The Relationship Analysis between Profitability Ratio and the Firm Size to the Banking Stock Return after the Implementation of PBI No. 14/26/PBI/2012

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Abstract

In 2012, Bank Indonesia as the banking regulator in Republic of Indonesia has released the regulation No. 14/26 / PBI / 2012 for Banks which are operating in Indonesia. The Regulation has designed to regulate the type of product or services which are allowed to be provided by the company, an investment to be made to all subsidiaries and network expansion are based on the firm size which are measured by its core capital or common equity tier 1. The regulation classifies banking companies into four groups called BUKU. The substance of this rule is that the smaller company size, the lesser type of service can be provided and vice versa. Thus, it might affects to the profitability of the company. Like many other type of companies, many of banks are listed in stock exchange. In the stock markets, beside the company profitability, some believes that there is a "size effect" will be influencing the stock returns. The purpose of this study is was to see the relationship between the profitability, company maturity level and the firm size to its stock returns based on the categorization in the PBI No. 14/26/PBI/2012, the company profitability (which represented by ROA, ROE & NPM), and the company maturity level which represented by the year of IPO variable to the stock return. The result showed that for banking industries sector in Indonesia Stock Exchange, the size effect, the year of IPO, ROA and ROE have a significant relationship with the stock return in all period, while the NPM only has significant effect for group BUKU 3 & BUKU 4. The result also explained that the size effect shown by the difference models of each BUKU. Additionally, in the period of after the regulation applied, the NPM also found a significant relationship in the BUKU 1 & 2 groups. Also, during this period BUKU 2 attained a positive impact from the size effect.

Keywords: Profitability Ratio, ROA, ROE, NPM, Size Effect, Firm Size, Stock Returns

JEL Classification: G18, G21, L25

1. Background

In 2012, Bank Indonesia as the Indonesian authorities issued regulations No. 14/26 /PBI/2012. The purpose of this regulation is to strengthen the Indonesian economy in general. The aim is to encourage the banking company strengthen its core capital that is expected to encourage the circulation of money in the community. In these regulations the banking companies are classified based on the amount of core capital held as follows:

a) BUKU 1 is a bank with core capital less than IDR 1,000,000,000,000.00 (one trillion Rupiah)

b) BUKU 2 is a bank with core capital from amount of IDR 1,000,000,000,000.00 (one trillion Rupiah) to less than IDR 5,000,000,000,000.00 (five trillion Rupiah)

c) BUKU 3 is a bank with core capital from amount of IDR 5,000,000,000,000.00 (five trillion Rupiah) to less than IDR 30,000,000,000,000.00 (thirty trillion Rupiah)

d) BUKU 4 is a bank with core capital of at least IDR 30,000,000,000,000.00 (thirty trillion Rupiah).

BUKU stands for "Bank Umum Kegiatan Usaha" which in English means "Commercial Bank Business Activities Group". This regulation establishes the banks obligations to extend productive loan by applying loans compositions requirement, the amount of capital invested to other companies (subsidiaries) and expansion permit to open new branch network based on the companies' classification. This regulations could affect the company ability to increase market share which if we referring to Lee (2002), this will certainly have an impact on the company profitability. The aim of by applying these rules is to encourage the bank owners and management to upgrade their existing company classifications to a higher classification by increasing the amount of its core capital. It also implies the opinion that the banking industry will become stronger, not only if the bank fulfilling the required capital ratio standard, but also if the size of the banking firm become bigger

Like many other companies, many bank companies are listed in the Indonesia Stock Exchange and many investors made investment in the bank companies to gain profit from the stock performance. For that purpose, many parties made an analysis to the company's performance based on the profitability. Lesáková (2007) said that the profitability ratio analysis widely used by managers, creditors and investors. The reason is that the profitability ratios are able to reveal many condition of the company. Even so we cannot expect to gain a positive return simply by relying only to the company profitability; we also should consider the other variables that might exist.

Many previous researches have been conducted to study the relationship between profitability to the

stock returns. Artha, Achsani & Sasongko (2014), Purnamasari (2015), Kabajeh, Nu'aimat, & Dahmash (2012) the result shown that the ROA and ROE has significant effect to the stock prices. In contrast to these findings, the results of research Husaini (2012) shown that only ROA had significant effect on stock prices, while the ROE has no significant effect and similar to Sha (2015) the result shown that NPM has no significant effect to the stock prices.

As mentioned earlier, we cannot rely on the company's profitability only. In addition, the company maturity is also the factors that might affect the stock returns. Fama`& French's, (2004) research showed that more than a half of the companies which's doing IPOs performed delisting, merger or acquired. This certainly affects to the investor's decision which ultimately might impact to the stock return.

One of variables that also believed by many investors which is affecting the price or stock return is the size of the company. According to Triguerios (2000), to the present date firm size remains a poorly defined concept. There are as yet no standard or empirical definitions to the "Firm Size". Some researchers interpreting it with the number of employees, total assets and market capitalization. Jónsson (2007) mentioned that one of the theory argue that the bigger the company the better the company profitability. One of the reason is the larger companies tend to have greater resources

Many previous studies were regarding the "size effect". Banz, (1981), compared the risk of adjusted return between large companies and small companies from the sample stock from New York Stock Exchange (NYSE) in 1926 up to 1975. The research results have surprised many parties where the results show that the smaller company provides better risk adjusted returns. In line with Banz, there are some other findings shown the influence of size effect to the stock returns such as Phillips, Volker, & Anderson (2009), Van Dijk (2011), Kezemi & Kazemikhasragh (2012).

