

# The Role of Firm Size on Bank Liquidity and Performance: A Comparative Study of Domestic and Foreign Banks in Indonesia

M. CHABACHIB, AJI YUDHA, UDIN UDIN\*

Business and Economic Faculty, Diponegoro University, Semarang, INDONESIA

**Abstract.** The purpose of this study is (1) to find out the effect of Non-Performing Loan (NPL), Net Interest Margin (NIM), Non-Interest Income, and Loan to Deposit Ratio (LDR) to Return on Assets (ROA) with size as control variable; and (2) to compare whether there is a difference between domestic and foreign banks of the period 2012 – 2017. The sample of this study is 228 domestic and foreign banks listed in Indonesia Stock Exchange (IDX) of the period 2012 – 2017. The result of the analysis show that (1) in the domestic bank, NPL has a negative effect on ROA; NIM has a positive effect on ROA; and (2) in foreign banks, NPL has a negative effect ROA; NIM has a negative effect; LDR has a negative effect ROA. Further, size becomes a control variable and there is no difference between domestic and foreign banks.

**Keywords:** Non-Performing Loan (NPL), Net Interest Margin (NIM), Non-Interest Income, Loan to Deposit Ratio (LDR), Return On Assets (ROA)

## 1. Introduction

The banking industry has an important position in the financial system, which is facilitating the payment, the monetary decision process, and the realization of a stable financial system. The entry of foreign banks in Indonesia has several advantages. The gains in question are the creation of domestic capital inflows of the domestic economy, increased competition among banks, and the emergence of a variety of products (Hadad and Santoso, 2004). Consequently, any foreign bank's financial policy is highly dependent on its headquarters, and in general, lending is given to large corporations (Pigott, 1986). The lending of foreign banks in Indonesia tends to the multinational corporations that also get financing from its head office (Hersugondo et.al, 2016). The

presence of foreign banks in Indonesia will lead to competition with domestic banks, which will lead to differences in profitability between domestic and foreign banks. Profitability of domestic and foreign banks will be compared to find out which banks are more profitable in terms of profit. The presence of foreign banks in Indonesia will lead to competition with domestic banks in obtaining profit. The difference of ROA between domestic banks and foreign banks, which during the period 2010 - 2015 decreased ROA. However, there is a decrease in the number of domestic banks from 2013 - 2015 showing a continuous decline. The same thing happens to foreign banks wherein 2013-2014 there is decline ROA but in the year 2014-2015 ROA increase in foreign banks.

**Table 1.1 Average of NPL Ratio, NIM, Non-Interest Income, LDR, Size, and ROA at Domestic and Foreign Commercial Banks in Indonesia Period 2012 – 2017**

| Variable              | Ownership | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------|-----------|------|------|------|------|------|------|
| ROA %                 | Domestic  | 1,58 | 1,91 | 2,10 | 2,13 | 1,65 | 1,31 |
|                       | Foreign   | 1,63 | 1,94 | 1,91 | 1,97 | 1,56 | 1,87 |
| NPL %                 | Domestic  | 4,26 | 2,41 | 2,41 | 2,05 | 2,40 | 2,59 |
|                       | Foreign   | 2,58 | 1,84 | 1,70 | 1,37 | 2,00 | 3,28 |
| NIM %                 | Domestic  | 6,42 | 6,33 | 6,61 | 6,35 | 5,69 | 5,69 |
|                       | Foreign   | 5,43 | 5,18 | 5,20 | 4,72 | 3,73 | 4,10 |
| Non Interest Income % | Domestic  | 1,35 | 1,35 | 1,29 | 1,14 | 1,04 | 1,07 |
|                       | Foreign   | 1,96 | 1,10 | 0,92 | 1,21 | 1,05 | 1,09 |

|                             |          |        |        |         |         |         |         |
|-----------------------------|----------|--------|--------|---------|---------|---------|---------|
| LDR %                       | Domestic | 78,59  | 80,50  | 82,86   | 85,86   | 84,78   | 86,15   |
|                             | Foreign  | 76,49  | 78,51  | 82,88   | 88,59   | 87,69   | 88,34   |
| Size<br>(Billion<br>Rupiah) | Domestic | 76,497 | 89,102 | 103,657 | 118,483 | 135,949 | 148,714 |
|                             | Foreign  | 32,821 | 39,474 | 48,183  | 57,116  | 62,500  | 68,257  |

