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**FAKTOR-FAKTOR YANG MEMPENGARUHI PROFITABILITAS BANK KOMERSIAL:  
SEBUAH STUDI KASUS PADA BANK-BANK KOMERSIAL INDONESIA***PROFITABILITY DETERMINANTS OF COMMERCIAL BANKS: A CASE STUDY OF INDONESIAN  
COMMERCIAL BANKS*

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**Abstrak:** Industri perbankan Indonesia memainkan peran kritis dalam keadaan ekonomi nasional. Indonesia bergantung pada perbankan sebagai perantara keuangan. Sejak 2010, total aset dan distribusi kredit bank-bank komersial bertumbuh secara signifikan. Perbankan melakukan ekspansi untuk mencapai lebih banyak nasabah. Ekspansi tersebut membuat bank-bank komersial beroperasi dengan biaya tinggi untuk mengimbangi proses yang terjadi. Masalah lainnya muncul saat kontraksi ekonomi pada tahun 2012 mempengaruhi pertumbuhan kredit dan kredit bermasalah perbankan mulai naik pada tahun 2014. Profitabilitas bank komersial dengan ROA sebagai proxy yang sejak 2008 berada pada tren positif, menurun pada 2013 dan berlanjut pada tahun-tahun berikutnya. Penelitian ini bertujuan untuk memeriksa faktor-faktor yang mempengaruhi profitabilitas bank-bank komersial di Indonesia pada periode 2010-2015. Regresi data panel dengan fixed effect dan 71 komersial bank sebagai sampel digunakan dalam analisa. Penelitian ini menemukan profitabilitas komersial bank yang diamati melalui ROA menurun selama beberapa tahun sejak 2013. Biaya operasi yang tinggi karena kondisi ekspansi industri perbankan dan meningkatnya kredit bermasalah menyebabkan inefisiensi dan penurunan pada ROA. Marjin bunga bersih secara positif mempengaruhi ROA, sementara rasio modal terhadap total aset menunjukkan hubungan yang negatif. Total asset dan pendapatan diversifikasi tidak secara signifikan mempengaruhi profitabilitas.

**Kata Kunci:** profitabilitas, bank komersial, roa (Return on Asset), efisiensi

**Abstract:** Indonesian banking industry plays a critical role in the country economic condition. The country depends on banks as financial intermediation. Starting from 2010, commercial banks total asset and credit distribution grew significantly. The banks are expanding in order to reach more customer. The expansion makes commercial banks to operate with high cost to keep up with the development. Another problem arises as the economic contraction in 2012 affects credit growth and banks' non-performing loan began to rise in 2014. Commercial banks' profitability with ROA as the proxy, has been in positive trends since 2008 declined in 2013 and continues for the next years. This research aims to examine the profitability determinants of Indonesian commercial banks during the 2010-2015 period. Sample of 71 commercial banks and panel data regression with fixed effect is used in the analysis. This study finds commercial banks' profitability as seen by ROA has been declining for some years since 2013. The high operating cost due to the expansion state and the increase of nonperforming loan cause inefficiency and decline in ROA. Net interest margin affects ROA positively while capital to total asset ratio shows a negative relationship. Total asset and diversification income insignificantly affect profitability.

**Keywords:** profitability, commercial banks, roa (Return on Asset), efficiency

**INTRODUCTION****Research Background**

Banking is an important sector which has crucial role in the economy of a country. Banks facilitate economic operations by providing the function as financial intermediary or in other words transferring funds from people whose have excess of money to the parties whom in need of it. By converting deposits into productive investments, banking sector is supporting the economy and it is expected that an efficient banking industry will stimulate economic growth. Banking is also a tool of control to the economy of a country. Central bank can control the money supply, inflation, to help the development of the economy and maintain stability through monetary policy. Furthermore, if a financial system is efficient, it should show improvement in profitability, increasing the volume of funds flowing from saver to borrowers, and better quality services for consumers (Hoffman, 2011).

By 2008 the world was hit by crisis. The crisis damages the world economy severely and causing people to loss their job, home, and money, makes investments became worthless, and collapsing huge financial institution. The banking Industry is considered a significant influencer to this situation. The crisis is an evidence of how crucial the banking sector is for the economy. The world was shocked by this event, countries immediately try to learn from the mistake by increasing their supervision, control and regulation for banks, and the banks react by tightening their policy and become more cautious in their operation especially in approving loans and managing risks.