Nevertheless, not all studies related to the size effect shown the same results. Chou, Chou, and Wang (2004) studied non-financial companies on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and NASDAQ. Shafana, Rimziya, & jariya, (2013) which examined the companies in Milanka Index show the results of the study that there is no influence of the companies' size to the stock return.

By the implementation of PBI No. 14/26 / PBI / 2012, it's implying the influence of the firm's size on bank performance. It is interesting to study the implementation impact of this regulation to the banking stock returns in Indonesia Stock Exchange.

2. LITERATURE REVIEW
2.1 Banking Companies
Bank definition based on Regulation UU RI No.10 year 1998 regarding Banks, defined that the Bank is an entity that collects funds from the public in the form of savings and distribute the fund to the public in the form of loan or other forms to improve the standard of living of the people. Further on the regulation mentioned regarding to the Commercial Bank's definition where commercial bank is a bank conducting conventional business and or based on Sharia Principles in its activities providing services in payment traffic.

2.2 Firm Size
Trigueros (2000) stated that actually there is no an exact definition of the company size yet. Some people associating it with the total assets, total number of employees, sales or market capitalization. In this study, the size of the company was classified based on the classification mentioned in the PBI No. 14/26 / PBI / 2012.The classification divided into four groups called BUKU based on its core capital.

The core capital definition used in this study are based on the Regulation No. 14/26 /PBI/2012 Article 11, paragraph 1 which explained that the core capital consists of Tier 1 Capital which consisting of paid-in capital and additional capital reserves, as well as additional core capital.

2.3 Profitability Ratio
Van Horne (2002) stated that there are two types of profitability ratio. The ratios indicate the profitability of the sales and the profitability of investments. Together, this ratio shows the level of efficiency in the company operations. Gitman & Zutter (2012) also stated that the group's profitability ratios measure the firm's profit to sales figures, the level of a particular asset or investment of the owners. Rose & Hudgins (2005) stated that the ratio of the most widely used by investors is the ROA and ROE.
2.3.1 Return on Total Asset (ROA)
Return on total assets (ROA) or often called return on investment (ROI). This ratio measure the effectiveness of management in generating profits compared with the availability of existing assets Gitman & Zutter (2012). The higher the value of this ratio indicates that the company is performing better. On the other hand, Davidson (1997) also said that ROA has some limitations, namely:
1. ROA favors highly capitalized companies. This is because the calculation of ROA treats equity capital as "*free funds*" –There is no cost associated with them.

2. For the banking company, the balance sheet does not represent the overall operations of the company. This is because some of the industry activities are "Off Balance Sheet" and generate noninterest or fee income.

2.3.2 Return on Equity (ROE)

Return on Equity (ROE) calculates the revenue generated for each common shareholder in the company. Gitman & Zutter (2012). Unlike the ROA which incorporate elements of debt in its calculation, this ratio only calculate the net income into the amount of common stock equity. Siagian (2000) mentioned that Good business comes from ROE without debt relief; a high ROE company that utilizes debt significantly should be examined with extra caution.

2.3.3 Net Profile Margin (NPM)

Net Profit Margin (NPM) measures the profit generated after the counting of all costs and revenues. Fraser & Ormiston (2007). Further Rose & Hudgins (2005) stated that the NPM or the ratio of net income to total revenue is also part of the management control and direction, which means it, shows that in addition to increasing revenue, management can provide a good return to the shareholders by controlling cost.

2.4 Initial Public Offering (IPO)

The first issue of shares to the public is called the Initial Public Offering (IPO) Bodie, Kane & Marcus (2014). Damodaran, (2001) stated that "one important stage in the IPO process is to assess the reasonable equity of the company." The above mentioned conditions can certainly affect stock returns if the market considered that the value of the shares at the time of the IPO is above (overpriced) or under (underpriced) its normal value.

2.5 Stock Return

The goal in investing is to make profit or return from the investment. In stock investing, there are two types of return obtained from the investment, which are capital gains/capital losses and income dividend income. To calculate the returns obtained from investments, we use the following stock return formula:

$$R_t = \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

R_t = Return at t period
D_t = Dividend at t period
P_t = Price at t period
P_{t-1} = Price at before t period

2.6 Empirical Study

Many previous studies related to the financial ratios relationship to the profitability as well as the relationship to the size of the company. Banz (1981) conducted a study on the effect of firm size on stock return on unlisted companies in the NYSE common stock. The findings show influence of size effect on stock returns, where smaller companies have higher stock returns than larger sized companies. Kezemi & Kazemikhasragh (2012) examined 50 of the most active companies in exchange Iran also conducts research related to the impact of the size effect also find the results that there is positive influence between firm size and stock price. Phillips, Volker, & Anderson (2009) conducted a study on Corporate Sector Retail & Services included in the list of FSSB-USA. The result shows that there are differences in performance between small enterprises with a large-sized enterprise. This is even more apparent in the services sector companies.

There are also other studies regarding the relationship between company sizes to the stock returns. Fama and French (2012), examine samples of companies from 4 Region (North America, Europe, Japan and Asia Pacific). The research results showed that the size effect was not shown in all regions. Chou Chou, and Wang (2004) conducted research on the non-finance NYSE, AMEX, and NASDAQ listed in the archives of the Center for Research in Security Prices (CRSP). The findings showed that the company size effect became insignificant after 1981.