Source: Bank Annual Report (2012 – 2017)

Table 1.1 explains that the ROA of both domestic and foreign banks has fluctuated from 2012 to 2017. When compared with the foreign bank, the decrease of ROA occurs at the domestic bank in 2016 - 2017. Domestic bank period 2012-2013 shows an increase, problematic credit problems. ROA should decrease due to increased non-performing loans, but ROA shows the same improvement. NIM holds fluctuations in domestic bank 2012 - 2013, but the fluctuation is inversely proportional to ROA. NIM on foreign banks in period 2012 - 2013 experienced an increase in ROA when NIM decreased. On the operating income side, Non-Interest Income at domestic bank decreased from 2013 to 2015. The decrease actually made ROA increase. This is not appropriate because bank operating income should increase ROA. The same thing happened in the period 2016 - 2017 where the increase in Non-Interest Income actually lower ROA. Non-Interest Income on Foreign Banks also decreased during the year 2012 - 2014 which is precisely the increase in ROA. LDR at domestic bank shows an increase during 2016 - 2017. It indicates that the improvement of intermediation function is expected to increase ROA, but ROA in 2016 - 2017 has decreased. It also happens to foreign banks where the LDR is experiencing an upward trend in the period 2013-2014, but on the one hand, it decreases ROA. Differences ROA both in domestic banks and foreign banks can occur due to differences in factors that influence it. Table 1.1 describes the effect of NPL, NIM, Non-Interest Income, LDR to ROA variable which then known there is mismatch influence of each independent variable with theory. In addition, there are differences in the results of previous research on the factors that affect ROA so as to bring the research gap. Based on the phenomenon and research gap in this research becomes the basis of the formulation of interesting issues to be researched. This study examines how the influence of NPLs, NIM, Non-Interest Income, LDR against ROA and then compare whether there

are differences in the effect on ROA on domestic and foreign banks in Indonesia.

## 2. Research Methods

This research data is obtained from Bank Annual Report in Indonesia. Data period in this study is from December 2012 to December 2017. This study took the population of all commercial banks listed in the Indonesia Stock Exchange period 2012 - 2017, which is as many as 42 banks. Based on the criteria of bank selection, the total population is 37 commercial banks, while the number of samples in this study as much as 228 (38 banks x 6 years).

Multiple regression analysis aims to test the influence of independent variables on the dependent variable. This research uses the dependent variable in the form of ROA, independent variable in the form of NPL, NIM, Non-Interest Income, and LDR and Size as a control variable. Here is the research model used:

$$\begin{aligned}
 \text{Profitability (ROA)} \\
 &= \alpha_0 + \beta_1 NPL_{it} + \beta_2 NIM_{it} \\
 &+ \beta_3 \text{Non Interest Income}_{it} \\
 &+ \beta_4 LDR_{it} + \mu_{it}
 \end{aligned}$$

Where:

$\alpha$  = Constants

$\beta_1, \beta_2, \beta_3, \beta_4$  = Regression coefficient of NPL, NIM, Non-Interest Income, LDR

$\mu$  = Error term

## 3. Results

### 3.1 Testing Size as Control Variable at Domestic Bank

Testing size as a control variable at domestic banks is done by the regression of size to ROA. Regression results are presented in Table 2.

**Table 2 Regression Size as Control Variable**

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|--------------|-----------------------------|------------|---------------------------|--------|------|
|              | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant) | -5.498                      | .956       |                           | -5.754 | .000 |
| LnSize       | .428                        | .056       | .523                      | 7.662  | .000 |

a. Dependent Variable: ROA

Source: Processed data (2017)

The result of regression size to ROA shows the significance of 0.000, therefore size can be used as a control variable in the domestic bank category.

### 3.2 Testing Size as Control Variable at Foreign Bank

Testing size as a control variable in foreign banks is done by the regression of size to ROA. Regression results are presented in Table 3.

**Table 3 Regression Size as Control Variable**

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|--------------|-----------------------------|------------|---------------------------|--------|------|
|              | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant) | -1.328                      | 1.250      |                           | -1.062 | .293 |
| Lnsize       | .164                        | .075       | .299                      | 2.192  | .033 |

a. Dependent Variable: ROA

Source: Processed data

The result of regression size to ROA shows a significance value of 0.033 or less than 0.05. Therefore size can be used as a control variable in foreign bank category.

