

The Influence of Non-Performing Loan (NPL), Capital Adequacy Ratio (CAR), Operational Cost to Operational Income (BOPO) and Net Interest Margin Against Return on Assets (ROA) (Empirical Study on Banking Company Listed in Indonesia Stock Exchange Period 2012-2016).

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Banking is one of the financial institutions whose main activity is to collect funds from the community and then distribute them with the aim to earn a profit. This study aims to test empirically the influence of Non-Performing Loan (NPL), Capital Adequacy Ratio (CAR), Operational Cost to Operational Income (BOPO) and Net Interest Margin (NIM) to Return on Assets (ROA) on Banking Companies Listed in Indonesia Stock Exchange during the period 2012-2016. This research uses purposive sampling technique. The data used in the study is secondary data from annual financial reports that have been published by banking companies listed in the Indonesia Stock Exchange. The data was analyzed using descriptive statistic analysis, classic assumption test, multiple regression analysis, determination coefficient analysis (R²), and hypothesis testing using t-test and F-test with 5% significance level. The results of this study indicate that partially Non-Performing Loan (NPL) and Operational Cost to Operational Income (BOPO) have negative influence to Return on Assets (ROA); Net Interest Margin (NIM) has positive influence to Return on Assets (ROA) and Capital

Adequacy Ratio (CAR) does not have influence to Return on Assets (ROA). Simultaneously Non-Performing Loan (NPL), Capital Adequacy Ratio (CAR), Operational Cost to Operational Income (BOPO) and Net Interest Margin (NIM) have influence to Return on Assets (ROA).

Key words: *Return on Assets, Non-Performing Loan, Capital Adequacy Ratio, Operational Cost to Operational Income, and Net Interest Margin.*

Introduction

The Central Bureau of Statistics (BPS) ensures national economic growth in the quarter II-2017 of 5.01% is supported by almost all business fields. The highest growth in the information and communication sector was 10.88%, while the financial and insurance sectors grew economic growth in the second quarter of 2017 by 5.94% (Kusuma, 2017). The existence of financial banking institutions is very important in the economic system (Kowanda, Paramitha, and Pasaribu, 2015). The function of the bank as an intermediary institution, especially in lending, has an important role in the movement of the economy as a whole and facilitates economic growth (Kowanda, Pasaribu, and Paramitha, 2015). Source of funds is important for banks to increase the amount of credit that will be distributed to the public (Anggraini and Suardhika, 2014).

The public's trust to keep funds in a bank is influenced by information about the soundness of the bank. This rating will refer to the performance of the bank, one aspect of which is the bank financial performance (Natalia, 2015). Business people and governments need information about the company's financial condition and performance for economic decision-making. Good financial performance can assist management in achieving company goals. The higher the company performance, the higher the value of the company in the eyes of investors (Nainggolan and Pratiwi, 2017).

Chairman of the Board of Commissioners of the Financial Services Authority Muliaman Hadad states that the profitability ratio of assets in the banking industry during the year 2016 decreased slightly to 2.23% from 2015 which amounted to 2.32% due to the risk mitigation needs of banking assets NPLs grossly reach 3.1% (Zuraya, 2017). By 2016, based on data from the Financial Services Authority (OJK), the efficiency of the banking sector was slightly worsening due to the high cost of reserves. The ratio of BOPO of banking in 2016 amounted to 82.22% (Yudistira, 2017).

Table 1.1: NPL, CAR, BOPO, NIM and ROA Financial Ratios Danamon Bank and Mandiri Bank in 2012 – 2016

Nama Bank	Tahun	NPL %	CAR %	BOPO %	NIM %	ROA %
Bank Danamon	2012	2.67	18.38	77.27	8.65	3.18
	2013	2.03	17.48	79.67	8.46	2.75
	2014	2.47	18.07	76.61	7.31	3.14
	2015	3.32	20.89	83.37	7.14	2.58
	2016	3.47	22.30	77.25	7.36	2.26
Nama Bank	Tahun	NPL %	CAR %	BOPO %	NIM %	ROA %
Bank Mandiri	2012	1.74	15.48	63.93	5.58	3.55
	2013	1.60	14.93	62.41	5.68	3.66
	2014	1.66	16.60	64.98	5.94	3.57
	2015	2.29	18.60	69.67	5.90	3.15
	2016	3.96	21.36	80.94	6.29	1.95