Artha, Achsani, and Sasongko (2014) conducted a study the determinant of the agricultural sector stock price in the Indonesian Stock. The findings showed that the EPS, BVS, PE, ROA, ROE, PBV, and Debt-equity ratios have significant effect to the agricultural sector stock prices. Technical factors in 2008 showed the agricultural sector experienced the highest fluctuations in stock prices. The macro economy variable showed that the rupiah exchange fluctuation rate, the Central Bank rate and world oil prices impact the stock price of the agricultural sector.

Kabajeh, Nu'aimat, & Dahmash (2012) conducted a study on the relationship between ROA, ROE and ROI to the stock prices of 40 public insurance companies in Jordan. The results show that all variables simultaneously have positive effect on stock returns while partially only shown weak relationship on ROA and ROI while the ROE did not indicate the relationship of these variables on stock returns.

Rad (2015) conducted research on ROA relationship to the stock return on selected companies in Iran Stock Exchange, the results shown the relationship between ROA to the sock return of the company. Saleh (2015) studying the relationship between ROA, ROE and NPM to the stock return in the oil & gas sector companies in Pakistan Stock Exchange. The results show that all variables has significant relationship to the stock prices, while ROE have a positive relationship, ROA and NPM has a negative relationship to the stock return. As well, Ozlen (2014) who studied the effect of TAT, DER, CAR, NPM, PER, BV to the stock price of 48 companies from 11 industries in Istanbul Stock Exchange, where the result of each industry group has a different effect.

3. RESEARCH METHOD
3.1 Data Types and Sources
The data used in this research is secondary data from the stock exchange report summary, the annual financial statements (annual report) which has been published on the website of Indonesia Stock Exchange and from other sources for the period 2009-2014.

3.2 Research Population
The populations used in this study are the banking companies listed in Indonesia Stock Exchange in year 2009-2014. Based on the data, there are 29 banking companies listed on the Stock Exchange during the study period, but for the present study only 28 companies were taken because there is one company that does a stock split during the study period.

3.3 Variable Measurement
Measurement of the variables are performed by using the ROA, ROE, NPM and IPO year variable for each classification BUKU and measure the relationship to the Stock Return.

3.4 Data Analysis Technique
Data analysis aimed to address the existing problems of the research. Data analysis techniques used in this research were descriptive analysis, panel data regression analysis and parametric test (t-test).
3.4.1 Descriptive Analysis
Descriptive analysis is summarized of the collection and presentation of the data to provide useful information. This analysis uses the average value (mean) of each variables tested. In this research, descriptive analysis was used to compare profitability between BUKU groups. The calculation of this analysis was performed by using Microsoft Excel software.
3.4.2 Panel Data Regression Analysis
"Panel data are combination of time series and cross section data" Gujarati (2003). This analysis aims to determine the direction, influence and strength of the relationship between the independent variables (profitability ratios) on the dependent variable (stock price), on each bank group during the period specified. This study using panel data regression performed using EViews and SPSS. The basic model of panel data regression of this study can be formulated as follows:

$$Y_{it} = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 DK_2 + \alpha_5 DK_3 + \alpha_6 DK_4 + \alpha_7 DP + \beta_1 X_1 DK_2$$
$$+ \beta_2 X_2 DK_2 + \beta_3 X_3 DK_2 + \beta_4 X_1 DK_3 + \beta_5 X_2 DK_3 + \beta_6 X_3 DK_3 + \beta_7 X_1 DK_4$$
$$+ \beta_8 X_2 DK_4 + \beta_9 X_3 DK_4 + \beta_{10} X_1 DP + \beta_{11} X_2 DP + \beta_{12} X_3 DP + \beta_{13} DK_2 DP$$
$$+ \beta_{14} DK_3 DP + \beta_{15} DK_4 DP + u$$

Y_{it}	=	Stock Return 2010-2014	u	=	Unobservables variables
α	=	Constants	DK_2	=	Dummy Variables of BUKU 2
β	=	Dummy Coefficient x Variable	DK_3	=	Dummy Variables of BUKU 3
X_1	=	Return On Asset (ROA)	DK_4	=	Dummy Variables of BUKU 4
X_2	=	Return on Equity (ROE)	DP	=	Dummy Variables Period
X_3	=	Net Profit Margin (NPM)	i	=	i cross sectional
X_4	=	Year of company's IPO	t	=	Data period
$DK_a X_b$	=	The difference of profitability variable and year of IPO in BUKU Group "a" towards BUKU 1 Group	DPX_b	=	The difference of profitability and year of IPO between period
$DK_a DP$	=	Constants difference of the "a" BUKU group after the application of PBI	a	=	BUKU Group's order
b	=	Sorting of X variable			

3.4.2.1 Selection of Panel Data Regression Estimation Techniques
Juanda and Junaidi (2012) stated that there are three types of estimation techniques panel data regression model: OLS model (common), Fixed Effect Model and Random Effect Model. The next step is to choose the best model of the panel data regression. The model selection should be based on tested criteria. Further said the tests

conducted to select the model are:

1. Chow test to choose the best model between the PLS model and FEM.
2. Langarange Multiplier test to choose the best model between PLS model and REM
3. Hausman test to choose the best model between the FEM and REM

3.4.2.2 Classical Assumption Test
Juanda (2009) stated that a regression equation is able to produce a good estimation if it meets several criteria. Here are some of the criteria:

i. Variable (X) is a non-stochastic variables (Fixed) which mean that the variables are already defined, not random variables. Moreover, there are no perfect linear relationship between independent variables

ii. a) Residual components have expected value equal to zero, and constant variance for all "i" observations. $E(\varepsilon i)=\sigma^2$ and $VAR(\varepsilon i)=\sigma^2$

b) There is no relationship or no correlation between εi residual, thus $Cov\,(\varepsilon i, \varepsilon j) =0$ for $i{\neq}j$

c) Distribution of the residual component is normal.