### 3.3 Coefficient of Determinant ( $R^2$ ) at Domestic Bank

The domestic bank has the value coefficient of the determinant ( $R^2$ ) shown in Table 4.

**Table 4 Coefficient of determinant ( $R^2$ ) at domestic bank**

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------|----------|-------------------|----------------------------|---------------|
| 1     | .912a | .832     | .827              | .7131                      | 2.064         |

a. Predictors: (Constant), LnSize, LDR, NPL, NII, NIM

b. Dependent Variable: ROA

Source: Processed data

The SPSS output shows the value of adjusted  $R^2$  0.827 so that ROA is influenced by NPL, NIM, Non-Interest Income, LDR and Size of 82.7%. Meanwhile, the remaining 17.3% is explained by other variables.

### 3.4 Coefficient of Determinant ( $R^2$ ) at Foreign Bank

The foreign bank has the value coefficient of the determinant ( $R^2$ ) shown in Table 5.

**Table 5 Coefficient of determinant ( $R^2$ ) at foreign bank**

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------|----------|-------------------|----------------------------|---------------|
| 1     | .720a | .518     | .465              | .6334                      | 2.070         |

a. Predictors: (Constant), Lnsize, NIM, NII, NPL, LDR

b. Dependent Variable: ROA

Source: Processed data

The SPSS output shows the value of adjusted  $R^2$  0.465 so that ROA is influenced by

NPL, NIM, Non-Interest Income, LDR and Size of 46.5%. Meanwhile, the remaining 53.5% is explained by other variables.

### 3.5 F Test at Domestic Bank

The SPSS output influence simultaneous test of domestic banks is shown in Table 6.

**Table 6 Influence simultaneous (F-test) at domestic bank**

| Model        | Sum of Squares | Df  | Mean Square | F       | Sig.  |
|--------------|----------------|-----|-------------|---------|-------|
| 1 Regression | 383.595        | 5   | 76.719      | 150.851 | .000b |
| Residual     | 77.303         | 152 | .509        |         |       |
| Total        | 460.898        | 157 |             |         |       |

- a. Dependent Variable: ROA
  - b. Predictors: (Constant), LnSize, LDR, NPL, NII, NIM
- Source: Processed data

The value of F-test on regression at the domestic bank is 150,861 and significant at 0.000 so that NPL, NIM, Non-Interest Income, LDR and size simultaneously affect ROA.

### 3.6 F Test at Foreign Bank

The SPSS output influence simultaneous test of the foreign bank is shown in Table 7.

**Table 7 Influence simultaneous (F-test) at foreign bank**

| Model        | Sum of Squares | Df | Mean Square | F     | Sig.  |
|--------------|----------------|----|-------------|-------|-------|
| 1 Regression | 19.427         | 5  | 3.885       | 9.685 | .000b |
| Residual     | 18.053         | 45 | .401        |       |       |
| Total        | 37.480         | 50 |             |       |       |

- a. Dependent Variable: ROA
  - b. Predictors: (Constant), Lnsize, NIM, NII, NPL, LDR
- Source: Processed data

The value of F-test on regression foreign bank is 9,685 and significant at 0,000 so that NPL, NIM, Non-Interest Income, LDR and size simultaneously influence ROA.

### 3.7 T-Test at Domestic Bank

Based on the SPSS output partial test (t-test) of domestic banks is shown in Table 8.

**Table 8 Result t-test at domestic bank**

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | T       | Sig. |
|--------------|-----------------------------|------------|---------------------------|---------|------|
|              | B                           | Std. Error | Beta                      |         |      |
| 1 (Constant) | -4.121                      | .626       |                           | -6.580  | .000 |
| NPL          | -.277                       | .014       | -.678                     | -20.166 | .000 |
| NIM          | .250                        | .027       | .323                      | 9.263   | .000 |
| NII LDR      | -.038                       | .039       | -.033                     | -.959   | .339 |
| LnSize       | -.006                       | .005       | -.041                     | -1.191  | .235 |
|              | .331                        | .029       | .404                      | 11.457  | .000 |

