Determination of Return on Assets of the Foreign Exchange Banks in Indonesia

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How to Cite: Syamni, G., Rasyimah, Ratnasari, D., & Majid, M. S. A. (2018). Determination of Return on Assets of the Foreign Exchange Banks in Indonesia. *Binus Business Review, 9*(3), 255-260. https://doi.org/10.21512/bbr.v9i3.4872

ABSTRACT

The purpose of this research was to examine the determinants of Return on Assets (ROA) on the foreign exchange banks in Indonesia. The data used were the financial ratios of 27 foreign exchange banks in Indonesia in 2012-2016. The data were gathered from the published financial statements of the Indonesian foreign exchange banks. This research employed a Common Effect Model (CEM) as the most suitable panel regression model to analyze the data using the E-views statistical software. The findings indicate that from 2012 to 2016, the profitability of the exchange banks is largely determined by the Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Operating Efficiency Ratio (OER), and total debt. The findings also imply that apart from maximizing profit, it is important for the banks to abide by the regulations issued by the central bank or the Financial Services Authority in performing the banking operations. Negligence to observe the level of prudential and risk management will not only lead to profit loss, but it will also cause the failure of the banks.

Keywords: return on assets, profitability, foreign exchange banks, financial performance

INTRODUCTION

Profitability is one of the essential goals to be achieved by the company in conducting operational or investment activities over a certain period. It also applies to the banking industry. The presence of banks in a country will enhance profitability in other companies (Zemzem, Guesmi, & Ftouhi, 2017). One of the banking groups in Indonesia is a foreign exchange bank. The foreign exchange banks can perform exchange operations in a country. The Financial Services Authority (2017) stated that the performance condition of the foreign exchange banks was poor. However, their Return on Assets (ROA) increased to 2,58% in 2016. The Capital Adequacy Ratio (CAR) of the banks was 21,13%, but their Loan to Deposit Ratio (LDR) was relatively high amounting to 86,79% from 2012 to 2016. Additionally, the debt performance

was still highly risky with a value of 2,25%, and their operation was up to 99,17%. It was unaccompanied by credit distribution with 7,87% of decreasing share.

There have been researchers who explain the factors affecting the profitability of a banking company. Previous researches on the France foreign and domestic banks show a significant difference in their profits, in which during the crisis, the foreign banks have mixed effects on the performance of the domestic banks (Bouzgarrou, Jouida, & Louhichi, 2018). Moreover, Djalilov and Piesse (2016) showed several transition countries of Eastern Europe had different results with highly competitive rates of profit. They suggested that the credit risk impacted profitability and government assistance reduced profitability positively and negatively. However, at the same time, it caused the banking industry to become more profitable. Petria, Capraru, and Ihnatov

(2015) studied the determinants of banks' profitability in 27 European countries. They found that the bank profitability was mainly determined by liquidity and credit risks, efficiency level, and the economic growth of the country.

Other determinants that need to be considered in improving the profitability of banking companies are the optimal debt position. Abel (2018) revealed that the capability of the banks in managing debts had resulted in greater profitability due to the management of optimal debt ratio of the banks. In addition, the research on 105 Islamic and conventional banks in the Organization of Islamic Countries (OIC) conducted by Sun, Mohamad, and Ariff (2017) found that the ratio of capital adequacy and the quality of management and diversification were the crucial determinants of the profitability of both Islamic and conventional banks.

Similarly, Olson and Zoubi (2017) studied the determinants of profitability of both Islamic and commercial banks in Middle Eastern, African, and South Asian countries during the global crisis in 2008. They documented different findings. During the crisis period, the performance of Islamic banks showed an improvement, but it declined in 2009 comparing to their conventional counterparts in generating ROA and return on equity.

Then, Robin, Salim, and Bloch (2018) found that financial reforms in Bangladesh had no effect on the ROA and return on equity. However, it caused the net interest margin of the banks to increase. CAR and asset quality were found to be the two main factors that caused an increase in the profitability of the banking industry in Bangladesh. Moreover, Othman, Abdul-Majid, and Abdul-Rahman (2017) suggested that banks with low capital should have joint financing with large capital banks to enhance their performances.

In Indonesia, some previous researchers on the bank profitability documented mixed findings. For example, the research on the Bank Perkreditan Rakyat (People's Credit Bank) in Bali by Suardana, Astawa, and Martini (2018) found that the CAR, LDR, and net interest margin had a positive effect on the ROA. Meanwhile, the Operational Efficiency Ratio (OER) had a negative effect on the ROA of the banks. On the contrary, Setiani, Gagah, and Fathoni (2018) found that, unlike the OER that had significant effect on the profitability of the Islamic commercial banks in Indonesia, the other financial ratios such as the CAR, financing total debt, and non performing financing had insignificant effect on the ROA of the banks.