In current condition, Indonesian banks face the contraction of the economy. The Indonesian economy has been in downturn since 2012 and until 2015 the economic growth only reach 4.79% (Source: World Bank). In accordance with the economic growth, credit growth in commercial banks also decreases from reaching 24.59% in 2011, until only 10.40% in 2015. What made the condition worse is as the economic and credit growth increases, the non-performing loan in commercial banks has been in upward trend from 2013. OJK record the non-performing loan at 1.77% in 2013, increased to 2.49% in 2015 (Source: OJK).

Total credit distributed by commercial banks reached Rp. 4,092 trillion in 2015, increased by 10% from the year before (Data from OJK). The large amount of money distributed through loans proves the country dependency of its banking sector. In 2015, Indonesia's banking sector contributed 2.55% to the total GDP (Source: GBG Indonesia). There are 145 commercial banks in Indonesia operated in 2001 and by 2015 it has decreased to 118 (Data from BI and OJK). Performance of a bank is one of the factors that determine the bank operation and its survival. Bank with low performance level will not sustain in highly competitive and regulated industry. Performance of a company can be observed from the result it can produce or in this case the yield that bank produced by running the business. The more yield a bank can earn the higher its performance level, thus making bank's ability to create profit as one of the indicators to determine its performance. Profitability can be used as an indicator of bank's efficiency, ability attract investor and satisfy its shareholders. Bank will need to be profitable in order to endure the long run. The profitability of commercial banks in Indonesia is in positive trend as it is increasing from 2006-2015 (Table 1).

In 2005 commercial banks possessed Rp. 1,469,827 billion of total asset and by 2015, it increased to Rp. 6,132,583 billion (Data from BI and OJK), almost 4 times of increase rate in 10 years. As of more capital is injected to the industry and total asset increasing, profit is also expected to increase accordingly. Government regulation and commercial bank industry characteristics require banks to operate in large scale so that it may cope with risks involved in the business and perform better fund distribution. Banks are using the economies of scale in its large operation to increase efficiency and boosting performance. But this may not always happen. As it reaches certain level, banks may begin experiencing diseconomies of scale or the increasing in asset is no longer matches with the increasing in profit.

The data in the table indicates Profit Before Tax, Total Asset and Equity have been increasing accordingly since 2006. This proves the statement of profitable bank will do well in the long run by keeping profit and also indicates that profitable bank will lead to the development of the industry. The equity of banks increase along with profit, thus supporting the statement of profitable bank will attract more investors. Conversely the return on asset of banks have been in downturn since 2013, by this period the percentage of increase in profit is no longer higher than the percentage of increase in total asset and equity. In 2015, ROA decreased by 7% from the year before. These could be signs indicating diseconomies of scale is currently take place in Indonesian banking industry.

**Table 1. Indonesian Banking Industry Financial Position**

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ROA	2.55	2.64	2.78	2.33	2.6	2.86	3.03	3.11	3.08	2.85	2.32
Profit before tax	33,858	40,555	49,859	48,158	61,784	75,157	95,555	117,103	134,571	142,769	132,601
Total Assets	1,469,827	1,693,850	1,986,501	2,310,557	2,534,106	3,008,853	3,652,832	4,262,587	4,954,467	5,615,150	6,132,583
Equity	144,470	183,391	211,176	238,270	268,601	-	-	496,629	626,888	754,174	914,657
ROA Growth (%)	-	3.53	5.30	-16.19	11.59	10.00	5.94	2.64	-0.96	-7.47	-18.60
Profit Growth (%)	-	19.78	22.94	-3.41	28.29	21.64	27.14	22.55	14.92	6.09	-7.12
Total Assets Growth (%)	-	15.24	17.28	16.31	9.68	18.73	21.40	16.69	16.23	13.34	9.21
Equity Growth (%)	-	26.94	15.15	12.83	12.73	-	-	-	26.23	20.30	21.28

Source: OJK, Statistik Perbankan Indonesia Vol: 14 No. 1, Desember 2015 (Processed)

Considering the current condition in Indonesian banking industry, an investigation regarding the determinants of commercial banks' profitability and the diseconomies of scale indication is needed to be conduct. This research aims to explain commercial banks' profitability through banking internal variables, how are the influences of these variables to commercial banks' profitability and to come up with solution to boost their performance in creating profit. The object of this research is commercial banks in Indonesia from 2010-2015 period. Capital, Nonperforming Loan, Bank Size, Diversification and Net Interest Margin is used in order to explain Profitability as measured by ROA.