- Dependent Variable: ROA
- Source: Processed data

Table 3.7 shows NPL and NIM are significant at 0.05. However, the Non-Interest Income and LDR were not significant at 0.05. Size as a control variable significant at 0,05. Thus, the regression equation is:

$$ROA = -4.121 - 0.277NPL + 0.250NIM - 0.038NII - 0.006LDR + 0.331LnSize$$

The constant value of the regression equation is -4.121 indicating ROA has a value of -4.121 if

the affecting variable (NPL, NIM, Non-Interest Income, LDR, and Size) are considered constant. Analysis of the effect of independent variables on dependent variables is:

1. Non-Performing Loan (NPL) has a negative and significant effect on Return On Assets (ROA), so hypothesis 1a is accepted.
2. Net Interest Margin (NIM) has a positive and significant impact on Return On Asset (ROA), so hypothesis 2a accepted.
3. Non-Interest Income (NII) has a negative and

insignificant effect on Return On Assets (ROA), so hypothesis 3a is rejected.

4. Loan to Deposit Ratio (LDR) has a negative and insignificant effect on Return On Asset (ROA), so hypothesis 4a is rejected.

### 3.8 Test at Foreign Bank

Based on the SPSS output partial test (t-test) of foreign banks shown in Table 9.

**Table 9 Result t-test at foreign bank**

| Model      | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|------------|-----------------------------|------------|---------------------------|--------|------|
|            | B                           | Std. Error | Beta                      |        |      |
| (Constant) | -3.218                      | .998       |                           | -3.224 | .002 |
| NPL        | -.155                       | .062       | -.269                     | -2.501 | .016 |
| NIM        | .335                        | .058       | .638                      | 5.763  | .000 |
| NII        | -.125                       | .100       | -.141                     | -1.254 | .216 |
| LDR        | -.017                       | .007       | -.307                     | -2.303 | .026 |
| Lnsize     | .292                        | .073       | .533                      | 4.024  | .000 |

a. Dependent Variable: ROA  
 Source: Processed data (2017)

Table 3.8 shows the NPL and NIM and LDR variables are significant at 0.05. Non-Interest Income variable has no significant effect at 0.05. Size variable as a control variable significant at 0,05. Thus, the regression equation is:

$$ROA = -3.218 - 0.155NPL + 0.335NIM - 0.125NII - 0.017LDR + 0.292LnSize$$

The constant value of regression equation is -3.218 which shows ROA has a value of -3.218 if the affecting variable (NPL, NIM, Non-Interest Income, LDR, and Size) are considered constant. Non-Performing Loan (NPL) has a negative and

significant effect on Return On Assets (ROA), so hypothesis 1b is accepted.

1. Net Interest Margin (NIM) has a positive and significant impact on Return On Assets (ROA), so hypothesis 2b is accepted.
2. Non-Interest Income (NII) has a negative and insignificant effect on Return On Assets (ROA), so that hypothesis 3b is rejected.
3. Loan to Deposit Ratio (LDR) has a negative and significant effect on Return On Asset (ROA), so hypothesis 4b is rejected.

### 3.9 Comparative Result of T-Test (Partial) Domestic and Foreign Bank

**Table 10 Comparative result od t-test (partial) domestic and foreign bank**

| Variable | Beta Value Domestic Bank | Sig. Domestic Bank | Beta Value Foreign Bank | Sig. Foreign Bank |
|----------|--------------------------|--------------------|-------------------------|-------------------|
| NPL      | -0,277                   | 0,000              | -0,155                  | 0,16              |
| NIM      | 0,250                    | 0,000              | 0,335                   | 0,00              |
| NII      | -0,038                   | 0,339              | -0,125                  | 0,216             |
| LDR      | -0,006                   | 0,235              | -0,017                  | 0,026             |
| Lnsize   | 0,331                    | 0,000              | 0,292                   | 0,000             |

Source: Processed data (2017)

NPL of domestic and foreign banks showed negative and significant value at 5% level. NIM of domestic and foreign banks showed positive and significant value at 5% level. Non-Interest Income in domestic and foreign banks shows negative and insignificant value. LDR in domestic banks shows negative value is not significant. However, the LDR in foreign banks shows a significant negative value at the 5% level.