3.4.2.3 Partial Individual Test (t-test)
We used the t-test (individual partial test) to answer the research hypothesis. The objective is to determine the effect of each independent variable (profitability ratios) individually against the dependent variable (stock price), on each bank group. T test measurement in this study performed using the software EViews.

3.4.2.4 F-test
F test used to determine whether the independent variables simultaneously have a significant effect on the dependent variable. Confidence level used was 0.05. If the F value calculation result is greater than the value F according to the table then the alternative hypothesis, which states that all independent NPM variables simultaneously have a significant effect on the dependent variable.

4. RESULT AND DISCUSSION
4.1 Descriptive Analysis
This analysis was conducted by using the average of each variable on each group in each year. From the data we can see the movement of average-governance each variable of each group from year to year. Based on available data, the composition of the banking group listed on the Stock Exchange during the year 2009 through 2014 consisted of 21% BUKU 1, BUKU 2 21% 3 36% BUKU and BUKU 4 by 11%.
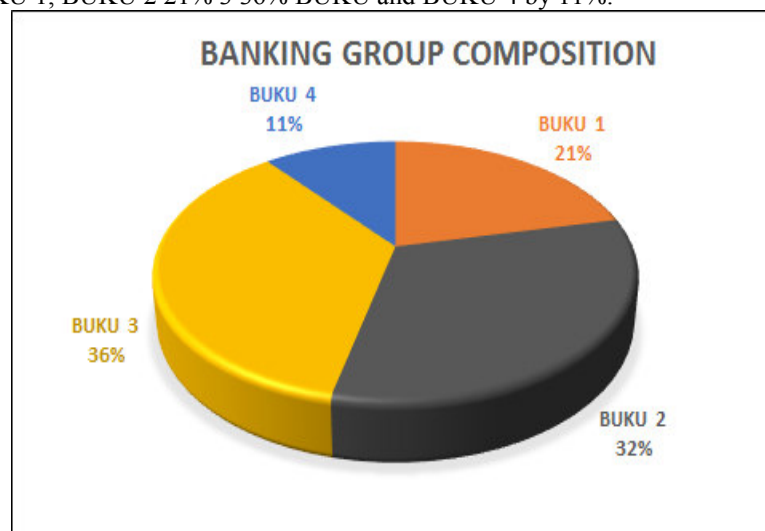

Figure 1. Composition of the Banking Companies based on BUKU

It was widely perceived that the group BUKU 4 is the group that has the best performance. It can be seen from the value of the group's profitability ratios are always highest compared to the other groups from year to year. Nevertheless this does not necessarily make the stock return of BUKU 4 groups becomes the highest from time to time. However, in general the stock return performance of this group is relatively the most stable and best among the other groups.

Furthermore, in general group BUKU 3 is a group which also showed as the highest performance both as a group BUKU 4. This showed by a high score of profitability ratios throughout the study period. For the stock returns, high volatility occurs in this group's stock return. The graphic shows that in some years during the research period, the stock return of this group was under the return of other groups.

It was interesting to observe BUKU 1 group's performance, which constantly shows performance improvement from year to year. It's shown by the increase in ROA, ROE and NPM throughout the research period. Nevertheless, the stock performance of this group does not necessarily in line with the improvement

shown by the profitability ratios.

4.1.1 Stock Return

If we look at the figure 2, it appears that at the beginning in the study period, BUKU 3 has the highest stock returns with a value of 73.5% and the second position is BUKU 4 group with 58.1%. Both groups were above the overall average return of the entire bank industries by 41.1%. As for BUKU 1 showed a return of 21.6% and 12.44% for BUKU 2 where both groups are below the average returns of banking Industries return.
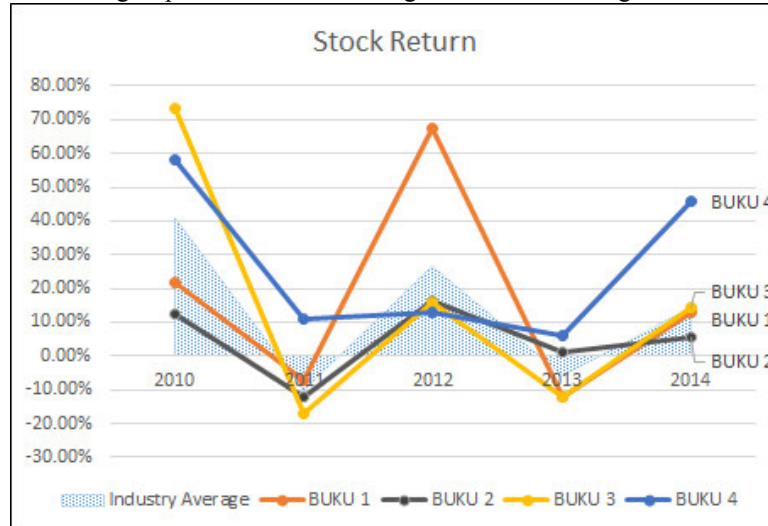

Figure 2. Stock Return

In general, between the years 2010-2014 the volatility occur for the stock return in the entire banking industry's due by the fundamental factor in the stock market. At the beginning period, BUKU 3 was the group with the highest return and BUKU 2 was the group with the lowest return.