Sutrisno (2018) found different financial ratios affecting the profitability of the Islamic and conventional Bank Perkreditan Rakyat in different ways. Non-Performing Loan (NPL), CAR, LDR, and OER affected the profitability. Similarly, Hartati (2017) discovered different effects of the CAR, LDR, NPL, and OER on the performance of the foreign and domestic banks. Finally, Farihah (2015) agreed that the total debt affected the ROA of the companies in the LQ45 index in Indonesia.

At this juncture, the previous empirical findings on the relationships between the financial ratios and the profitability of banks have been mixed and inconsistent for commercial, Islamic banking, or the Bank Perkreditan Rakyat in Indonesia. None of those researches investigate the determinants of the profitability of the foreign exchange banks in Indonesia. Thus, it is important to identify further how the financial ratios are affecting the foreign exchange banks in Indonesia. The researchers want to study whether the financial ratios have different effects on the foreign exchange banks as documented by the previous studies for commercial banks, Islamic banks, and Bank Perkreditan Rakyat Indonesia. Moreover, this research intends to empirically explore the determinants of the ROA of the foreign exchange banks in Indonesia.

Unlike previous researches, this research incorporates more determinants of the bank profitability, focuses on the foreign banks in Indonesia, utilizes the panel regression model, and adopts a more recent data throughout 2012-2016. Taking all these into this research, it is expected that the findings can provide robust empirical evidence as the basis to enhance the profitability of the banks in Indonesia. Additionally, the implications are also expected to be beneficial for both listed and unlisted foreign exchange banks in realizing their targeted profitability level.

METHODS

The data used are derived from published financial statements of the Indonesian foreign exchange banks during 2012-2016. The report of the Financial Services Authority indicates that from 35 banks, only 27 of them have published complete financial statements from 2012 to 2016. This research applies a panel regression method comprising Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). In addition, this research adds dummy variables for the listed banks (value = 1) and the unlisted banks (value = 0) in the Indonesian Stock Exchange.

Next, the best panel regression model is selected using the Chow test and Hausman test. The panel regression model estimated using the EViews statistical software is as follows:

$$ROA_{it} = \alpha_{it} + \beta_1 CAR_{it} + \beta_2 LDR_{it} + \beta_3 NPL_{it} + \beta_4 OER_{it} + \beta_5 DEBT_{it} + \beta_6 Dummy + \varepsilon_{it} \tag{1}$$

ROA_{it} is the profit rate of the foreign exchange banks proxied by ROA at observation period t. Then, α is a constant term, $\beta_1 - \beta_5$ is the estimated regression coefficient, CAR_{it} is the CAR at the observation period t. Moreover, LDR_{it} is the given ratio of credit compared to the third party funds at the observation period t, NPL_{it} is the credit risk of the banks at the observation period t, OER_{it} is the operating efficiency ratio at the observation period t, and DEBT is the total debt at

the period t. Next, dummy is the category of 1 for the listed banks, while 0 is the category of unlisted banks registered in the Indonesian Stock Exchange during the observation period t. Finally, i is the individual foreign bank, and ε is an error term.

RESULTS AND DISCUSSIONS

The regression result from CEM, FEM, REM, Chow test, and Hausman test is presented in Table 1. After testing the results of regression and selecting the best model, the Chow test results show that the CEM is a better model to be used as compared to FEM. It is indicated by the result of Chow test with a value of 6 and significant at the greater level than 5%. This result shows that it is no longer necessary to carry out the Hausman test to select between the FEM and REM. Even if the Hausman test is performed, it will show a value of 6 with a greater significance level than 5% (Baltagi, Bresson, & Pirotte, 2003; Majid & Maulana, 2012; Zariyawati, Annuar, & Pui-San, 2016). Thus, the best model to examine the determinants of the profitability of the foreign banks is the CEM.

Table 1 The Results of the Determinants of ROA of the Foreign Banks in Indonesia in 2012-2016

Variables	CEM	FEM	REM
Constant	-2,747***	-2,747	-2,867***
CAR	0,238***	0,238***	7,792***
LDR	0,034***	0,034***	2,770***
NPL	0,008	0,008	0,329
OER	-0,093***	-0,093***	-6,997***
DEBT	-0,299***	-0,299***	-3,578***
Dummy	0,041	0,041	0,924
R^2	0,125	0,125	0,125
F-Statistic	20,928***	10,392***	20,928***
Chow test = 6; Hausman test = 6			

Note: *** significance level 1%, ** significance level 5%.