### 3.10 Chow Test

This study examines the effect of NPL, NIM, Non-Interest Income and LDR on domestic and foreign bank ROA in 2010 - 2015. The testing of the fifth hypothesis is done by comparing the sum of square residual values with each model of domestic and foreign banks separate. The following will show each of the sums of residual values of foreign, domestic, and combined banks as follows:

**Table 11 Sum of Square Residual Domestic Bank**

| Model        | Sum of  | df  | Mean   | F      | Sig. |
|--------------|---------|-----|--------|--------|------|
| 1 Regression | 383.59  | 5   | 76.719 | 150.85 | .000 |
| Residual     | 77.30   | 152 | .509   |        |      |
| Total        | 460.898 | 157 |        |        |      |

Dependent Variable: ROA

Predictors: (Constant), LnSize, LDR, NPL, NII, NIM

Source: Processed data (2017)

The above calculation results note that the value of F arithmetic is 0.733, and the known value of F table with  $df = 199$  and  $k = 5$  on 0.05 significance obtained F table value of 2.26. Therefore, the value of F arithmetic  $<$  F table, indicating there is no difference of effect of NPL, NIM, Non-Interest Income, and LDR to ROA between domestic and foreign bank.

#### Effect of NPL on ROA at Domestic Bank

T-test obtained value of -0.277 with a significance value of 0.000. Therefore, the hypothesis NPL significant negative effect on ROA for the category of Domestic Bank accepted. Negative influence indicates that the higher the level of bad credit or credit risk owned by domestic banks will further lower the profitability reflected on the ROA.

The results of this study support the theory of risk which states that the risk in the viewpoint of the bank is a risk that occurs due to the failure of the debtor to meet the obligations. A non-performing loan is the amount of default risk experienced by the bank. The largest proportion of bank income comes from loans. Therefore, the greater the bank suffered credit failure, it will have an impact on bank profitability.

OJK as regulator agency has determined the amount of non-performing loans that can be tolerated is 5%, if domestic banks want to maintain profitability, domestic banks should select more tightly the debtor so as to minimize the occurrence

of a default. Research Albulescu (2015), Socol (2013), and Rahman et al. (2015) support the results of this study which states the magnitude of NPLs, significantly negative effect on ROA.

#### Effect of NIM on ROA at Domestic Bank

T-test obtained the value of 0.250 with a significance value of 0.000 or smaller than 0.05, so the hypothesis 2a, NIM has a significant positive effect on ROA for the category of Domestic Bank accepted. The NIM increase occurs because interest costs are lower than interest income, so an increase in NIM will increase ROA.

The results of this study support the efficiency theory of managerial profits that states that banks capable of running operations efficiently than competitors will get high profits. The results of this study support previous research conducted by Azam & Siddiqui (2012) stating that NIMs have a positive and significant impact on ROA.

#### Effect of Non-Interest Income on ROA at Domestic Bank

T-test results obtained the value of -0.038 with a significance value of 0.339 or greater than 0.05 which means Non-Interest Income does not affect the ROA so that the hypothesis 3a, Non-Interest Income effect on ROA at Domestic Bank rejected. The average Non-Interest Income is only 1.20260 with the standard deviation of 1.51464, indicating that the Non-Interest Income variation and the average is small so that the Non-Interest Income

does not change effect the ROA that if ROA increases it decreases Non-Interest Income and the higher noninterest income will actually lower the ROA. Negative influence indicates that bank less Non-Interest Income negatively affects ROA due to the opposite direction. The results of this study explain the provision of services and this is evidenced by the small average value of Non-Interest Income at Domestic Bank. Although the negative impact on the bank does not affect the ROA at Domestic Bank. The results of this study are in accordance with research conducted by Lee, Yang, & Chang (2014).

#### **Effect of LDR on ROA at Domestic Bank**

T-test obtained the value of -0.006 with a significance value of 0.235 or greater than 0.05 which means no effect so that the hypothesis 4a, LDR affect the ROA for the category of domestic banks rejected. The results of this study are not in accordance with the theory of financial intermediation which states banks that perform their intermediary function is channeling funds to the public. The problem with this intermediation is that banks will face the potential of moral hazard and information asymmetry from debtors. Negative influence is caused by the opposite relationship between LDR to ROA. The results of this study explain that LDR has an increasing trend, but the increase in LDR actually lower the ROA. LDR is insignificant to ROA indicating that inefficient performance of domestic banks maximizes the value of funds income lent to the public, the number of bad debts faced by banks, thus adding to the burden for banks, the LDR does not affect the ROA. The results of this study in accordance with research conducted Alper & Anbar (2011) which states there is no influence of LDR on ROA.