Furthermore, it's interesting to observe that in 2012 there was a surge of return on the group BUKU 1. This movement occurred, because there were two companies in the BUKU 1 group acquired by foreign investors. The companies received a significant amount of additional funds and make a positive impact on the share price for both companies. While BUKU 2 and BUKU 4 groups were the group with relatively more stable stock returns compared to other groups.

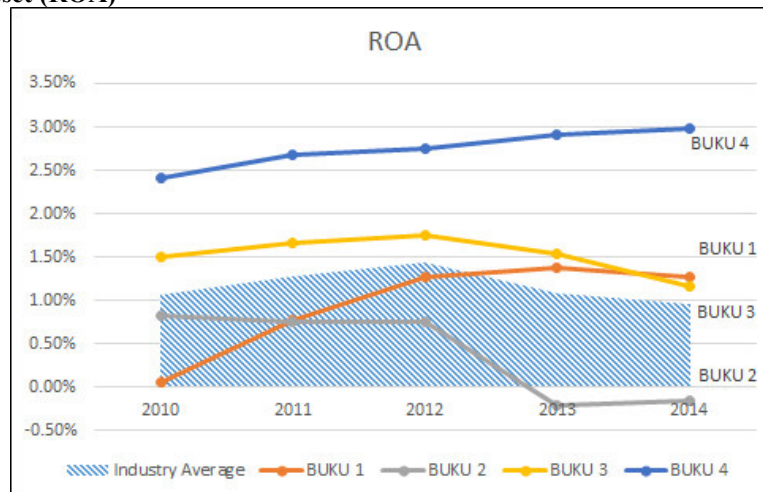**4.1.2 Return on Asset (ROA)**

Figure 2. Graphic of ROA

In contrast to the volatile movement in the stock returns, ROA ratios movements were relatively more stable. When we look at the value of ROA at the beginning of the period, it might seem that the company's performance is directly affecting by the company size. This was shown by the fact where the greater the size of the company the better the company's performance based on the ROA value. Since the beginning of the period, BUKU 4 was a group which showed the best performance, it was seen from the highest ratio's achievement compared to other groups and constantly increased throughout the period. Furthermore BUKU 1 was also a group that showed a good performance where this group ROA continues to increase until 2013. Although in 2014 a slight decreasing occurred, but this performance still managed to outperform the performance of BUKU 3 group.

In 2011, the banking industry showed a performance improvement. This showed by the increasing average value of ROA in the industry. On the other hand, the other interesting to observe was the movement after 2012, where BUKU 3 group shown declining on ROA value and most drastic decline on ROA occur in BUKU 2 Group. This was occurred because one of the bank's performances dropped sharply in 2013 with ROA value for -7.79 and -5.22 in 2014 resulted the declining of the average ROA BUKU 2 group

4.1.3 Return on Equity (ROE)

Similar to ROA values, from at the beginning period the ROE value shown that the order of companies performance aligned with the size of the company. BUKU 4 was the group with the highest ROE and BUKU 1 was the group with the lowest ROE value. Along the time BUKU 2 group continues showing degradation performance and become worst after 2012 where the group performance dropped dramatically due to the performance of one of the bank in the group which result in poor average value on the group. In the other hand, BUKU 1 showed a constant increased in performance and even managed to outperform BUKU 3 group.
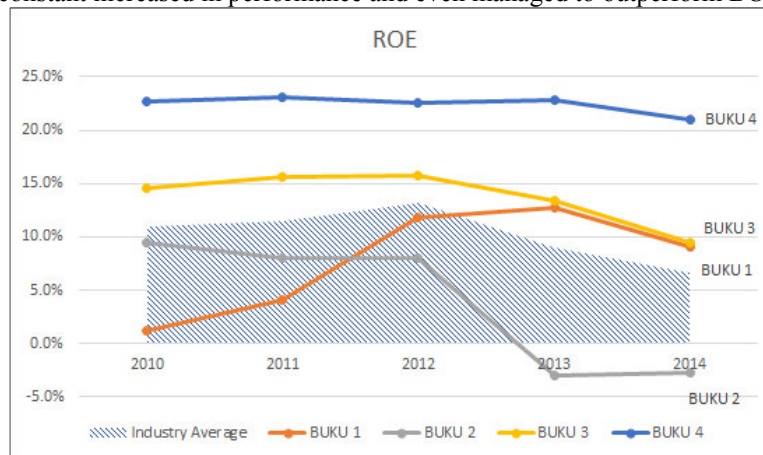