Source: Annual Financial Statement of Danamon Bank and Mandiri Bank

Table 1.1 above shows Non-Performing Loan (NPL) in 2013 of 2.03% decreased compared to the previous year at 2.67%. However, the decrease in Non-Performing Loans (NPLs) was not followed by an increase in Return on Assets (ROA). Return on Assets (ROA) of Danamon bank in 2013 amounted to 2.75% decreased compared to the previous year which was 3.18%. In addition, Danamon bank's Non-Performing Loan (NPL) in 2014 increased to 2.47% compared to the previous year at 2.03%. However, this increase in Non-Performing Loan (NPL) is not followed by a decrease in Return on Assets (ROA). Return on Assets (ROA) of Danamon bank in 2014 amounted to 3.14% increase compared to the previous year which was 2.75%. This is not in accordance with the theory put forward by (Kuncoro and Suhardjono, 2011) if the NPL increases indicates poor credit quality, then ROA will decrease and vice versa.

Capital Adequacy Ratio (CAR) of Mandiri bank in 2013 amounted to 14.93%, a decrease as compared to the previous year which was 15.48%. However, the decrease in Capital Adequacy Ratio (CAR) is not followed by a decrease in Return on Assets (ROA). Return on Assets (ROA) of Mandiri bank in 2013 amounted to 3.66%, an increase compared to the previous year which was 3.55%. In addition, Capital Adequacy Ratio (CAR) of Mandiri bank in 2014 amounted to 16.60%, an increase compared to the previous year which amounted to 14.93%. However, this increase in Capital Adequacy Ratio (CAR) is not followed by an increase in Return on Assets (ROA). Return on Assets (ROA) of Mandiri bank in 2014 amounted to a 3.57% decrease compared to the previous year which was 3.66%. This is not in accordance with the theory put forward by Kuncoro and Suhardjono, (2011) which poses that increased CAR indicates healthier the capital of a company which means accordingly, ROA will increase and vice versa.

Operational Cost to Operational Income (BOPO) of Danamon bank in 2016 amounted to 77.25% a decrease compared to the previous year which was 83.37%. However, the decline in Operational Cost to Operational Income (BOPO) is not followed by an increase in Return on Assets (ROA). Return on Assets (ROA) of Danamon bank in 2016 amounted to 2.26%, a

decrease compared to the previous year which amounted to 2.58%. This is not in accordance with the theory put forward by Kuncoro and Suhardjono, (2011) that if BOPO decreases indicating better operating efficiency, then ROA will increase and vice versa.

Mandiri bank's net interest margin (NIM) of 2014 was 5.94%, up from 5.68% in the previous year. However, this increase in Net Interest Margin (NIM) is not followed by an increase in Return on Assets (ROA). Return on Assets (ROA) of Mandiri bank in 2014 amounted to 3.57% a decrease compared to the previous year which was 3.66%. In addition, Mandiri bank's net interest margin (NIM) of 2016 was 6.29%, up from 5.90% in the previous year. However, the Return on Assets (ROA) of Mandiri bank in 2016 amounted to 1.95%, a decrease compared to the previous year which was 3.15%. This is not in accordance with the theory put forward by Taswan, (2010) that if the NIM decreases, the better the bank's performance in generating net interest income, then the ROA will increase and vice versa.

Previous research on factors affecting Return on Assets (ROA) in banking companies has resulted in inconsistencies. According to Taswan, (2010). Margaretha & Zai (2013), NPL has a negative and significant impact on ROA. This research is in line with research conducted by many others (Purwoko & Sudiyatno, 2013;Yogianta, 2013; Sinung, Wardiningsih, & Wibowo, 2016) which found that NPLs have no effect on ROA. One factor of subsequent financial ratios that does affect Return on Assets (ROA) is Capital Adequacy Ratio (CAR). This CAR test has been conducted by previous researchers (Margaretha & Zai, 2013) to show that CAR has positive and significant effect on ROA. This research is in line with previous research (Susanto & Kholis, 2016; Thalib, 2016; Raharjo, Setiaji & Syamsudin, 2014; Dipura & Hartono, 2016) which showed that CAR has a negative and significant effect on ROA. In addition, Yogianta (2013) showed that CAR has no effect on ROA.

