepted. It is concluded that between CEM is the best model approach. Since CEM is included in the OLS regression model, a classic assumption test needs to be done. In this test, all classical assumptions must be fulfilled.

C. Coefficient of Determination

The coefficient of determination in the panel regression analysis is used to assess how strong the contribution of the independent variable to the dependent variable. In regression, the coefficient of determination can be seen from the R square value if there is only one independent variable. If there are more than two independent variables, the coefficient of determination is seen from the adjusted R square value.

Table 4. Coefficient of Determination

R Square	1 – R Square	Conclusion
0.2234	0.7766	22.34% of stock return is influence by ROA, LDR, NIM and Cash Flow Volatility

Source: Processed data (2021) in Appendix C

The results of solid regression analysis in Table 5 show that the R square value of the regression model is 0.2234. It means that 22.34% of stock return is influenced by ROA, LDR, NIM, and Cash Flow Volatility, while the 77.66% is influenced by other factors outside of this study.

D. Simultaneous Effect Test (F Test)

The simultaneous effect test in panel data regression analysis is used to test the simultaneous effect of all independent variables on the dependent variable. In this study, the testing hypotheses are proposed as follows:

Ho: The independent variables simultaneously have no significant effect on stock returns.
 Ha: The independent variables simultaneously have a significant effect in stock returns.

With a significant level of 0.05, Ho is accepted if the probability value of the F test result is > 0.05 . Moreover, Ho is rejected if the probability value of the F test result is < 0.05 .

Table 5. F test

F Statistics	df	F Table	Probability	Conclusion
11,46	(4,11)	2.451	0.0000	Simultaneous significant effect

Source: Data processed (2021) in Appendix C

Based on the results of the F test in Table 6 above, it can be seen that the probability value of the F test results obtained is 0.000000. Since the probability value obtained is <0.05 , then H_0 is rejected. It is concluded that ROA, LDR, NIM, and Cash Flow Volatility simultaneously have a significant effect on the stock return.

E. Partial Effect Test (t test)

In panel data regression analysis, the t test is used to partially test the effect of the independent variables on the dependent variable. The hypotheses proposed are as follows:

H_0 : The independent variables have no significant effect on the company's stock return.

H_a : The independent variables have a significant effect on the company's stock return.

With a significant level of 0.05, H_0 is rejected if the probability value is <0.05 , and H_0 will be accepted if the probability value is >0.05 .

Variable	Coefficient	Standard Error	t statistics	Probability
ROA	7.831	1.661	4.720	0.000
LDR	-0.339	0.160	-2.120	0.036
NIM	-0.455	1.380	-0.330	0.742
VolCF	-1.601	0.765	-2.090	0.038
_cons	0.201	0.167	1.200	0.231

Source: Processed data (2021) in Appendix C

Based on the results of the analysis in Table 6, the following results were drawn:

1. Return On Assets (X1)

The probability value of the effect of ROA on stock returns is 0.000 with a positive regression coefficient of 7.831. The probability value is <0.05 and the regression coefficient is positive, so H_0 is rejected, and it is concluded that ROA has a positive and significant effect on company stock returns. It shows that the higher the company's ROA, the higher the company's stock return. ROA is proven to have a significant effect on the company's stock return. Bank with high ROA tend to have high stock returns.

2. Loan to Deposit Ratio (X2)

The probability value of the effect of LDR on stock returns is 0.036 with a negative regression coefficient of -0.339. The probability value is <0.05 and the regression coefficient is negative, so H_0 is rejected. It is concluded that LDR has a negative and significant effect on company stock returns. It shows that the higher the company's LDR, the lower the company's stock return. LDR is proven to be a factor that influences the company's stock return. Bank with high LDR tend to have low stock returns.

3. Net Interest Margin (X3)

The probability value of the effect of NIM on stock returns is 0.742 with a regression coefficient that is negative of -0.458. The probability value is >0.05 , so H_0 is accepted. It is concluded that NIM has no significant effect on company stock returns. It shows that the level of the company's NIM does not affect the level of the company's stock returns. NIM is not proven to be a factor that influences the company's stock return.