Figure 3.Grafic of ROE

An interesting to observe that in contrast with the ROA, the ROE ratio shown that the performances of BUKU 3 group remain better compared to BUKU 1 groups. This data showed that to generate a profit, BUKU 1 group were more relying on its own capital. This also could indicate a tendency that BUKU 3 group have bigger composition on third party funds which showing that the BUKU 3 group have better performance in collecting funds from the customer or third party which resulting more efficient in equity utilization.
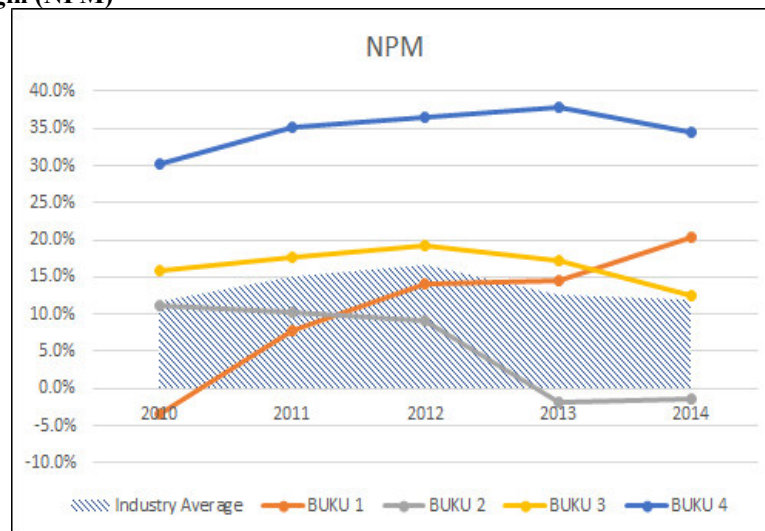
4.1.4 Net Profit Margin (NPM)

Figure 4.Net Profit Margin (NPM

If we look closely at the average of NPM ratio, it's clearly appears that the performance of BUKU 4 Group are above the average of the performance of the other groups. Similar findings on ROA and ROE, at the beginning period it seems the performance of the groups aligned with the size of the company. Along the way, it's interesting to see BUKU 1 group showing better improvement performance compared to other groups. They showed a constant improvement in their performance from year to year. In fact, at year 2013 BUKU 1 group managed to outperformed the average performance of the entire industry and at the end of study period BUKU 1 group reach at the second best group performance following BUKU 4 group.

4.2 Panel Data Analysis

A reliable model is generated from the equation that meets the requirements of classical assumptions as mentioned earlier. Based on the model selection test, the result showed that the best model was a Panel Least Square model. But, at the first attempt a multi-collinearity problem was occurred. It means that the model doesn't meet the requirement of the classical assumptions of the linear model. To resolve it, we use Backward Elimination method to remedy the problem and resulting the model that meet the requirement for Panel Least Square (PLS) as follows:

Table 1. Panel Data Regression Analysis

Variable Explanation	Variable	Coefficient	Prob.
Constants	C	7.5277	0.0350
Leverage of the size of group 2 after the PBI	DK2DP	0.217	0.0002
Leverage difference of ROA BUKU 2	DK2X1	0.0575	0.0807*
Leverage difference of ROE in BUKU 2	DK2X2	-0.0585	0.0219
Leverage Difference during IPO in BUKU 2	DK2X4	0.0001	0.0204
Leverage difference of ROA in BUKU 3	DK3X1	0.105	0.0020
Leverage difference of ROE in BUKU 3	DK3X2	0.1217	0.0000
Leverage difference of NPM in BUKU 3	DK3X3	0.0398	0.0487
Constants difference in BUKU 4	DK4	0.1454	0.0060
Leverage difference of NPM in BUKU 4	DK4X3	-0.0591	0.0480
Constants leverage difference after the PBI	DPX3	0.0289	0.0759*
ROA	X1	0.2269	0.0000
ROE	X2	0.1267	0.0000
Leverage of IPO	X4	-0.0042	0.0190
R-squared			0.80521
Adjusted R-squared			0.78511
F-statistic			40.06472
Prob(F-statistic)			0.00000
Durbin-Watson stat			2.17440

*Significant at $\alpha = 10\%$

The table above shows results of F-Stat value of 0.0000 indicates that at 90 percent confidence level, at least one of the independent variables significantly affect the banking sector stock return. R-Squared value of 0.805207 indicates that the independent variables in this model partially and simultaneously influence the stock return of banks for 80.52 percent, while the remaining 24.11 percent explained by other factors outside the model.

Based on the data above, we calculated the variable for each BUKU group and formed into a model as follows:

Table 2. Model of Each BUKU Groups

Groups	Constants	ROA	ROE	NPM	IPO	After the PBI		
						NPM	IPO	Constants
BUKU 1	7.5277	0.2269	0.1267	-	-0.0042	0.0289	-0.0042	-
BUKU 2	7.5277	0.2844	0.0682	-	-0.0042	0.0289	-0.0041	7.7447
BUKU 3	7.5277	0.3318	0.2483	0.0398	-0.0042	0.0687	-0.0042	-
BUKU 4	7.6732	0.2269	0.1267	-0.0591	-0.0042	-0.0302	-0.0042	-

Based on data and calculations at table 2, the result showed the existence of the size effect which reflected by the difference value among the banking group profitability ratios and constants. This difference also occurs in both of the periods before and after the implementation of PBI No. 14/26 / PBI / 2012. These result also shown an interesting phenomenon where the value of the ROA coefficient of a group with larger core capital has a higher coefficient value compared to smaller core capital group. The result also shown that BUKU 4 gain positive impact due to the size effect which shown by a positive differences constants value compared to the other group.