The next financial ratio factor that affects Return on Assets (ROA) is Operational Cost to Operational Income (BOPO). According to Pandia, (2012), the ratio of Operational Cost to Operational Income (BOPO) is often called the efficiency ratio used to measure management's ability to control operational costs against operating income. BOPO testing has been conducted by previous researchers (Margaretha & Zai, 2013) and showed that BOPO has a negative and significant effect on ROA. This research is in line with research conducted by Purwoko & Sudiyatno, (2013) and Yogianta, (2013), but not in line with the results of research conducted by Zulfikar, (2014) which shows that BOPO has a positive and significant effect on ROA. In addition, the results of the study (Susanto & Kholis, 2016) show that BOPO has no effect on ROA.

Subsequent financial ratios influence the Return on Assets (ROA) such as Net Interest Margin (NIM). According to Pandia, (2012), Net Interest Margin (NIM) is the ratio used to measure the ability of bank management in managing its earning assets to generate net interest income.

This NIM test has been conducted by previous researchers (Margaretha & Zai, 2013) and showed that NIM has positive and significant effect on ROA. This research is in line with other research (Purwoko & Sudiyatno, 2013; Susanto & Kholis, 2016) but not with the results of research conducted by Zulfikar in 2014 which shows that NIM has a negative and significant effect on ROA. In addition, the results of Yogiarta's, 2013 study, show that NIM has no effect on ROA.

Literature Review

The Influence of Non-Performing Loans (NPL) to Return on Assets (ROA)

The higher the NPL ratio, the worse the quality of credit (Taswan, 2010: 166). According to (Margaretha & Zai, 2013) the greater the NPL then the smaller the ROA. The higher the NPL, the greater the number of problem loans. Therefore, the bank must bear losses in its operational activities so as to affect the decline in profit (ROA) obtained by the bank. According to Yogiarta, (2013) if the NPL condition of a bank is high then it will increase the cost, both the cost of earning assets and other assets. Therefore, these conditions have the potential to cause losses to banks and the impact of bank performance will decrease. Research (Ahmad, 2015) states that NPLs have a negative and significant influence on ROA (Margaretha & Zai, 2013; Yogiarta, 2013; Susanto & Kholis, 2016; Dipura & Hartono, 2016; Thalib, 2016).

The Influence of Capital Adequacy Ratio (CAR) to Return on Assets (ROA)

The higher the CAR ratio, the higher the bank capital health (Taswan, 2010: 166) and the greater the CAR then the greater the ROA (Margaretha & Zai, 2013). A greater CAR shows higher capital ability of the bank in maintaining the possibility of risks of loss of business activities so that the bank's performance will also increase. In addition, the higher the bank's capital, the more safely it can expand its business. Business expansion will ultimately affect the financial performance of the bank concerned. Thalib, (2016) states that the capital structure shows how management determines the source of funds for the company. The capital structure policy taken by management will consider its cost of fund, so it will affect the risk and return of the company in the future. The optimal capital structure is the capital structure that stabilizes the balance between risk and return, thus maximizing the profitability of the company. Research (Susanto & Kholis, 2016) states that CAR has a positive and significant influence on ROA (Margaretha & Zai, 2013; Thalib, 2016; Rahman, Hamid, & Khan, 2015).

The Influence of Operational Cost to Operational Income (BOPO) to Return on Assets (ROA)

The higher BOPO ratio indicates inefficient bank operating expenses (Taswan, 2010: 167). Accordingly (Margaretha & Zai, 2013; Abdul Hadi et al., 2018) if BOPO increases which

means efficiency decreases, then ROA obtained by bank will decrease. This is because the level of efficiency in carrying out its operations affects the income or earnings generated by the bank. BOPO ratio value is low then the operational activities are carried out efficiently so that the income generated by the bank splashed up. In addition, the large ratio of BOPO is also due to the high cost of funds collected and the low interest income from investment funds. According to Purwoko & Sudiyatno, (2013) when the bank's operating costs are low, the bank's profitability will rise. Research (Yogianta, 2013) states that BOPO has a negative and significant effect on ROA (Margaretha & Zai, 2013; Rahman, Hamid & Khan, 2015; Ahmad, 2015; Purwoko & Sudiyatno, 2013; Sinung, Wardiningsih & Wibowo, 2016).