As reported in Table 1, only four variables are found to affect the ROA of the foreign exchange banks in Indonesia in 2012-2016. These determinants include CAR, LDR, OER, and total debt. These variables affect the ROA of the banks at least 5% of significance level. The empirical findings can be further presented in the form of panel regression equations as follows:

$$ROA_{it} = -2,747 + 0,238CAR_{it} + 0,034LDR_{it} + 0,008NPL_{it} - 0,093OER_{it} - 0,299DEBT_{it} + 0,041Dummy_{it} \quad (2)$$

Based on these findings, the following observations can be made. First, the estimated constant value is -2,747. It means that if the coefficients of CAR, LDR, non-performing loan, OER, and total debt remain unchanged, the estimated intercept is -2,747. Second, the estimated coefficient of CAR (0,238) indicates that if the CAR increases by 1%, it will lead to an increase in the ROA by 0,238%.

Third, the estimated coefficient of LDR has a value of 0,034. It means if the LDR rises by 1%, it will cause the ROA to also increase by 0,034%. Fourth, the estimated coefficient of NPL amounted to 0,008. It indicates that if the NPL increase by 1%, it will increase the ROA by 0,008%. Fifth, the operating expense estimated coefficient of OER (0,093) implies that if the operational cost is increased by 1%, it will lead the ROA to decline by 0,093%.

Sixth, the total debt has an estimated coefficient of -0,299. It means that any increase in debt by 1% will reduce the ROA by 0,299%. Last, the estimated dummy coefficient of 0,041 shows no difference between the foreign exchange banks that are managed by government and private.

Furthermore, the estimated value of the coefficient of determination (R^2) of 0,125 shows that the ability of all independent variables in explaining their effects on the dependent variable is relatively low. It is only 12,55%. This provides an understanding that the ROA of the foreign exchange banks in Indonesia are less likely to be caused by the variations in the six independent variables investigated. Thus, many other variables are affecting the ROA of the foreign exchange banking industry in Indonesia like macroeconomic variables namely interest rates, inflation, economic growth, exchange rates, and others.

The first variable that affects ROA is CAR. The CAR poses a positive effect on the ROA of foreign exchange in Indonesia. The result of the positive influence indicates that banks have sufficient capital to conduct trade transactions either by using foreign exchange or not. Foreign exchange banks are generally known as banks that are allowed to conduct foreign exchange transactions with parties in need or interest. Because the bank is allowed to transact with foreign currency, it is required to save a sufficient amount of foreign currency. Furthermore, the forex or unused exchange is in the intermediary process by the increases the volatility of the fluctuating dollar price difference.

This finding is in accordance with Petria, Capraru, and Ihnatov (2015); Sun, Mohamad, and Ariff (2017); Robin, Salim, and Bloch (2018); Suardana, Astawa, and Martini (2018); and Hamid, Majid, and Khairunnisah (2017). All the researchers found that the asset quality significantly affected the firm's profitability. The results of this research indicate that adequate capital for banking is essential for getting community confidence. A large capital bank will meet the demands of the community effortlessly, in particular, the demand for credit or credit distribution. The distribution serves as the foundation of banking to achieve profitability by utilizing services provided to their customers. However, it is necessary for the banking institution to pay close attention to its

prudential and risk management. Without having proper risk management, it can cause the banks to face the difficulty in handling the foreign exchange exposures.

The second variable that affects the ROA of the foreign exchange banks in Indonesia significantly and positively is LDR. The LDR is a ratio that explains the ability of a banking company to meet its short-term liabilities or banking liquidity. In other words, foreign exchange banks in Indonesia in the short term period have been able to maintain their stability by using only third-party funds such as demand deposits, savings deposits, deposits, and others when their bills are due. This finding is consistent with the previous empirical findings by Ismail, Majid, and Rahim (2013), Majid, Musnadi, and Putra (2014), Petria, Capraru, and Ihnatov (2015), and Suardana, Astawa, and Martini (2018). They found that the LDR affected ROA positively. This indicates that the relevance of the high ROA of the banks is not related to third-party funds.

Generally, banking as an intermediary function solicits funds savings, deposits, and current accounts to customers or community to trust their banking institutions. When the community has trusted the banks and made savings, deposits, and current accounts with the banks, the banks can perform its liquidity operations well. In addition, the banks can also guarantee their funds if the customers retrieve their funds. This relationship of mutual trust allows banks to accommodate more funds and applies to other intermediary functions with the provision of certain services. Eventually, it will lead to better banks profitability.