In general, our results were consistent with findings from Purnamasari (2015). The result showed significant positive effect of ROA and ROE. , This indicates that both of these ratios have a value of positive elasticity to return stock. This was consistent with the theory that stated the higher of the value of the company profitability ratio, the higher the stock return.

While in the ratio of NPM prior to the PBI Implementation period showed for BUKU 1 and BUKU 2 group the results are consistent with research findings from Sha, (2015) which indicating that NPM variable has no significant effect to the stock return . This shows that the investors pay less attention or use NPM as a

reference in predicting stock returns. Even so, this result was different for the other groups. In the BUKU 3 group the result shows positive significant effect where this phenomenon is aligned with the theory in general. In general, the model for BUKU 3 group is consistent with the finding of Martani, Mulyono, & Khairurizka (2009) stated that the ROE and NPM has positive effect on stock returns. Unlike the other groups, the results of the group BUKU 4 group showed negative elasticity for NPM ratio. This contradicts the theory that states the profitability have a positive effect on the stock returns. This result is consistent with the findings of some previous studies. Saleh (2015), Reddy & Fu (2014) and Ozlen (2014) their study results showed a negative relationship between NPM and stock returns.

The IPO variable represents the maturity level of the company. Our findings showed the negative relationship between the IPO year variable to the stock return. This result was not only indicating that the maturity of the company which is a significant factor to the stock return, but also showed that the longer the company listed in the stock market gives a positive impact to the company stock returns. This would suggest that the longer a company listed on the exchange, the better the company's performance of the company. This result may also indicate the longer the companies listed on the stock exchange the higher the investor confidence level to the company stock return.

Our research findings also showed the impact of the implementation of Regulation No. 14/26 /PBI/2012. On some groups NPM variables become significant after the implementation period where in the period before the implementation the NPM variable were not significant. This shows that the variable NPM has significant effect on stock returns after the implementation of PBI to the entire groups. The result also showed BUKU 2 group attained a positive impact from the size effect.

4.2.1 BUKU 1 Group Analysis

Table 3.Model of BUKU 1 Group

Period	C	ROA	ROE	NPM	IPO
Before	7.52771	0.22685	0.12666	-	-0.00420
After	7.52771	0.22685	0.12666	0.02892	-0.00420

In general, our findings indicate that there was a significant relationship between the profitability on the stock return BUKU 1 group. This was seen on ROA value which showed value of 22.68%. It's indicated that for every 1 additional in ROA will increase the stock returns by 22.68% and vice versa. The result also showed ROE coefficient value of 12.66%. It's also meaning for every additional 1 value in ROE, it will increase the stock returns by 12.66% and vice versa. This finding was consistent with the theory that stated the higher the profitability value the higher the company stock return.

Similar to the other groups, the influence of the companies' maturity level has a significant effect to the stock return, where every additional 1 year IPO effecting decrease 0.427% on stock return. This shows that the longer a company has been in the exchange had a positive impact on stock returns. Our findings also show the constants value of 7.5277 for BUKU 1 group

Implementation of PBI showed a significant impact on the entire group including BUKU 1 Group. It showed by the NPM variable in period after the PBI implementation which becomes significant with a value of 2.89%. This means that for every 1 additional NPM value will increase the stock return for 2.89%.

4.2.2 BUKU 2 Group Analysis

Table 4. Model of BUKU 2 Group

Period	C	ROA	ROE	NPM	IPO
Before	7.52771	0.28436	0.06819	-	-0.00420
After	7.74470	0.28436	0.06819	0.02892	-0.00415

Our findings on BUKU 2 groups showed significant positive relationship on ROA to the stock return with value of 28.43% which means that for each additional ROA value of 1 would increase as much as 28.43% on stock return and vice versa. Similar to ROA ratio, ROE ratio show significant positive relationship with the ROE coefficient value of 6.81% It states that for every increase ROE by 1 would increase as much as 6.81% on the stock return and vice versa.

Similar to the other groups, the influence of the company's maturity which represented by the IPO variable also shown a significant effect on the BUKU 2 group. With the IPO Coefficients value of -0.42% means that every additional 1 year IPO negatively affecting the stock return for 0,42%.

In the period prior to the PBI implementation, BUKU 2 group show the constant value of 7.5277 which is the intercept point for the stock returns. In the period after the implementation of PBI 14/26 / PBI / 2012 showed that there are additional coefficient value for 0.21699 which evidencing the shifting on the intercept point to 7.74470. This result also showed in the period after the PBI implementation, the effect of the IPO also declined slightly to 0415% and NPM ratio becomes significant. It's shown from NPM coefficient of 2.89%, which means that in this period for every 1 increase in NPM value will resulting increase of 2.89% on the stock return and vice versa. All these result show an advantage of size effect for BUKU 2 group.

4.2.3 BUKU 3 Group Analysis

Table 5.Model of BUKU 3 Group

Period	C	ROA	ROE	NPM	IPO
Before	7.52771	0.33184	0.24834	0.03982	-0.00420
After	7.52771	0.33184	0.24834	0.06873	-0.00420

Our findings on BUKU 3 groups shows significant positive relationship on ROA to the stock return with value of 33.18% which means that for each additional ROA value of 1 would increase as much as 33.18% on stock return and vice versa. Similar to ROA ratio, ROE ratio show significant positive relationship with the ROE coefficient value of 24.83%. It states that for every increase ROE by 1 would increase as much as 24.83% on the stock return and vice versa. In addition to the model BUKU 3, the ratio of NPM has significant positive effect. It is shown from the coefficient NPM of 3.98%, which means that in group for every 1 increase in NPM will increase the stock return as much as 3.98% and vice versa.