The Influence of Net Interest Margin (NIM) to Return on Assets (ROA)

The greater the NIM ratio, the better the bank's performance in generating interest income (Taswan, 2010: 167). According to Margaretha & Zai, (2013,) the greater the NIM, the more effective the bank in the placement of its assets in the form of credit so that the bank's ROA will increase. According to Purwoko & Sudiyatno, (2013) the size of NIM will have an impact on the bank's profit and loss that ultimately affects the profitability of banks. If the difference between the low interest rate and the low loan interest rate means that the NIM is low, then the market risk is high and vice versa. Ahmad's (2015) states that NIM has a positive and significant effect on ROA (Margaretha & Zai, 2013; Purwoko & Sudiyatno, 2013; Susanto & Kholis, 2016; Sinung, Wardiningsih & Wibowo, 2016).

Methods

The population in this study is a banking company listed on the Indonesia Stock Exchange during the year 2012-2016. The sampling technique used in this research is Purposive Sampling.

This research used Multiple Linear Regression

Research Result and Discussion

Result

Descriptive Statistics Analysis Results

Table 4.1: Descriptive Statistics of Non-Performing Loan Variable (NPL)

Descriptive Statistics for NPL Categorized by values of NPL Date: 11/06/17 Time: 20:26 Sample: 1 130 Included observations: 130							
NPL	Mean	Median	Max	Min	Sum	Std. Dev.	Obs.
All	2.431462	2.265000	8.830000	0.210000	316.0900	1.424786	130

Source: Output EViews 8

Table 4.2: Descriptive Statistics of Capital Adequacy Ratio (CAR)

Descriptive Statistics for CAR Categorized by values of CAR Date: 11/06/17 Time: 20:25 Sample: 1 130 Included observations: 130							
CAR	Mean	Median	Max	Min	Sum	Std. Dev	Obs.
All	17.72623	16.97500	27.76000	10.25000	2304.410	3.478761	130

Source: Output EViews 8

Table 4.3: Descriptive Statistics of Operational Cost to Operational Income (BOPO)

Descriptive Statistics for BOPO Categorized by values of BOPO Date: 11/06/17 Time: 20:24 Sample: 1 130 Included observations: 130							
BOPO	Mean	Median	Max	Min	Sum	Std. Dev	Obs.
All	84.65585	84.74500	150.7700	60.44000	11005.26	12.23656	130

Source: Output EViews 8

Table 4.4: Descriptive Statistics of *Net Interest Margin* (NIM)

Descriptive Statistics for NIM Categorized by values of NIM Date: 11/06/17 Time: 20:20 Sample: 1 130 Included observations: 130							
NIM	Mean	Median	Max	Min	Sum	Std. Dev	Obs.
All	5.372769	5.175000	13.12000	1.530000	698.4600	1.796541	130

Source: Output EViews 8

Table 4.5: Descriptive Statistics of *Return on Assets* (ROA)

Descriptive Statistics for ROA Categorized by values of ROA Date: 11/06/17 Time: 20:12 Sample: 1 130 Included observations: 130							
ROA	Mean	Median	Max	Min	Sum	Std. Dev	Obs.
All	1.738615	1.715000	4.710000	-4.890000	226.0200	1.313359	130

Source: Output EViews 8

Results of Multiple Linear Regression Analysis

Table 4.9: Results of Multiple Linear Regression Analysis

Dependent Variable: ROA Method: Least Squares Date: 11/06/17 Time: 22:38 Sample: 1 130 Included observations: 130				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.236383	0.195849	42.05472	0.0000
NPL	-0.034923	0.015039	-2.322201	0.0218
CAR	0.007200	0.005609	1.283549	0.2017
BOPO	-0.088898	0.001917	-46.36434	0.0000
NIM	0.183385	0.012072	15.19131	0.0000

Source: Output EViews 8

Regression model that formed based on research result is as follows:

$$Y = 8,236383 - 0,034923 X_1 + 0,007200 X_2 - 0,088898 X_3 + 0,183385 X_4$$

From the regression model can be explained as follows:

1. If α = constant of 8.236383 means that if the independent variable is Non-Performing Loan, Capital Adequacy Ratio, Operational Cost to Operational Income and Net Interest Margin is considered constant (value 0), then the dependent variable is the Return on Assets variable will be worth 8.236383.
2. Regression coefficient variable Non-Performing Loan is negative value of $-0,034923$ explain the amount of change Return on Assets due to the influence of Non-Performing Loan. The negative sign indicates the direction of the inverse relationship (not unidirectional). Any increase of Non-Performing Loan then Return on Assets decreased by 0.034923 assuming other independent variable constant (value 0). Thus, companies with large Non-Performing Loans have smaller Return on Assets.
3. Regression coefficient variable Capital Adequacy Ratio is positive value of 0.007200 shows the amount of change Return on Assets due to the influence of Capital Adequacy Ratio variable. The positive sign indicates the direction of the relationship that is directly proportional (unidirectional). Any increase of Capital Adequacy Ratio then Return on Assets will rise by 0,007200 assuming other independent variable constant (value 0). Thus, firms with high Capital Adequacy Ratio tend to have higher Return on Assets.
4. Regression coefficient variable Operational Cost to Operational Income is negative value of $-0,088898$ explain the amount of change Return on Assets due to the influence Operational Cost to Operational Income. The negative sign indicates the direction of the inverse relationship (not unidirectional). Any increase in Operational Cost to Operational Income then Return on Assets decreased by 0.088898 with the assumption of other independent variables constant (value 0). Thus, firms with large Operational Cost to Operational Income have a smaller Return on Asset.
5. Regression coefficient variable Net Interest Margin is positive value of 0.183385 shows the amount of change Return on Assets due to the influence of variable Net Interest Margin. The positive sign indicates the direction of the relationship that is directly proportional (unidirectional). Any increase in Net Interest Margin then Return on Assets will rise by 0.183385 assuming other independent variables are constant (value 0). Thus, firms with high Net Interest Margin tend to have higher Return on Assets.

Coefficient of Determination Test Result (R2)

Table 4.10: Coefficient Determination Test Results (R2)

R-squared	0.975455	Mean dependent var	1.738615
Adjusted R-squared	0.974670	S.D. dependent var	1.313359
S.E. of regression	0.209027	Akaike info criterion	-0.255008
Sum squared resid	5.461517	Schwarz criterion	-0.144718
Log likelihood	21.57550	Hannan-Quinn criter.	-0.210193
F-statistic	1241.940	Durbin-Watson stat	2.022579
Prob(F-statistic)	0.000000		

Source: Output EViews 8

Table 4.10 above shows that R-squared obtained by 0.975455 shows that the Non-Performing Loan (X1), Capital Adequacy Ratio (X2), Operational Cost to Operational Income (X3) and Net Interest Margin (X4) can explain the Return on Assets (Y) of 97.55%

Individual Parameter Significance Test Results (Test Statistic t)

Table 4.11: Individual Parameter Significance Test Results (Test Statistic t)

Dependent Variable: ROA				
Method: Least Squares				
Date: 11/06/17 Time: 22:38				
Sample: 1 130				
Included observations: 130				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.236383	0.195849	42.05472	0.0000
NPL	-0.034923	0.015039	-2.322201	0.0218
CAR	0.007200	0.005609	1.283549	0.2017
BOPO	-0.088898	0.001917	-46.36434	0.0000
NIM	0.183385	0.012072	15.19131	0.0000

Source: Output EViews 8

1. The influence of NPL to ROA (Test t X1) Table 4.7 shows that the tcount of = -2.32220 is smaller than the negative value ttable (-2,322201 < -1,65704) and the probability value 0.0218 is smaller than the value of α is 0.05 so that with the 95% confidence level can be decided to reject H01 and accept Ha1. Thus, it can be concluded Non-Performing Loan partially has negative effect to Return on Assets.
2. The influence of CAR to ROA (Test t X2) Table 4.7 shows that the tcount value of = 1.283549 is smaller than the value of ttable (1.283549 < 1.65704) and the probability value is 0.2017 greater than the value of α is 0.05. so with the 95% confidence level can be decided H02 not successfully rejected. So, it can be concluded Capital Adequacy Ratio partially has no effect to Return on Assets.
3. The influence of BOPO to ROA (Test t X3) Table 4.7 shows that the tcount of = -46,36434 is smaller than the negative value of ttable (-46,36434 < -1,65704) and the probability value is 0,0000 smaller than the value of α is 0.05 so with the confidence level 95% it can be decided to reject H03 and accept Ha3. Thus, it can be concluded

Operational Cost to Operational Income partially has negative effect to Return on Assets.