### Research Objectives

The purpose of this research is to find out and analyze the influence of Capital, Nonperforming Loan, Bank Size, Diversification, and Net Interest Margin towards Return on Asset of Indonesian commercial banks.

## THEORITICAL FRAMEWORK

### Bank and Commercial Bank

Undang-undang RI no. 10, 1998, defines bank as "Badan usaha yang menghimpun dana dari masyarakat dalam bentuk simpanan dan menyalurkannya kepada masyarakat dalam bentuk kredit dan atau bentukbentuk lainnya dalam rangka meningkatkan taraf hidup rakyat banyak". According to Rose and Hudgins (2010), bank is a financial institution whose primary activity is to act as a payment agent for customers and to borrow and lend money. It is an institution for receiving, keeping, and lending money.

### Financial Statement

Financial Accounting Standards Board (FASB), Statement of Financial Accounting Concept No.1 1978 states that financial reporting should provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions. The information should be comprehensible to those who have a reasonable understanding of business and economic activities and are willing to study the information with reasonable diligence.

### Return on Asset

Bank Indonesia and OJK define return on asset (ROA) is the ratio between profit before tax with the average asset in a period. ROA ratio can be used as financial health measurement. Return on asset determines the amount of net income produced on a firm's assets by relating net income to total assets (Keown, Martin, Petty, and Scott, 2005) This ratio can reflect the efficiency of the banks through its ability to create profit from the use of asset it possessed. In measuring banks health, BI set the standard of ROA to be more than 1.5%. The higher ROA ratio, the better the bank's profitability and its efficiency in term of asset management.

**Nonperforming Loan**

Bank Indonesia and OJK oversees commercial banks performance through its vital ratios. One important ratio is nonperforming loan. Bank Indonesia has set 5 types of credit measured by its quality which are; not impaired, in special mention, substandard, doubtful, and loss. The last three criteria are considered nonperforming loan.

**Capital**

Capital variable is total equity to total asset ratio. Banks' capital structure is made up shareholders' funds, reserves and retained profits. It is expected that higher capital will increase profitability considering that higher capital assets ratio would be able to assume higher risk. High capital assets ratio provides strong buffer for expanding credits and anticipate future risk (Sastrowuito and Suzuki, 2011).

**Bank Size**

Bank size is represented by the total asset a bank currently possessed. Bank's total asset comes from total equity and total liabilities. Total equity is the owner capital, while total liabilities is other parties fund it currently holds. The largest component of banks' total liabilities is the third party fund or the customers' deposit account. Large bank size might result in scale economies with reduced costs, or scope economies that result in loan and product diversification, thus providing access to markets that a small bank cannot entry (Kosmidou, Tanna, and Pasiouras, 2012).

**Diversification**

Diversification ratio is the banks' non-interest operational income divided by the total operational income. Financial institutions are intense in conducting diversification strategy. Through fee-based business, trading business, or insurance business, banks are able to gain non-interest revenue from this strategy (Agustini and Viverita, 2009).

**Net Interest Margin**

Net interest margin ratio is used to measure bank's ability to manage its productive asset to earn net interest income. Net interest margin is the cost of financial intermediation, and is defined as net interest income divided by average earning assets of the bank (Raharjo, Hakim, Manurung, and Maulana, 2014). Bank Indonesia set the minimum standard of 2% NIM ratio for commercial banks to be categorized healthy bank.