4. Cash Flow Volatility (X4)

The probability value of the effect of Cash Flow Volatility on stock returns is 0.038 with a negative regression coefficient of -1.601. The probability value is <0.05 and the regression coefficient is negative, so H_0 is rejected. It is concluded that Cash Flow Volatility has a negative and significant effect on company stock return. It shows that the higher the company's Cash Flow Volatility, the lower the company's stock return. Cash Flow Volatility is proven to be a factor that influences the company's stock return. Bank with high cash flow volatility tend to have low stock returns.

F. Panel Regression Model Estimation Results

Based on Table 7, a constant value obtained was 0.201 with an ROA regression coefficient of 7.831, an LDR regression coefficient of -0.339, an NIM regression coefficient of -0.455, and a VolCF regression coefficient of -0.601. Furthermore, the form of a regression equation that can be used to predict the company's stock return based on financial ratios and the company's Cash Flow Volatility value is as follows:

$$Y = 0.201 + 7.831 X1 - 0.339 X2 - 0.455 X3 - 1.601 X4$$

With:

Y = Stock Return

X1 = ROA

X2 = LDR

X3 = NIM

X4 = Cash Flow Volatility

Hypothesis Testing

The hypotheses in this study was tested based on the results of panel regression analysis. The following is a summary of the results of hypothesis testing:

Table 7. Summary of Hypothesis Testing Results

Hypothesis	Analysis	Analysis Result	Decision
H1	ROA, LDR, NIM, and Cash Flow Volatility simultaneously have a significant effect on the company's stock return.	Probability F = 0.000; F statistics = 11.46	Proven
H2	ROA has a significant effect on the company's stock return.	p value = 0.000, Regression Coefficient = 7.83	Proven
H3	LDR has a significant effect on the company's stock return.	p value = 0.036, Regression Coefficient = -0.3392	Proven
H4	NIM has a significant effect on the company's stock return.	p value = 0.742, Regression Coefficient = -0.4548	Not proven
H5	Cash Flow Volatility has a significant effect on the company's stock return.	p value = 0.038, Regression Coefficient = -1.6014	Proven

Source: Processed data (2021) in Appendix C

1. Hypothesis 1

Hypothesis 1 in this study states that ROA, LDR, NIM, and Cash Flow Volatility simultaneously have a significant effect on the company's stock return. The results indicate that the probability value of the F test results obtained is 0.000000. Because the probability value obtained is <0.05, so H_0 is rejected. It is concluded that ROA, LDR, NIM, and Cash Flow Volatility simultaneously have a significant effect on the company's stock return.

2. Hypothesis 2

Hypothesis 2 in this study states that ROA has a significant effect on the company's stock returns. The results indicate that the probability value of the effect of ROA on stock returns is 0.000 with a positive regression coefficient of 7.831. The probability value is <0.05 and the regression coefficient is positive, so H_0 is rejected. It is concluded that ROA has a positive and significant effect on company's stock return. It shows that the higher the company's ROA, the higher the company's stock return. ROA is proven to be a factor that influences the company's stock return. Companies with high ROA tend to have high stock returns.

Profitability is obtained by improving services in providing credit, increasing fee-based income at the bank, reducing the burden of interest costs and taxes. To reduce dependence on benchmark interest rates, banks are currently more focused on expanding assets that create fee-based income. To anticipate internal risks, reducing the cost of funds can reduce loan interest rates. These efforts increase asset growth which can provide a positive sentiment on the company value, which has an effect on stock returns. So company would be increasing operational cost in making money higher. To reduce dependence on benchmark interest rates, banks are currently more focused on expanding assets that create fee-based income. To anticipate internal risks, reducing the cost of funds can reduce loan interest rates. These efforts increase asset growth which can provide a positive sentiment on the company value, which has an effect on stock returns

3. Hypothesis 3

Hypothesis 3 in this study states that LDR has a significant effect on company's stock returns. The results indicate that the probability value of the effect of LDR on stock returns is 0.036 with a negative regression coefficient and significant for company stock return. It shows that the higher the company's LDR, the lower the company's stock return. LDR is proven to be a factor that influences the company's stock return. Banking companies with high LDR tend to have low stock returns.

In several banking companies with high LDR levels, it does not affect the decline in returns because the bank's income is mostly generated by fee-based income, and the bank's market capitalization is large. So those banks can reduce the risk of non-performing loans and interest rates that are influenced by macroeconomic factors. In principle, return is the profit generated from the margin of company's stock price increase and market capitalization of the company. So that the LDR level in banking companies becomes an assessment that determines the health condition of the bank, which can provide sentiment on the stock market and influence the return.