4. The Influence of NIM to ROA (Test t X4) Table 4.7 shows that the tcount value of = 15.19131 is greater than the positive value of ttable (15,19131 > 1,65704) and the probability value is 0.005 smaller than the value of α is 0.05 so that with the 95% confidence level it can be decided to reject H04 and accept Ha4. So, it can be concluded Net Interest Margin partially has positive effect to Return on Assets

Discussion

The Influence of Non-Performing Loans to Return on Assets

The result of t test on variable of Non-Performing Loan to Return on Assets, found tcount and ttable value which show tcount value equal to -2,322201, while ttable equal to -1.65675. From the results it is seen that -tcount <-ttable (-2,322201 <-1,65675), and so it can be concluded that H1 is accepted, which means that Non-Performing Loan variable negatively affects Return on Assets variables in banking companies listed on the Indonesia Stock Exchange during the period 2012-2016. Negative influence shows that if Non-Performing Loan increases, then Return on Assets decreases and vice versa.

The results of this study are in line with the theoretical foundation of Taswan, (2010 : 166) that the higher Non-Performing Loan ratio shows the worst quality of credit. Credit quality is declining marked by the increase in non-performing loans resulting in the formation of problematic reserves of non-performing loans, which means it will lower profits (Taswan, 2010: 452). The results for Non-Performing Loan variables on Return on Assets are in line with previous research conducted (Margaretha & Zai, 2013;Yogianta, 2013; Ahmad, 2015; Susanto & Kholis, 2016) stating that Non-Performing Loan has negative and significant impact to Return on Assets, where the higher the Non-Performing Loan, the lower the Return on Assets and vice versa.

The Influence of Capital Adequacy Ratio to Return on Assets

Based on the result of t test on variable of Capital Adequacy Ratio to Return on Assets obtained tcount and ttable value which show tcount value equal to 1.283549, while ttable equal to 1,65675. From the results, it can be seen that thitung <ttable (1.283549 <1.65675), it can be concluded that H02 is not successfully rejected, meaning Capital Adequacy Ratio does not affect Return on Assets in banking companies listed in Indonesia Stock Exchange period 2012-2016. The results of this study are not in line with the theoretical basis in the previous chapter which states that the higher Capital Adequacy Ratio then the higher the Return on Assets. This is not in accordance with the theory (Taswan, 2010: 166) the higher the CAR ratio indicates the bank is increasingly healthy capital. The survival of a bank depends on the adequacy of

capital that can move the bank's operations (Taswan, 2010: 213). According to (Kuncoro and Suhardjono, 2011:529) the greater the Capital Adequacy Ratio then the bank profits will also be greater. The results of research for Capital Adequacy Ratio variable to Return on Assets according to previous research conducted by (Yogianta, 2013), (Zulfikar, 2014), and (Ahmad, 2015) also stated that Capital Adequacy Ratio has no effect to Return on Assets

The Influence Operational Cost to Operational Income to Return on Assets

Based on the result of t test on variable Operational Cost to Operational Income to Return on Assets obtained tcount and ttable value which show tcount equal to -46,36434, while ttable equal to -1.65675. From the results it is seen that $-tcount < -ttable (-46,36434 < -1,65675)$ and it can be concluded that H3 is accepted, meaning the variable Operational Cost to Operational Income has negative effect to Return on Assets on banking companies listed on the Indonesia Stock Exchange during the period 2012-2016. Negative influence indicates if Operational Cost to Operational Income increases which means efficiency decreases, then Return on Assets will decrease and vice versa. The results of this study are in line with the theoretical basis in the previous findings that states that the higher Operational Cost to Operational Income the lower Return on Assets and vice versa. This is in accordance with the theory of Taswan, (2010: 167) that the higher the BOPO ratio, the more inefficient operating costs of banks. Banks that in their business activities are inefficient will result in inability to compete in mobilizing public funds or in channelling the funds to the community in need as business capital (Kuncoro & Suhardjono, 2011: 523). The results of the research for Operational Cost to Operational Income variable to Return on Assets in accordance with previous research conducted (Yogianta, 2013; Widiastuti et al, 2017; Rahman, Hamid & Khan, 2015; Ahmad, 2015; Purwoko & Sudiyatno, 2016; Sinung, Wardiningsih & Wibowo, 2016) also stated that Operational Cost to Operational Income has negative effect to Return on Assets.