**Previous Research**

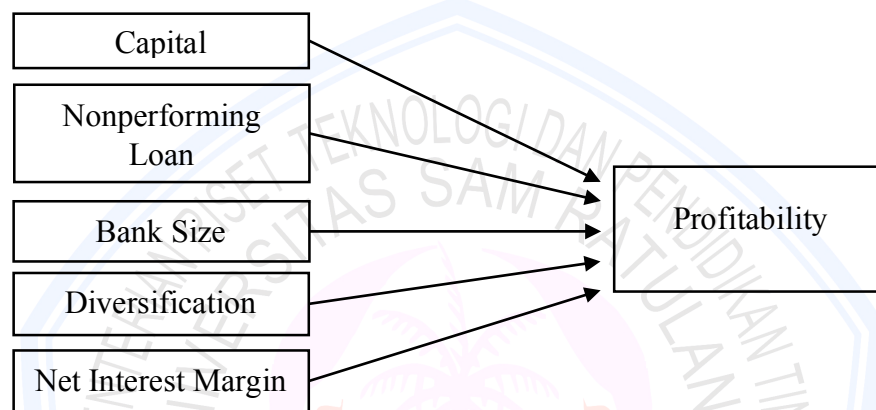
Most early research into the determinants of the performance of banks was based on the structure-conduct performance (SCP) paradigm, and focused on the interpretation of a positive empirical relationship between concentration (Goddard, Molyneux and Wilson, 2004). On their research, Goddard, Molyneux and Wilson (2004) study about bank's profitability of European banks. The result of the research shows that there is no significant relation of bank size with profitability in the pooled estimation model, however in dynamic panel and cross sectional suggest conversely. OBS shows a significantly positive and negative sign in some of the countries. Lastly, CAR shows a positive and significant relation to profitability for all countries included.

Hoffmann (2011) conducted a research on profitability determinants of America's banking industry. The research uses ROE as the proxy for profitability and 12 independent variables of internal and external determinants. Result of the research shows that Herfindhal-Hirschman Index as the indicator of concentration is neutral and not significantly affect profitability. Capital ratio, total loans and leases, discount rate, investment and security, share deposit, and the size of the banks show a negative and significant relation to profitability. Conversely deposit, interest expense, bank risk, Nasdaq Bank Index, and the reputation of the bank show a significant and positive relation. Another research on America's banks' profitability also conducted by Liu (2013). ROA is used as the proxy of profitability. 7 variables are included as internal determinants and on external determinants 4 variables are used. The research found a non-linear relationship between bank size and profitability. Investment and security, Nasdaq Banking Index and discount rate affect profitability positively, while deposit and concentration affect negatively. Loan, goodwill and interest expense is found as insignificant determinants.

There are also some researches that focus on Indonesia's banking sector. Among those are Satrosuwito and Suzuki (2011). The result is bank and industry specific which are expense management, capitalization, loan

intensity and concentration significantly affect bank's profitability. While inflation as macroeconomic factor and size is found to be insignificant determinants. Agustini and Viverita (2009) use 10 internal-external variables of bank's profitability determinants. Conversely from Satrosuwito result, bank size has positive and significant relationship to ROA. Equity ratio also shows similar result to ROA while diversification or bank's business model affect negatively and significantly. Tax is found to be insignificant to bank's profitability. A newer research on Go-Public bank in Indonesia profitability is conducted by Antoni and Nasri (2015). The research also uses ROA as proxy for profitability along with ROE. From the internal determinants, credit risk, diversification and operation efficiency affect negatively to profitability. Capital adequacy ratio shows insignificant result while credit growth shows a significant and positive impact. Inflation shows a negative relation to ROA but positive to ROE both in insignificant ways. The other external determinants are GDP and market structure also result insignificantly in affecting profitability. Tulung *et al* (2012) and Tulung and Ramdani (2016) states ROA, ROE and NIM has significant effect with Bank performance

### Conceptual Framework



**Figure 1. Conceptual Framework**

*Source: Data Processed, 2017*

### RESEARCH METHOD

#### Type of Research

This research is a quantitative research. Explanatory research is used here in order to analyze the causal relationship between variables. By analyzing the influence of the explanatory variables to the dependent variable we can make conclusion regarding the Indonesian commercial banks condition.

#### Place and Time of Research

The study was conducted in Indonesia from January – May 2017.

#### Population and Sample

The population of this research is the commercial banks in Indonesia and 71 commercial banks are included in the sample.

#### Data Collection Method

This research is using secondary data as the main sources. The secondary data is being collected from bank's annual report (from bank's websites and BEI), Bank of Indonesia, and OJK.