4. Hypothesis 4

Hypothesis 4 in this study states that NIM has a significant effect on company stock returns. The results indicate that the probability value of the influence of NIM on stock returns is 0.742 with a negative regression coefficient of -0.458, since the probability value is > 0.05 , then H_0 is not rejected. It is concluded that NIM has no significant effect on the company's stock returns. NIM is not proven not to be a factor that influences the company's stock return. The relevant factor that affects NIM is the average transaction size because the risk of loss is influenced by the volume of credit provided by the bank, so that it has an effect on the equity risk premium, which indicates a large default risk. The rate of return on credit is bank's main income, but the risk of loss due to default is unavoidable by the bank.

To reduce dependence income that was obtained from net interest margins, banks are more focused on adding types of service products and expanding service publications to increase fee-based income. Market competition requires banks to innovate in service products to suppress competition in financial products made by non-bank financial companies. Modernization provides a more concrete direction for banking digitalization to drive digital transformation. Non-interest income is expected to provide incentives to cut operational costs and reduce loan interest rates charged on creditors. Furthermore it can be said that net interest margin would not influenced returns directly.

5. Hypothesis 5

Hypothesis 5 in this study states that cash flow volatility has a significant effect on the company's stock return. The results indicate that the probability value of the effect of Cash Flow Volatility on stock returns is 0.038 with a negative regression coefficient of -1.601. The probability value is <0.05 and the regression coefficient is negative, so H_0 is rejected. It is concluded that Cash Flow Volatility has a negative and significant effect to the company's stock return. It shows that the higher the company's cash flow volatility, the lower the company's stock return. Cash flow volatility

is proven to be a factor that influences the company's stock return. Companies with high cash flow volatility tend to have low stock returns.

Cash flow volatility can describe unexpected costs that become company expenses. When the cash flow volatility increases, the company will require more costs in operational activities. High cash flow volatility will reduce capital utilization and cash flow performance. Increasing on cash flow volatility has an impact on money reserve. If the reserve is allocated for productive activities, the profitability of the company decreases until the constraint is eliminated. This analysis assumes that cash flow volatility has a significant effect on the sensitivity of cash flows. In companies with large asset values, the level of cash flow volatility tends to be slow, causing little sentiment on the stock market. However, in companies with small asset values, the level of cash flow volatility tends to be fast, causing great sentiment on the stock market. It can attract investors in the short term. This condition is the result of the nature of the contingent claims of equity, and high risk increases the opportunity for investors to get unexpected returns.

D. CONCLUSION AND SUGGESTION

A. Conclusion

1. Return on Assets is the ability of the company's performance to earn a profit. The company's performance on the Return on Assets ratio is indicated by an increase in short-term credit to the public, receivable collection period, and total asset turnover. As a result, it can increase the profit margin, the higher the ROA value of the company, and the higher the stock return.
2. Loan to Deposit Ratio is due to credit growth. If Loan to Deposit Ratio shows a high number but is not accompanied by sufficient reserves causing low liquidity, it can be said that it is not healthy. So, the higher the Loan to Deposit Ratio, the stock return will decrease.
3. Net Interest Margin is the ratio obtained from interest income that has a risk of loss which is influenced by the volume of credit provided by the bank so that it has an impact on the equity risk premium, which indicates a large default risk. Thus, to reduce the company's dependence income that obtained from interest income, banks are more focused on adding types of service products and expanding service publications to increase fee based income. In addition, market competition requires banks to innovate in service products to suppress competition in financial products made by non-bank financial companies. Modernization provides a more concrete direction for banking digitalization transformation.
4. The higher the Cash Flow Volatility, the lower the stock return. It is because the high volatility of the company encourages investors to reduce the estimated value of the company. Investors assume that when volatility increases, companies need to spend more on operational activities.
5. Financial ratios ROA, LDR, NIM, and Cash Flow Volatility simultaneously affect the stock returns of banking companies with an immense contribution of 22.34%.