The Influence of Net Interest Margin to Return on Assets

Based on the results of t test on the variable Net Interest Margin to Return on Assets which obtained t count and t table value that shows the value of t count of 15.19131, with the ttable of 1.65675. From the results, it can be seen that $t\ count > t\ table (15,19131 > 1,65675)$, and it is concluded that H4 is accepted, which means that Net Interest Margin has positive affects to Return on Assets in banking companies listed in Indonesia Stock Exchange during the period 2012-2016. Positive influence indicates that if Net Interest Margin increase, then Return on Assets will increase and vice versa.

The result of this study are in line with the theoretical basis previously detailed which states that the higher Net Interest Margin, the higher the Return on Assets. This is in accordance with the Taswan's theory (2010: 167), that the greater the NIM ratio, the better the bank's performance in generating interest income. Net Interest Margin is the ratio used to measure

management's ability to manage its earning assets to generate net interest income. Net interest income is derived from interest income less interest expense. The greater this ratio the greater the increased interest income on earning assets as dikeloa bank so that the possibility of the bank being in a problematic condition is minimised (Pandia, 2012: 72).

The results of the research for Net Interest Margin variable on Return on Assets also aligns to previous research as noted above that Net Interest Margin positively affects Return on Assets.

The Influence of NPL, CAR, BOPO, and NIM to ROA

Based on the F test results using Eviews 8, the Non-Performing Loan variable, Capital Adequacy Ratio, Operational Cost to Operational Income and Net Interest Margin on Return on Assets, there is simultaneous significance value of regression model of 0.000, but it can be seen from the result of comparison between Fhitung and Ftablel which shows the value of Fcount of 1241.94 while with Ftable of 2.44, it can be concluded that a jointly or simultaneous independent variable, is the variable of Non-Performing Loan, Capital Adequacy Ratio, Operational Cost of Operational Income and Net Interest Margin which influence significantly the dependent variable that is variable Return on Assets at a banking company listed in Indonesian Stock Exchange during the 2012-2016 Period. While the influence of Non-Performing Loan variable, Capital Adequacy Ratio, Operational Cost to Operational Income, and Net Interest Margin to Return on Assets is 97.5%.

The results of this study are also in line with the theoretical foundation that states that if non-performing loans decline, capital adequacy ratio increases, operational cost to operational income increases and as net interest margin increase,s the ability to earn profits also increases. According to Taswan, (2010: 452) credit quality is declining as marked by the increase in non-performing loans resulting in the formation of problematic reserves of non-performing loans, which means lower earnings. According to Kuncoro & Suhardjono, (2011: 529) the greater the Capital Adequacy Ratio, the smaller the risk of a bank and the greater the bank's profits. According to Kuncoro & Suhardjono, (2011: 523) the efficiency of banking institutions, especially cost efficiency is measured by the optimal level of profit, additional funding, more competitive costs, improved customer service, increased security and banking health. According to Pandia, (2012: 182) the greater the bank's ability to extend credit, the greater the bank's income, but the larger amount of bank revenue does not guarantee substantial profits as, if all or most of the funds used for lending cost, it is expensive.

Conclusion

Based on the results of research and discussion that has been described above the following conclusions are made:

1. Partially, Non-Performing Loan (NPL) has a negative effect to Return on Assets (ROA) in banking companies listed on Indonesia Stock Exchange during the period 2012-2016. The higher the Non-Performing Loan ratio, the lower the Return On Assets ratio and vice versa.
2. Partially, Capital Adequacy Ratio (CAR) does not effect Return on Assets (ROA) in banking companies listed on the Indonesia Stock Exchange during the period 2012-2016. The low Capital Adequacy Ratio will not bring any changes to Return on Assets.
3. Partially, Operational Cost to Operational Income (BOPO) has a negative effect to Return on Assets (ROA) in banking companies listed in Indonesia Stock Exchange during the period 2012-2016. The higher the Operational Cost to Operational Income ratio, the lower the Return on Assets ratio and vice versa.
4. Partially, Net Interest Margin (NIM) has positive effect to Return on Assets (ROA) in banking companies listed on Indonesia Stock Exchange during the period 2012-2016. The higher the ratio of Net Interest Margin, the higher the Return on Assets ratio and vice versa.
5. Simultaneously, Non-Performing Loan (NPL), Capital Adequacy Ratio (CAR), Operational Cost to Operational Income (BOPO) and Net Interest Margin (NIM) have an effect on Return on Assets (ROA).

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