#### Variables and Operational Definition

**Table 2. Variables and Operational Definition**

No	Dependent Variables	Proxy	Measurement	Source
1.	Profitability	ROA Ratio	$\frac{\text{Income Before Tax}}{\text{Average Total Assets}} \times 100\%$	Bank Annual Report

Source: Data Processed, 2017

**Table 3. Variables and Operational Definition (Continue)**

No	Independent Variables	Proxy	Measurement	Source
1.	Capital	Equity to Total Asset Ratio	$\frac{\text{Total Equity}}{\text{Total Assets}} \times 100\%$	Bank Annual Report (Processed)
2.	Nonperforming Loan	NPL	$\frac{\text{Nonperforming Loan}}{\text{Total Loan}} \times 100\%$	Bank Annual Report
3.	Bank Size	Total Assets	logarithm of Total Assets	Bank Annual Report (Processed)
4.	Diversification	Non-Interest Operational Income Ratio	$\frac{\text{Operational Income Without Interest}}{\text{Total Operational Income}} \times 100\%$	Bank Annual Report (Processed)
5.	Net Interest Margin	Net Interest Margin Ratio	$\frac{\text{Interest Income} - \text{Interest Expense}}{\text{Earning Asset}}$	Bank Annual Report

Source: Data Processed, 2017

### Analysis Method

Panel Data Regression model for this research:

$$ROA_{it} = \alpha + \beta_1 \text{Capital}_{it} + \beta_2 \text{NPL}_{it} + \beta_3 \text{BankSize}_{it} + \beta_4 \text{Diversification}_{it} + \beta_5 \text{NIM}_{it} + \mu_i + \varepsilon_{it}$$

## RESULT AND DISCUSSION

### Descriptive Statistics

**Table 4. Descriptive Statistics**

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
					Statistic	Std. Error		
ROA	426	15.19	-7.75	7.44	1.9819	0.08669	1.78927	3.201
NPL	418	12.28	0.00	12.12	2.1657	0.09180	1.87677	3.522
LOGTA	426	3.84	11.12	14.96	13.0340	0.03550	0.73261	0.537
CAPITAL	426	83.52	5.34	88.86	13.3584	0.31792	6.56178	43.057
DIVERSIFICATION	426	62.85	0.00	62.85	8.5566	0.34056	7.02912	49.408
NIM	426	17.80	0.24	18.04	6.2184	0.12300	2.53863	6.445

Source: Data Processed, 2017

Descriptive statistics explains the data characteristics used in this research. There are 426 total observations except for NPL which only 418 observations. The ROA of Indonesian commercial banks in the sample on average is at 1.98% with 1.79 standard deviation.

### Partial Correlations

**Table 5. Partial Correlations**

	ROA	NPL	LOGTA	CAPITAL	DIVERSIFICATION	NIM
ROA	1	-0.304**	0.204**	-0.028	0.149**	0.621**
NPL	-0.304**	1	0.066	-0.118*	0.000	-0.112*
LOGTA	0.204**	0.066	1	-0.322**	0.455**	-0.049
CAPITAL	-0.028	-0.118*	-0.322**	1	0.002	0.042
DIVERSIFICATION	0.149**	0.000	0.455**	0.002	1	-0.046
NIM	0.621**	-0.112*	-0.049	0.042	-0.046	1

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

Source: Data Processed, 2017

Partial correlations table shows the correlation value among all of the variables including the dependent variable. The correlation value is useful to explain if endogeneity exist. Coefficient value which is too high may indicates endogeneity occurred in the model. Based from the result we can conclude that there is no endogeneity as all of the coefficients value are below 0.700 level.

### Panel Data Regression Fixed Effect Least Square Dummy Variable (LSDV)

**Table 6. Analysis Result**

Parameter	Estimate/Coefficient	Std. Error	Df	t	Sig.
Intercept	0.906803	3.505205	418	0.259	0.796
NPL	-0.293718	0.032347	418	-9.080	0.000
LOGTA	-0.045023	0.264385	418	-0.170	0.865
CAPITAL	-0.025412	0.009214	418	-2.758	0.006
DIVERSIFICATION	0.021124	0.011028	418	1.916	0.056
NIM	0.388374	0.049498	418	7.846	0.000
R	9.00		R square	8.10	

Source: Data Processed, 2017

Based from the analysis result table, an equation can be written as:

$$\text{ROA}(\%) = 0.906803 - 0.293718\text{NPL} - 0.045023\text{BankSize} - 0.025412\text{Capital} \\ + 0.021124\text{Diversification} + 0.388374\text{NIM} + \mu i$$

### Discussion

This research investigates banks financial performance, but in order to achieve it bank external environment must also be explored so the internal variables would be better explained. The relation between external variables will be explained descriptively based on available data.