B. Suggestion

1. It is common practice to perform fundamental analysis using profitability ratios and liquidity ratios in making investment decisions. However, it should be noted that this ratio is easy for companies to manipulate to attract investors, avoiding taxes and other interests. So it is vital to add insight regarding the factors that affect returns.
2. Companies need to evaluate performance in increasing efficient productivity continuously. It aims to achieve the goal of equitable distribution of community welfare to help obtain profits based on the orientation of how much value is created in society.
3. Further research is needed regarding variables that are expected to increase the contribution of the relationship between cash flow volatility and return.

ACKNOWLEDGEMENT

Alhamdulillah. All praise are to Allah, the merciful, the all beneficent, by whose grace and blessing have enabled Puji dan author to complete minor thesis, author to express his deepest gratitude to:

1. Mr. Shofwan S.E., M.Si. as supervisor who has sacrificed time, energy, mind, to guide and advice in completing this thesis report.
2. Prof. Dr.Khusnul Ashar, SE., M.A. as Examiner I who has helped to provide critics and suggestions for improving my thesis.
3. Mr. Nugroho Suryo Bintoro, Ph.D. as Examiner II who has helped to provide inputs for improving my thesis
4. Mr. Dias Satria, S.E., M.App.Ec., Ph.D. as Head of Undergraduate program in Economics Department, University of Brawijaya.
5. Beloved wife Ajeng Erika, beloved father Edi Kusmanto and Heri Wahyudi. My beloved mother Mita Manggarsari and Siti Nurbaiti. Heri Wahyudi,Siti Nurbaiti. So my brother Ilham Zacky and Michael Fikriansyah. My beloved sister Nurul Aulia and Nurlita Karimah who always support and motivate author to complete this minor thesis.

BIBLIOGRAPHY

Ang, Robert. 1997. *Buku Pintar Pasar ModalIndonesia*. Jakarta: Mediasoft Indonesia.

Brigham, E. F.& Houston. 2006. *Fundamental of FinancialManagement: Dasar-Dasar Manajemen Keuangan*. Edisi10. Jakarta: Salemba Empat.

Dechow, P. & Dichev, I. 2002. *The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors*. *The Accounting Review*, 77, 35-59.

Hardika, Asri N. D. 2017. Analisis Prediksi Volatilitas Arus Kas Terhadap Imbalan Hasil Saham Pada Perusahaan Terbuka di Indonesia Secara Sektoral Tahun 2002 - 2015. Departemen Manajemen, Fakultas Ekonomi dan Bisnis, Universitas Indonesia.

Horne, V., James, C. & Wachowicz. 2005. *Fundamentals of Financial: Management Prinsip-Prinsip Manajemen Keuangan* (D. Fitriasaki & D. A. Kwary, Penerjemah). Jakarta: Salemba Empat.

Kasmir. 2012. *Analisis Laporan Keuangan*. Jakarta: PT. Raja Grafindo Persada.

Minton, Schrand & Walther. 2002. *The role of volatility in forecasting*. *Review of Accounting Studies* 7 (2-3),195-215.

Moussa. 2015. *The Determinants of Bank Liquidity: Case of Tunisia*. *International Journal of Economics and Financial Issues*, 5(1), 249-259, ISSN:2146-4138. Mediterranean University of Tunis: Tunisia.

Narayanand Westerlund. 2014. *Does Cash Flow Predict Return?*. *International Review of Financial Analysis* 35 (2014) 230–236.

Park, Hyunggeum., Hyunwoo Jun., and Dokyung Lee. 2015. *Evaluation on the Usefulness of the Loan to Deposit Ratio Regulation-From the Macroprudential Policy Perspective at 2015*. SEACEN Policy Summit.

Restiyani, Dian. 2006. Analisis Pengaruh Faktor Fundamental Terhadap Return Saham (studi kasus pada perusahaan otomotif dan komponennya di BEJ periode 2001-2004). Skripsi. UNDIP.

Sekaran, U.& Bougie, R. 2013. *Research Methods for Business*. United Kingdom: Jhon Wiley & Sons Ltd.

Tandelilin, E. 2001. *Analisis Investasi dan Manajemen Portofolio*. Yogyakarta: PT. BPFE.

Wei, Yongzhe. 2018. *Earnings Management, Cash Flow Volatility, and Corporate Value*. MSc Accountancy & Control, Specialization. Faculty of Economics and Business, University of Amsterdam.