## **4. Discussion**

#### **Effect of NPL on ROA at Foreign Banks**

T-test obtained the value of -0.155 with a significance value of 0.016 or smaller than 0.05 so that hypothesis 1b, that states NPL negatively affect the ROA for foreign banks accepted. Negative influence indicated by NPL indicates that the higher level of bad credit or credit risk owned by the foreign bank will further decrease profitability which is reflected on ROA.

Risk theory explains that bank earnings will be reduced if the bank can not overcome the credit risk of failure of the debtor who is unable to pay off its obligations (Laksana and Hersugondo, 2016) The risk will have an impact on the bank's profitability,

since most of the bank's revenues are derived from the lack of profit for the bank which then decreases the bank's ROA.

OJK as regulator agency has determined the number of bad debts that can be tolerated that is 5%, Albulescu Research (2015), Socol (2013), and Rahman et al. (2015) support the results of this study where the magnitude of NPLs, significantly negatively affect the ROA.

#### **Effect of NIM on ROA at Foreign Banks**

T-test obtained the value of 0.335 with a significance value of 0.000 or smaller than 0.05, so the hypothesis 2b, NIM has a significant positive effect on ROA for foreign bank accepted. The positive value indicated by NIM indicates that NIM as net interest margin can increase bank ROA.

The results of this study are in accordance with managerial efficiency theory that states the bank needs to make efficiency to get above average earnings. Efficiency is an important step for the bank to take. Banks that are unable to perform efficiencies will lose a number of opportunities to increase profitability which will then decrease ROA.

Comparison between the amount of interest given by the customer and the interest earned from the credit needs to be considered. If the interest earned from the credit is greater than the interest given to the customer, the bank is increasingly profitable, thus increasing its profitability. Azam & Siddiqui (2012) research supports the results of this study which states that NIM has a positive and significant effect on ROA.

#### **Effect of Non-Interest Income on ROA at Foreign Bank**

T-test obtained the value of -0.125 with a significance value of 0.216 or greater than 0.05 which means no significant effect so that the hypothesis 3b, Non-Interest Income effect on ROA at Domestic Bank rejected. Average Non-Interest Income of 1.20 with a standard deviation of 0.97380 indicating that the variation of Non-Interest Income and the average is small so that Non-Interest Interest Income has no effect on ROA.

Bank operating income derived from the non-interest sector is more fluctuating compared to interest income. The negative effect of Non-Interest Income on ROA indicates that the lack of services provided by the bank. This lack of service then affects small Non-Interest Income income.

### Effect of LDR on ROA at Foreign Banks

T-test obtained the value of -0.017 with a significance value of 0.026 or smaller than 0.05, which means an effect but negative so that the hypothesis 4b, LDR positive effect on ROA for the category of foreign banks rejected. The results of this study explain the increase in LDR actually lower ROA. The results of this study are in accordance with the research conducted by Aburime (2008), M. VLAD & S. VLAD (2014), Boadi et al., (2016) which states that LDR negatively affects ROA.

The results of this study are not in accordance with the theory of bank intermediaries. This theory states that in order to gain more profit, banks should perform the intermediary function by channeling funds to the public and in return will get the loan principal and interest.

EBT relationship (earnings before tax) to the average size of foreign banks. EBT increase in the year 2012 - 2014 but there is a decrease in the year 2015 - 2017. However, the size has increased the trend from 2012 to 2017. Increase in size actually decreases EBT causing a negative effect.

### Differences Effect NPL, NIM, Non-Interest Income, and LDR against ROA at Domestic and Foreign Banks

The fifth hypothesis states that there are differences in the effect of NPL, NIM, Non-Interest Income, and LDR to ROA between domestic and foreign banks are rejected. The results of this study indicate that changes in NPL, NIM, Non-Interest Income, and LDR values do not affect the difference between domestic and foreign bank ROA. Partial test explains that at domestic banks, the affecting variables are NPL and NIM. Meanwhile, the variables affecting foreign banks are NPL, NIM, and LDR. T-test conducted in this study explains that the independent variables are not different in domestic and foreign banks.

Although domestic banks and foreign banks have different legal entities, different strategies and policies, the results of this study show that there is no difference between domestic and foreign banks. The results of this study can be due to domestic and foreign banks operating in Indonesia have the same provisions regulated by BI. As Regulator in Indonesia, BI stipulates the same requirements that must be obeyed by domestic and foreign banks.