Indonesian banking industry performance depends on the Indonesian economic condition. When the economy grows, it means that household are consuming more and firms also producing more products. When firms are producing more, it means that they are expanding. Some of the firms may be at under capacity state so there will be no need to expand as they can still produce more by utilizing maximum capacity therefore increasing sales. But many other may have reached full capacity when the growth happen. These type of firms may try to expand their operation by making more investment to increase production. Firms will need fund and

bank is a favorable choice to acquire fund. Commercial banks are the largest distributor of credit, by 2015 it provided Rp. 4,092 trillion in credit (Source: OJK) and control most of the financial sector total asset. So it is likely the changes that occur in the economy will have effect to banks' performance.

In 2010, Indonesian economy has experienced significant growth. By that time and the next two years, GDP growth is above 6% (Source: World Bank). These periods were the time of expansion for firms as their production rises. Firms invest to increase capacity, the investment can come from equity or loan, specifically bank loan as firm source of fund. In accordance with the economic growth, bank's credit also grew significantly. Commercial banks credit grew above 22% from 2010 to 2012. The positive impact of economic growth also affects banks in source of fund. Third party fund increases by 18.5 %, 19 %, and 15.8 % consecutively in 2010-2012. Banks become efficient in managing third party fund, for the increase in deposit are directly distributed to credit. Cost of fund effect in increasing liability is countered by interest income in loan. Banks are in prosperous time, as they are expanding, the demand for their product also increases.

The growth from three consecutive years began to stop and contraction of the economy took place in 2013. GDP growth comes down to 5.5 % from 6 % the year earlier. This contraction keeps going on for another 2 years and reaches 4.8 % in 2015, the lowest level of economic growth in 6 years. This condition affects commercial banks performance. Growth and efficiency in financial performance of bank derogated and affect return on asset along with it. Operational expense of the bank rises because the efficiency distribution of credit that it once had is weakened. The economy is affecting the banks performance and have a positive relationship.

Based from the Fixed Effect LSDV model, there is a negative relationship between Nonperforming Loan to ROA. The negative relationship is as expected for the increase in NPL will reduce banks profit. On the table result, estimated coefficient of NPL variable is -0.293718. Significance level is at below 5% so the null hypothesis is rejected as NPL significantly influence Profitability with negative relationship.

The NPL ratio of commercial banks rose from 1.77% in 2013, to 2.16% and 2.49% in the next consecutive years. The rising of NPL ratio has a connection to the Indonesian economy which started experiencing contraction in 2013. This contraction of the economy has bad impact for firms. When the economic growth declined, it creates problem for these firms. Mining industry in Indonesia is the worst affected by the condition for at the same time price of mining commodity also decreased globally. Many firms went in to trouble because of the condition. Due to this condition some firms can no longer perform well and pay the loan they borrow from the time of expansion when the economy is growing significantly. These things create non-performing loans for banks. When firms went bankrupt it will no longer pays the loan. These impaired loan will be included as cost for the banks.

Diversification or non-interest operational income to total income ratio. Diversification has significance level of 5.6% which is above the 5% significance level tolerance. The null hypothesis cannot be rejected and this variable is considered do not significantly affects Profitability. The insignificant of Diversification can be explained by its little contribution to operational income. The average value of non-interest operational income to total operational income is only 8.5%. On average interest income accounted for more than 90% of total operational income.

Capital Ratio has a negative impact to bank's profitability. As shown from the analysis, it has significance level of 0.6% which is below 5%. Capital Ratio significantly affect ROA and the null hypothesis is rejected. Assuming *ceteris paribus*, increase in bank's Capital Ratio by 1% will decrease ROA by 0.025412%. With the increase of capital ratio, there is indication that the bank is expanding. This expansion will increase the bank's operating cost for new employee is recruited, new branches is opened and administrative and general cost is rising.