Similar to the other groups, the influence of the company's maturity which represented by the IPO variable also shown a significant effect on the BUKU 2 group. With the IPO Coefficients value of -0.42%, means that every additional 1 year IPO negatively affecting the stock return for 0,42%. Also similar to BUKU 1 group, our findings also show the same constants value of 7.5277 for BUKU 3 group

In the period prior to the PBI implementation, BUKU 3 group show the NPM value of 3.98%. After the implementation period, the result show differences NPM value for 2.89% which change the NPM value to 6.87%.which means that in this period for any increase in the NPM ratio by 1 will increase the stock returns for 6.87% and vice versa.

4.2.4 BUKU 4 Group Analysis

Table 6.Model of BUKU 4 Group

Period	C	ROA	ROE	NPM	IPO
Before	7.67315	0.22685	0.12666	-0.05909	-0.00420
After	7.67315	0.22685	0.12666	-0.03017	-0.00420

Our findings on BUKU 4 groups showed significant positive relationship on ROA to the stock return with value of 22.68 %, which means that for each additional ROA value of 1 would increase as much as 22.68 % on stock return and vice versa. Similar to ROA ratio, ROE ratio show significant positive relationship with the ROE coefficient value of 12.66%. It stated that for every increase ROE by 1 would increase as much as 12.66% on the stock return and vice versa. As for NPM ratio, our findings showing negative relationship on the stock return with value of -5.9%.This contradicts the theory that states the profitability have a positive effect on the stock returns. As mentioned earlier, this result is consistent with the findings of some previous studies. Saleh (2015), Reddy & Fu (2014) and Ozlen (2014) their study results showed a negative relationship between NPM and stock returns.

BUKU 4 groups gained an advantage due to the size effect. This is shown by the differences constants value for 0.14544 compared to other groups. This difference makes the constants value is in the value of 7.67315. Similar to the other groups, the influence of the company's maturity which represent by the IPO variable also shown a significant effect on the BUKU 4 group with the IPO Coefficients value of -0.42% which means that every additional 1 year IPO negatively affecting the stock return for 0,42%.

The result also show for the period after the implementation of PBI 14/26 / PBI / 2012 that there are differences NPM value for 2.89%. Even so, this does not change the value of NPM for groups BUKU 4 groups become at the positive value. This difference only changes the value of NPM from -5.9% to -3.01%.

4.3 Managerial Implication

Based on the study result, there are some managerial implications both for the companies and also for the investors.

1. For companies, in line with the purpose of the implementation of PBI No. 14/26 / PBI / 2012, the company should be able to upgrade itself to a higher classification by increasing its core capital. This implication is not only because the fact that the regulations affects the company's permit for network and the product expansion, but also the study results shows the positive effect of the firm size. Also with bigger amount of core capital, hopefully it will enhance the company's ability to generate better profitability and get positive sentiment from the investors. As for companies that have not been able to increase its core capital, the companies must be able to show a better performance in terms of profitability and risk management especially compared to the other companies and/or groups with greater core capital.

2. In general, investors should pay more attention to the company's profitability because it is a significant factor that affecting the stock returns. Besides of the company profitability, investors should also consider the company size variable. This is based on the results of the research that shows there is significant effect of the company size which is evidenced by the difference models of each group company. Investor also

should consider the company the maturity level variables which also affect the stock return.

3. The regulators should maintain the policy direction that encourages banks to increase the company's core capital. Besides of implementing this regulation, the regulators may consider to provide an additional incentive or reward for companies that willing or managed to increase its core capital

5. CONCLUSION AND RECOMENDATION

5.1 Conclusion

1. In general our research found a significant relationship of profitability ratios on the stock returns, although in the period before the PBI implementation NPM variable has no significant effect on some groups. As for the variable ROA and ROE have significant influence both partially or simultaneously throughout the study period. These findings were consistent with several previous studies support the notion that the profitability ratio is the type of ratio that was widely used by market participants in investment decisions.

2. Based on these results we concluded that there was a size effect on the Indonesia banking stocks, where it's reflected by the model differences in each group which evidenced from the difference in the variables coefficient and constants in each group. In general, the size effect was likely to have a positive effect on the stock returns.

3. The study results showed differences in the profitability ratios effect between periods before and after the implementation of PBI No. 14/26 / PBI / 2012. This is shown by the NPM's ratio which becomes significant in all groups after the PBI implementation period. These changes also changed the coefficient value of the NPM ratio on BUKU 3 and BUKU 4 group.

4. The study results also show differences in the size effect between before and after the implementation period of PBI No. 14/26 / PBI / 2012. This conclusion evidenced by the changes in the value of constants and IPO variable in BUKU 2 groups.

5.2 Recommendation

1. We recommend further research to determine the factors that affecting the size effect in the banking industry. This research could be directed to other financial ratios or other factors that might exist in the stock market such as perception, dividend policy, investor sentiment, etc.

2. In general, for companies in the smaller core capital group we suggest to increase their core capital. Also, to the company with smaller core capital should be able to show a better performance than the companies or group's with greater core capital in order to provide equal or greater stock return compared to company or groups with greater core capital.

3. We also recommend conducting a similar study on the other industries in the stock market.

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