## 5. Conclusion

Test of hypothesis 1a obtained NPL significantly negative impact on ROA at domestic banks, so the greater the credit risk faced by banks will reduce profitability. Test of hypothesis 2a obtained NIM results have a significant positive effect on ROA at domestic banks, so the greater interest earned by banks will increase profitability; Test of hypothesis 3a obtained by Non Interest Income does not affect the ROA at domestic bank, so that the amount of income other than interest obtained by the bank will not increase profitability. Test of hypothesis 4a obtained LDR does not affect the ROA in domestic banks, so the acceptance of bank intermediation activities will not increase profitability. Test of hypothesis 1b obtained NPL results have a significant negative effect on ROA on foreign banks, so the greater the credit risk of the bank will have an impact on the decrease in profitability. Test of hypothesis 2b obtained NIM result have a positive effect on ROA on a foreign bank so that the amount of bank interest income will influence profitability. Test of hypothesis 3b obtained by Non-Interest Income does not affect the ROA at the foreign bank so that the change of income other than bank interest will not have an impact on profitability. Test of hypothesis 4b obtained LDR result has a significant negative effect on the ROA in foreign banks, so the greater the bank through intermediation actually lower the profitability. Size in this study proved as a control variable. Chow-Test concludes that the performance of Domestic Bank has the same performance as the performance of Foreign Bank.

### 5.1 Theoretical Policy Implications

Non-Performing Loan (NPL) has a negative and significant effect. NPLs describe the level of bad credit risks faced by banks. Therefore, the smaller the NPL value the smaller the bank faces the risk of default by the debtor so that bank profitability increases. This research reinforces previous research conducted by Albulescu (2015), M. VLAD & S. VLAD (2014), and (Rahman et al., (2015). Notes Interest Margin (NIM) has a positive and significant effect. In obtaining its operating income from three sources: self-capital, second-party funds (loans from other banks), and third-party funds (funds from the community). NIM represents the interest difference earned by banks from loans disbursed by If the interest income of the bank is greater than the interest issued, it will increase the NIM, which ultimately increases



profitability. Chow-Test shows that there is no difference between domestic banks and foreign banks. This study concludes that the financial performance prediction model domestic banks are the same as the prediction model of the financial performance of foreign banks. EXAMPLE: In this paper, we aimed to explore how the type of bank ownership - local private banks, government-owned banks (public banks) and foreign banks - can affect the relationship lending efficiency of banks, since, different banks have different organizational structure and lending techniques. We hypothesized that private banks will be more efficient in relationship banking than government-owned and foreign banks as a result of their expertise in soft information processing. As a consequence, private banks will consider the soft private information while setting up interest rates, loan maturity, collateral, and credit risk of the SME borrower. We have used a new data set from Bangladesh which was collected from 44 commercial banks.

### 5.2 Policy Implications at Domestic Banks

This research resulted in the analysis that Return On Asset (ROA) at the domestic bank is influenced by the most dominant variable that is NPL with a coefficient value equal to 0,678, then NIM with coefficient value 0,323. NPLs have the greatest and negative impact on ROA on domestic banks. This study explains that the NPL has a negative and significant influence, so bank management needs to select more strictly prospective borrowers, in order to obtain debtor with current credit so as to decrease NPL and ROA

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increase. This aims to enable the bank to reduce the risk of default due to creditors who are unable to pay off the principal loan and the NIM interest has a positive influence on the ROA on domestic banks. NIM has a positive and significant effect, therefore management needs to plan to increase interest income and lower interest expense to the customer.

### 5.3 Policy Implications at Foreign Banks

NIM has a positive and greatest influence on the profitability of foreign banks. NIM has a positive and significant influence on ROA. The bank management needs to focus on interest income and reduce unnecessary interest expense. Bank Indonesia sets a good NIM standard above 2%. An unnecessary increase in interest expense will only reduce the NIM required by Bank Indonesia. This reduction of interest expense can be done by forming a portfolio of fund sources that provide minimal funding costs.

NPLs have a negative and significant effect. The amount is already considered good because Bank Indonesia requires a maximum NPL of 5%. The bank's management needs to maintain the size of the NPL by rigorously selecting and seeking comprehensive information to prospective borrowers thereby reducing information asymmetry, professional documentation system, credit control and supervision, sophisticated use of information systems on management by expectation.

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