Bank size has a negative relationship with ROA. The negative relationship of Bank Size to Profitability can be the evidence of diseconomies of scale is happening in Indonesian commercial banks. Unfortunately, this statement cannot be supported by evidence, as of total asset significance level is above 5%. The null hypothesis cannot be rejected and we conclude that Bank Size has insignificant influence to Profitability.

Net Interest Margin has a significant and positive effect to Profitability. This is expected due to bank largest source of revenue came from interest income. NIM as shown by the SPSS has estimate value of 0.388374. Based on the analysis we can conclude that for every increase of 1% of NIM, it will increase ROA by 0.388374% and for every decrease of 1%, it will also reduce ROA by 0.388374%, assuming *ceteris paribus*. Indonesian commercial banks must be alert as Indonesian banking regulators and government are trying to reduce the industry's NIM. The reduction of NIM ratio aims to make efficient distribution of credit by the reduction of the cost of borrowing. Indonesian banks must prepare for this condition. If Indonesian regulators



aim to reduce NIM for commercial banks by 2% to the level of 4%, based on the analysis result this can decrease banks' ROA by 0.776748% assuming other things remain constant. Banks with high NIM ratio will felt the impact more severely for they are more dependable on NIM to cover the expense and earn their income. These can be result in ROA decreases significantly for those banks.

## CONCLUSIONS AND RECOMMENDATION

### Conclusions

Based on the analysis, there are several conclusions that can be drawn from the result. The conclusions for this research is as follow:

1. Capital ratio has a negative impact to banks' profitability. For the banks in Indonesia is still expanding. The banks will inject more capital to broaden its operation. This situation will increase the cost of operation as more employees, building, and administrative expenses are needed to support the expansion.
2. Nonperforming loan has a negative impact to banks' profitability. NPL has been increasing from 1.77% in 2013 to 2.49% in 2015. Indonesian economic condition which has been declining since 2012 and the fall of commodities price create problem for the firms in Indonesia. Some of the firms applied for bankruptcy and can no longer pay the bank loan. This in turn raise the NPL of commercial banks. Due to its significant influence to ROA, NPL is considered as one of the reason for the declining profitability of commercial banks.
3. There is no evidence of economies or diseconomies of scale in Indonesian commercial banks as bank's size does not significantly affect profitability.
4. Diversification or the non-interest operational income of commercial banks does not affect banks' ROA. This condition occurs because of Indonesian commercial banks depend most of its revenue from interest income.
5. Indonesian commercial banks are operating with high net interest margin ratio. Net Interest Margin has a positive effect to banks' profitability. The commercial banks must be careful with high NIM ratio, for Indonesian regulator aims to reduce it for better distribution of fund. Bank loan interest is still considered expensive in Indonesia. The solution for this problem lays in bank's efficiency and its credit distribution policy. If the banks become more efficient and reduce the NPL, ROA will increase. Even when NIM is reduced, banks will still be maintaining its ROA ratio with this efficiency.

### Recommendation

Based on the conclusions and research findings, it is recommended to Indonesian commercial banks, some strategies in order to increase their profitability:

1. Indonesian economic condition plays a major role in determining banks credit distribution. It is recommended for the banks to assess Indonesian economic environment and include it in consideration for loan management policy.
2. Non-performing loan is a main influence in the increase of banks' operating expense which resulted in diminishing ROA for some years. Banks should not be distorted with the increase of credit demand due to significant growth in the economy for if the economic growth start slowing, this will affect the borrowing parties' ability to pay the loan. Banks must tighten its credit distribution and evaluate its borrower thoroughly. This strategy is useful to prevent non-performing loan.
3. Banks have to be aware with the regulator policy to decrease NIM for banks still depend its revenue mostly on interest income. The decrease of NIM later in the future will result in reducing banks' ROA. The diminishing of ROA caused by NIM, can be solved by acquiring more profit through more efficient expense management and reducing nonperforming loan.
4. The inefficiency in commercial banks' expense management must be address by start promoting efficiency. To increase size in time when economic growth is slow will only create more expenses and inefficiency for the banks. On the other hand, expansion when the economy is experiencing significant growth will create an efficient credit distribution. Banks must wait for a good economic condition to

expand. Expansion under that condition will result in better banks' performance not in contrary reducing banks' profitability.

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