The third variable affecting ROA is OER. However, the effect is negative. OER is related to the costs incurred by banks (foreign exchange banks) in carrying out its operational activities to achieve profitability (ROA). ROA is expected to be more efficient to achieve the purpose. It is important for banks, especially foreign exchange banks, to be selective and to make priorities in spending costs. Since unnecessary expense will lower the ROA of the foreign exchange banks. This finding is consistent with Omar, Majid, and Rulindo (2007), Majid, Musnadi, and Putra (2014), Petria, Capraru, and Ihnatov (2015), Sun, Mohamad, and Ariff (2017), and Suardana, Astawa, and Martini (2018). They found that banks management efficiency had caused an increase in the profitability especially ROA of the banks. The results of this research point out that in achieving bank profitability, it requires unavoidable costs. Thus, it is necessary to consider incurred costs such as operational costs, which needs efficiency. The efficiency will lead to profitability. Otherwise, it will be disrupted.

The fourth variable that negatively affects ROA is credit share in the ratio of the banks. This total debt explains that extending credit extensively leads to an increase in return on banking assets. However, the results of this research prove the opposite result which is negative. This shows inconsistency with the previous opinion stating that vast domination of share of credit will provide greater benefits. This finding is in accordance with the finding of Farihah (2015) who documented that the share of credit reduced banking profitability. This result suggests that in extending the credit, banks should select priority sectors. This further implies that a very broad market share should be avoided. Diversity or extent of disbursed credit share is likely to bring a larger default. In turns, it will lead to a decline in the profitability of the banks.

In Table 1, the researchers also find insignificant variables affecting the ROA, which is the NPL. NPL variable explains the level of ability of the banks in providing credit distribution and possible risks gained on distributed loans to the public. Indeed, this finding shows that NPL does not affect the ROA of the foreign exchange banks in Indonesia. This finding is similar to Setiani, Gagah, and Fathoni (2018) and Hamid, Majid, and Khairunnisah (2017). In their research, the NPL had no significant effect on the profitability of banks. It can be explained that because the NPL data in the sample period from 2012-2016 is still in a controlled range. In 2016, it slightly increased but the banks' profitability remained the same.

As reported in Table 1, the dummy variable is used to identify the different effect of listed (value = 1) and unlisted (value = 0) foreign exchange banks in the stock exchange of Indonesia on the ROA in banks. It shows an insignificant effect. Even though both are insignificant, they provide a different explanation. The finding of an insignificant dummy variable affecting the profitability of the banks indicates that the group of foreign exchange banking companies. Both listed and unlisted foreign exchange banks in the Indonesian Stock Exchange have no difference in their levels of profitability. The two types of foreign exchange banks are equally aimed to improve profitability by considering the elements or indicators that cause a decline in their profitability or ROA. It is by adhering to principles of prudence banking management and paying close attention to all banking health indicators regulated by the central bank such as Bank Indonesia and the Financial Services Authority.

Last, the findings of this research contribute to the knowledge particularly in the financial management by enriching the existing empirical findings on the determinants of ROA of foreign banks from the Indonesian perspective. CAR, LDR, total debt, and OER are documented to be the crucial determinants of the profitability of foreign banks. As for the regulators, they should provide the conducive environment to support the banking operations to maximize profits. For investors, to gain profitable investment by buying stocks of foreign banks, they should select the banks with higher levels of CAR and LDR and lower levels of total debt and OER. As for the society, the findings of this research imply that without implementing the prudential risk management as regulated by the banking regulator, it will create the losses to the banks. Observing the regulation is a must for the banks if they want to gain a higher level of profitability.

CONCLUSIONS

This research concludes that profitability is the most important thing in managing a company, particularly a banking institution. However, it is crucial not to overlook the other indicators of banks simply because of acquiring profitability. In this research, it can also be seen that the CAR, LDR, OER, and total debt affect the performance of ROA of the foreign exchange banks in Indonesia. In general, the foreign exchange banks in Indonesia have been in good working condition.

Nevertheless, in its operations in listed or unlisted foreign exchange banks in the Indonesian Stock Exchange, people should always maintain the principles of better and prudent risk management. This means that the foreign exchange banks should not be lulled by only pursuing high profitability but forgetting to control environmental changes, while still providing extensive credit. This condition is dangerous for profitability and banking in the future.

This research has some limitations as it only uses internal factors affecting the ROA of the banks (financial ratios). Moreover, this research only focuses on foreign exchange banks. For future research, non-foreign exchange banks or other groups of banks based on core capital and the systemic bank should be investigated as well. In terms of investigated variables, external factors that may affect the ROA of the banks, particularly macroeconomic variables are suggested to be included in the future study.

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